

Chemical Analysis Report

CEN-DIST-2019-11-22-01

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

Event Description: **Seminole Co Run**
Request ID: **RQ-2019-11-18-60**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 12-DEC-2019 15:28



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: Howell Creek @ US of Lake Howell Ln

Collection Date/Time: 11/21/2019 09:15

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138799	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P374748	
	EPA 300.0 Rev. 2.1	Chloride	25	A	mg Cl/L	P375348	
		Sulfate	15	A	mg SO4/L	P375352	
	SM 2120 B	Color (true)	26	A	PCU	P374694	
	SM 2320 B-97	Total Alkalinity	53		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	121		mg/L	P375146	
	SM 2540 D-97	TSS	2	U	mg/L	P375130	
	SM 4500 F-C-97	Fluoride	0.075	I	mg F/L	P374995	
2138802	EPA 350.1 Rev. 2.0	Ammonia-N	0.039		mg N/L	P375095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P375061	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P374760	
	EPA 365.1 Rev. 2.0	Total-P	0.029		mg P/L	P375201	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P374919	
2138805	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P374714	
2138850	EPA 8321B	Aldicarb	0.020	U	ug/L	P374831	
		Aldicarb Sulfone	0.0020	U	ug/L	P374831	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P374831	
		Carbaryl	0.0020	U	ug/L	P374831	
		Carbofuran	0.0020	U	ug/L	P374831	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P374831	
		Methiocarb	0.0020	U	ug/L	P374831	
		Methomyl	0.0020	U	ug/L	P374831	
		Oxamyl	0.0020	U	ug/L	P374831	
		Propoxur	0.0020	U	ug/L	P374831	
2138853		2,4-D	0.099		ug/L	P374660	
		Acesulfame K**	0.10	U	ug/L	P374645	
		AMPA**	0.36	I	ug/L	P374645	
		Sucralose**	0.47		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	2.4		ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.16		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	8.0E-04	U	ug/L	P374660	
		Clothianidin**	0.0072	I	ug/L	P374660	
		Dinotefuran**	0.0033	I	ug/L	P374660	
		Diuron	0.0020	U	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.017		ug/L	P374660	
		Imazapyr**	0.049		ug/L	P374660	

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138853	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P374660	MS
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.0041	I	ug/L	P374660	
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCP	0.0020	U	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0040	U	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	
2138862	EPA 8270E	Aldrin	4.3	U	ng/L	P374927	
		Alpha-BHC	2.1	U	ng/L	P374927	
		Alpha-Chlordane	1.1	U	ng/L	P374927	
		Beta-BHC	11	U	ng/L	P374927	
		Bifenthrin**	4.3	U	ng/L	P374927	
		Delta-BHC	8.6	U	ng/L	P374927	
		Gamma-BHC	8.6	U	ng/L	P374927	
		Carbophenothion	11	U	ng/L	P374927	
		Chlorothalonil	2.1	U	ng/L	P374927	
		Cis-Nonachlor**	1.1	U	ng/L	P374927	
		Cypermethrin	21	U	ng/L	P374927	
		DDD-p,p'	6.4	U	ng/L	P374927	
		DDE-p,p'	6.4	U	ng/L	P374927	
		DDT-p,p'	7.5	U	ng/L	P374927	
		Dicofol	32	U	ng/L	P374927	
		Dieldrin	4.3	U	ng/L	P374927	
		Endosulfan I	4.3	U	ng/L	P374927	
		Endosulfan II	4.3	U	ng/L	P374927	
		Endosulfan Sulfate	2.1	U	ng/L	P374927	
		Endrin	2.1	U	ng/L	P374927	
		Endrin Aldehyde	2.1	U	ng/L	P374927	
		Endrin Ketone	2.1	U	ng/L	P374927	
		Ethalfuralin**	3.2	U	ng/L	P374927	
		Gamma-Chlordane	1.1	U	ng/L	P374927	
		Heptachlor	1.6	U	ng/L	P374927	
		Heptachlor Epoxide	2.1	U	ng/L	P374927	
		Hexachlorobenzene	2.1	U	ng/L	P374927	
		Methoxychlor	4.3	U	ng/L	P374927	
		Mirex	2.1	U	ng/L	P374927	
		Permethrin	11	U	ng/L	P374927	
		Trans-Nonachlor**	1.1	U	ng/L	P374927	
		Trifluralin	2.7	U	ng/L	P374927	
		Chlordane	5.4	U	ng/L	P374927	
	EPA 8276						

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138862	EPA 8276	Toxaphene	32	U	ng/L	P374927	
2138865	EPA 8270E	Acetochlor	0.24	U	ng/L	P374719	
		Alachlor	0.24	U	ng/L	P374719	
		Ametryn	0.58	U	ng/L	P374719	
		Atrazine	76		ng/L	P374719	
		Atrazine Desethyl	10		ng/L	P374719	
		Azinphos Methyl	4.9	U	ng/L	P374719	
		Bromacil	0.49	U	ng/L	P374719	
		Butylate	0.39	U	ng/L	P374719	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P374719	
		Chlorpyrifos Methyl	0.097	U	ng/L	P374719	
		Cyanazine	3.2	U	ng/L	P374719	
		Demeton	6.8	U	ng/L	P374719	
		Diazinon	0.12	U	ng/L	P374719	
		Dimethenamid**	0.097	U	ng/L	P374719	RPD
		Disulfoton	0.49	U	ng/L	P374719	
		Dithiopyr**	0.21	I	ng/L	P374719	
		EPTC	1.2	U	ng/L	P374719	
		Ethion	0.15	U	ng/L	P374719	
		Ethoprop	0.097	U	ng/L	P374719	
		Fenamiphos	0.49	U	ng/L	P374719	
		Fipronil	0.25	I	ng/L	P374719	
		Fipronil Desulfinyl**	0.38	I	ng/L	P374719	
		Fipronil Sulfide	0.46	I	ng/L	P374719	
		Fipronil Sulfone	1.1		ng/L	P374719	
		Fonofos	0.19	U	ng/L	P374719	
		Hexazinone	0.49	U	ng/L	P374719	
		Malathion	0.34	U	ng/L	P374719	
		Metalaxyl	1.6		ng/L	P374719	
		Metolachlor	0.49	U	ng/L	P374719	
		Metribuzin	0.73	U	ng/L	P374719	
		Mevinphos	0.49	UJ	ng/L	P374719	CCV
		Molinate	0.29	U	ng/L	P374719	
		Norflurazon	0.49	U	ng/L	P374719	
		Oxadiazon**	0.12	I	ng/L	P374719	
		Parathion Ethyl	0.24	U	ng/L	P374719	
		Parathion Methyl	0.53	U	ng/L	P374719	
		Pendimethalin	0.97	U	ng/L	P374719	
		Phorate	0.24	U	ng/L	P374719	
		Prodiamine**	0.17	U	ng/L	P374719	
		Prometon	0.87	U	ng/L	P374719	
		Prometryn	0.19	U	ng/L	P374719	
		Simazine	0.49	U	ng/L	P374719	
		Tebuconazole**	0.87	I	ng/L	P374719	RPD
		Terbufos	0.097	U	ng/L	P374719	

Field ID: G2CE0138

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138865	EPA 8270E	Terbutylazine	0.41	U	ng/L	P374719	
2138868	EPA 200.7 Rev. 4.4	Barium	9.6		ug/L	P374896	
		Calcium	23.6		mg/L	P374896	
		Iron	47	I	ug/L	P374896	
		Magnesium	3.56		mg/L	P374896	
		Potassium	2.4		mg/L	P374896	
		Sodium	14.9		mg/L	P374896	
		Zinc	5.0	U	ug/L	P374896	
	EPA 200.8 Rev. 5.4	Aluminum	20		ug/L	P374896	
		Antimony	0.23		ug/L	P374896	
		Arsenic	1.49		ug/L	P374896	
		Boron**	37.6		ug/L	P374896	
		Cadmium	0.020	U	ug/L	P374896	
		Chromium	0.40	U	ug/L	P374896	
		Copper	0.72	I	ug/L	P374896	
		Lead	0.20	U	ug/L	P374896	
		Nickel	0.50	U	ug/L	P374896	
		Selenium	0.20	U	ug/L	P374896	
		Silver	0.010	U	ug/L	P374896	
		Thallium	0.10	U	ug/L	P374896	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

Sample Location: Salt Creek @ Packard Ave

Collection Date/Time: 11/21/2019 10:07

Field ID: G2CE0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138856	EPA 8321B	2,4-D	12		ug/L	P374660	
		Acesulfame K**	0.10	U	ug/L	P374645	
		AMPA**	1.0	U	ug/L	P374645	
		Sucralose**	0.20		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	1.0	U	ug/L	P374645	
		Glyphosate**	20		ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	8.0E-04	U	ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	8.0E-04	U	ug/L	P374660	
		Clothianidin**	0.0020	U	ug/L	P374660	
		Dinotefuran**	0.0020	U	ug/L	P374660	
		Diuron	0.0020	U	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.0015	I	ug/L	P374660	
		Imazapyr**	0.0041	I	ug/L	P374660	
		Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.0020	U	ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCPP	0.0020	U	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0040	U	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. 2,4-D-d3 surrogate spike recovery could not be assessed due to an elevated level of 2,4-D in the sample.

Sample Location: Sweetwater Creek @ Kansas St

Collection Date/Time: 11/21/2019 10:19

Field ID: G2CE0203

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138859	EPA 8321B	2,4-D	0.037		ug/L	P374660	
		Acesulfame K**	1.0	U	ug/L	P374645	
		AMPA**	0.14	I	ug/L	P374645	
		Sucralose**	2.9		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	2.5	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.10	U	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.28		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	0.0036		ug/L	P374660	
		Clothianidin**	0.0020	U	ug/L	P374660	
		Dinotefuran**	0.0020	U	ug/L	P374660	
		Diuron	0.0020	U	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.015		ug/L	P374660	
		Imazapyr**	0.046		ug/L	P374660	
		Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.021		ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCPP	0.0047	I	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0097	I	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

Sample Location: Sweetwater Creek @ Florida Ave

Collection Date/Time: 11/21/2019 10:24

Field ID: G2CE0123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138860	EPA 8321B	2,4-D	0.0059	I	ug/L	P374660	
		Acesulfame K**	1.0	U	ug/L	P374645	
		AMPA**	0.11	I	ug/L	P374645	
		Sucralose**	2.5		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	2.5	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.10	U	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.22		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	0.0038		ug/L	P374660	
		Clothianidin**	0.0020	U	ug/L	P374660	
		Dinotefuran**	0.0020	U	ug/L	P374660	
		Diuron	0.0020	U	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.015		ug/L	P374660	
		Imazapyr**	0.048		ug/L	P374660	
		Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.022		ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCPP	0.0058	I	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.012	I	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

