

Chemical Analysis Report

CEN-DIST-2019-08-09-02

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

Event Description: **Soldier / Salt / Black Ham / Gee / Sweetwater / Howell / Bear**
Request ID: **RQ-2019-04-01-45**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Date Certified: 04-SEP-2019 11:16



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: Sweetwater Creek @ Florida Ave

Collection Date/Time: 08/08/2019 11:42

Field ID: G2CE0123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110510	EPA 8321B	Acesulfame K**	1.0	U	ug/L	P368831	
		2,4-D	0.025	J	ug/L	P368762	MS
		AMPA**	0.38	I	ug/L	P368831	
		Sucralose**	4.2		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368762	
		Endothall**	2.5	U	ug/L	P368831	
		Acetamiprid**	0.0033	I	ug/L	P368762	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	0.10	U	ug/L	P368831	
		Afidopyropen**	0.0020	UJ	ug/L	P368762	
		Bentazon	0.96		ug/L	P368762	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368762	
		Carbamazepine**	0.0071		ug/L	P368762	
		Clothianidin**	0.021		ug/L	P368762	
		Dinotefuran**	0.0027	I	ug/L	P368762	
		Diuron	0.0088		ug/L	P368762	
		Fenuron	0.016	U	ug/L	P368762	
		Fluridone**	0.031		ug/L	P368762	
		Imazapyr**	0.14		ug/L	P368762	
		Hydrocodone**	0.0020	U	ug/L	P368762	
		Ibuprofen**	0.020	U	ug/L	P368762	
		Imidacloprid	0.076	J	ug/L	P368762	MS
		Linuron	0.0040	U	ug/L	P368762	
		Mandestrobin**	0.0020	UJ	ug/L	P368762	
		MCPP	0.0080	IJ	ug/L	P368762	MS
		Naproxen**	0.0080	U	ug/L	P368762	
		Primidone**	0.022		ug/L	P368762	
		Pyraclostrobin**	0.0020	U	ug/L	P368762	
		Thiamethoxam**	0.0020	U	ug/L	P368762	
		Tolfenpyrad**	0.0020	U	ug/L	P368762	
		Triclopyr**	0.0040	U	ug/L	P368762	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample. Refer to the narrative for an explanation of QC Codes.

Sample Location: Gee Creek @ Alton Rd

Collection Date/Time: 08/08/2019 13:22

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110484	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P368803	
	EPA 300.0 Rev. 2.1	Chloride	18		mg Cl/L	P369216	
		Sulfate	6.0		mg SO4/L	P369219	
	SM 2120 B	Color (true)	56		PCU	P368789	
	SM 2320 B-97	Total Alkalinity	54		mg CaCO3/L	P369171	
	SM 2540 C-97	TDS	99		mg/L	P369331	
	SM 2540 D-97	TSS	5	I	mg/L	P369351	
	SM 4500 F-C-97	Fluoride	0.078	I	mg F/L	P369174	
2110486	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P369247	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P369039	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P369033	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P368939	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P368983	
2110488	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P368792	
2110502	EPA 8321B	Aldicarb	0.020	U	ug/L	P368762	
		Aldicarb Sulfone	0.0020	U	ug/L	P368762	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P368762	
		Carbaryl	0.0020	U	ug/L	P368762	
		Carbofuran	0.0020	U	ug/L	P368762	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P368762	
		Methiocarb	0.0020	U	ug/L	P368762	
		Methomyl	0.0020	U	ug/L	P368762	
		Oxamyl	0.0020	U	ug/L	P368762	
		Propoxur	0.0020	U	ug/L	P368762	
2110504		2,4-D	0.064		ug/L	P368771	
		Acesulfame K**	0.10	U	ug/L	P368831	
		AMPA**	0.11	I	ug/L	P368831	
		Sucralose**	0.92		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368771	
		Endothall**	0.25	U	ug/L	P368831	
		Acetamiprid**	0.0020	U	ug/L	P368771	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	0.21	I	ug/L	P368831	
		Afidopyropen**	0.0020	UJ	ug/L	P368771	
		Bentazon	0.034		ug/L	P368771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368771	
		Carbamazepine**	0.0019	I	ug/L	P368771	
		Clothianidin**	0.0020	U	ug/L	P368771	
		Dinotefuran**	0.0020	U	ug/L	P368771	
		Diuron	0.012		ug/L	P368771	
		Fenuron	0.016	U	ug/L	P368771	
		Fluridone**	0.053		ug/L	P368771	
		Imazapyr**	0.11		ug/L	P368771	

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110504	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P368771	
		Ibuprofen**	0.020	U	ug/L	P368771	
		Imidacloprid	0.018		ug/L	P368771	
		Linuron	0.0040	U	ug/L	P368771	
		Mandestrobin**	0.0020	UJ	ug/L	P368771	
		MCP	0.0085		ug/L	P368771	MS
		Naproxen**	0.0080	U	ug/L	P368771	
		Primidone**	0.0040	U	ug/L	P368771	
		Pyraclostrobin**	0.0020	U	ug/L	P368771	RPD
		Thiamethoxam**	0.0024	I	ug/L	P368771	MS
		Tolfenpyrad**	0.0020	U	ug/L	P368771	MS, RPD
		Triclopyr**	0.0040	U	ug/L	P368771	
2110511	EPA 8270E	Aldrin	4.2	U	ng/L	P368901	
		Alpha-BHC	2.1	UJ	ng/L	P368901	LCS, MS
		Alpha-Chlordane	1.1	U	ng/L	P368901	
		Beta-BHC	11	U	ng/L	P368901	
		Bifenthrin**	4.2	U	ng/L	P368901	
		Delta-BHC	8.4	U	ng/L	P368901	
		Gamma-BHC	8.4	U	ng/L	P368901	
		Carbophenothion	11	U	ng/L	P368901	
		Chlorothalonil	2.1	U	ng/L	P368901	
		Cis-Nonachlor**	1.1	U	ng/L	P368901	
		Cypermethrin	21	U	ng/L	P368901	
		DDD-p,p'	6.3	U	ng/L	P368901	
		DDE-p,p'	6.3	U	ng/L	P368901	
		DDT-p,p'	7.4	U	ng/L	P368901	
		Dicofol	32	U	ng/L	P368901	
		Dieldrin	4.2	U	ng/L	P368901	
		Endosulfan I	4.2	U	ng/L	P368901	
		Endosulfan II	4.2	U	ng/L	P368901	
		Endosulfan Sulfate	2.1	U	ng/L	P368901	
		Endrin	2.1	U	ng/L	P368901	
		Endrin Aldehyde	2.1	U	ng/L	P368901	
		Endrin Ketone	2.1	U	ng/L	P368901	
		Ethalfuralin**	3.2	U	ng/L	P368901	
		Gamma-Chlordane	1.1	U	ng/L	P368901	
		Heptachlor	1.6	U	ng/L	P368901	
		Heptachlor Epoxide	2.1	U	ng/L	P368901	
		Hexachlorobenzene	2.1	U	ng/L	P368901	
		Methoxychlor	4.2	U	ng/L	P368901	
		Mirex	2.1	U	ng/L	P368901	
		Permethrin	11	U	ng/L	P368901	
		Trans-Nonachlor**	1.1	U	ng/L	P368901	
		Trifluralin	2.6	U	ng/L	P368901	
	EPA 8276	Chlordane	5.3	U	ng/L	P368901	

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110511	EPA 8276	Toxaphene	32	U	ng/L	P368901	
2110513	EPA 8270E	Acetochlor	0.26	U	ng/L	P369004	
		Alachlor	0.26	U	ng/L	P369004	
		Ametryn	0.61	U	ng/L	P369004	
		Atrazine	21		ng/L	P369004	
		Atrazine Desethyl	4.3	I	ng/L	P369004	
		Azinphos Methyl	5.1	U	ng/L	P369004	
		Bromacil	0.51	U	ng/L	P369004	
		Butylate	0.41	U	ng/L	P369004	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P369004	
		Chlorpyrifos Methyl	0.10	U	ng/L	P369004	
		Cyanazine	3.3	UJ	ng/L	P369004	CCV
		Demeton	7.2	U	ng/L	P369004	
		Diazinon	0.13	U	ng/L	P369004	
		Dimethenamid**	0.10	U	ng/L	P369004	
		Disulfoton	0.51	U	ng/L	P369004	
		Dithiopyr**	0.10	U	ng/L	P369004	
		EPTC	1.3	U	ng/L	P369004	
		Ethion	0.15	U	ng/L	P369004	
		Ethoprop	0.10	U	ng/L	P369004	
		Fenamiphos	0.51	U	ng/L	P369004	
		Fipronil	0.26	U	ng/L	P369004	
		Fipronil Desulfinyl**	0.71		ng/L	P369004	
		Fipronil Sulfide	0.15	U	ng/L	P369004	
		Fipronil Sulfone	1.1		ng/L	P369004	
		Fonofos	0.20	U	ng/L	P369004	
		Hexazinone	0.51	U	ng/L	P369004	
		Malathion	0.36	U	ng/L	P369004	
		Metalaxyl	0.31	U	ng/L	P369004	
		Metolachlor	0.51	U	ng/L	P369004	
		Metribuzin	1.2	IJ	ng/L	P369004	CCV
		Mevinphos	0.51	U	ng/L	P369004	
		Molinate	0.31	U	ng/L	P369004	
		Norflurazon	0.51	U	ng/L	P369004	
		Oxadiazon**	0.67		ng/L	P369004	
		Parathion Ethyl	0.26	U	ng/L	P369004	
		Parathion Methyl	0.56	U	ng/L	P369004	
		Pendimethalin	1.0	U	ng/L	P369004	
		Phorate	0.26	U	ng/L	P369004	
		Prodiamine**	1.3		ng/L	P369004	
		Prometon	0.92	U	ng/L	P369004	
		Prometryn	0.20	U	ng/L	P369004	
		Simazine	1.2	I	ng/L	P369004	
		Tebuconazole**	1.2	I	ng/L	P369004	
		Terbufos	0.10	U	ng/L	P369004	

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110513	EPA 8270E	Terbutylazine	0.44	U	ng/L	P369004	
2110543	EPA 200.7 Rev. 4.4	Barium	7.4		ug/L	P368852	
		Calcium	21.3		mg/L	P368852	
		Iron	220		ug/L	P368852	
		Magnesium	2.57		mg/L	P368852	
		Potassium	1.7		mg/L	P368852	
		Sodium	12.6		mg/L	P368852	
		Zinc	5.0	U	ug/L	P368852	
	EPA 200.8 Rev. 5.4	Aluminum	124		ug/L	P368852	
		Antimony	0.13	I	ug/L	P368852	
		Arsenic	1.46		ug/L	P368852	
		Boron**	37.3		ug/L	P368852	
		Cadmium	0.020	U	ug/L	P368852	
		Chromium	0.40	U	ug/L	P368852	
		Copper	1.64		ug/L	P368852	
		Lead	0.25	I	ug/L	P368852	
		Nickel	0.50	U	ug/L	P368852	
		Selenium	0.20	U	ug/L	P368852	
		Silver	0.010	U	ug/L	P368852	
		Thallium	0.10	U	ug/L	P368852	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the narrative for an explanation of QC Codes.

EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Sample Location: Bear Crk just north of Winter Springs Blvd in Bear Crk Park

Collection Date/Time: 08/08/2019 10:29

Field ID: G2CE0069

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110506	EPA 8321B	2,4-D	0.080		ug/L	P368771	
		Acesulfame K**	0.10	U	ug/L	P368831	
		AMPA**	0.48		ug/L	P368831	
		Sucralose**	0.97		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368771	
		Endothall**	0.25	U	ug/L	P368831	
		Acetamiprid**	0.0020	U	ug/L	P368771	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	1.2		ug/L	P368831	
		Afidopyropen**	0.0020	UJ	ug/L	P368771	
		Bentazon	0.16		ug/L	P368771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368771	
		Carbamazepine**	0.0022	I	ug/L	P368771	
		Clothianidin**	0.016		ug/L	P368771	
		Dinotefuran**	0.0069	I	ug/L	P368771	
		Diuron	0.028		ug/L	P368771	
		Fenuron	0.016	U	ug/L	P368771	
		Fluridone**	0.066		ug/L	P368771	
		Imazapyr**	0.56		ug/L	P368771	
		Hydrocodone**	0.0020	U	ug/L	P368771	
		Ibuprofen**	0.020	U	ug/L	P368771	
		Imidacloprid	0.079		ug/L	P368771	
		Linuron	0.0040	U	ug/L	P368771	
		Mandestrobin**	0.0020	UJ	ug/L	P368771	
		MCP	0.0020	U	ug/L	P368771	MS
		Naproxen**	0.0080	U	ug/L	P368771	
		Primidone**	0.0055	I	ug/L	P368771	
		Pyraclostrobin**	0.0020	U	ug/L	P368771	RPD
		Thiamethoxam**	0.0050	I	ug/L	P368771	MS
		Tolfenpyrad**	0.0020	U	ug/L	P368771	MS, RPD
		Triclopyr**	0.0040	U	ug/L	P368771	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Bear Creek @ Northern Way

Collection Date/Time: 08/08/2019 10:47

Field ID: G2CE0182

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110507	EPA 8321B	2,4-D	0.084		ug/L	P368771	
		Acesulfame K**	0.10	U	ug/L	P368831	
		AMPA**	0.52		ug/L	P368831	
		Sucralose**	0.95		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368771	
		Endothall**	0.25	U	ug/L	P368831	
		Acetamiprid**	0.0020	U	ug/L	P368771	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	1.2		ug/L	P368831	
		Afidopyropen**	0.0020	UJ	ug/L	P368771	
		Bentazon	0.16		ug/L	P368771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368771	
		Carbamazepine**	0.0022	I	ug/L	P368771	
		Clothianidin**	0.016		ug/L	P368771	
		Dinotefuran**	0.0060	I	ug/L	P368771	
		Diuron	0.026		ug/L	P368771	
		Fenuron	0.016	U	ug/L	P368771	
		Fluridone**	0.064		ug/L	P368771	
		Imazapyr**	0.55		ug/L	P368771	
		Hydrocodone**	0.0020	U	ug/L	P368771	
		Ibuprofen**	0.020	U	ug/L	P368771	
		Imidacloprid	0.079		ug/L	P368771	
		Linuron	0.0040	U	ug/L	P368771	
		Mandestrobin**	0.0020	UJ	ug/L	P368771	
		MCPP	0.0026	I	ug/L	P368771	MS
		Naproxen**	0.0080	U	ug/L	P368771	
		Primidone**	0.0042	I	ug/L	P368771	
		Pyraclostrobin**	0.0020	U	ug/L	P368771	RPD
		Thiamethoxam**	0.0053	I	ug/L	P368771	MS
		Tolfenpyrad**	0.0020	U	ug/L	P368771	MS, RPD
		Triclopyr**	0.0040	U	ug/L	P368771	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Salt Creek @ Packard Ave

Collection Date/Time: 08/08/2019 11:20

Field ID: G2CE0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110508	EPA 8321B	2,4-D	0.0020	U	ug/L	P368771	
		Acesulfame K**	1.0	U	ug/L	P368831	
		AMPA**	0.10	U	ug/L	P368831	
		Sucralose**	0.10		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368771	
		Endothall**	2.5	U	ug/L	P368831	
		Acetamiprid**	0.0020	U	ug/L	P368771	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	0.10	U	ug/L	P368831	
		Afidopyropen**	0.0020	UJ	ug/L	P368771	
		Bentazon	8.0E-04	U	ug/L	P368771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368771	
		Carbamazepine**	8.0E-04	U	ug/L	P368771	
		Clothianidin**	0.0020	U	ug/L	P368771	
		Dinotefuran**	0.0020	U	ug/L	P368771	
		Diuron	0.0020	U	ug/L	P368771	
		Fenuron	0.016	U	ug/L	P368771	
		Fluridone**	0.0077		ug/L	P368771	
		Imazapyr**	0.0040	U	ug/L	P368771	
		Hydrocodone**	0.0020	U	ug/L	P368771	
		Ibuprofen**	0.020	U	ug/L	P368771	
		Imidacloprid	0.0020	U	ug/L	P368771	
		Linuron	0.0040	U	ug/L	P368771	
		Mandestrobin**	0.0020	UJ	ug/L	P368771	
		MCPP	0.0020	U	ug/L	P368771	MS
		Naproxen**	0.0080	U	ug/L	P368771	
		Primidone**	0.0040	U	ug/L	P368771	
		Pyraclostrobin**	0.0020	U	ug/L	P368771	RPD
		Thiamethoxam**	0.0020	U	ug/L	P368771	MS
		Tolfenpyrad**	0.0020	U	ug/L	P368771	MS, RPD
		Triclopyr**	0.0040	U	ug/L	P368771	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Sweetwater Creek @ Kansas St

Collection Date/Time: 08/08/2019 11:36

Field ID: G2CE0203

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110509	EPA 8321B	2,4-D	0.021		ug/L	P368771	
		Acesulfame K**	1.0	U	ug/L	P368831	
		AMPA**	0.48		ug/L	P368831	
		Sucralose**	3.0		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368771	
		Endothall**	2.5	U	ug/L	P368831	
		Acetamiprid**	0.0027	I	ug/L	P368771	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	0.27	I	ug/L	P368831	
		Afidopyropen**	0.0020	UJ	ug/L	P368771	
		Bentazon	0.69		ug/L	P368771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368771	
		Carbamazepine**	0.0056		ug/L	P368771	
		Clothianidin**	0.014		ug/L	P368771	
		Dinotefuran**	0.0020	U	ug/L	P368771	
		Diuron	0.0065	I	ug/L	P368771	
		Fenuron	0.016	U	ug/L	P368771	
		Fluridone**	0.024		ug/L	P368771	
		Imazapyr**	0.11		ug/L	P368771	
		Hydrocodone**	0.0020	U	ug/L	P368771	
		Ibuprofen**	0.020	U	ug/L	P368771	
		Imidacloprid	0.072		ug/L	P368771	
		Linuron	0.0040	U	ug/L	P368771	
		Mandestrobin**	0.0020	UJ	ug/L	P368771	
		MCPP	0.0045	I	ug/L	P368771	MS
		Naproxen**	0.0080	U	ug/L	P368771	
		Primidone**	0.018		ug/L	P368771	
		Pyraclostrobin**	0.0020	U	ug/L	P368771	RPD
		Thiamethoxam**	0.0026	I	ug/L	P368771	MS
		Tolfenpyrad**	0.0020	U	ug/L	P368771	MS, RPD
		Triclopyr**	0.0040	U	ug/L	P368771	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Howell Creek @ US of Lake Howell Ln

Collection Date/Time: 08/08/2019 09:51

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110485	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P368803	
	EPA 300.0 Rev. 2.1	Chloride	22		mg Cl/L	P369216	
		Sulfate	14		mg SO4/L	P369219	
	SM 2120 B	Color (true)	30		PCU	P368789	
	SM 2320 B-97	Total Alkalinity	52		mg CaCO3/L	P369171	
	SM 2540 C-97	TDS	136		mg/L	P369331	
	SM 2540 D-97	TSS	2	U	mg/L	P369351	
	SM 4500 F-C-97	Fluoride	0.069	I	mg F/L	P369174	
2110487	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P369247	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.51		mg N/L	P369040	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.037		mg N/L	P369033	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P368939	
	SM 5310 B-00	Organic Carbon	6.6		mg C/L	P368983	
2110489	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P368792	
2110503	EPA 8321B	Aldicarb	0.020	U	ug/L	P368762	
		Aldicarb Sulfone	0.0020	U	ug/L	P368762	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P368762	
		Carbaryl	0.0020	U	ug/L	P368762	
		Carbofuran	0.0020	U	ug/L	P368762	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P368762	
		Methiocarb	0.0020	U	ug/L	P368762	
		Methomyl	0.0020	U	ug/L	P368762	
		Oxamyl	0.0020	U	ug/L	P368762	
		Propoxur	0.0020	U	ug/L	P368762	
2110505		2,4-D	0.018		ug/L	P368771	
		Acesulfame K**	0.10	U	ug/L	P368831	
		AMPA**	0.12	I	ug/L	P368831	
		Sucralose**	0.26		ug/L	P368831	
		Acetaminophen**	0.0080	U	ug/L	P368771	
		Endothall**	0.25	U	ug/L	P368831	
		Acetamiprid**	0.0020	U	ug/L	P368771	
		Glufosinate**	0.10	U	ug/L	P368831	
		Glyphosate**	0.10	U	ug/L	P368831	
		Afidopypropen**	0.0020	UJ	ug/L	P368771	
		Bentazon	0.071		ug/L	P368771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P368771	
		Carbamazepine**	8.0E-04	U	ug/L	P368771	
		Clothianidin**	0.0031	I	ug/L	P368771	
		Dinotefuran**	0.0020	U	ug/L	P368771	
		Diuron	0.0037	I	ug/L	P368771	
		Fenuron	0.016	U	ug/L	P368771	
		Fluridone**	0.013		ug/L	P368771	
		Imazapyr**	0.0058	I	ug/L	P368771	

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110505	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P368771	
		Ibuprofen**	0.020	U	ug/L	P368771	
		Imidacloprid	0.033		ug/L	P368771	
		Linuron	0.0040	U	ug/L	P368771	
		Mandestrobin**	0.0020	UJ	ug/L	P368771	
		MCP	0.0020	U	ug/L	P368771	MS
		Naproxen**	0.0080	U	ug/L	P368771	
		Primidone**	0.0040	U	ug/L	P368771	
		Pyraclostrobin**	0.0020	U	ug/L	P368771	RPD
		Thiamethoxam**	0.0034	I	ug/L	P368771	MS
		Tolfenpyrad**	0.0020	U	ug/L	P368771	MS, RPD
		Triclopyr**	0.0040	U	ug/L	P368771	
2110512	EPA 8270E	Aldrin	4.2	U	ng/L	P368901	
		Alpha-BHC	2.1	UJ	ng/L	P368901	LCS, MS
		Alpha-Chlordane	1.0	U	ng/L	P368901	
		Beta-BHC	10	U	ng/L	P368901	
		Bifenthrin**	4.2	U	ng/L	P368901	
		Delta-BHC	8.4	U	ng/L	P368901	
		Gamma-BHC	8.4	U	ng/L	P368901	
		Carbophenothion	10	U	ng/L	P368901	
		Chlorothalonil	2.1	U	ng/L	P368901	
		Cis-Nonachlor**	1.0	U	ng/L	P368901	
		Cypermethrin	21	U	ng/L	P368901	
		DDD-p,p'	6.3	U	ng/L	P368901	
		DDE-p,p'	6.3	U	ng/L	P368901	
		DDT-p,p'	7.3	U	ng/L	P368901	
		Dicofol	31	U	ng/L	P368901	
		Dieldrin	4.2	U	ng/L	P368901	
		Endosulfan I	4.2	U	ng/L	P368901	
		Endosulfan II	4.2	U	ng/L	P368901	
		Endosulfan Sulfate	2.1	U	ng/L	P368901	
		Endrin	2.1	U	ng/L	P368901	
		Endrin Aldehyde	2.1	U	ng/L	P368901	
		Endrin Ketone	2.1	U	ng/L	P368901	
		Ethalfuralin**	3.1	U	ng/L	P368901	
		Gamma-Chlordane	1.0	U	ng/L	P368901	
		Heptachlor	1.6	U	ng/L	P368901	
		Heptachlor Epoxide	2.1	U	ng/L	P368901	
		Hexachlorobenzene	2.1	U	ng/L	P368901	
		Methoxychlor	4.2	U	ng/L	P368901	
		Mirex	2.1	U	ng/L	P368901	
		Permethrin	10	U	ng/L	P368901	
		Trans-Nonachlor**	1.0	U	ng/L	P368901	
		Trifluralin	2.6	U	ng/L	P368901	
	EPA 8276	Chlordane	5.2	U	ng/L	P368901	