Sample Location: Bear Creek @ Northern Way

Collection Date/Time: 11/21/2019 10:38

Field ID: G2CE0182

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138857	EPA 8321B	2,4-D	0.021		ug/L	P374660	
		Acesulfame K**	0.14	I	ug/L	P374645	
		AMPA**	0.34	I	ug/L	P374645	
		Sucralose**	1.2		ug/L	P374645	
		Acetaminophen**	0.014	I	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.47		ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.17		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	0.0016	I	ug/L	P374660	
		Clothianidin**	0.0035	I	ug/L	P374660	
		Dinotefuran**	0.0043	I	ug/L	P374660	
		Diuron	0.0027	I	ug/L	P374660	
		Fenuron	0.059	I	ug/L	P374660	
		Fluridone**	0.029		ug/L	P374660	
		Imazapyr**	0.31		ug/L	P374660	
		Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.016		ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCPP	0.0020	U	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0044	I	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

Collection Date/Time: 11/21/2019 10:52

Field ID: G2CE0069

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138858	EPA 8321B	2,4-D	0.021		ug/L	P374660	
		Acesulfame K**	0.15	I	ug/L	P374645	
		AMPA**	0.36	I	ug/L	P374645	
		Sucralose**	1.3		ug/L	P374645	
		Acetaminophen**	0.014	I	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.52		ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.14		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	0.0017	I	ug/L	P374660	
		Clothianidin**	0.0045	I	ug/L	P374660	
		Dinotefuran**	0.0046	I	ug/L	P374660	
		Diuron	0.0024	I	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.028		ug/L	P374660	
		Imazapyr**	0.31		ug/L	P374660	
		Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.018		ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCPP	0.0020	U	ug/L	P374660	
		Naproxen**	0.011	I	ug/L	P374660	
		Primidone**	0.0056	I	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Gee Creek @ Alton Rd

Collection Date/Time: 11/21/2019 11:15

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138800	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P374748	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P375348	
		Sulfate	6.6		mg SO4/L	P375352	
	SM 2120 B	Color (true)	62		PCU	P374694	
	SM 2320 B-97	Total Alkalinity	65		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	102		mg/L	P375146	
	SM 2540 D-97	TSS	2	I	mg/L	P375130	
	SM 4500 F-C-97	Fluoride	0.099	I	mg F/L	P374995	
2138803	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P375095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P375061	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P374760	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P375201	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P374919	
2138806	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P374717	
2138851	EPA 8321B	Aldicarb	0.020	U	ug/L	P374831	
		Aldicarb Sulfone	0.0020	U	ug/L	P374831	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P374831	
		Carbaryl	0.0020	U	ug/L	P374831	
		Carbofuran	0.0020	U	ug/L	P374831	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P374831	
		Methiocarb	0.0020	U	ug/L	P374831	
		Methomyl	0.0020	U	ug/L	P374831	
		Oxamyl	0.0020	U	ug/L	P374831	
		Propoxur	0.0020	U	ug/L	P374831	
2138854		2,4-D	0.011		ug/L	P374660	
		Acesulfame K**	0.18	I	ug/L	P374645	
		AMPA**	0.11	I	ug/L	P374645	
		Sucralose**	1.6		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.26	I	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.030		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	0.0020	I	ug/L	P374660	
		Clothianidin**	0.0020	U	ug/L	P374660	
		Dinotefuran**	0.0020	U	ug/L	P374660	
		Diuron	0.0020	U	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.029		ug/L	P374660	
		Imazapyr**	0.10		ug/L	P374660	

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138854	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P374660	
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.011		ug/L	P374660	MS
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCP	0.0020	U	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0040	U	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	
2138863	EPA 8270E	Aldrin	4.2	U	ng/L	P374927	
		Alpha-BHC	2.1	U	ng/L	P374927	
		Alpha-Chlordane	1.1	U	ng/L	P374927	
		Beta-BHC	11	U	ng/L	P374927	
		Bifenthrin**	4.2	U	ng/L	P374927	
		Delta-BHC	8.5	U	ng/L	P374927	
		Gamma-BHC	8.5	U	ng/L	P374927	
		Carbophenothion	11	U	ng/L	P374927	
		Chlorothalonil	2.1	U	ng/L	P374927	
		Cis-Nonachlor**	1.1	U	ng/L	P374927	
		Cypermethrin	21	U	ng/L	P374927	
		DDD-p,p'	6.3	U	ng/L	P374927	
		DDE-p,p'	6.3	U	ng/L	P374927	
		DDT-p,p'	7.4	U	ng/L	P374927	
		Dicofol	32	U	ng/L	P374927	
		Dieldrin	4.2	U	ng/L	P374927	
		Endosulfan I	4.2	U	ng/L	P374927	
		Endosulfan II	4.2	U	ng/L	P374927	
		Endosulfan Sulfate	2.1	U	ng/L	P374927	
		Endrin	2.1	U	ng/L	P374927	
		Endrin Aldehyde	2.1	U	ng/L	P374927	
		Endrin Ketone	2.1	U	ng/L	P374927	
		Ethalfuralin**	3.2	U	ng/L	P374927	
		Gamma-Chlordane	1.1	U	ng/L	P374927	
		Heptachlor	1.6	U	ng/L	P374927	
		Heptachlor Epoxide	2.1	U	ng/L	P374927	
		Hexachlorobenzene	2.1	U	ng/L	P374927	
		Methoxychlor	4.2	U	ng/L	P374927	
		Mirex	2.1	U	ng/L	P374927	
		Permethrin	11	U	ng/L	P374927	
		Trans-Nonachlor**	1.1	U	ng/L	P374927	
		Trifluralin	2.6	U	ng/L	P374927	
	EPA 8276	Chlordane	5.3	U	ng/L	P374927	

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138863	EPA 8276	Toxaphene	32	U	ng/L	P374927	
2138866	EPA 8270E	Acetochlor	0.24	U	ng/L	P374719	
		Alachlor	0.24	U	ng/L	P374719	
		Ametryn	0.57	U	ng/L	P374719	
		Atrazine	16		ng/L	P374719	
		Atrazine Desethyl	2.7	I	ng/L	P374719	
		Azinphos Methyl	4.8	U	ng/L	P374719	
		Bromacil	0.48	U	ng/L	P374719	
		Butylate	0.38	U	ng/L	P374719	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P374719	
		Chlorpyrifos Methyl	0.095	U	ng/L	P374719	
		Cyanazine	3.1	U	ng/L	P374719	
		Demeton	6.7	U	ng/L	P374719	
		Diazinon	0.12	U	ng/L	P374719	
		Dimethenamid**	0.095	U	ng/L	P374719	RPD
		Disulfoton	0.48	U	ng/L	P374719	
		Dithiopyr**	0.19	I	ng/L	P374719	
		EPTC	1.2	U	ng/L	P374719	
		Ethion	0.14	U	ng/L	P374719	
		Ethoprop	0.095	U	ng/L	P374719	
		Fenamiphos	0.48	U	ng/L	P374719	
		Fipronil	0.24	U	ng/L	P374719	
		Fipronil Desulfinyl**	0.37	I	ng/L	P374719	
		Fipronil Sulfide	0.66		ng/L	P374719	
		Fipronil Sulfone	1.0		ng/L	P374719	
		Fonofos	0.19	U	ng/L	P374719	
		Hexazinone	0.48	U	ng/L	P374719	
		Malathion	0.33	U	ng/L	P374719	
		Metaxyl	0.29	U	ng/L	P374719	
		Metolachlor	0.48	U	ng/L	P374719	
		Metribuzin	0.71	U	ng/L	P374719	
		Mevinphos	0.48	UJ	ng/L	P374719	CCV
		Molinate	0.29	U	ng/L	P374719	
		Norflurazon	0.48	U	ng/L	P374719	
		Oxadiazon**	0.53		ng/L	P374719	
		Parathion Ethyl	0.24	U	ng/L	P374719	
		Parathion Methyl	0.52	U	ng/L	P374719	
		Pendimethalin	0.95	U	ng/L	P374719	
		Phorate	0.24	U	ng/L	P374719	
		Prodiamine**	0.17	U	ng/L	P374719	
		Prometon	13		ng/L	P374719	
		Prometryn	0.19	U	ng/L	P374719	
		Simazine	0.48	U	ng/L	P374719	
		Tebuconazole**	0.58	I	ng/L	P374719	RPD
		Terbufos	0.095	U	ng/L	P374719	

Field ID: G2CE0161

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138866	EPA 8270E	Terbutylazine	0.40	U	ng/L	P374719	
2138869	EPA 200.7 Rev. 4.4	Barium	11.2		ug/L	P374896	
		Calcium	25.5		mg/L	P374896	
		Iron	250		ug/L	P374896	
		Magnesium	3.43		mg/L	P374896	
		Potassium	1.8		mg/L	P374896	
		Sodium	13.5		mg/L	P374896	
		Zinc	5.0	U	ug/L	P374896	
	EPA 200.8 Rev. 5.4	Aluminum	81		ug/L	P374896	
		Antimony	0.13	I	ug/L	P374896	
		Arsenic	0.98		ug/L	P374896	
		Boron**	41.3		ug/L	P374896	
		Cadmium	0.020	U	ug/L	P374896	
		Chromium	0.43	I	ug/L	P374896	
		Copper	2.58		ug/L	P374896	
		Lead	0.20	U	ug/L	P374896	
		Nickel	0.50	U	ug/L	P374896	
		Selenium	0.20	U	ug/L	P374896	
		Silver	0.010	U	ug/L	P374896	
		Thallium	0.10	U	ug/L	P374896	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

Sample Location: Soldier Creek @ 150m Upstream of SR Hwy 419 Collection Date/Time: 11/21/2019 11:37

Field ID: G2CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138801	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P374748	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P375348	
		Sulfate	10		mg SO4/L	P375352	
	SM 2120 B	Color (true)	140		PCU	P374695	
	SM 2320 B-97	Total Alkalinity	69		mg CaCO3/L	P374990	
	SM 2540 C-97	TDS	148		mg/L	P375146	
	SM 2540 D-97	TSS	2	I	mg/L	P375130	
	SM 4500 F-C-97	Fluoride	0.092	I	mg F/L	P374995	
2138804	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P375095	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P375061	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P374760	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P375201	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P374919	
2138807	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P374717	
2138852	EPA 8321B	Aldicarb	0.020	U	ug/L	P374831	
		Aldicarb Sulfone	0.0020	U	ug/L	P374831	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P374831	
		Carbaryl	0.0020	U	ug/L	P374831	
		Carbofuran	0.0020	U	ug/L	P374831	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P374831	
		Methiocarb	0.0020	U	ug/L	P374831	
		Methomyl	0.0020	U	ug/L	P374831	
		Oxamyl	0.0020	U	ug/L	P374831	
		Propoxur	0.0020	U	ug/L	P374831	
		2,4-D	0.0029	I	ug/L	P374660	
		Acesulfame K**	0.10	U	ug/L	P374645	
2138855		AMPA**	0.16	I	ug/L	P374645	
		Sucralose**	1.6		ug/L	P374645	
		Acetaminophen**	0.0080	U	ug/L	P374660	
		Acetamiprid**	0.0020	U	ug/L	P374660	
		Endothall**	0.25	U	ug/L	P374645	
		Glufosinate**	0.10	U	ug/L	P374645	
		Glyphosate**	0.19	I	ug/L	P374645	
		Afidopyropen**	0.0020	UJ	ug/L	P374660	
		Bentazon	0.10		ug/L	P374660	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P374660	
		Carbamazepine**	0.0014	I	ug/L	P374660	
		Clothianidin**	0.0020	U	ug/L	P374660	
		Dinotefuran**	0.0020	U	ug/L	P374660	
		Diuron	0.0020	U	ug/L	P374660	
		Fenuron	0.016	U	ug/L	P374660	
		Fluridone**	0.014		ug/L	P374660	
		Imazapyr**	0.23		ug/L	P374660	