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110512	EPA 8276	Toxaphene	31	U	ng/L	P368901	
2110514	EPA 8270E	Acetochlor	0.26	U	ng/L	P369004	
		Alachlor	0.26	U	ng/L	P369004	
		Ametryn	0.62	U	ng/L	P369004	
		Atrazine	33		ng/L	P369004	
		Atrazine Desethyl	8.0		ng/L	P369004	
		Azinphos Methyl	5.2	U	ng/L	P369004	
		Bromacil	0.52	U	ng/L	P369004	
		Butylate	0.41	U	ng/L	P369004	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P369004	
		Chlorpyrifos Methyl	0.10	U	ng/L	P369004	
		Cyanazine	3.4	UJ	ng/L	P369004	CCV
		Demeton	7.3	U	ng/L	P369004	
		Diazinon	0.13	U	ng/L	P369004	
		Dimethenamid**	0.10	U	ng/L	P369004	
		Disulfoton	0.52	U	ng/L	P369004	
		Dithiopyr**	0.11	I	ng/L	P369004	
		EPTC	1.3	U	ng/L	P369004	
		Ethion	0.16	U	ng/L	P369004	
		Ethoprop	0.10	U	ng/L	P369004	
		Fenamiphos	0.52	U	ng/L	P369004	
		Fipronil	0.38	I	ng/L	P369004	
		Fipronil Desulfinyl**	0.57		ng/L	P369004	
		Fipronil Sulfide	0.16	U	ng/L	P369004	
		Fipronil Sulfone	1.0		ng/L	P369004	
		Fonofos	0.21	U	ng/L	P369004	
		Hexazinone	0.52	U	ng/L	P369004	
		Malathion	0.36	U	ng/L	P369004	
		Metalaxyl	0.56	I	ng/L	P369004	
		Metolachlor	0.52	U	ng/L	P369004	
		Metribuzin	0.78	UJ	ng/L	P369004	CCV
		Mevinphos	0.52	U	ng/L	P369004	
		Molinate	0.31	U	ng/L	P369004	
		Norflurazon	0.52	U	ng/L	P369004	
		Oxadiazon**	0.16	I	ng/L	P369004	
		Parathion Ethyl	0.26	U	ng/L	P369004	
		Parathion Methyl	0.57	U	ng/L	P369004	
		Pendimethalin	1.0	U	ng/L	P369004	
		Phorate	0.26	U	ng/L	P369004	
		Prodiamine**	0.18	U	ng/L	P369004	
		Prometon	0.93	U	ng/L	P369004	
		Prometryn	0.21	U	ng/L	P369004	
		Simazine	1.1	I	ng/L	P369004	
		Tebuconazole**	1.5	I	ng/L	P369004	
		Terbufos	0.10	U	ng/L	P369004	

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2110514	EPA 8270E	Terbutylazine	0.44	U	ng/L	P369004	
2110544	EPA 200.7 Rev. 4.4	Barium	7.9		ug/L	P368852	
		Calcium	21.7		mg/L	P368852	
		Iron	37	I	ug/L	P368852	
		Magnesium	3.18		mg/L	P368852	
		Potassium	2.0		mg/L	P368852	
		Sodium	14.3		mg/L	P368852	
		Zinc	5.0	U	ug/L	P368852	
	EPA 200.8 Rev. 5.4	Aluminum	23		ug/L	P368852	
		Antimony	0.20	I	ug/L	P368852	
		Arsenic	1.32		ug/L	P368852	
		Boron**	34.0		ug/L	P368852	
		Cadmium	0.020	U	ug/L	P368852	
		Chromium	0.40	U	ug/L	P368852	
		Copper	0.67	I	ug/L	P368852	
		Lead	0.20	U	ug/L	P368852	
		Nickel	0.50	U	ug/L	P368852	
		Selenium	0.20	U	ug/L	P368852	
		Silver	0.010	U	ug/L	P368852	
		Thallium	0.10	U	ug/L	P368852	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: Refer to the narrative for an explanation of QC Codes.

EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P368803

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368852

Component	Result	Code	Units
Barium	1.0	U	ug/L
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
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368852

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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: P369216

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369219

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369247

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369039

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369040

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369033

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P368939

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P368792

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

Reference Method: EPA 8270E
Batch ID: P368901

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfuralin	3.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E**Batch ID: P368901**

Component	Result	Code	Units
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E**Batch ID: P369004**

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	5.0	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P369004

Component	Result	Code	Units
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P368901

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B

Batch ID: P368762

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	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
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P368762

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

Reference Method: EPA 8321B
Batch ID: P368771

Component	Result	Code	Units
2,4-D	0.0020	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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	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: P368831

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: SM 2120 B
Batch ID: P368789

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P369171

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

Reference Method: SM 2540 C-97
Batch ID: P369331

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P369351

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P369174

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P368983

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P368852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.8		P	85 - 115
Calcium	105		P	85 - 115
Iron	99.9		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	103		P	85 - 115
Sodium	112		P	85 - 115
Zinc	95.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P368852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	104		P	85 - 115
Boron	101		P	85 - 115
Cadmium	106		P	85 - 115
Chromium	105		P	85 - 115
Copper	101		P	85 - 115
Lead	105		P	85 - 115
Nickel	101		P	85 - 115
Selenium	105		P	85 - 115
Silver	106		P	85 - 115
Thallium	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P369216

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P369219

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P369247

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P369039

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P369040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P369033

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P368939

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P368792

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

Reference Method: EPA 8270E

Batch ID: P368901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	49.4	44.9	P/P	20 - 93.0
Alpha-BHC	126	110	F/P	57 - 119
Alpha-Chlordane	84.0	74.9	P/P	58 - 112
Beta-BHC	133	116	P/P	56 - 149
Bifenthrin	85.9	75.1	P/P	30 - 134
Carbophenothion	101	106	P/P	26 - 147
Chlorothalonil	153	128	P/P	20 - 155
Cis-Nonachlor	84.1	75.6	P/P	54 - 115
Cypermethrin	78.6	71.0	P/P	40 - 137
DDD-p,p'	93.9	85.6	P/P	65 - 129
DDE-p,p'	83.2	74.8	P/P	57 - 116
DDT-p,p'	116	107	P/P	53 - 133
Delta-BHC	149	130	P/P	59 - 163
Dicofol	91.1	85.6	P/P	24 - 138
Dieldrin	90.5	78.9	P/P	60 - 120
Endosulfan I	93.3	79.7	P/P	64 - 118
Endosulfan II	99.0	87.9	P/P	58 - 142
Endosulfan Sulfate	91.8	80.1	P/P	60 - 127
Endrin	108	93.4	P/P	59 - 122
Endrin Aldehyde	103	88.1	P/P	49 - 132
Endrin Ketone	91.4	80.1	P/P	64 - 121
Ethalfuralin	98.1	89.8	P/P	60 - 126
Gamma-BHC	133	115	P/P	56 - 141
Gamma-Chlordane	81.0	72.9	P/P	56 - 110
Heptachlor	74.8	66.4	P/P	46 - 96.0
Heptachlor Epoxide	88.1	77.4	P/P	61 - 112
Hexachlorobenzene	79.9	77.5	P/P	44 - 98.0
Methoxychlor	133	123	P/P	63 - 134

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P368901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mirex	60.6	57.5	P/P	45 - 100
Permethrin	76.8	66.3	P/P	53 - 115
Trans-Nonachlor	77.7	70.8	P/P	47 - 110
Trifluralin	98.8	90.4	P/P	39 - 142

Reference Method: EPA 8270E

Batch ID: P369004

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	96.9	98.7	P/P	69 - 122
Alachlor	91.7	93.7	P/P	71 - 120
Ametryn	100	94.1	P/P	47 - 138
Atrazine	108	107	P/P	74 - 124
Atrazine Desethyl	102	93.1	P/P	38 - 138
Azinphos Methyl	98.1	92.5	P/P	69 - 154
Bromacil	92.3	90.6	P/P	39 - 121
Butylate	77.8	70.3	P/P	27 - 87.0
Chlorpyrifos Ethyl	99.0	96.7	P/P	69 - 118
Chlorpyrifos Methyl	96.0	93.4	P/P	70 - 120
Cyanazine	153	151	P/P	20 - 250
Demeton	70.7	79.2	P/P	39 - 118
Diazinon	95.3	96.5	P/P	68 - 127
Dimethenamid	102	101	P/P	66 - 125
Disulfoton	63.6	71.2	P/P	52 - 126
Dithiopyr	93.9	94.5	P/P	67 - 127
EPTC	74.1	62.7	P/P	24 - 88.0
Ethion	85.8	79.8	P/P	51 - 132
Ethoprop	94.0	93.4	P/P	58 - 117
Fenamiphos	94.5	95.0	P/P	38 - 139
Fipronil	93.4	91.5	P/P	61 - 124
Fipronil Desulfinyl	92.2	82.6	P/P	47 - 120
Fipronil Sulfide	95.9	78.9	P/P	56 - 119
Fipronil Sulfone	89.4	85.6	P/P	50 - 117
Fonofos	91.7	90.4	P/P	60 - 121
Hexazinone	106	107	P/P	55 - 137
Malathion	110	101	P/P	66 - 126
Metalaxyl	94.7	95.4	P/P	33 - 140
Metolachlor	93.4	92.2	P/P	69 - 119
Metribuzin	177	140	P/P	31 - 238
Mevinphos	102	103	P/P	42 - 113
Molinate	83.0	79.4	P/P	32 - 96.0
Norflurazon	92.2	87.1	P/P	54 - 123
Oxadiazon	88.3	86.6	P/P	63 - 128
Parathion Ethyl	94.8	95.6	P/P	72 - 111
Parathion Methyl	97.7	102	P/P	74 - 126
Pendimethalin	84.0	83.8	P/P	61 - 131
Phorate	88.2	93.1	P/P	51 - 115
Prodiamine	65.1	63.2	P/P	38 - 144
Prometon	91.9	91.6	P/P	54 - 119
Prometryn	91.0	90.3	P/P	63 - 120
Simazine	108	109	P/P	75 - 126
Tebuconazole	66.1	57.6	P/P	20 - 119

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P369004

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Terbufos	90.9	92.5	P/P	64 - 116
Terbutylazine	99.0	96.8	P/P	73 - 117

Reference Method: EPA 8276

Batch ID: P368901

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.9	68.7	P/P	43 - 128
Toxaphene	73.9	74.2	P/P	38 - 140

Reference Method: EPA 8321B

Batch ID: P368762

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	109		P	40 - 160
3-Hydroxycarbofuran	98.3		P	40 - 160
Acetaminophen	80.5		P	30 - 160
Acetamiprid	91.3		P	40 - 160
Afidopyropen	69.5		P	40 - 160
Aldicarb	66.5		P	30 - 160
Aldicarb Sulfone	92.9		P	40 - 160
Aldicarb Sulfoxide	89.3		P	40 - 160
Bentazon	106		P	30 - 160
Benzovindiflupyr	93.5		P	40 - 160
Carbamazepine	95.1		P	40 - 160
Carbaryl	82.1		P	40 - 160
Carbofuran	81.1		P	40 - 160
Clothianidin	95.9		P	40 - 160
Dinotefuran	90.5		P	40 - 160
Diuron	94.1		P	40 - 160
Fenuron	106		P	40 - 160
Fluridone	93.8		P	40 - 160
Hydrocodone	91.8		P	40 - 160
Ibuprofen	79.8		P	30 - 160
Imazapyr	142		P	40 - 160
Imidacloprid	97.5		P	40 - 160
Linuron	72.4		P	40 - 160
Mandestrobin	88.5		P	40 - 160
MCPP	100		P	40 - 160
Methiocarb	77.0		P	40 - 160
Methomyl	86.4		P	40 - 160
Naproxen	79.4		P	40 - 160
Oxamyl	96.6		P	40 - 160
Primidone	98.3		P	40 - 160
Propoxur	78.0		P	40 - 160
Pyraclostrobin	71.1		P	30 - 160
Thiamethoxam	99.6		P	40 - 160
Tolfenpyrad	54.2		P	40 - 160
Triclopyr	80.1		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P368771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	126		P	40 - 160
Acetaminophen	87.1		P	30 - 160
Acetamiprid	108		P	40 - 160
Afidopyropen	84.4		P	40 - 160
Bentazon	125		P	30 - 160
Benzovindiflupyr	103		P	40 - 160
Carbamazepine	103		P	40 - 160
Clothianidin	116		P	40 - 160
Dinotefuran	115		P	40 - 160
Diuron	108		P	40 - 160
Fenuron	122		P	40 - 160
Fluridone	109		P	40 - 160
Hydrocodone	119		P	40 - 160
Ibuprofen	95.3		P	30 - 160
Imazapyr	147		P	40 - 160
Imidacloprid	119		P	40 - 160
Linuron	95.0		P	40 - 160
Mandestrobin	102		P	40 - 160
MCPP	117		P	40 - 160
Naproxen	103		P	40 - 160
Primidone	113		P	40 - 160
Pyraclostrobin	75.4		P	30 - 160
Thiamethoxam	116		P	40 - 160
Tolfenpyrad	40.3		P	40 - 160
Triclopyr	75.5		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P368831

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	88.1		P	40 - 150
AMPA	122		P	40 - 150
Endothall	143		P	40 - 150
Glufosinate	119		P	40 - 150
Glyphosate	113		P	40 - 140
Sucralose	49.7		P	40 - 150

Reference Method: SM 2120 B

Batch ID: P368789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-97

Batch ID: P369171

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P369174

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P368983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P368852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2109729	Barium	97.3	96.7	P/P	80 - 120
2109729	Calcium	102	104	P/P	80 - 120
2109729	Iron	97.4	98.0	P/P	80 - 120
2109729	Magnesium	102	103	P/P	80 - 120
2109729	Potassium	105	106	P/P	80 - 120
2109729	Sodium	104	103	P/P	80 - 120
2109729	Zinc	94.5	93.0	P/P	80 - 120
2110452	Barium	96.6		P	80 - 120
2110452	Calcium	97.8		P	80 - 120
2110452	Iron	98.1		P	80 - 120
2110452	Magnesium	98.6		P	80 - 120
2110452	Potassium	99.2		P	80 - 120
2110452	Sodium	105		P	80 - 120
2110452	Zinc	94.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P368852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2109729	Aluminum	99.3	101	P/P	80 - 120
2109729	Antimony	103	103	P/P	80 - 120
2109729	Arsenic	105	104	P/P	80 - 120
2109729	Boron	99.4	101	P/P	80 - 120
2109729	Cadmium	105	107	P/P	80 - 120
2109729	Chromium	105	105	P/P	80 - 120
2109729	Copper	103	103	P/P	80 - 120
2109729	Lead	104	105	P/P	80 - 120
2109729	Nickel	101	100	P/P	80 - 120
2109729	Selenium	108	105	P/P	80 - 120
2109729	Silver	106	106	P/P	80 - 120
2109729	Thallium	105	105	P/P	80 - 120
2110452	Aluminum	100		P	80 - 120
2110452	Antimony	103		P	80 - 120
2110452	Arsenic	105		P	80 - 120
2110452	Boron	99.1		P	80 - 120
2110452	Cadmium	104		P	80 - 120
2110452	Chromium	104		P	80 - 120
2110452	Copper	104		P	80 - 120
2110452	Lead	105		P	80 - 120
2110452	Nickel	102		P	80 - 120
2110452	Selenium	105		P	80 - 120
2110452	Silver	106		P	80 - 120
2110452	Thallium	107		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110437	Chloride	99.4	98.9	P/P	90 - 110
2110840	Chloride	99.0		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P369219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110437	Sulfate	103	103	P/P	90 - 110
2110840	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369247

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110718	Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369039

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110301	Kjeldahl Nitrogen	108	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369040

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110487	Kjeldahl Nitrogen	102	95.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110368	NO2NO3-N	96.8	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P368939

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110439	Total-P	99.8	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P368792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110442	O-Phosphate-P	95.0	94.7	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P368901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110557	Aldrin	56.0	51.9	P/P	25 - 92.0
2110557	Alpha-BHC	142	148	F/F	49 - 130
2110557	Alpha-Chlordane	80.9	84.1	P/P	50 - 115
2110557	Beta-BHC	132	119	P/P	43 - 157
2110557	Bifenthrin	89.1	97.2	P/P	46 - 116
2110557	Carbophenothion	117	137	P/P	27 - 180
2110557	Chlorothalonil	150	162	P/P	10 - 216
2110557	Cis-Nonachlor	79.6	82.8	P/P	55 - 112
2110557	Cypermethrin	85.8	86.7	P/P	40 - 153

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P368901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110557	DDD-p,p'	91.8	95.6	P/P	53 - 128
2110557	DDE-p,p'	79.9	84.7	P/P	48 - 116
2110557	DDT-p,p'	119	113	P/P	47 - 128
2110557	Delta-BHC	176	176	P/P	51 - 196
2110557	Dicofol	94.7	123	P/P	10 - 147
2110557	Dieldrin	84.7	89.8	P/P	48 - 128
2110557	Endosulfan I	98.8	98.9	P/P	58 - 126
2110557	Endosulfan II	137	130	P/P	50 - 150
2110557	Endosulfan Sulfate	90.4	108	P/P	56 - 130
2110557	Endrin	97.8	114	P/P	50 - 126
2110557	Endrin Aldehyde	94.6	97.3	P/P	12 - 145
2110557	Endrin Ketone	82.3	95.5	P/P	59 - 132
2110557	Ethalfuralin	101	107	P/P	65 - 122
2110557	Gamma-BHC	138	155	P/P	50 - 155
2110557	Gamma-Chlordane	78.5	81.2	P/P	50 - 112
2110557	Heptachlor	72.2	75.7	P/P	41 - 98.0
2110557	Heptachlor Epoxide	83.3	88.2	P/P	55 - 117
2110557	Hexachlorobenzene	84.4	84.0	P/P	47 - 91.0
2110557	Methoxychlor	130	129	P/P	55 - 133
2110557	Mirex	66.8	65.4	P/P	44 - 101
2110557	Permethrin	77.0	80.6	P/P	52 - 124
2110557	Trans-Nonachlor	73.1	76.0	P/P	53 - 99.0
2110557	Trifluralin	99.3	103	P/P	10 - 201

Reference Method: EPA 8270E

Batch ID: P369004

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110513	Acetochlor	94.9	92.6	P/P	63 - 129
2110513	Alachlor	85.9	84.4	P/P	65 - 127
2110513	Ametryn	119	105	P/P	40 - 164
2110513	Atrazine Desethyl	70.6	77.5	P/P	14 - 157
2110513	Azinphos Methyl	80.6	70.1	P/P	49 - 180
2110513	Bromacil	91.3	90.8	P/P	48 - 130
2110513	Butylate	66.8	61.7	P/P	10 - 94.0
2110513	Chlorpyrifos Ethyl	80.6	80.3	P/P	58 - 123
2110513	Chlorpyrifos Methyl	83.1	78.9	P/P	58 - 125
2110513	Cyanazine	137	130	P/P	24 - 253
2110513	Demeton	88.9	85.5	P/P	25 - 149
2110513	Diazinon	97.9	93.7	P/P	59 - 144
2110513	Dimethenamid	93.8	90.8	P/P	46 - 139
2110513	Disulfoton	72.1	67.5	P/P	54 - 132
2110513	Dithiopyr	87.2	85.9	P/P	64 - 130
2110513	EPTC	62.0	56.9	P/P	10 - 92.0
2110513	Ethion	65.4	49.3	P/P	30 - 148
2110513	Ethoprop	89.5	84.8	P/P	50 - 130
2110513	Fenamiphos	98.9	118	P/P	49 - 142
2110513	Fipronil	88.9	88.7	P/P	46 - 140
2110513	Fipronil Desulfinyl	77.0	69.5	P/P	30 - 121
2110513	Fipronil Sulfide	75.5	68.1	P/P	31 - 136
2110513	Fipronil Sulfone	75.7	65.3	P/P	16 - 136
2110513	Fonofos	82.2	80.6	P/P	55 - 129

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P369004

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110513	Hexazinone	86.8	84.7	P/P	56 - 141
2110513	Malathion	101	91.1	P/P	56 - 135
2110513	Metalaxyl	73.7	72.5	P/P	54 - 135
2110513	Metolachlor	94.4	87.5	P/P	51 - 140
2110513	Metribuzin	163	166	P/P	45 - 254
2110513	Mevinphos	99.2	96.9	P/P	33 - 131
2110513	Molinate	83.9	77.3	P/P	14 - 98.0
2110513	Norflurazon	78.5	77.8	P/P	34 - 136
2110513	Oxadiazon	73.0	68.2	P/P	67 - 116
2110513	Parathion Ethyl	91.4	84.8	P/P	66 - 118
2110513	Parathion Methyl	97.6	94.2	P/P	64 - 136
2110513	Pendimethalin	84.5	81.7	P/P	59 - 144
2110513	Phorate	88.5	78.8	P/P	42 - 130
2110513	Prodiamine	60.2	53.3	P/P	42 - 148
2110513	Prometon	102	93.7	P/P	59 - 134
2110513	Prometryn	74.4	77.5	P/P	54 - 135
2110513	Simazine	94.2	102	P/P	53 - 156
2110513	Tebuconazole	45.1	36.0	P/P	10 - 131
2110513	Terbufos	90.2	86.9	P/P	57 - 131
2110513	Terbutylazine	92.5	89.4	P/P	68 - 125

Reference Method: EPA 8276

Batch ID: P368901

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2111048	Chlordane	89.0	91.4	P/P	34 - 136
2111048	Toxaphene	72.4	77.2	P/P	22 - 152

Reference Method: EPA 8321B

Batch ID: P368762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2109109	3-Hydroxycarbofuran	82.2	79.0	P/P	40 - 160
2109109	Aldicarb	53.2	54.1	P/P	30 - 160
2109109	Aldicarb Sulfone	95.5	99.5	P/P	40 - 160
2109109	Aldicarb Sulfoxide	51.7	55.6	P/P	40 - 160
2109109	Carbaryl	67.0	64.8	P/P	40 - 160
2109109	Carbofuran	64.8	61.3	P/P	40 - 160
2109109	Methiocarb	68.0	63.3	P/P	40 - 160
2109109	Methomyl	77.9	73.9	P/P	40 - 160
2109109	Oxamyl	84.1	84.3	P/P	40 - 160
2109109	Propoxur	63.3	62.2	P/P	40 - 160
2110510	2,4-D	168	167	F/F	40 - 160
2110510	Acetaminophen	80.0	81.8	P/P	30 - 160
2110510	Acetamiprid	106	110	P/P	40 - 160
2110510	Afidopyropen	104	98.2	P/P	40 - 160
2110510	Benzovindiflupyr	105	100	P/P	40 - 160
2110510	Carbamazepine	96.0	94.3	P/P	40 - 160
2110510	Clothianidin	113	108	P/P	40 - 160
2110510	Dinotefuran	107	109	P/P	40 - 160
2110510	Diuron	91.0	89.6	P/P	40 - 160
2110510	Fenuron	103	102	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P368762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110510	Hydrocodone	111	111	P/P	40 - 160
2110510	Ibuprofen	101	101	P/P	30 - 160
2110510	Imidacloprid	205	211	F/F	40 - 160
2110510	Linuron	77.0	75.0	P/P	40 - 160
2110510	Mandestrobin	91.7	89.1	P/P	40 - 160
2110510	MCP	174	174	F/F	40 - 160
2110510	Naproxen	119	128	P/P	40 - 160
2110510	Primidone	106	104	P/P	40 - 160
2110510	Pyraclostrobin	73.4	70.2	P/P	30 - 160
2110510	Thiamethoxam	154	154	P/P	40 - 160
2110510	Tolfenpyrad	65.6	61.3	P/P	40 - 160
2110510	Triclopyr	122	128	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P368771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110309	Acetaminophen	83.6	82.1	P/P	30 - 160
2110309	Acetamiprid	121	128	P/P	40 - 160
2110309	Afidopyropen	103	111	P/P	40 - 160
2110309	Benzovindiflupyr	87.9	118	P/P	40 - 160
2110309	Carbamazepine	100	103	P/P	40 - 160
2110309	Clothianidin	121	127	P/P	40 - 160
2110309	Dinotefuran	122	118	P/P	40 - 160
2110309	Diuron	95.1	91.9	P/P	40 - 160
2110309	Fenuron	104	109	P/P	40 - 160
2110309	Hydrocodone	115	123	P/P	40 - 160
2110309	Ibuprofen	104	119	P/P	30 - 160
2110309	Linuron	84.5	81.8	P/P	40 - 160
2110309	Mandestrobin	89.3	99.7	P/P	40 - 160
2110309	MCP	166	200	F/F	40 - 160
2110309	Naproxen	114	137	P/P	40 - 160
2110309	Primidone	115	117	P/P	40 - 160
2110309	Pyraclostrobin	61.2	91.2	P/P	30 - 160
2110309	Thiamethoxam	163	169	F/F	40 - 160
2110309	Tolfenpyrad	13.5	69.6	F/P	40 - 160
2110309	Triclopyr	122	149	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P368831