Field ID: G2CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138855	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P374660	MS
		Ibuprofen**	0.020	U	ug/L	P374660	
		Imidacloprid	0.0036	I	ug/L	P374660	
		Linuron	0.0040	U	ug/L	P374660	
		Mandestrobin**	0.0020	UJ	ug/L	P374660	
		MCP	0.0020	U	ug/L	P374660	
		Naproxen**	0.0080	U	ug/L	P374660	
		Primidone**	0.0046	I	ug/L	P374660	
		Pyraclostrobin**	0.0020	U	ug/L	P374660	
		Thiamethoxam**	0.0020	U	ug/L	P374660	
		Tolfenpyrad**	0.0020	U	ug/L	P374660	
		Triclopyr**	0.0040	U	ug/L	P374660	
2138864	EPA 8270E	Aldrin	4.3	U	ng/L	P374927	
		Alpha-BHC	2.1	U	ng/L	P374927	
		Alpha-Chlordane	1.1	U	ng/L	P374927	
		Beta-BHC	11	U	ng/L	P374927	
		Bifenthrin**	4.3	U	ng/L	P374927	
		Delta-BHC	8.6	U	ng/L	P374927	
		Gamma-BHC	8.6	U	ng/L	P374927	
		Carbophenothion	11	U	ng/L	P374927	
		Chlorothalonil	2.1	U	ng/L	P374927	
		Cis-Nonachlor**	1.1	U	ng/L	P374927	
		Cypermethrin	21	U	ng/L	P374927	
		DDD-p,p'	6.4	U	ng/L	P374927	
		DDE-p,p'	6.4	U	ng/L	P374927	
		DDT-p,p'	7.5	U	ng/L	P374927	
		Dicofol	32	U	ng/L	P374927	
		Dieldrin	4.3	U	ng/L	P374927	
		Endosulfan I	4.3	U	ng/L	P374927	
		Endosulfan II	4.3	U	ng/L	P374927	
		Endosulfan Sulfate	2.1	U	ng/L	P374927	
		Endrin	2.1	U	ng/L	P374927	
		Endrin Aldehyde	2.1	U	ng/L	P374927	
		Endrin Ketone	2.1	U	ng/L	P374927	
		Ethalfuralin**	3.2	U	ng/L	P374927	
		Gamma-Chlordane	1.1	U	ng/L	P374927	
		Heptachlor	1.6	U	ng/L	P374927	
		Heptachlor Epoxide	2.1	U	ng/L	P374927	
		Hexachlorobenzene	2.1	U	ng/L	P374927	
		Methoxychlor	4.3	U	ng/L	P374927	
		Mirex	2.1	U	ng/L	P374927	
		Permethrin	11	U	ng/L	P374927	
		Trans-Nonachlor**	1.1	U	ng/L	P374927	
		Trifluralin	2.7	U	ng/L	P374927	
	EPA 8276	Chlordane	14	I	ng/L	P374927	

Field ID: G2CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138864	EPA 8276	Toxaphene	32	U	ng/L	P374927	
2138867	EPA 8270E	Acetochlor	0.24	U	ng/L	P374719	
		Alachlor	0.24	U	ng/L	P374719	
		Ametryn	0.57	U	ng/L	P374719	
		Atrazine	44		ng/L	P374719	
		Atrazine Desethyl	3.6	I	ng/L	P374719	
		Azinphos Methyl	4.7	U	ng/L	P374719	
		Bromacil	0.47	U	ng/L	P374719	
		Butylate	0.38	U	ng/L	P374719	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P374719	
		Chlorpyrifos Methyl	0.095	U	ng/L	P374719	
		Cyanazine	3.1	U	ng/L	P374719	
		Demeton	6.6	U	ng/L	P374719	
		Diazinon	0.12	U	ng/L	P374719	
		Dimethenamid**	0.095	U	ng/L	P374719	RPD
		Disulfoton	0.47	U	ng/L	P374719	
		Dithiopyr**	0.20	I	ng/L	P374719	
		EPTC	1.2	U	ng/L	P374719	
		Ethion	0.14	U	ng/L	P374719	
		Ethoprop	0.095	U	ng/L	P374719	
		Fenamiphos	0.47	U	ng/L	P374719	
		Fipronil	0.24	U	ng/L	P374719	
		Fipronil Desulfinyl**	0.24	I	ng/L	P374719	
		Fipronil Sulfide	0.53	I	ng/L	P374719	
		Fipronil Sulfone	0.82		ng/L	P374719	
		Fonofos	0.19	U	ng/L	P374719	
		Hexazinone	0.47	U	ng/L	P374719	
		Malathion	0.33	U	ng/L	P374719	
		Metalaxyl	0.28	U	ng/L	P374719	
		Metolachlor	0.47	U	ng/L	P374719	
		Metribuzin	0.71	U	ng/L	P374719	
		Mevinphos	0.47	UJ	ng/L	P374719	CCV
		Molinate	0.28	U	ng/L	P374719	
		Norflurazon	0.47	U	ng/L	P374719	
		Oxadiazon**	0.54		ng/L	P374719	
		Parathion Ethyl	0.24	U	ng/L	P374719	
		Parathion Methyl	0.52	U	ng/L	P374719	
		Pendimethalin	0.95	U	ng/L	P374719	
		Phorate	0.24	U	ng/L	P374719	
		Prodiamine**	0.17	U	ng/L	P374719	
		Prometon	0.85	U	ng/L	P374719	
		Prometryn	0.19	U	ng/L	P374719	
		Simazine	0.47	U	ng/L	P374719	
		Tebuconazole**	0.47	U	ng/L	P374719	RPD
		Terbufos	0.095	U	ng/L	P374719	

Field ID: G2CE0071

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2138867	EPA 8270E	Terbutylazine	0.40	U	ng/L	P374719	
2138870	EPA 200.7 Rev. 4.4	Barium	9.9		ug/L	P374896	
		Calcium	28.2		mg/L	P374896	
		Iron	310		ug/L	P374896	
		Magnesium	3.98		mg/L	P374896	
		Potassium	1.8		mg/L	P374896	
		Sodium	14.5		mg/L	P374896	
		Zinc	5.0	U	ug/L	P374896	
	EPA 200.8 Rev. 5.4	Aluminum	220		ug/L	P374896	
		Antimony	0.074	I	ug/L	P374896	
		Arsenic	0.52		ug/L	P374896	
		Boron**	31.3		ug/L	P374896	
		Cadmium	0.020	U	ug/L	P374896	
		Chromium	0.46	I	ug/L	P374896	
		Copper	0.40	U	ug/L	P374896	
		Lead	0.20	U	ug/L	P374896	
		Nickel	0.50	U	ug/L	P374896	
		Selenium	0.20	U	ug/L	P374896	
		Silver	0.010	U	ug/L	P374896	
		Thallium	0.10	U	ug/L	P374896	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374748

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

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: P374896

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: P375348

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375352

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375095

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: P375061

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374760

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375201

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374714

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374717

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

Reference Method: EPA 8270E
Batch ID: P374719

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P374719

Component	Result	Code	Units
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
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
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8270E

Batch ID: P374927

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
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E
 Batch ID: P374927

Component	Result	Code	Units
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 8276
 Batch ID: P374927

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

Reference Method: EPA 8321B
 Batch ID: P374645

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

Reference Method: EPA 8321B
 Batch ID: P374660

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyrophen	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P374660

Component	Result	Code	Units
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: P374831

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

Reference Method: SM 2120 B
Batch ID: P374694

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P374695

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P374990

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

Reference Method: SM 2540 C-97
Batch ID: P375146

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P375130

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P374919

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: P374896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.8		P	85 - 115
Calcium	105		P	85 - 115
Iron	107		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	106		P	85 - 115
Sodium	106		P	85 - 115
Zinc	99.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	94.5		P	85 - 115
Antimony	99.5		P	85 - 115
Arsenic	101		P	85 - 115
Boron	103		P	85 - 115
Cadmium	95.5		P	85 - 115
Chromium	102		P	85 - 115
Copper	102		P	85 - 115
Lead	99.9		P	85 - 115
Nickel	102		P	85 - 115
Selenium	94.4		P	85 - 115
Silver	104		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375348

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375352

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375095

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375061

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P374760

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P375201

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P374714

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P374717

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	106		P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P374719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	89.4	92.5	P/P	69 - 122
Alachlor	87.9	90.7	P/P	71 - 120
Ametryn	91.4	94.4	P/P	47 - 138
Atrazine	113	116	P/P	74 - 124
Atrazine Desethyl	121	119	P/P	38 - 138
Azinphos Methyl	103	110	P/P	69 - 154
Bromacil	83.3	86.1	P/P	39 - 121
Butylate	68.2	67.9	P/P	27 - 87.0
Chlorpyrifos Ethyl	98.3	102	P/P	69 - 118
Chlorpyrifos Methyl	103	108	P/P	70 - 120
Cyanazine	167	160	P/P	20 - 250
Demeton	90.9	93.3	P/P	39 - 118
Diazinon	98.7	101	P/P	68 - 127
Dimethenamid	85.7	88.7	P/P	66 - 125
Disulfoton	102	108	P/P	52 - 126
Dithiopyr	80.7	83.9	P/P	67 - 127
EPTC	71.0	72.9	P/P	24 - 88.0
Ethion	103	105	P/P	51 - 132
Ethoprop	112	114	P/P	58 - 117
Fenamiphos	59.2	62.4	P/P	38 - 139
Fipronil	75.4	77.8	P/P	61 - 124
Fipronil Desulfinyl	87.8	88.3	P/P	47 - 120
Fipronil Sulfide	96.0	98.8	P/P	56 - 119
Fipronil Sulfone	93.7	95.8	P/P	50 - 117
Fonofos	98.3	103	P/P	60 - 121
Hexazinone	105	106	P/P	55 - 137
Malathion	99.2	99.8	P/P	66 - 126
Metalaxyl	60.5	63.9	P/P	33 - 140

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P374719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	87.9	91.4	P/P	69 - 119
Metribuzin	234	237	P/P	31 - 238
Mevinphos	72.5	63.8	P/P	42 - 113
Molinate	83.7	86.1	P/P	32 - 96.0
Norflurazon	90.4	93.4	P/P	54 - 123
Oxadiazon	82.7	86.0	P/P	63 - 128
Parathion Ethyl	103	108	P/P	72 - 111
Parathion Methyl	117	118	P/P	74 - 126
Pendimethalin	94.4	96.6	P/P	61 - 131
Phorate	104	106	P/P	51 - 115
Prodiamine	98.3	96.8	P/P	38 - 144
Prometon	83.9	78.8	P/P	54 - 119
Prometryn	88.3	88.8	P/P	63 - 120
Simazine	114	117	P/P	75 - 126
Tebuconazole	32.5	32.3	P/P	20 - 119
Terbufos	102	106	P/P	64 - 116
Terbutylazine	99.4	102	P/P	73 - 117

Reference Method: EPA 8270E

Batch ID: P374927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.5	53.6	P/P	20 - 93.0
Alpha-BHC	90.9	86.9	P/P	55 - 133
Alpha-Chlordane	86.2	85.6	P/P	58 - 112
Beta-BHC	116	111	P/P	54 - 168
Bifenthrin	96.9	95.4	P/P	30 - 134
Carbophenothion	50.8	49.3	P/P	26 - 147
Chlorothalonil	124	124	P/P	20 - 155
Cis-Nonachlor	85.5	85.0	P/P	54 - 115
Cypermethrin	99.7	103	P/P	40 - 137
DDD-p,p'	96.2	95.8	P/P	65 - 129
DDE-p,p'	83.3	81.9	P/P	57 - 116
DDT-p,p'	91.1	91.3	P/P	53 - 133
Delta-BHC	124	113	P/P	59 - 178
Dicofol	104	98.0	P/P	24 - 138
Dieldrin	84.7	87.6	P/P	60 - 120
Endosulfan I	87.7	88.6	P/P	64 - 118
Endosulfan II	95.2	95.6	P/P	58 - 142
Endosulfan Sulfate	121	118	P/P	60 - 127
Endrin	105	105	P/P	59 - 122
Endrin Aldehyde	88.1	87.2	P/P	49 - 132
Endrin Ketone	109	113	P/P	64 - 121
Ethalfuralin	75.9	80.7	P/P	60 - 126
Gamma-BHC	119	113	P/P	57 - 154
Gamma-Chlordane	82.5	82.0	P/P	56 - 110
Heptachlor	89.3	90.8	P/P	46 - 96.0
Heptachlor Epoxide	87.6	87.3	P/P	61 - 112
Hexachlorobenzene	74.7	72.6	P/P	44 - 98.0
Methoxychlor	107	108	P/P	63 - 134
Mirex	85.2	81.8	P/P	45 - 100
Permethrin	86.9	87.7	P/P	53 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P374927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trans-Nonachlor	84.2	84.2	P/P	47 - 110
Trifluralin	80.9	81.2	P/P	39 - 142

Reference Method: EPA 8276

Batch ID: P374927

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	87.6	88.0	P/P	43 - 128
Toxaphene	78.7	80.7	P/P	38 - 140

Reference Method: EPA 8321B

Batch ID: P374645

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	85.7		P	40 - 150
AMPA	105		P	40 - 150
Endothall	97.6		P	40 - 150
Glufosinate	122		P	40 - 150
Glyphosate	117		P	40 - 140
Sucralose	120		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P374660

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	138		P	40 - 160
Acetaminophen	80.8		P	30 - 160
Acetamiprid	91.2		P	40 - 160
Afidopyropen	90.4		P	40 - 160
Bentazon	78.4		P	30 - 160
Benzovindiflupyr	75.7		P	40 - 160
Carbamazepine	93.4		P	40 - 160
Clothianidin	98.8		P	40 - 160
Dinotefuran	91.9		P	40 - 160
Diuron	84.0		P	40 - 160
Fenuron	104		P	40 - 160
Fluridone	89.6		P	40 - 160
Hydrocodone	87.5		P	40 - 160
Ibuprofen	75.5		P	30 - 160
Imazapyr	88.8		P	40 - 160
Imidacloprid	104		P	40 - 160
Linuron	75.6		P	40 - 160
Mandestrobin	84.3		P	40 - 160
MCPP	141		P	40 - 160
Naproxen	91.4		P	40 - 160
Primidone	82.7		P	40 - 160
Pyraclostrobin	78.3		P	30 - 160
Thiamethoxam	98.7		P	40 - 160
Tolfenpyrad	54.9		P	40 - 160
Triclopyr	91.8		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P374831

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	93.4		P	40 - 160
Aldicarb	85.8		P	30 - 160
Aldicarb Sulfone	108		P	40 - 160
Aldicarb Sulfoxide	108		P	40 - 160
Carbaryl	75.3		P	40 - 160
Carbofuran	71.8		P	40 - 160
Methiocarb	70.0		P	40 - 160
Methomyl	92.1		P	40 - 160
Oxamyl	107		P	40 - 160
Propoxur	74.8		P	40 - 160

Reference Method: SM 2120 B
Batch ID: P374694

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P374695

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.4		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P374990

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

Reference Method: SM 4500 F-C-97
Batch ID: P374995

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

Reference Method: SM 5310 B-00
Batch ID: P374919

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138868	Barium	96.8	97.0	P/P	80 - 120
2138868	Calcium	103		P	80 - 120
2138868	Iron	104	105	P/P	80 - 120
2138868	Magnesium	99.8	101	P/P	80 - 120
2138868	Potassium	99.5	102	P/P	80 - 120
2138868	Sodium	103		P	80 - 120
2138868	Zinc	97.9	98.3	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138868	Aluminum	93.4	93.4	P/P	80 - 120
2138868	Antimony	100	99.8	P/P	80 - 120
2138868	Arsenic	99.8	98.7	P/P	80 - 120
2138868	Boron	103	103	P/P	80 - 120
2138868	Cadmium	96.3	95.7	P/P	80 - 120
2138868	Chromium	103	102	P/P	80 - 120
2138868	Copper	98.5	97.3	P/P	80 - 120
2138868	Lead	101	101	P/P	80 - 120
2138868	Nickel	98.5	97.9	P/P	80 - 120
2138868	Selenium	89.8	88.2	P/P	80 - 120
2138868	Silver	102	98.9	P/P	80 - 120
2138868	Thallium	108	106	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375348

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138562	Chloride	102		P	90 - 110
2138799	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138562	Sulfate	102		P	90 - 110
2138799	Sulfate	99.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138802	Ammonia-N	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138788	Kjeldahl Nitrogen	94.7	104	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P374760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138802	NO2NO3-N	98.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P375201

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138708	Total-P	106	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P374714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138704	O-Phosphate-P	95.7	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P374717

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138806	O-Phosphate-P	99.0	99.5	P/P	90 - 110

Reference Method: EPA 8270E
 Batch ID: P374719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137172	Acetochlor	99.4	104	P/P	63 - 129
2137172	Alachlor	99.5	96.0	P/P	65 - 127
2137172	Ametryn	150	119	P/P	40 - 164
2137172	Atrazine Desethyl	112	109	P/P	14 - 157
2137172	Azinphos Methyl	109	113	P/P	49 - 180
2137172	Bromacil	73.9	80.0	P/P	48 - 130
2137172	Butylate	60.2	62.2	P/P	10 - 94.0
2137172	Chlorpyrifos Ethyl	95.2	82.4	P/P	58 - 123
2137172	Chlorpyrifos Methyl	88.7	94.1	P/P	58 - 125
2137172	Cyanazine	129	150	P/P	24 - 253
2137172	Demeton	93.1	93.3	P/P	25 - 149
2137172	Diazinon	113	117	P/P	59 - 144
2137172	Dimethenamid	51.4	76.8	P/P	46 - 139
2137172	Disulfoton	110	112	P/P	54 - 132
2137172	Dithiopyr	77.8	80.1	P/P	64 - 130
2137172	EPTC	63.5	61.1	P/P	10 - 92.0
2137172	Ethion	80.0	97.4	P/P	30 - 148
2137172	Ethoprop	79.5	76.7	P/P	50 - 130
2137172	Fenamiphos	85.1	83.6	P/P	49 - 142
2137172	Fipronil	90.8	101	P/P	46 - 140
2137172	Fipronil Desulfinyl	89.3	96.8	P/P	30 - 121
2137172	Fipronil Sulfide	85.4	97.7	P/P	31 - 136
2137172	Fipronil Sulfone	76.6	79.9	P/P	16 - 136
2137172	Fonofos	116	119	P/P	55 - 129
2137172	Hexazinone	106	115	P/P	56 - 141
2137172	Malathion	91.9	92.9	P/P	56 - 135
2137172	Metalaxyl	105	109	P/P	54 - 135
2137172	Metolachlor	88.2	93.8	P/P	51 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P374719

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2137172	Metribuzin	232	226	P/P	45 - 254
2137172	Mevinphos	114	105	P/P	33 - 131
2137172	Molinate	75.1	78.0	P/P	14 - 98.0
2137172	Norflurazon	78.5	88.6	P/P	34 - 136
2137172	Parathion Ethyl	94.4	97.5	P/P	66 - 118
2137172	Parathion Methyl	112	114	P/P	64 - 136
2137172	Pendimethalin	90.5	98.1	P/P	59 - 144
2137172	Phorate	114	112	P/P	42 - 130
2137172	Prodiamine	44.2	47.0	P/P	42 - 148
2137172	Prometon	91.6	114	P/P	59 - 134
2137172	Prometryn	99.8	98.7	P/P	54 - 135
2137172	Simazine	128	120	P/P	53 - 156
2137172	Tebuconazole	18.3	32.0	P/P	10 - 131
2137172	Terbufos	123	119	P/P	57 - 131
2137172	Terbutylazine	100	104	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P374927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139010	Aldrin	54.3	53.7	P/P	25 - 92.0
2139010	Alpha-BHC	95.4	92.3	P/P	48 - 150
2139010	Alpha-Chlordane	82.0	80.9	P/P	50 - 115
2139010	Beta-BHC	105	114	P/P	39 - 184
2139010	Bifenthrin	99.7	97.6	P/P	46 - 116
2139010	Carbophenothion	69.2	68.9	P/P	27 - 180
2139010	Chlorothalonil	145	150	P/P	10 - 216
2139010	Cis-Nonachlor	80.9	81.5	P/P	55 - 112
2139010	Cypermethrin	115	109	P/P	40 - 153
2139010	DDD-p,p'	89.8	90.1	P/P	53 - 128
2139010	DDE-p,p'	76.9	76.0	P/P	48 - 116
2139010	DDT-p,p'	89.3	88.1	P/P	47 - 128
2139010	Delta-BHC	128	130	P/P	48 - 221
2139010	Dicofol	101	113	P/P	10 - 147
2139010	Dieldrin	95.5	95.8	P/P	48 - 128
2139010	Endosulfan I	84.8	84.9	P/P	58 - 126
2139010	Endosulfan II	97.5	95.2	P/P	50 - 150
2139010	Endosulfan Sulfate	121	126	P/P	56 - 130
2139010	Endrin	105	106	P/P	50 - 126
2139010	Endrin Aldehyde	80.3	79.3	P/P	12 - 145
2139010	Endrin Ketone	113	113	P/P	59 - 132
2139010	Ethalfuralin	77.2	81.2	P/P	65 - 122
2139010	Gamma-BHC	133	122	P/P	40 - 190
2139010	Gamma-Chlordane	80.2	80.3	P/P	50 - 112
2139010	Heptachlor	87.7	87.0	P/P	41 - 98.0
2139010	Heptachlor Epoxide	92.2	92.2	P/P	55 - 117
2139010	Hexachlorobenzene	69.3	70.3	P/P	47 - 91.0
2139010	Methoxychlor	104	104	P/P	55 - 133
2139010	Mirex	83.5	84.8	P/P	44 - 101
2139010	Permethrin	99.7	91.1	P/P	52 - 124
2139010	Trans-Nonachlor	80.4	80.0	P/P	53 - 99.0
2139010	Trifluralin	80.0	80.5	P/P	10 - 201