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110309	Acesulfame K	52.2	53.4	P/P	40 - 150
2110309	AMPA	111	106	P/P	40 - 150
2110309	Endothall	111	113	P/P	40 - 150
2110309	Glufosinate	110	97.4	P/P	40 - 150
2110309	Glyphosate	61.9	73.1	P/P	40 - 140
2110309	Sucralose	95.8	121	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P369174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110769	Fluoride	97.7	97.2	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P368983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2110298	Organic Carbon	101	99.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P368803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110330	Turbidity	1.02	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P368852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2109729	Barium	0.607	Spike	P	0 - 20
2109729	Calcium	2.32	Spike	P	0 - 20
2109729	Iron	0.661	Spike	P	0 - 20
2109729	Magnesium	0.659	Spike	P	0 - 20
2109729	Potassium	0.435	Spike	P	0 - 20
2109729	Sodium	0.597	Spike	P	0 - 20
2109729	Zinc	1.62	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P368852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2109729	Aluminum	1.27	Spike	P	0 - 20
2109729	Antimony	0.140	Spike	P	0 - 20
2109729	Arsenic	0.730	Spike	P	0 - 20
2109729	Boron	1.40	Spike	P	0 - 20
2109729	Cadmium	1.34	Spike	P	0 - 20
2109729	Chromium	0.179	Spike	P	0 - 20
2109729	Copper	0.0753	Spike	P	0 - 20
2109729	Lead	0.434	Spike	P	0 - 20
2109729	Nickel	0.861	Spike	P	0 - 20
2109729	Selenium	2.68	Spike	P	0 - 20
2109729	Silver	0.228	Spike	P	0 - 20
2109729	Thallium	0.712	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P369216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110437	Chloride	0.415	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P369219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110437	Sulfate	0.101	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P369247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110718	Ammonia-N	0.710	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110301	Kjeldahl Nitrogen	1.20	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P369040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110487	Kjeldahl Nitrogen	4.40	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P369033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110368	NO2NO3-N	0.743	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P368939

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110439	Total-P	3.72	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P368792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110442	O-Phosphate-P	0.316	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P368901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110557	Aldrin	7.52	Spike	P	0 - 30
2110557	Alpha-BHC	4.14	Spike	P	0 - 30
2110557	Alpha-Chlordane	3.88	Spike	P	0 - 30
2110557	Beta-BHC	11.0	Spike	P	0 - 30
2110557	Bifenthrin	8.73	Spike	P	0 - 30
2110557	Carbophenothion	15.1	Spike	P	0 - 30
2110557	Chlorothalonil	7.44	Spike	P	0 - 30
2110557	Cis-Nonachlor	3.98	Spike	P	0 - 30
2110557	Cypermethrin	1.07	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P368901

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110557	DDD-p,p'	4.14	Spike	P	0 - 30
2110557	DDE-p,p'	5.83	Spike	P	0 - 30
2110557	DDT-p,p'	4.72	Spike	P	0 - 30
2110557	Delta-BHC	0.0384	Spike	P	0 - 30
2110557	Dicofol	26.3	Spike	P	0 - 30
2110557	Dieldrin	5.85	Spike	P	0 - 30
2110557	Endosulfan I	0.110	Spike	P	0 - 30
2110557	Endosulfan II	5.46	Spike	P	0 - 30
2110557	Endosulfan Sulfate	18.2	Spike	P	0 - 30
2110557	Endrin	15.4	Spike	P	0 - 30
2110557	Endrin Aldehyde	2.80	Spike	P	0 - 30
2110557	Endrin Ketone	14.8	Spike	P	0 - 30
2110557	Ethalfuralin	5.56	Spike	P	0 - 30
2110557	Gamma-BHC	11.5	Spike	P	0 - 30
2110557	Gamma-Chlordane	3.46	Spike	P	0 - 30
2110557	Heptachlor	4.67	Spike	P	0 - 30
2110557	Heptachlor Epoxide	5.77	Spike	P	0 - 30
2110557	Hexachlorobenzene	0.470	Spike	P	0 - 30
2110557	Methoxychlor	0.757	Spike	P	0 - 30
2110557	Mirex	2.13	Spike	P	0 - 30
2110557	Permethrin	4.52	Spike	P	0 - 30
2110557	Trans-Nonachlor	3.89	Spike	P	0 - 30
2110557	Trifluralin	3.38	Spike	P	0 - 30
LFB	Aldrin	9.45	LCS	P	0 - 30
LFB	Alpha-BHC	13.4	LCS	P	0 - 30
LFB	Alpha-Chlordane	11.4	LCS	P	0 - 30
LFB	Beta-BHC	14.1	LCS	P	0 - 30
LFB	Bifenthrin	13.4	LCS	P	0 - 30
LFB	Carbophenothion	4.59	LCS	P	0 - 30
LFB	Chlorothalonil	18.0	LCS	P	0 - 30
LFB	Cis-Nonachlor	10.6	LCS	P	0 - 30
LFB	Cypermethrin	10.3	LCS	P	0 - 30
LFB	DDD-p,p'	9.23	LCS	P	0 - 30
LFB	DDE-p,p'	10.6	LCS	P	0 - 30
LFB	DDT-p,p'	7.89	LCS	P	0 - 30
LFB	Delta-BHC	13.4	LCS	P	0 - 30
LFB	Dicofol	6.23	LCS	P	0 - 30
LFB	Dieldrin	13.6	LCS	P	0 - 30
LFB	Endosulfan I	15.7	LCS	P	0 - 30
LFB	Endosulfan II	11.8	LCS	P	0 - 30
LFB	Endosulfan Sulfate	13.7	LCS	P	0 - 30
LFB	Endrin	14.6	LCS	P	0 - 30
LFB	Endrin Aldehyde	15.2	LCS	P	0 - 30
LFB	Endrin Ketone	13.3	LCS	P	0 - 30
LFB	Ethalfuralin	8.83	LCS	P	0 - 30
LFB	Gamma-BHC	13.9	LCS	P	0 - 30
LFB	Gamma-Chlordane	10.6	LCS	P	0 - 30
LFB	Heptachlor	11.9	LCS	P	0 - 30
LFB	Heptachlor Epoxide	13.0	LCS	P	0 - 30
LFB	Hexachlorobenzene	3.09	LCS	P	0 - 30
LFB	Methoxychlor	8.00	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P368901

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	5.37	LCS	P	0 - 30
LFB	Permethrin	14.6	LCS	P	0 - 30
LFB	Trans-Nonachlor	9.37	LCS	P	0 - 30
LFB	Trifluralin	8.83	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P369004

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110513	Acetochlor	2.46	Spike	P	0 - 30
2110513	Alachlor	1.73	Spike	P	0 - 30
2110513	Ametryn	12.4	Spike	P	0 - 30
2110513	Atrazine	1.11	Spike	P	0 - 30
2110513	Atrazine Desethyl	6.88	Spike	P	0 - 30
2110513	Azinphos Methyl	13.9	Spike	P	0 - 30
2110513	Bromacil	0.485	Spike	P	0 - 30
2110513	Butylate	7.86	Spike	P	0 - 30
2110513	Chlorpyrifos Ethyl	0.379	Spike	P	0 - 30
2110513	Chlorpyrifos Methyl	5.26	Spike	P	0 - 30
2110513	Cyanazine	5.12	Spike	P	0 - 30
2110513	Demeton	3.89	Spike	P	0 - 30
2110513	Diazinon	4.44	Spike	P	0 - 30
2110513	Dimethenamid	3.30	Spike	P	0 - 30
2110513	Disulfoton	6.64	Spike	P	0 - 30
2110513	Dithiopyr	1.57	Spike	P	0 - 30
2110513	EPTC	8.69	Spike	P	0 - 30
2110513	Ethion	28.0	Spike	P	0 - 30
2110513	Ethoprop	5.35	Spike	P	0 - 30
2110513	Fenamiphos	17.8	Spike	P	0 - 30
2110513	Fipronil	0.165	Spike	P	0 - 30
2110513	Fipronil Desulfinyl	8.31	Spike	P	0 - 30
2110513	Fipronil Sulfide	10.3	Spike	P	0 - 30
2110513	Fipronil Sulfone	8.30	Spike	P	0 - 30
2110513	Fonofos	2.00	Spike	P	0 - 30
2110513	Hexazinone	2.52	Spike	P	0 - 30
2110513	Malathion	10.5	Spike	P	0 - 30
2110513	Metalaxyl	1.62	Spike	P	0 - 30
2110513	Metolachlor	7.68	Spike	P	0 - 30
2110513	Metribuzin	1.63	Spike	P	0 - 30
2110513	Mevinphos	2.30	Spike	P	0 - 30
2110513	Molinate	8.22	Spike	P	0 - 30
2110513	Norflurazon	0.885	Spike	P	0 - 30
2110513	Oxadiazon	5.54	Spike	P	0 - 30
2110513	Parathion Ethyl	7.49	Spike	P	0 - 30
2110513	Parathion Methyl	3.60	Spike	P	0 - 30
2110513	Pendimethalin	3.37	Spike	P	0 - 30
2110513	Phorate	11.5	Spike	P	0 - 30
2110513	Prodiamine	7.79	Spike	P	0 - 30
2110513	Prometon	8.60	Spike	P	0 - 30
2110513	Prometryn	4.12	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P369004

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110513	Simazine	5.90	Spike	P	0 - 30
2110513	Tebuconazole	18.0	Spike	P	0 - 30
2110513	Terbufos	3.67	Spike	P	0 - 30
2110513	Terbutylazine	3.49	Spike	P	0 - 30
LFB	Acetochlor	1.86	LCS	P	0 - 30
LFB	Alachlor	2.24	LCS	P	0 - 30
LFB	Ametryn	6.25	LCS	P	0 - 30
LFB	Atrazine	0.863	LCS	P	0 - 30
LFB	Atrazine Desethyl	8.93	LCS	P	0 - 30
LFB	Azinphos Methyl	5.89	LCS	P	0 - 30
LFB	Bromacil	1.85	LCS	P	0 - 30
LFB	Butylate	10.0	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.29	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.73	LCS	P	0 - 30
LFB	Cyanazine	1.27	LCS	P	0 - 30
LFB	Demeton	11.4	LCS	P	0 - 30
LFB	Diazinon	1.30	LCS	P	0 - 30
LFB	Dimethenamid	1.33	LCS	P	0 - 30
LFB	Disulfoton	11.3	LCS	P	0 - 30
LFB	Dithiopyr	0.559	LCS	P	0 - 30
LFB	EPTC	16.8	LCS	P	0 - 30
LFB	Ethion	7.17	LCS	P	0 - 30
LFB	Ethoprop	0.644	LCS	P	0 - 30
LFB	Fenamiphos	0.540	LCS	P	0 - 30
LFB	Fipronil	2.03	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	11.0	LCS	P	0 - 30
LFB	Fipronil Sulfide	19.5	LCS	P	0 - 30
LFB	Fipronil Sulfone	4.34	LCS	P	0 - 30
LFB	Fonofos	1.48	LCS	P	0 - 30
LFB	Hexazinone	1.58	LCS	P	0 - 30
LFB	Malathion	7.96	LCS	P	0 - 30
LFB	Metalaxyl	0.745	LCS	P	0 - 30
LFB	Metolachlor	1.28	LCS	P	0 - 30
LFB	Metribuzin	23.5	LCS	P	0 - 30
LFB	Mevinphos	1.14	LCS	P	0 - 30
LFB	Molinate	4.46	LCS	P	0 - 30
LFB	Norflurazon	5.72	LCS	P	0 - 30
LFB	Oxadiazon	1.96	LCS	P	0 - 30
LFB	Parathion Ethyl	0.777	LCS	P	0 - 30
LFB	Parathion Methyl	4.08	LCS	P	0 - 30
LFB	Pendimethalin	0.148	LCS	P	0 - 30
LFB	Phorate	5.40	LCS	P	0 - 30
LFB	Prodiamine	2.95	LCS	P	0 - 30
LFB	Prometon	0.319	LCS	P	0 - 30
LFB	Prometryn	0.728	LCS	P	0 - 30
LFB	Simazine	0.930	LCS	P	0 - 30
LFB	Tebuconazole	13.6	LCS	P	0 - 30
LFB	Terbufos	1.72	LCS	P	0 - 30
LFB	Terbutylazine	2.19	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P368901