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P374927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138863	Chlordane	84.9	78.2	P/P	34 - 136
2138863	Toxaphene	80.4	77.8	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P374645

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138834	Acesulfame K	90.8	89.6	P/P	40 - 150
2138834	AMPA	73.7	73.1	P/P	40 - 150
2138834	Endothall	112	102	P/P	40 - 150
2138834	Glufosinate	80.1	95.7	P/P	40 - 150
2138834	Glyphosate	66.7	66.5	P/P	40 - 140
2138834	Sucralose	90.5	72.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P374660

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138468	2,4-D	138	135	P/P	40 - 160
2138468	Acetaminophen	87.0	84.1	P/P	30 - 160
2138468	Acetamiprid	106	106	P/P	40 - 160
2138468	Afidopyropen	95.6	106	P/P	40 - 160
2138468	Bentazon	57.2	56.6	P/P	30 - 160
2138468	Benzovindiflupyr	78.1	79.9	P/P	40 - 160
2138468	Carbamazepine	85.7	86.7	P/P	40 - 160
2138468	Clothianidin	111	105	P/P	40 - 160
2138468	Dinotefuran	118	118	P/P	40 - 160
2138468	Diuron	70.7	74.0	P/P	40 - 160
2138468	Fenuron	99.5	97.8	P/P	40 - 160
2138468	Fluridone	89.1	90.8	P/P	40 - 160
2138468	Hydrocodone	107	106	P/P	40 - 160
2138468	Ibuprofen	78.8	72.1	P/P	30 - 160
2138468	Imazapyr	93.3	102	P/P	40 - 160
2138468	Imidacloprid	175	171	F/F	40 - 160
2138468	Linuron	75.9	71.4	P/P	40 - 160
2138468	Mandestrobin	88.5	88.0	P/P	40 - 160
2138468	MCP	137	138	P/P	40 - 160
2138468	Naproxen	81.9	88.6	P/P	40 - 160
2138468	Primidone	94.4	86.0	P/P	40 - 160
2138468	Pyraclostrobin	89.0	84.8	P/P	30 - 160
2138468	Thiamethoxam	144	144	P/P	40 - 160
2138468	Tolfenpyrad	61.3	59.2	P/P	40 - 160
2138468	Triclopyr	110	106	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P374831

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138850	3-Hydroxycarbofuran	99.3	93.6	P/P	40 - 160
2138850	Aldicarb	79.5	73.1	P/P	30 - 160
2138850	Aldicarb Sulfone	103	106	P/P	40 - 160
2138850	Aldicarb Sulfoxide	49.1	47.1	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P374831

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138850	Carbaryl	65.1	65.5	P/P	40 - 160
2138850	Carbofuran	59.7	61.6	P/P	40 - 160
2138850	Methiocarb	54.9	54.7	P/P	40 - 160
2138850	Methomyl	76.5	80.5	P/P	40 - 160
2138850	Oxamyl	92.9	93.4	P/P	40 - 160
2138850	Propoxur	64.7	62.4	P/P	40 - 160

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2139054	Fluoride	97.0	97.5	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P374919

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2138789	Organic Carbon	98.5	96.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P374748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138995	Turbidity	11.1	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P374896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138868	Barium	0.292	Spike	P	0 - 20
2138868	Calcium	0.306	Spike	P	0 - 20
2138868	Iron	1.08	Spike	P	0 - 20
2138868	Magnesium	0.579	Spike	P	0 - 20
2138868	Potassium	1.33	Spike	P	0 - 20
2138868	Sodium	0.975	Spike	P	0 - 20
2138868	Zinc	0.480	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P374896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138868	Aluminum	0.0816	Spike	P	0 - 20
2138868	Antimony	0.210	Spike	P	0 - 20
2138868	Arsenic	1.07	Spike	P	0 - 20
2138868	Boron	0.540	Spike	P	0 - 20
2138868	Cadmium	0.634	Spike	P	0 - 20
2138868	Chromium	1.04	Spike	P	0 - 20
2138868	Copper	1.15	Spike	P	0 - 20
2138868	Lead	0.0151	Spike	P	0 - 20
2138868	Nickel	0.587	Spike	P	0 - 20
2138868	Selenium	1.81	Spike	P	0 - 20
2138868	Silver	2.83	Spike	P	0 - 20
2138868	Thallium	1.63	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375348

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138799	Chloride	0.843	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P375352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138799	Sulfate	0.678	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P375095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138802	Ammonia-N	0.666	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138788	Kjeldahl Nitrogen	7.33	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P374760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138802	NO2NO3-N	0.238	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375201

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138708	Total-P	1.16	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138704	O-Phosphate-P	0.890	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P374717

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138806	O-Phosphate-P	0.367	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P374719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137172	Acetochlor	5.02	Spike	P	0 - 30
2137172	Alachlor	3.56	Spike	P	0 - 30
2137172	Ametryn	17.0	Spike	P	0 - 30
2137172	Atrazine	0.998	Spike	P	0 - 30
2137172	Atrazine Desethyl	2.06	Spike	P	0 - 30
2137172	Azinphos Methyl	3.38	Spike	P	0 - 30
2137172	Bromacil	7.97	Spike	P	0 - 30
2137172	Butylate	3.19	Spike	P	0 - 30
2137172	Chlorpyrifos Ethyl	14.4	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P374719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2137172	Chlorpyrifos Methyl	5.83	Spike	P	0 - 30
2137172	Cyanazine	15.2	Spike	P	0 - 30
2137172	Demeton	0.278	Spike	P	0 - 30
2137172	Diazinon	3.31	Spike	P	0 - 30
2137172	Dimethenamid	39.5	Spike	F	0 - 30
2137172	Disulfoton	2.03	Spike	P	0 - 30
2137172	Dithiopyr	2.77	Spike	P	0 - 30
2137172	EPTC	3.88	Spike	P	0 - 30
2137172	Ethion	19.6	Spike	P	0 - 30
2137172	Ethoprop	3.57	Spike	P	0 - 30
2137172	Fenamiphos	1.75	Spike	P	0 - 30
2137172	Fipronil	9.81	Spike	P	0 - 30
2137172	Fipronil Desulfinyl	7.14	Spike	P	0 - 30
2137172	Fipronil Sulfide	9.58	Spike	P	0 - 30
2137172	Fipronil Sulfone	2.68	Spike	P	0 - 30
2137172	Fonofos	2.09	Spike	P	0 - 30
2137172	Hexazinone	5.56	Spike	P	0 - 30
2137172	Malathion	1.10	Spike	P	0 - 30
2137172	Metalaxyl	4.10	Spike	P	0 - 30
2137172	Metolachlor	6.16	Spike	P	0 - 30
2137172	Metribuzin	2.42	Spike	P	0 - 30
2137172	Mevinphos	7.74	Spike	P	0 - 30
2137172	Molinate	3.69	Spike	P	0 - 30
2137172	Norflurazon	12.1	Spike	P	0 - 30
2137172	Oxadiazon	1.82	Spike	P	0 - 30
2137172	Parathion Ethyl	3.19	Spike	P	0 - 30
2137172	Parathion Methyl	2.11	Spike	P	0 - 30
2137172	Pendimethalin	8.10	Spike	P	0 - 30
2137172	Phorate	2.13	Spike	P	0 - 30
2137172	Prodiamine	6.15	Spike	P	0 - 30
2137172	Prometon	15.4	Spike	P	0 - 30
2137172	Prometryn	1.16	Spike	P	0 - 30
2137172	Simazine	6.39	Spike	P	0 - 30
2137172	Tebuconazole	54.5	Spike	F	0 - 30
2137172	Terbufos	3.35	Spike	P	0 - 30
2137172	Terbuthylazine	3.97	Spike	P	0 - 30
LFB	Acetochlor	3.39	LCS	P	0 - 30
LFB	Alachlor	3.14	LCS	P	0 - 30
LFB	Ametryn	3.23	LCS	P	0 - 30
LFB	Atrazine	2.42	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.87	LCS	P	0 - 30
LFB	Azinphos Methyl	6.25	LCS	P	0 - 30
LFB	Bromacil	3.31	LCS	P	0 - 30
LFB	Butylate	0.420	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.53	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.17	LCS	P	0 - 30
LFB	Cyanazine	4.33	LCS	P	0 - 30
LFB	Demeton	2.65	LCS	P	0 - 30
LFB	Diazinon	2.34	LCS	P	0 - 30
LFB	Dimethenamid	3.41	LCS	P	0 - 30
LFB	Disulfoton	4.90	LCS	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P374719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	3.92	LCS	P	0 - 30
LFB	EPTC	2.63	LCS	P	0 - 30
LFB	Ethion	2.56	LCS	P	0 - 30
LFB	Ethoprop	2.05	LCS	P	0 - 30
LFB	Fenamiphos	5.20	LCS	P	0 - 30
LFB	Fipronil	3.04	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.551	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.87	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.24	LCS	P	0 - 30
LFB	Fonofos	4.97	LCS	P	0 - 30
LFB	Hexazinone	0.892	LCS	P	0 - 30
LFB	Malathion	0.678	LCS	P	0 - 30
LFB	Metaxyl	5.49	LCS	P	0 - 30
LFB	Metolachlor	3.94	LCS	P	0 - 30
LFB	Metribuzin	1.35	LCS	P	0 - 30
LFB	Mevinphos	12.7	LCS	P	0 - 30
LFB	Molinate	2.78	LCS	P	0 - 30
LFB	Norflurazon	3.21	LCS	P	0 - 30
LFB	Oxadiazon	3.91	LCS	P	0 - 30
LFB	Parathion Ethyl	4.38	LCS	P	0 - 30
LFB	Parathion Methyl	1.42	LCS	P	0 - 30
LFB	Pendimethalin	2.32	LCS	P	0 - 30
LFB	Phorate	1.75	LCS	P	0 - 30
LFB	Prodiamine	1.54	LCS	P	0 - 30
LFB	Prometon	6.26	LCS	P	0 - 30
LFB	Prometryn	0.500	LCS	P	0 - 30
LFB	Simazine	2.49	LCS	P	0 - 30
LFB	Tebuconazole	0.698	LCS	P	0 - 30
LFB	Terbufos	3.85	LCS	P	0 - 30
LFB	Terbutylazine	2.79	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P374927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139010	Aldrin	1.09	Spike	P	0 - 30
2139010	Alpha-BHC	3.32	Spike	P	0 - 30
2139010	Alpha-Chlordane	1.39	Spike	P	0 - 30
2139010	Beta-BHC	8.52	Spike	P	0 - 30
2139010	Bifenthrin	2.09	Spike	P	0 - 30
2139010	Carbophenothion	0.411	Spike	P	0 - 30
2139010	Chlorothalonil	3.76	Spike	P	0 - 30
2139010	Cis-Nonachlor	0.739	Spike	P	0 - 30
2139010	Cypermethrin	5.56	Spike	P	0 - 30
2139010	DDD-p,p'	0.347	Spike	P	0 - 30
2139010	DDE-p,p'	1.21	Spike	P	0 - 30
2139010	DDT-p,p'	1.43	Spike	P	0 - 30
2139010	Delta-BHC	1.53	Spike	P	0 - 30
2139010	Dicofol	10.6	Spike	P	0 - 30
2139010	Dieldrin	0.251	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P374927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139010	Endosulfan I	0.185	Spike	P	0 - 30
2139010	Endosulfan II	2.44	Spike	P	0 - 30
2139010	Endosulfan Sulfate	3.97	Spike	P	0 - 30
2139010	Endrin	0.879	Spike	P	0 - 30
2139010	Endrin Aldehyde	1.25	Spike	P	0 - 30
2139010	Endrin Ketone	0.0999	Spike	P	0 - 30
2139010	Ethalfuralin	5.10	Spike	P	0 - 30
2139010	Gamma-BHC	9.09	Spike	P	0 - 30
2139010	Gamma-Chlordane	0.0987	Spike	P	0 - 30
2139010	Heptachlor	0.736	Spike	P	0 - 30
2139010	Heptachlor Epoxide	0.00181	Spike	P	0 - 30
2139010	Hexachlorobenzene	1.35	Spike	P	0 - 30
2139010	Methoxychlor	0.459	Spike	P	0 - 30
2139010	Mirex	1.57	Spike	P	0 - 30
2139010	Permethrin	9.00	Spike	P	0 - 30
2139010	Trans-Nonachlor	0.538	Spike	P	0 - 30
2139010	Trifluralin	0.573	Spike	P	0 - 30
LFB	Aldrin	1.63	LCS	P	0 - 30
LFB	Alpha-BHC	4.43	LCS	P	0 - 30
LFB	Alpha-Chlordane	0.783	LCS	P	0 - 30
LFB	Beta-BHC	5.12	LCS	P	0 - 30
LFB	Bifenthrin	1.60	LCS	P	0 - 30
LFB	Carbophenothion	3.05	LCS	P	0 - 30
LFB	Chlorothalonil	0.269	LCS	P	0 - 30
LFB	Cis-Nonachlor	0.525	LCS	P	0 - 30
LFB	Cypermethrin	2.91	LCS	P	0 - 30
LFB	DDD-p,p'	0.384	LCS	P	0 - 30
LFB	DDE-p,p'	1.70	LCS	P	0 - 30
LFB	DDT-p,p'	0.245	LCS	P	0 - 30
LFB	Delta-BHC	9.33	LCS	P	0 - 30
LFB	Dicofol	5.58	LCS	P	0 - 30
LFB	Dieldrin	3.35	LCS	P	0 - 30
LFB	Endosulfan I	1.05	LCS	P	0 - 30
LFB	Endosulfan II	0.381	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.46	LCS	P	0 - 30
LFB	Endrin	0.0153	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.03	LCS	P	0 - 30
LFB	Endrin Ketone	3.92	LCS	P	0 - 30
LFB	Ethalfuralin	6.14	LCS	P	0 - 30
LFB	Gamma-BHC	5.66	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.650	LCS	P	0 - 30
LFB	Heptachlor	1.72	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.323	LCS	P	0 - 30
LFB	Hexachlorobenzene	2.91	LCS	P	0 - 30
LFB	Methoxychlor	1.01	LCS	P	0 - 30
LFB	Mirex	4.02	LCS	P	0 - 30
LFB	Permethrin	0.949	LCS	P	0 - 30
LFB	Trans-Nonachlor	0.103	LCS	P	0 - 30
LFB	Trifluralin	0.300	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P374927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138863	Chlordane	8.24	Spike	P	0 - 30
2138863	Toxaphene	3.29	Spike	P	0 - 30
LFB	Chlordane	0.418	LCS	P	0 - 30
LFB	Toxaphene	2.60	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374645