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2111048	Chlordane	2.65	Spike	P	0 - 30
2111048	Toxaphene	6.52	Spike	P	0 - 30
LFB	Chlordane	5.88	LCS	P	0 - 30
LFB	Toxaphene	0.384	LCS	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P368762

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2109109	3-Hydroxycarbofuran	4.02	Spike	P	0 - 30
2109109	Aldicarb	1.65	Spike	P	0 - 30
2109109	Aldicarb Sulfone	4.11	Spike	P	0 - 30
2109109	Aldicarb Sulfoxide	7.26	Spike	P	0 - 30
2109109	Carbaryl	3.39	Spike	P	0 - 30
2109109	Carbofuran	5.50	Spike	P	0 - 30
2109109	Methiocarb	7.19	Spike	P	0 - 30
2109109	Methomyl	5.35	Spike	P	0 - 30
2109109	Oxamyl	0.209	Spike	P	0 - 30
2109109	Propoxur	1.72	Spike	P	0 - 30
2110510	2,4-D	0.649	Spike	P	0 - 30
2110510	Acetaminophen	2.14	Spike	P	0 - 30
2110510	Acetamiprid	4.24	Spike	P	0 - 30
2110510	Afidopyropen	5.33	Spike	P	0 - 30
2110510	Benzovindiflupyr	4.06	Spike	P	0 - 30
2110510	Carbamazepine	1.23	Spike	P	0 - 30
2110510	Clothianidin	3.25	Spike	P	0 - 30
2110510	Dinotefuran	1.97	Spike	P	0 - 30
2110510	Diuron	1.29	Spike	P	0 - 30
2110510	Fenuron	0.953	Spike	P	0 - 30
2110510	Fluridone	1.32	Spike	P	0 - 30
2110510	Hydrocodone	0.451	Spike	P	0 - 30
2110510	Ibuprofen	0.158	Spike	P	0 - 30
2110510	Imazapyr	7.57	Spike	P	0 - 30
2110510	Imidacloprid	2.05	Spike	P	0 - 30
2110510	Linuron	2.57	Spike	P	0 - 30
2110510	Mandestrobin	2.88	Spike	P	0 - 30
2110510	MCP	0.241	Spike	P	0 - 30
2110510	Naproxen	7.38	Spike	P	0 - 30
2110510	Primidone	1.51	Spike	P	0 - 30
2110510	Pyraclostrobin	4.49	Spike	P	0 - 30
2110510	Thiamethoxam	0.123	Spike	P	0 - 30
2110510	Tolfenpyrad	6.66	Spike	P	0 - 30
2110510	Triclopyr	4.83	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P368771

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110309	2,4-D	14.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P368771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110309	Acetaminophen	1.75	Spike	P	0 - 30
2110309	Acetamiprid	6.25	Spike	P	0 - 30
2110309	Afidopyropen	8.18	Spike	P	0 - 30
2110309	Benzovindiflupyr	28.9	Spike	P	0 - 30
2110309	Carbamazepine	1.94	Spike	P	0 - 30
2110309	Clothianidin	4.19	Spike	P	0 - 30
2110309	Dinotefuran	3.31	Spike	P	0 - 30
2110309	Diuron	2.33	Spike	P	0 - 30
2110309	Fenuron	5.27	Spike	P	0 - 30
2110309	Fluridone	0.380	Spike	P	0 - 30
2110309	Hydrocodone	6.41	Spike	P	0 - 30
2110309	Ibuprofen	13.3	Spike	P	0 - 30
2110309	Imazapyr	6.08	Spike	P	0 - 30
2110309	Imidacloprid	1.96	Spike	P	0 - 30
2110309	Linuron	3.20	Spike	P	0 - 30
2110309	Mandestrobin	11.0	Spike	P	0 - 30
2110309	MCPP	17.9	Spike	P	0 - 30
2110309	Naproxen	18.4	Spike	P	0 - 30
2110309	Primidone	1.87	Spike	P	0 - 30
2110309	Pyraclostrobin	39.4	Spike	F	0 - 30
2110309	Thiamethoxam	3.57	Spike	P	0 - 30
2110309	Tolfenpyrad	135	Spike	F	0 - 30
2110309	Triclopyr	20.2	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P368831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110309	Acesulfame K	1.97	Spike	P	0 - 30
2110309	AMPA	2.33	Spike	P	0 - 30
2110309	Endothall	1.89	Spike	P	0 - 30
2110309	Glufosinate	11.8	Spike	P	0 - 30
2110309	Glyphosate	1.83	Spike	P	0 - 30
2110309	Sucralose	18.7	Spike	P	0 - 30

Reference Method: SM 2120 B

Batch ID: P368789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110437	Color (true)	0.0911	Sample	P	0 - 20

Reference Method: SM 2320 B-97

Batch ID: P369171

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110769	Total Alkalinity	0.765	Sample	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P369331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110412	TDS	3.12	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P369351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110412	TSS	4.76	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P369174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110769	Fluoride	0.484	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P368983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2110298	Organic Carbon	0.662	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2110502
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	67.7	P	30 - 160

Lab Sample ID: 2110503
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	71.9	P	30 - 160

Lab Sample ID: 2110504
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	154	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	96.7	P	30 - 160
EPA 8321B	Diuron-d6	95.8	P	30 - 160
EPA 8321B	Endothall-d6	140	P	30 - 160
EPA 8321B	Endothall-d6	140	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	93.2	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2110505
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	130	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.8	P	30 - 160
EPA 8321B	Diuron-d6	91.8	P	30 - 160
EPA 8321B	Endothall-d6	144	P	30 - 160
EPA 8321B	Endothall-d6	144	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	96.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.3	P	30 - 160
EPA 8321B	Primidone-d5	118	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2110506
Field Sample ID: G2CE0069

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	78.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.0	P	30 - 160
EPA 8321B	Diuron-d6	94.2	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2110506
Field Sample ID: G2CE0069

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	95.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.5	P	30 - 160
EPA 8321B	Primidone-d5	120	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Lab Sample ID: 2110507
Field Sample ID: G2CE0182

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	150	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.0	P	30 - 160
EPA 8321B	Diuron-d6	86.9	P	30 - 160
EPA 8321B	Endothall-d6	138	P	30 - 160
EPA 8321B	Endothall-d6	138	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	88.7	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160
EPA 8321B	Sucralose-d6	98.3	P	30 - 160

Lab Sample ID: 2110508
Field Sample ID: G2CE0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	134	P	30 - 160
EPA 8321B	Acetaminophen-d4	65.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	56.5	P	30 - 160
EPA 8321B	Diuron-d6	60.4	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.1	P	30 - 160
EPA 8321B	Primidone-d5	65.9	P	30 - 160
EPA 8321B	Sucralose-d6	93.2	P	30 - 160
EPA 8321B	Sucralose-d6	93.2	P	30 - 160

Lab Sample ID: 2110509
Field Sample ID: G2CE0203

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	150	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.9	P	30 - 160
EPA 8321B	Diuron-d6	87.7	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	47.9	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2110509
Field Sample ID: G2CE0203

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	47.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.2	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	94.7	P	30 - 160
EPA 8321B	Sucralose-d6	94.7	P	30 - 160

Lab Sample ID: 2110510
Field Sample ID: G2CE0123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	85.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	76.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.4	P	30 - 160
EPA 8321B	Diuron-d6	86.1	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Endothall-d6	139	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	92.3	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2110511
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	64.7	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	62.0	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	37.9	P	30 - 103
EPA 8276	PCNB	109	P	37 - 143

Lab Sample ID: 2110512
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	67.2	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	54.6	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	41.3	P	30 - 103
EPA 8276	PCNB	99.6	P	37 - 143

Lab Sample ID: 2110513
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	107	P	68 - 130
EPA 8270E	Terbufos-d10	99.6	P	61 - 136

Lab Sample ID: 2110514
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 2110514
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	105	P	68 - 130
EPA 8270E	Terbufos-d10	96.8	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A93399

Included Lab Sample IDs: 2110484, 2110485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	103	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A93400

Included Lab Sample IDs: 2110488, 2110489

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	98.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A93405

Included Lab Sample IDs: 2110484, 2110485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	100	P/P	95 - 105

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A93484

Included Lab Sample IDs: 2110543, 2110544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	97.9	98.2	P/P	90 - 110
Calcium	98.1	98.8	P/P	90 - 110
Iron	97.9	98.6	P/P	90 - 110
Magnesium	97.0	97.6	P/P	90 - 110
Potassium	97.8	98.7	P/P	90 - 110
Sodium	106	107	P/P	90 - 110
Zinc	94.6	94.7	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A93485

Included Lab Sample IDs: 2110486, 2110487

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A93486

Included Lab Sample IDs: 2110484, 2110485

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.7	97.6	P/P	90 - 110
Sulfate	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A93505

Included Lab Sample IDs: 2110486, 2110487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93508

Included Lab Sample IDs: 2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	69.4	91.8	P/P	60 - 160
Acesulfame K	73.5	70.3	P/P	60 - 160
Acesulfame K	91.8	110	P/P	60 - 160
Endothall	127	136	P/P	60 - 160
Endothall	137	146	P/P	60 - 160
Endothall	141	137	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A93511

Included Lab Sample IDs: 2110486, 2110487

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

Reference Method: EPA 8321B

Run ID: A93512

Included Lab Sample IDs: 2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	110	117	P/P	60 - 160
AMPA	98.7	110	P/P	60 - 160
Glufosinate	114	118	P/P	60 - 160
Glufosinate	100	114	P/P	60 - 160
Glyphosate	113	123	P/P	60 - 160
Glyphosate	123	130	P/P	60 - 160

Reference Method: SM 2320 B-97

Run ID: A93564

Included Lab Sample IDs: 2110484, 2110485

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

Reference Method: SM 4500 F-C-97

Run ID: A93564

Included Lab Sample IDs: 2110484, 2110485

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93572

Included Lab Sample IDs: 2110486

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A93578

Included Lab Sample IDs: 2110487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.7	98.9	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A93587

Included Lab Sample IDs: 2110511, 2110512

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.2		P	80 - 120
Alpha-BHC	93.6		P	80 - 120
Alpha-Chlordane	91.9		P	80 - 120
Beta-BHC	93.5		P	80 - 120
Bifenthrin	89.6		P	80 - 120
Carbophenothion	90.5		P	80 - 120
Chlorothalonil	83.4		P	80 - 120
Cis-Nonachlor	89.5		P	80 - 120
Cypermethrin	90.4		P	80 - 120
DDD-p,p'	91.8		P	80 - 120
DDE-p,p'	92.2		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	95.5		P	80 - 120
Dicofol	96.4		P	80 - 120
Dieldrin	91.1		P	80 - 120
Endosulfan I	90.2		P	80 - 120
Endosulfan II	87.8		P	80 - 120
Endosulfan Sulfate	92.7		P	80 - 120
Endrin	104		P	80 - 120
Endrin Aldehyde	87.8		P	80 - 120
Endrin Ketone	93.3		P	80 - 120
Ethalfuralin	92.5		P	80 - 120
Gamma-BHC	95.9		P	80 - 120
Gamma-Chlordane	91.7		P	80 - 120
Heptachlor	91.8		P	80 - 120
Heptachlor Epoxide	91.2		P	80 - 120
Hexachlorobenzene	97.5		P	80 - 120
Methoxychlor	98.4		P	80 - 120
Mirex	96.3		P	80 - 120
Permethrin	90.5		P	80 - 120
Trans-Nonachlor	90.5		P	80 - 120
Trifluralin	93.3		P	80 - 120