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138834	Acesulfame K	1.39	Spike	P	0 - 30
2138834	AMPA	0.347	Spike	P	0 - 30
2138834	Endothall	9.05	Spike	P	0 - 30
2138834	Glufosinate	17.8	Spike	P	0 - 30
2138834	Glyphosate	0.124	Spike	P	0 - 30
2138834	Sucralose	21.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P374660

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138468	2,4-D	1.67	Spike	P	0 - 30
2138468	Acetaminophen	3.41	Spike	P	0 - 30
2138468	Acetamiprid	0.00425	Spike	P	0 - 30
2138468	Afidopyropen	10.7	Spike	P	0 - 30
2138468	Bentazon	1.17	Spike	P	0 - 30
2138468	Benzovindiflupyr	2.25	Spike	P	0 - 30
2138468	Carbamazepine	1.21	Spike	P	0 - 30
2138468	Clothianidin	5.34	Spike	P	0 - 30
2138468	Dinotefuran	0.0224	Spike	P	0 - 30
2138468	Diuron	4.53	Spike	P	0 - 30
2138468	Fenuron	1.71	Spike	P	0 - 30
2138468	Fluridone	1.51	Spike	P	0 - 30
2138468	Hydrocodone	1.21	Spike	P	0 - 30
2138468	Ibuprofen	8.87	Spike	P	0 - 30
2138468	Imazapyr	8.49	Spike	P	0 - 30
2138468	Imidacloprid	2.58	Spike	P	0 - 30
2138468	Linuron	6.09	Spike	P	0 - 30
2138468	Mandestrobin	0.510	Spike	P	0 - 30
2138468	MCPP	0.532	Spike	P	0 - 30
2138468	Naproxen	7.96	Spike	P	0 - 30
2138468	Primidone	9.37	Spike	P	0 - 30
2138468	Pyraclostrobin	4.86	Spike	P	0 - 30
2138468	Thiamethoxam	0.0524	Spike	P	0 - 30
2138468	Tolfenpyrad	3.38	Spike	P	0 - 30
2138468	Triclopyr	3.44	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P374831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138850	3-Hydroxycarbofuran	5.96	Spike	P	0 - 30
2138850	Aldicarb	8.40	Spike	P	0 - 30
2138850	Aldicarb Sulfone	2.94	Spike	P	0 - 30
2138850	Aldicarb Sulfoxide	4.19	Spike	P	0 - 30
2138850	Carbaryl	0.560	Spike	P	0 - 30
2138850	Carbofuran	3.13	Spike	P	0 - 30
2138850	Methiocarb	0.300	Spike	P	0 - 30
2138850	Methomyl	5.14	Spike	P	0 - 30
2138850	Oxamyl	0.589	Spike	P	0 - 30
2138850	Propoxur	3.61	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P374694

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138799	Color (true)	2.40	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P374695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138999	Color (true)	0.118	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P374990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139054	Total Alkalinity	1.15	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P375146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138787	TDS	5.61	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P374995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2139054	Fluoride	0.484	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P374919

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

Reference Method: SM 5310 B-00
Batch ID: P374919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2138789	Organic Carbon	1.49	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2138850
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	66.6	P	30 - 160

Lab Sample ID: 2138851
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	63.8	P	30 - 160

Lab Sample ID: 2138852
Field Sample ID: G2CE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	59.1	P	30 - 160

Lab Sample ID: 2138853
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	158	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	110	P	30 - 160
EPA 8321B	Diuron-d6	105	P	30 - 160
EPA 8321B	Endothall-d6	120	P	30 - 160
EPA 8321B	Endothall-d6	120	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	106	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	30 - 160
EPA 8321B	Sucralose-d6	116	P	30 - 160

Lab Sample ID: 2138854
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	84.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.3	P	30 - 160
EPA 8321B	Diuron-d6	80.6	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Endothall-d6	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.4	P	30 - 160
EPA 8321B	Primidone-d5	88.8	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160
EPA 8321B	Sucralose-d6	138	P	30 - 160

Lab Sample ID: 2138855
Field Sample ID: G2CE0071

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

Lab Sample ID: 2138855
Field Sample ID: G2CE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	134	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.7	P	30 - 160
EPA 8321B	Diuron-d6	71.3	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.3	P	30 - 160
EPA 8321B	Primidone-d5	89.8	P	30 - 160
EPA 8321B	Sucralose-d6	145	P	30 - 160
EPA 8321B	Sucralose-d6	145	P	30 - 160

Lab Sample ID: 2138856
Field Sample ID: G2CE0088

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	78.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	72.2	P	30 - 160
EPA 8321B	Endothall-d6	140	P	30 - 160
EPA 8321B	Endothall-d6	140	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.9	P	30 - 160
EPA 8321B	Primidone-d5	75.8	P	30 - 160
EPA 8321B	Sucralose-d6	133	P	30 - 160
EPA 8321B	Sucralose-d6	133	P	30 - 160

Lab Sample ID: 2138857
Field Sample ID: G2CE0182

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	148	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.2	P	30 - 160
EPA 8321B	Diuron-d6	80.3	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	106	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.8	P	30 - 160
EPA 8321B	Primidone-d5	91.7	P	30 - 160
EPA 8321B	Sucralose-d6	130	P	30 - 160
EPA 8321B	Sucralose-d6	130	P	30 - 160

Lab Sample ID: 2138858
Field Sample ID: G2CE0069

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	158	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.9	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2138858
Field Sample ID: G2CE0069

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	86.8	P	30 - 160
EPA 8321B	Diuron-d6	78.5	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	99.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.6	P	30 - 160
EPA 8321B	Primidone-d5	94.9	P	30 - 160
EPA 8321B	Sucralose-d6	137	P	30 - 160
EPA 8321B	Sucralose-d6	137	P	30 - 160

Lab Sample ID: 2138859
Field Sample ID: G2CE0203

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	146	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.1	P	30 - 160
EPA 8321B	Diuron-d6	82.1	P	30 - 160
EPA 8321B	Endothall-d6	98.7	P	30 - 160
EPA 8321B	Endothall-d6	98.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	50.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	50.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	88.2	P	30 - 160
EPA 8321B	Primidone-d5	95.3	P	30 - 160
EPA 8321B	Sucralose-d6	136	P	30 - 160
EPA 8321B	Sucralose-d6	136	P	30 - 160

Lab Sample ID: 2138860
Field Sample ID: G2CE0123

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	146	P	30 - 160
EPA 8321B	Acetaminophen-d4	100	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.5	P	30 - 160
EPA 8321B	Diuron-d6	82.0	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	52.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.5	P	30 - 160
EPA 8321B	Primidone-d5	96.3	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160
EPA 8321B	Sucralose-d6	121	P	30 - 160

Lab Sample ID: 2138862
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.2	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	49.4	P	35 - 106
EPA 8276	Decachlorobiphenyl	72.3	P	30 - 103

Quality Assurance Report Surrogates

Lab Sample ID: 2138862
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	PCNB	84.3	P	37 - 143

Lab Sample ID: 2138863
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	91.3	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	53.6	P	35 - 106
EPA 8276	Decachlorobiphenyl	83.3	P	30 - 103
EPA 8276	PCNB	108	P	37 - 143

Lab Sample ID: 2138864
Field Sample ID: G2CE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	105	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	53.9	P	35 - 106
EPA 8276	Decachlorobiphenyl	85.1	P	30 - 103
EPA 8276	PCNB	113	P	37 - 143

Lab Sample ID: 2138865
Field Sample ID: G2CE0138

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	111	P	68 - 130
EPA 8270E	Terbufos-d10	112	P	61 - 136

Lab Sample ID: 2138866
Field Sample ID: G2CE0161

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	103	P	68 - 130
EPA 8270E	Terbufos-d10	108	P	61 - 136

Lab Sample ID: 2138867
Field Sample ID: G2CE0071

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	123	P	68 - 130
EPA 8270E	Terbufos-d10	127	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A95913

Included Lab Sample IDs: 2138799, 2138800, 2138801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.5	99.2	P/P	90 - 115
Color (true)	99.2	100	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A95916

Included Lab Sample IDs: 2138805, 2138806, 2138807

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	93.3	94.9	P/P	90 - 110
O-Phosphate-P	94.0	93.1	P/P	90 - 110
O-Phosphate-P	94.9	93.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A95930

Included Lab Sample IDs: 2138799, 2138800, 2138801

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A95937

Included Lab Sample IDs: 2138802, 2138803, 2138804

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

Reference Method: EPA 8321B

Run ID: A95944

Included Lab Sample IDs: 2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	108	P/P	60 - 160
AMPA	108	102	P/P	60 - 160
AMPA	99.8	95.4	P/P	60 - 160
Glufosinate	105	131	P/P	60 - 160
Glufosinate	118	92.4	P/P	60 - 160
Glufosinate	131	108	P/P	60 - 160
Glyphosate	111	114	P/P	60 - 160
Glyphosate	114	111	P/P	60 - 160
Glyphosate	138	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95960

Included Lab Sample IDs: 2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	85.3	85.5	P/P	60 - 160
Acesulfame K	89.5	97.3	P/P	60 - 160
Endothall	106	88.0	P/P	60 - 160
Endothall	123	98.8	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A95980

Included Lab Sample IDs: 2138802, 2138803, 2138804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.9	97.6	P/P	90 - 110
Organic Carbon	97.6	96.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A96024

Included Lab Sample IDs: 2138868, 2138869, 2138870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	98.1	99.6	P/P	90 - 110
Calcium	104	98.9	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Magnesium	102	99.9	P/P	90 - 110
Potassium	104	102	P/P	90 - 110
Sodium	105	101	P/P	90 - 110
Zinc	98.6	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A96025

Included Lab Sample IDs: 2138799, 2138800, 2138801

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

Reference Method: SM 4500 F-C-97

Run ID: A96025

Included Lab Sample IDs: 2138799, 2138800, 2138801

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

Reference Method: EPA 8276

Run ID: A96032

Included Lab Sample IDs: 2138862, 2138863, 2138864

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	97.8		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A96065

Included Lab Sample IDs: 2138802, 2138803, 2138804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	102	P/P	90 - 110
Ammonia-N	102	101	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A96066

Included Lab Sample IDs: 2138862, 2138863, 2138864

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

Reference Method: EPA 8270E

Run ID: A96066

Included Lab Sample IDs: 2138862, 2138863, 2138864

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDT-p,p'	107		P	80 - 120
Dicofol	119		P	80 - 120
Endosulfan Sulfate	116		P	80 - 120
Endrin	114		P	80 - 120
Heptachlor	112		P	80 - 120
Methoxychlor	111		P	80 - 120

Reference Method: EPA 8270E

Run ID: A96073

Included Lab Sample IDs: 2138862, 2138863, 2138864

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.3		P	80 - 120
Alpha-BHC	101		P	80 - 120
Alpha-Chlordane	99.3		P	80 - 120
Beta-BHC	112		P	80 - 120
Bifenthrin	98.7		P	80 - 120
Carbophenothion	105		P	80 - 120
Chlorothalonil	115		P	80 - 120
Cis-Nonachlor	97.2		P	80 - 120
Cypermethrin	97.8		P	80 - 120
DDD-p,p'	106		P	80 - 120
DDE-p,p'	96.4		P	80 - 120
Delta-BHC	116		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	91.0		P	80 - 120
Endosulfan II	98.1		P	80 - 120
Endrin Aldehyde	95.9		P	80 - 120
Endrin Ketone	117		P	80 - 120
Ethalfuralin	101		P	80 - 120
Gamma-BHC	119		P	80 - 120
Gamma-Chlordane	96.8		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	99.4		P	80 - 120
Mirex	110		P	80 - 120
Permethrin	93.8		P	80 - 120
Trans-Nonachlor	99.0		P	80 - 120
Trifluralin	101		P	80 - 120

Reference Method: EPA 8321B

Run ID: A96086

Included Lab Sample IDs: 2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	101	P/P	50 - 150
2,4-D	93.6	106	P/P	50 - 150
2,4-D	97.3	93.6	P/P	50 - 150
3-Hydroxycarbofuran	114	109	P/P	60 - 150
Acetaminophen	108	104	P/P	60 - 160
Acetaminophen	109	108	P/P	60 - 160
Acetamiprid	104	103	P/P	50 - 150

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8321B

Run ID: A96086

Included Lab Sample IDs: 2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetamiprid	104	104	P/P	50 - 150
Afidopyropen	104	105	P/P	50 - 150
Afidopyropen	105	104	P/P	50 - 150
Aldicarb	116	98.2	P/P	60 - 150
Aldicarb Sulfone	99.8	106	P/P	50 - 150
Aldicarb Sulfoxide	97.9	102	P/P	50 - 150
Bentazon	82.6	76.7	P/P	50 - 160
Benzovindiflupyr	103	104	P/P	50 - 150
Benzovindiflupyr	104	99.6	P/P	50 - 150
Carbamazepine	97.0	93.8	P/P	60 - 150
Carbamazepine	98.5	97.0	P/P	60 - 150
Carbaryl	96.8	101	P/P	60 - 150
Carbofuran	104	107	P/P	50 - 150
Clothianidin	111	110	P/P	60 - 150
Clothianidin	112	111	P/P	60 - 150
Dinotefuran	105	108	P/P	50 - 150
Dinotefuran	108	108	P/P	50 - 150
Diuron	91.6	92.6	P/P	60 - 150
Diuron	93.0	91.6	P/P	60 - 150
Fenuron	117	118	P/P	60 - 150
Fenuron	118	117	P/P	60 - 150
Fluridone	103	109	P/P	60 - 160
Fluridone	109	110	P/P	60 - 160
Hydrocodone	98.0	99.2	P/P	60 - 150
Hydrocodone	98.6	98.0	P/P	60 - 150
Ibuprofen	86.8	94.4	P/P	50 - 160
Ibuprofen	94.4	100	P/P	50 - 160
Imazapyr	90.2	90.1	P/P	50 - 150
Imazapyr	95.8	90.2	P/P	50 - 150
Imidacloprid	100	99.3	P/P	60 - 150
Imidacloprid	97.5	100	P/P	60 - 150
Linuron	96.4	97.6	P/P	60 - 150
Linuron	97.6	97.6	P/P	60 - 150
Mandestrobin	115	116	P/P	50 - 150
Mandestrobin	116	120	P/P	50 - 150
MCPP	106	116	P/P	50 - 150
MCPP	107	106	P/P	50 - 150
Methiocarb	96.2	91.1	P/P	50 - 150
Methomyl	103	103	P/P	50 - 150
Naproxen	127	63.6	P/P	50 - 160
Naproxen	63.6	128	P/P	50 - 160
Oxamyl	99.8	110	P/P	50 - 150
Primidone	97.7	99.9	P/P	60 - 150
Primidone	99.9	101	P/P	60 - 150
Propoxur	100	100	P/P	50 - 150
Pyraclostrobin	102	105	P/P	60 - 150
Pyraclostrobin	105	107	P/P	60 - 150
Thiamethoxam	103	106	P/P	50 - 150
Thiamethoxam	105	103	P/P	50 - 150
Tolfenpyrad	112	113	P/P	60 - 150
Tolfenpyrad	113	114	P/P	60 - 150

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Reference Method: EPA 8321B

Run ID: A96086

Included Lab Sample IDs: 2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Triclopyr	104	96.5	P/P	50 - 150
Triclopyr	96.5	104	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A96087

Included Lab Sample IDs: 2138799, 2138800, 2138801

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	103	P/P	90 - 110
Chloride	102	102	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110
Sulfate	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96101

Included Lab Sample IDs: 2138802, 2138803, 2138804

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	104	P/P	90 - 110
Kjeldahl Nitrogen	98.9	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A96104

Included Lab Sample IDs: 2138853, 2138855, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	77.1	68.5	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A96127

Included Lab Sample IDs: 2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	113	121	P/P	60 - 160
Sucralose	127	113	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96134

Included Lab Sample IDs: 2138803, 2138804

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96141

Included Lab Sample IDs: 2138868, 2138869, 2138870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	92.9	93.1	P/P	90 - 110
Aluminum	93.1	93.6	P/P	90 - 110
Antimony	94.3	95.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96141

Included Lab Sample IDs: 2138868, 2138869, 2138870

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	95.7	95.8	P/P	90 - 110
Arsenic	100	98.2	P/P	90 - 110
Arsenic	98.2	98.3	P/P	90 - 110
Boron	100	102	P/P	90 - 110
Boron	102	105	P/P	90 - 110
Cadmium	93.9	95.5	P/P	90 - 110
Cadmium	95.5	95.4	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Chromium	104	103	P/P	90 - 110
Copper	103	99.2	P/P	90 - 110
Copper	99.2	99.9	P/P	90 - 110
Lead	97.6	98.0	P/P	90 - 110
Lead	98.0	97.7	P/P	90 - 110
Nickel	103	99.9	P/P	90 - 110
Nickel	99.9	100	P/P	90 - 110
Selenium	95.0	96.4	P/P	90 - 110
Selenium	96.4	95.6	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	93.8	95.2	P/P	90 - 110
Thallium	95.2	94.1	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A96144