Reference Method: EPA 8321B

Run ID: A93592

Included Lab Sample IDs: 2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	105	97.5	P/P	50 - 150
2,4-D	107	110	P/P	50 - 150
3-Hydroxycarbofuran	99.8	102	P/P	60 - 150
Acetaminophen	103	93.2	P/P	60 - 160
Acetaminophen	96.3	99.9	P/P	60 - 160
Acetamiprid	108	107	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93592

Included Lab Sample IDs: 2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetamiprid	115	111	P/P	50 - 150
Afidopyropen	110	91.7	P/P	50 - 150
Afidopyropen	82.0	79.3	P/P	50 - 150
Aldicarb	102	109	P/P	60 - 150
Aldicarb Sulfone	100	101	P/P	50 - 150
Aldicarb Sulfoxide	98.8	100	P/P	50 - 150
Bentazon	107	104	P/P	50 - 160
Bentazon	82.4	103	P/P	50 - 160
Benzovindiflupyr	109	107	P/P	50 - 150
Benzovindiflupyr	111	110	P/P	50 - 150
Carbamazepine	97.2	100	P/P	60 - 150
Carbamazepine	97.8	97.1	P/P	60 - 150
Carbaryl	94.1	83.3	P/P	60 - 150
Carbofuran	97.6	98.6	P/P	50 - 150
Clothianidin	96.5	98.3	P/P	60 - 150
Clothianidin	99.4	91.6	P/P	60 - 150
Dinotefuran	96.7	92.9	P/P	50 - 150
Dinotefuran	97.3	91.4	P/P	50 - 150
Diuron	108	103	P/P	60 - 150
Diuron	90.4	102	P/P	60 - 150
Fenuron	78.5	60.7	P/P	60 - 150
Fenuron	81.5	73.4	P/P	60 - 150
Fluridone	102	98.9	P/P	60 - 160
Fluridone	95.9	100	P/P	60 - 160
Hydrocodone	107	106	P/P	60 - 150
Hydrocodone	95.4	99.8	P/P	60 - 150
Ibuprofen	104	103	P/P	50 - 160
Ibuprofen	125	84.3	P/P	50 - 160
Imazapyr	108	121	P/P	50 - 150
Imazapyr	111	126	P/P	50 - 150
Imidacloprid	92.6	96.7	P/P	60 - 150
Imidacloprid	98.3	95.2	P/P	60 - 150
Linuron	83.8	83.1	P/P	60 - 150
Linuron	89.6	87.6	P/P	60 - 150
Mandestrobin	101	101	P/P	50 - 150
Mandestrobin	99.1	99.2	P/P	50 - 150
MCPP	90.9	89.9	P/P	50 - 150
MCPP	93.6	92.4	P/P	50 - 150
Methiocarb	91.9	88.1	P/P	50 - 150
Methomyl	100	104	P/P	50 - 150
Naproxen	115	105	P/P	50 - 160
Naproxen	69.0	94.6	P/P	50 - 160
Oxamyl	96.8	100	P/P	50 - 150
Primidone	95.0	92.0	P/P	60 - 150
Primidone	96.3	98.1	P/P	60 - 150
Propoxur	96.2	99.7	P/P	50 - 150
Pyraclostrobin	93.6	96.3	P/P	60 - 150
Pyraclostrobin	97.4	95.2	P/P	60 - 150
Thiamethoxam	100	86.7	P/P	50 - 150
Thiamethoxam	103	97.5	P/P	50 - 150
Tolfenpyrad	102	103	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93592

Included Lab Sample IDs: 2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tolfenpyrad	103	96.6	P/P	60 - 150
Triclopyr	86.0	93.0	P/P	50 - 150
Triclopyr	91.3	90.9	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A93593

Included Lab Sample IDs: 2110486, 2110487

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A93606

Included Lab Sample IDs: 2110513, 2110514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	96.5		P	80 - 120
Ametryn	97.1		P	80 - 120
Atrazine	99.4		P	80 - 120
Atrazine Desethyl	85.7		P	80 - 120
Azinphos Methyl	93.4		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	106		P	80 - 120
Chlorpyrifos Ethyl	96.8		P	80 - 120
Chlorpyrifos Methyl	95.9		P	80 - 120
Cyanazine	77.8*		F	80 - 120
Demeton	99.1		P	80 - 120
Diazinon	99.9		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	95.6		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	97.6		P	80 - 120
Ethion	97.4		P	80 - 120
Ethoprop	96.3		P	80 - 120
Fenamiphos	101		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	92.0		P	80 - 120
Fipronil Sulfone	100		P	80 - 120
Fonofos	99.7		P	80 - 120
Hexazinone	98.5		P	80 - 120
Malathion	95.5		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	78.3*		F	80 - 120
Mevinphos	100		P	80 - 120
Molinate	101		P	80 - 120
Norflurazon	98.7		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	94.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A93606

Included Lab Sample IDs: 2110513, 2110514

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Methyl	89.5		P	80 - 120
Pendimethalin	87.2		P	80 - 120
Phorate	98.1		P	80 - 120
Prodiamine	84.5		P	80 - 120
Prometon	94.9		P	80 - 120
Prometryn	98.0		P	80 - 120
Simazine	101		P	80 - 120
Tebuconazole	103		P	80 - 120
Terbufos	97.2		P	80 - 120
Terbutylazine	95.2		P	80 - 120

Reference Method: EPA 8321B

Run ID: A93667

Included Lab Sample IDs: 2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	113	P/P	60 - 160
Sucralose	113	107	P/P	60 - 160

Reference Method: EPA 8276

Run ID: A93742

Included Lab Sample IDs: 2110511, 2110512

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	97.0		P	80 - 120
Toxaphene	99.6		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A93758

Included Lab Sample IDs: 2110543, 2110544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.1	97.7	P/P	90 - 110
Antimony	98.0	99.0	P/P	90 - 110
Arsenic	101	102	P/P	90 - 110
Cadmium	102	102	P/P	90 - 110
Chromium	102	103	P/P	90 - 110
Copper	100	101	P/P	90 - 110
Lead	103	103	P/P	90 - 110
Nickel	100	99.1	P/P	90 - 110
Selenium	103	102	P/P	90 - 110
Silver	106	106	P/P	90 - 110
Thallium	98.2	97.2	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A93935

Included Lab Sample IDs: 2110543, 2110544

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Boron	99.0	94.2	P/P	90 - 110

Quality Assurance Report

Calibration Verification

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.02	
EPA 200.7 Rev. 4.4	Barium	98.8		97.3	96.7	96.6		0.607
	Calcium	105		102	104	97.8		2.32
	Iron	99.9		97.4	98.0	98.1		0.661
	Magnesium	106		102	103	98.6		0.659
	Potassium	103		105	106	99.2		0.435
	Sodium	112		104	103	105		0.597
	Zinc	95.3		94.5	93.0	94.4		1.62
EPA 200.8 Rev. 5.4	Aluminum	100		99.3	101	100		1.27
	Antimony	102		103	103	103		0.140
	Arsenic	104		105	104	105		0.730
	Boron	101		99.4	101	99.1		1.40
	Cadmium	106		105	107	104		1.34
	Chromium	105		105	105	104		0.179
	Copper	101		103	103	104		0.0753
	Lead	105		104	105	105		0.434
	Nickel	101		101	100	102		0.861
	Selenium	105		108	105	105		2.68
	Silver	106		106	106	106		0.228
	Thallium	105		105	105	107		0.712
EPA 300.0 Rev. 2.1	Chloride	98.5		99.4	98.9	99.0		0.415
	Sulfate	103		103	103	103		0.101
EPA 350.1 Rev. 2.0	Ammonia-N	102		102	103			0.710
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		108	106			1.20
	Kjeldahl Nitrogen	99.2		102	95.8			4.40
EPA 353.2 Rev. 2.0	NO2NO3-N	100		96.8	97.8			0.743
EPA 365.1 Rev. 2.0	Total-P	99.2		99.8	104			3.72
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.5		95.0	94.7			0.316
EPA 8270E	Acetochlor	96.9	98.7	94.9	92.6	1.86		2.46
	Alachlor	91.7	93.7	85.9	84.4	2.24		1.73
	Aldrin	49.4	44.9	56.0	51.9	9.45		7.52
	Alpha-BHC	126	110	142	148	13.4		4.14
	Alpha-Chlordane	84.0	74.9	80.9	84.1	11.4		3.88
	Ametryn	100	94.1	119	105	6.25		12.4
	Atrazine	108	107			0.863		1.11
	Atrazine Desethyl	102	93.1	70.6	77.5	8.93		6.88
	Azinphos Methyl	98.1	92.5	80.6	70.1	5.89		13.9
	Beta-BHC	133	116	132	119	14.1		11.0
	Bifenthrin	85.9	75.1	89.1	97.2	13.4		8.73
	Bromacil	92.3	90.6	91.3	90.8	1.85		0.485
	Butylate	77.8	70.3	66.8	61.7	10.0		7.86
	Carbophenothion	101	106	117	137	4.59		15.1
	Chlorothalonil	153	128	150	162	18.0		7.44
	Chlorpyrifos Ethyl	99.0	96.7	80.6	80.3	2.29		0.379
	Chlorpyrifos Methyl	96.0	93.4	83.1	78.9	2.73		5.26
	Cis-Nonachlor	84.1	75.6	79.6	82.8	10.6		3.98
	Cyanazine	153	151	137	130	1.27		5.12
	Cypermethrin	78.6	71.0	85.8	86.7	10.3		1.07
	DDD-p,p'	93.9	85.6	91.8	95.6	9.23		4.14
	DDE-p,p'	83.2	74.8	79.9	84.7	10.6		5.83
	DDT-p,p'	116	107	119	113	7.89		4.72
	Delta-BHC	149	130	176	176	13.4		0.0384
	Demeton	70.7	79.2	88.9	85.5	11.4		3.89
	Diazinon	95.3	96.5	97.9	93.7	1.30		4.44

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Dicofol	91.1	85.6	94.7	123	6.23		26.3
	Dieldrin	90.5	78.9	84.7	89.8	13.6		5.85
	Dimethenamid	102	101	93.8	90.8	1.33		3.30
	Disulfoton	63.6	71.2	72.1	67.5	11.3		6.64
	Dithiopyr	93.9	94.5	87.2	85.9	0.559		1.57
	Endosulfan I	93.3	79.7	98.8	98.9	15.7		0.110
	Endosulfan II	99.0	87.9	137	130	11.8		5.46
	Endosulfan Sulfate	91.8	80.1	90.4	108	13.7		18.2
	Endrin	108	93.4	97.8	114	14.6		15.4
	Endrin Aldehyde	103	88.1	94.6	97.3	15.2		2.80
	Endrin Ketone	91.4	80.1	82.3	95.5	13.3		14.8
	EPTC	74.1	62.7	62.0	56.9	16.8		8.69
	Ethalfuralin	98.1	89.8	101	107	8.83		5.56
	Ethion	85.8	79.8	65.4	49.3	7.17		28.0
	Ethoprop	94.0	93.4	89.5	84.8	0.644		5.35
	Fenamiphos	94.5	95.0	98.9	118	0.540		17.8
	Fipronil	93.4	91.5	88.9	88.7	2.03		0.165
	Fipronil Desulfinyl	92.2	82.6	77.0	69.5	11.0		8.31
	Fipronil Sulfide	95.9	78.9	75.5	68.1	19.5		10.3
	Fipronil Sulfone	89.4	85.6	75.7	65.3	4.34		8.30
	Fonofos	91.7	90.4	82.2	80.6	1.48		2.00
	Gamma-BHC	133	115	138	155	13.9		11.5
	Gamma-Chlordane	81.0	72.9	78.5	81.2	10.6		3.46
	Heptachlor	74.8	66.4	72.2	75.7	11.9		4.67
	Heptachlor Epoxide	88.1	77.4	83.3	88.2	13.0		5.77
	Hexachlorobenzene	79.9	77.5	84.4	84.0	3.09		0.470
	Hexazinone	106	107	86.8	84.7	1.58		2.52
	Malathion	110	101	101	91.1	7.96		10.5
	Metalaxyl	94.7	95.4	73.7	72.5	0.745		1.62
	Methoxychlor	133	123	130	129	8.00		0.757
	Metolachlor	93.4	92.2	94.4	87.5	1.28		7.68
	Metribuzin	177	140	163	166	23.5		1.63
	Mevinphos	102	103	99.2	96.9	1.14		2.30
	Mirex	60.6	57.5	66.8	65.4	5.37		2.13
	Molinate	83.0	79.4	83.9	77.3	4.46		8.22
	Norflurazon	92.2	87.1	78.5	77.8	5.72		0.885
	Oxadiazon	88.3	86.6	73.0	68.2	1.96		5.54
	Parathion Ethyl	94.8	95.6	91.4	84.8	0.777		7.49
	Parathion Methyl	97.7	102	97.6	94.2	4.08		3.60
	Pendimethalin	84.0	83.8	84.5	81.7	0.148		3.37
	Permethrin	76.8	66.3	77.0	80.6	14.6		4.52
	Phorate	88.2	93.1	88.5	78.8	5.40		11.5
	Prodiamine	65.1	63.2	60.2	53.3	2.95		7.79
	Prometon	91.9	91.6	102	93.7	0.319		8.60
	Prometryn	91.0	90.3	74.4	77.5	0.728		4.12
	Simazine	108	109	94.2	102	0.930		5.90
	Tebuconazole	66.1	57.6	45.1	36.0	13.6		18.0
	Terbufos	90.9	92.5	90.2	86.9	1.72		3.67
	Terbutylazine	99.0	96.8	92.5	89.4	2.19		3.49
	Trans-Nonachlor	77.7	70.8	73.1	76.0	9.37		3.89
	Trifluralin	98.8	90.4	99.3	103	8.83		3.38
EPA 8276	Chlordane	72.9	68.7	89.0	91.4	5.88		2.65
	Toxaphene	73.9	74.2	72.4	77.2	0.384		6.52
EPA 8321B	2,4-D	109		168	167			0.649

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8321B	2,4-D	126				14.8
	3-Hydroxycarbofuran	98.3	82.2	79.0		4.02
	Acesulfame K	88.1	52.2	53.4		1.97
	Acetaminophen	80.5	80.0	81.8		2.14
	Acetaminophen	87.1	83.6	82.1		1.75
	Acetamiprid	91.3	106	110		4.24
	Acetamiprid	108	121	128		6.25
	Afidopyropen	69.5	104	98.2		5.33
	Afidopyropen	84.4	103	111		8.18
	Aldicarb	66.5	53.2	54.1		1.65
	Aldicarb Sulfone	92.9	95.5	99.5		4.11
	Aldicarb Sulfoxide	89.3	51.7	55.6		7.26
	AMPA	122	111	106		2.33
	Bentazon	106				
	Bentazon	125				
	Benzovindiflupyr	93.5	105	100		4.06
	Benzovindiflupyr	103	87.9	118		28.9
	Carbamazepine	95.1	96.0	94.3		1.23
	Carbamazepine	103	100	103		1.94
	Carbaryl	82.1	67.0	64.8		3.39
	Carbofuran	81.1	64.8	61.3		5.50
	Clothianidin	95.9	113	108		3.25
	Clothianidin	116	121	127		4.19
	Dinotefuran	90.5	107	109		1.97
	Dinotefuran	115	122	118		3.31
	Diuron	94.1	91.0	89.6		1.29
	Diuron	108	95.1	91.9		2.33
	Endothall	143	111	113		1.89
	Fenuron	106	103	102		0.953
	Fenuron	122	104	109		5.27
	Fluridone	93.8				1.32
	Fluridone	109				0.380
	Glufosinate	119	110	97.4		11.8
	Glyphosate	113	61.9	73.1		1.83
	Hydrocodone	91.8	111	111		0.451
	Hydrocodone	119	115	123		6.41
	Ibuprofen	79.8	101	101		0.158
	Ibuprofen	95.3	104	119		13.3
	Imazapyr	142				7.57
	Imazapyr	147				6.08
	Imidacloprid	97.5	205	211		2.05
	Imidacloprid	119				1.96
	Linuron	72.4	77.0	75.0		2.57
	Linuron	95.0	84.5	81.8		3.20
	Mandestrobin	88.5	91.7	89.1		2.88
	Mandestrobin	102	89.3	99.7		11.0
	MCPPP	100	174	174		0.241
	MCPPP	117	166	200		17.9
	Methiocarb	77.0	68.0	63.3		7.19
	Methomyl	86.4	77.9	73.9		5.35
	Naproxen	79.4	119	128		7.38
	Naproxen	103	114	137		18.4
	Oxamyl	96.6	84.1	84.3		0.209
	Primidone	98.3	106	104		1.51

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	Primidone	113	115	117		
	Propoxur	78.0	63.3	62.2		
	Pyraclostrobin	71.1	73.4	70.2		
	Pyraclostrobin	75.4	61.2	91.2		
	Sucralose	49.7	95.8	121		
	Thiamethoxam	99.6	154	154		
	Thiamethoxam	116	163	169		
	Tolfenpyrad	54.2	65.6	61.3		
	Tolfenpyrad	40.3	13.5	69.6		
	Triclopyr	80.1	122	128		
	Triclopyr	75.5	122	149		
SM 2120 B	Color (true)	103				0.0911
SM 2320 B-97	Total Alkalinity	104				0.765
SM 2540 C-97	TDS					3.12
SM 2540 D-97	TSS					4.76
SM 4500 F-C-97	Fluoride	98.2	97.7	97.2		
SM 5310 B-00	Organic Carbon	99.4	101	99.6		

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2110484, 2110485
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2110543, 2110544
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2110543, 2110544
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2110484, 2110485
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2110484, 2110485
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2110486, 2110487
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2110486, 2110487
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2110486, 2110487
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2110486, 2110487
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2110488, 2110489
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2110511, 2110512
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2110513, 2110514
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2110511, 2110512
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2110502, 2110503
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2110504, 2110505, 2110506, 2110507, 2110508, 2110509, 2110510
SM 2120 B / E31780	True Color measured at 450 nm	2110484, 2110485
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2110484, 2110485
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2110484, 2110485
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2110484, 2110485
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2110484, 2110485
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2110486, 2110487

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	08/09/2019			08/09/2019 17:04	Rosalyn Ballman	2110484, 2110485
EPA 200.7 Rev. 4.4	08/09/2019	08/12/2019 14:45	Elliott D. Healy	08/13/2019 17:03	Betina Topolski	2110543
	08/09/2019	08/12/2019 14:45	Elliott D. Healy	08/13/2019 17:10	Betina Topolski	2110544
EPA 200.8 Rev. 5.4	08/09/2019	08/12/2019 14:45	Elliott D. Healy	08/23/2019 09:23	Martin Acosta	2110543
	08/09/2019	08/12/2019 14:45	Elliott D. Healy	08/23/2019 09:32	Martin Acosta	2110544
	08/09/2019	08/12/2019 14:45	Elliott D. Healy	08/30/2019 17:58	Robert K Palmer	2110543
	08/09/2019	08/12/2019 14:45	Elliott D. Healy	08/30/2019 18:03	Robert K Palmer	2110544
EPA 300.0 Rev. 2.1	08/09/2019			08/16/2019 08:07	Jhamieka S. Greenwood	2110484
	08/09/2019			08/16/2019 08:19	Jhamieka S. Greenwood	2110485
EPA 350.1 Rev. 2.0	08/09/2019			08/16/2019 12:16	Ping Hua	2110486
	08/09/2019			08/16/2019 12:17	Ping Hua	2110487
EPA 351.2 Rev. 2.0	08/09/2019	08/14/2019 14:55	Sima Feizi	08/15/2019 17:49	Julia Storbeck	2110486
	08/09/2019	08/14/2019 14:55	Sima Feizi	08/15/2019 22:24	Julia Storbeck	2110487
EPA 353.2 Rev. 2.0	08/09/2019			08/14/2019 12:46	Beverly Y. Sanders	2110486
	08/09/2019			08/14/2019 12:47	Beverly Y. Sanders	2110487
EPA 365.1 Rev. 2.0	08/09/2019	08/13/2019 12:35	Vijayalakshmi Reddy	08/14/2019 13:31	Lipi Saha	2110486, 2110487
EPA 365.1 Rev. 2.0 dissolved	08/09/2019			08/09/2019 15:22	Jhamieka S. Greenwood	2110488
	08/09/2019			08/09/2019 15:23	Jhamieka S. Greenwood	2110489
EPA 8270E	08/09/2019	08/14/2019 08:30	Rasheda Ghaffari	08/16/2019 17:50	Vandana T. Nagar	2110513
	08/09/2019	08/14/2019 08:30	Rasheda Ghaffari	08/16/2019 18:17	Vandana T. Nagar	2110514
	08/09/2019	08/14/2019 09:00	Fe-Val Siddell	08/16/2019 22:15	Arthur Maknenko	2110511
	08/09/2019	08/14/2019 09:00	Fe-Val Siddell	08/16/2019 22:47	Arthur Maknenko	2110512
EPA 8276	08/09/2019	08/14/2019 09:00	Fe-Val Siddell	08/22/2019 09:58	Luis Flores	2110511
	08/09/2019	08/14/2019 09:00	Fe-Val Siddell	08/22/2019 10:53	Luis Flores	2110512
EPA 8321B	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/17/2019 03:40	Juyoung Kim	2110504
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/17/2019 04:15	Juyoung Kim	2110505
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/17/2019 04:49	Juyoung Kim	2110506
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/17/2019 05:24	Juyoung Kim	2110507
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/17/2019 05:58	Juyoung Kim	2110508
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/17/2019 06:33	Juyoung Kim	2110509
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/19/2019 13:37	Juyoung Kim	2110506
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/19/2019 14:46	Juyoung Kim	2110507
	08/09/2019	08/12/2019 12:00	Fe-Val Siddell	08/19/2019 15:20	Juyoung Kim	2110509
	08/09/2019	08/13/2019 09:00	Fe-Val Siddell	08/17/2019 11:10	Juyoung Kim	2110502
	08/09/2019	08/13/2019 09:00	Fe-Val Siddell	08/17/2019 11:44	Juyoung Kim	2110503
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/13/2019 20:50	Rebecca Ware	2110504
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/13/2019 21:18	Rebecca Ware	2110505
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/13/2019 21:32	Rebecca Ware	2110506
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/13/2019 21:46	Rebecca Ware	2110507
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 10:09	Rebecca Ware	2110504

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 10:30	Rebecca Ware	2110505
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 10:41	Rebecca Ware	2110506
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 10:52	Rebecca Ware	2110507
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 11:02	Rebecca Ware	2110508
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 11:13	Rebecca Ware	2110509
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 11:24	Rebecca Ware	2110510
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 17:15	Rebecca Ware	2110508
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 17:28	Rebecca Ware	2110509
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/14/2019 17:42	Rebecca Ware	2110510
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/20/2019 14:00	Rebecca Ware	2110504
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/20/2019 14:24	Rebecca Ware	2110505
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/20/2019 14:36	Rebecca Ware	2110506
	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/20/2019 14:47	Rebecca Ware	2110507
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	08/09/2019	08/13/2019 13:30	Rebecca Ware	08/20/2019 15:23	Rebecca Ware	2110510
	08/09/2019	08/13/2019 14:00	Fe-Val Siddell	08/17/2019 14:37	Juyoung Kim	2110510
	08/09/2019	08/13/2019 14:00	Fe-Val Siddell	08/19/2019 15:55	Juyoung Kim	2110510
SM 2120 B	08/09/2019			08/09/2019 15:19	Madeline Funaro	2110484
	08/09/2019			08/09/2019 15:20	Madeline Funaro	2110485
SM 2320 B-97	08/09/2019			08/16/2019 00:07	Dale L. Simmons	2110484
	08/09/2019			08/16/2019 00:19	Dale L. Simmons	2110485
SM 2540 C-97	08/09/2019			08/14/2019 15:01	Yijie Li	2110484, 2110485
SM 2540 D-97	08/09/2019			08/14/2019 15:01	Yijie Li	2110484, 2110485
SM 4500 F-C-97	08/09/2019			08/16/2019 00:07	Dale L. Simmons	2110484
	08/09/2019			08/16/2019 00:19	Dale L. Simmons	2110485
SM 5310 B-00	08/09/2019			08/13/2019 18:42	Madeline Funaro	2110486
	08/09/2019			08/13/2019 18:54	Madeline Funaro	2110487