Included Lab Sample IDs: 2138865, 2138866, 2138867

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	102		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	109		P	80 - 120
Atrazine	103		P	80 - 120
Atrazine Desethyl	99.4		P	80 - 120
Azinphos Methyl	93.9		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	95.6		P	80 - 120
Chlorpyrifos Ethyl	96.0		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	86.5		P	80 - 120
Demeton	97.1		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	98.9		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	99.5		P	80 - 120
Ethion	94.5		P	80 - 120
Ethoprop	97.5		P	80 - 120
Fenamiphos	97.6		P	80 - 120
Fipronil	100		P	80 - 120
Fipronil Desulfinyl	104		P	80 - 120
Fipronil Sulfide	96.6		P	80 - 120
Fipronil Sulfone	98.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A96144

Included Lab Sample IDs: 2138865, 2138866, 2138867

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fonofos	98.4		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	92.1		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	106		P	80 - 120
Metribuzin	83.8		P	80 - 120
Mevinphos	79.9*		F	80 - 120
Molinate	99.3		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	104		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	102		P	80 - 120
Pendimethalin	99.9		P	80 - 120
Phorate	95.7		P	80 - 120
Prodiamine	97.8		P	80 - 120
Prometon	101		P	80 - 120
Prometryn	97.3		P	80 - 120
Simazine	102		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	95.6		P	80 - 120
Terbutylazine	101		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96160

Included Lab Sample IDs: 2138802

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	102	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A96184

Included Lab Sample IDs: 2138865

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

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

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						11.1	
EPA 200.7 Rev. 4.4	Barium	98.8		96.8	97.0			0.292
	Calcium	105		103				0.306
	Iron	107		104	105			1.08
	Magnesium	108		99.8	101			0.579
	Potassium	106		99.5	102			1.33
	Sodium	106		103				0.975
	Zinc	99.1		97.9	98.3			0.480
EPA 200.8 Rev. 5.4	Aluminum	94.5		93.4	93.4			0.0816
	Antimony	99.5		100	99.8			0.210
	Arsenic	101		99.8	98.7			1.07
	Boron	103		103	103			0.540
	Cadmium	95.5		96.3	95.7			0.634
	Chromium	102		103	102			1.04
	Copper	102		98.5	97.3			1.15
	Lead	99.9		101	101			0.0151
	Nickel	102		98.5	97.9			0.587
	Selenium	94.4		89.8	88.2			1.81
	Silver	104		102	98.9			2.83
	Thallium	103		108	106			1.63
EPA 300.0 Rev. 2.1	Chloride	102		101	102		0.843	
	Sulfate	101		99.1	102		0.678	
EPA 350.1 Rev. 2.0	Ammonia-N	95.8		101	102			0.666
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.8		94.7	104			7.33
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.2				0.238
EPA 365.1 Rev. 2.0	Total-P	106		106	104			1.16
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		95.7	96.6			0.890
	O-Phosphate-P	106		99.0	99.5			0.367
EPA 8270E	Acetochlor	89.4	92.5	99.4	104	3.39		5.02
	Alachlor	87.9	90.7	99.5	96.0	3.14		3.56
	Aldrin	54.5	53.6	54.3	53.7	1.63		1.09
	Alpha-BHC	90.9	86.9	95.4	92.3	4.43		3.32
	Alpha-Chlordane	86.2	85.6	82.0	80.9	0.783		1.39
	Ametryn	91.4	94.4	150	119	3.23		17.0
	Atrazine	113	116			2.42		0.998
	Atrazine Desethyl	121	119	112	109	1.87		2.06
	Azinphos Methyl	103	110	109	113	6.25		3.38
	Beta-BHC	116	111	105	114	5.12		8.52
	Bifenthrin	96.9	95.4	99.7	97.6	1.60		2.09
	Bromacil	83.3	86.1	73.9	80.0	3.31		7.97
	Butylate	68.2	67.9	60.2	62.2	0.420		3.19
	Carbophenothion	50.8	49.3	69.2	68.9	3.05		0.411
	Chlorothalonil	124	124	145	150	0.269		3.76
	Chlorpyrifos Ethyl	98.3	102	95.2	82.4	3.53		14.4
	Chlorpyrifos Methyl	103	108	88.7	94.1	5.17		5.83
	Cis-Nonachlor	85.5	85.0	80.9	81.5	0.525		0.739
	Cyanazine	167	160	129	150	4.33		15.2
	Cypermethrin	99.7	103	115	109	2.91		5.56
	DDD-p,p'	96.2	95.8	89.8	90.1	0.384		0.347
	DDE-p,p'	83.3	81.9	76.9	76.0	1.70		1.21
	DDT-p,p'	91.3	91.1	89.3	88.1	0.245		1.43
	Delta-BHC	124	113	128	130	9.33		1.53
	Demeton	90.9	93.3	93.1	93.3	2.65		0.278
	Diazinon	98.7	101	113	117	2.34		3.31

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dicofol	98.0	104	101	113	5.58	10.6
	Dieldrin	84.7	87.6	95.5	95.8	3.35	0.251
	Dimethenamid	85.7	88.7	51.4	76.8	3.41	39.5
	Disulfoton	102	108	110	112	4.90	2.03
	Dithiopyr	80.7	83.9	77.8	80.1	3.92	2.77
	Endosulfan I	87.7	88.6	84.8	84.9	1.05	0.185
	Endosulfan II	95.2	95.6	97.5	95.2	0.381	2.44
	Endosulfan Sulfate	118	121	121	126	2.46	3.97
	Endrin	105	105	105	106	0.0153	0.879
	Endrin Aldehyde	88.1	87.2	80.3	79.3	1.03	1.25
	Endrin Ketone	109	113	113	113	3.92	0.0999
	EPTC	71.0	72.9	63.5	61.1	2.63	3.88
	Ethalfuralin	75.9	80.7	77.2	81.2	6.14	5.10
	Ethion	103	105	80.0	97.4	2.56	19.6
	Ethoprop	112	114	79.5	76.7	2.05	3.57
	Fenamiphos	59.2	62.4	85.1	83.6	5.20	1.75
	Fipronil	75.4	77.8	90.8	101	3.04	9.81
	Fipronil Desulfinyl	87.8	88.3	89.3	96.8	0.551	7.14
	Fipronil Sulfide	96.0	98.8	85.4	97.7	2.87	9.58
	Fipronil Sulfone	93.7	95.8	76.6	79.9	2.24	2.68
	Fonofos	98.3	103	116	119	4.97	2.09
	Gamma-BHC	119	113	133	122	5.66	9.09
	Gamma-Chlordane	82.5	82.0	80.2	80.3	0.650	0.0987
	Heptachlor	89.3	90.8	87.7	87.0	1.72	0.736
	Heptachlor Epoxide	87.6	87.3	92.2	92.2	0.323	0.0018
	Hexachlorobenzene	74.7	72.6	69.3	70.3	2.91	1.35
	Hexazinone	105	106	106	115	0.892	5.56
	Malathion	99.2	99.8	91.9	92.9	0.678	1.10
	Metalaxyl	60.5	63.9	105	109	5.49	4.10
	Methoxychlor	107	108	104	104	1.01	0.459
	Metolachlor	87.9	91.4	88.2	93.8	3.94	6.16
	Metribuzin	234	237	232	226	1.35	2.42
	Mevinphos	72.5	63.8	114	105	12.7	7.74
	Mirex	85.2	81.8	83.5	84.8	4.02	1.57
	Molinate	83.7	86.1	75.1	78.0	2.78	3.69
	Norflurazon	90.4	93.4	78.5	88.6	3.21	12.1
	Oxadiazon	82.7	86.0			3.91	1.82
	Parathion Ethyl	103	108	94.4	97.5	4.38	3.19
	Parathion Methyl	117	118	112	114	1.42	2.11
	Pendimethalin	94.4	96.6	90.5	98.1	2.32	8.10
	Permethrin	86.9	87.7	99.7	91.1	0.949	9.00
	Phorate	104	106	114	112	1.75	2.13
	Prodiamine	98.3	96.8	44.2	47.0	1.54	6.15
	Prometon	83.9	78.8	91.6	114	6.26	15.4
	Prometryn	88.3	88.8	99.8	98.7	0.500	1.16
	Simazine	114	117	128	120	2.49	6.39
	Tebuconazole	32.5	32.3	18.3	32.0	0.698	54.5
	Terbufos	102	106	123	119	3.85	3.35
	Terbutylazine	99.4	102	100	104	2.79	3.97
	Trans-Nonachlor	84.2	84.2	80.4	80.0	0.103	0.538
	Trifluralin	80.9	81.2	80.0	80.5	0.300	0.573
EPA 8276	Chlordane	87.6	88.0	84.9	78.2	0.418	8.24
	Toxaphene	78.7	80.7	80.4	77.8	2.60	3.29
EPA 8321B	2,4-D	138		138	135		1.67

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	3-Hydroxycarbofuran	93.4	99.3	93.6			5.96
	Acesulfame K	85.7	90.8	89.6			1.39
	Acetaminophen	80.8	87.0	84.1			3.41
	Acetamiprid	91.2	106	106			0.0042
	Afidopyropen	90.4	95.6	106			10.7
	Aldicarb	85.8	79.5	73.1			8.40
	Aldicarb Sulfone	108	103	106			2.94
	Aldicarb Sulfoxide	108	49.1	47.1			4.19
	AMPA	105	73.7	73.1			0.347
	Bentazon	78.4	57.2	56.6			1.17
	Benzovindiflupyr	75.7	78.1	79.9			2.25
	Carbamazepine	93.4	85.7	86.7			1.21
	Carbaryl	75.3	65.1	65.5			0.560
	Carbofuran	71.8	59.7	61.6			3.13
	Clothianidin	98.8	111	105			5.34
	Dinotefuran	91.9	118	118			0.0224
	Diuron	84.0	70.7	74.0			4.53
	Endothall	97.6	112	102			9.05
	Fenuron	104	99.5	97.8			1.71
	Fluridone	89.6	89.1	90.8			1.51
	Glufosinate	122	80.1	95.7			17.8
	Glyphosate	117	66.7	66.5			0.124
	Hydrocodone	87.5	107	106			1.21
	Ibuprofen	75.5	78.8	72.1			8.87
	Imazapyr	88.8	93.3	102			8.49
	Imidacloprid	104	175	171			2.58
	Linuron	75.6	75.9	71.4			6.09
	Mandestrobin	84.3	88.5	88.0			0.510
	MCPP	141	137	138			0.532
	Methiocarb	70.0	54.9	54.7			0.300
	Methomyl	92.1	76.5	80.5			5.14
	Naproxen	91.4	81.9	88.6			7.96
	Oxamyl	107	92.9	93.4			0.589
	Primidone	82.7	94.4	86.0			9.37
	Propoxur	74.8	64.7	62.4			3.61
	Pyraclostrobin	78.3	89.0	84.8			4.86
	Sucralose	120	90.5	72.4			21.8
	Thiamethoxam	98.7	144	144			0.0524
	Tolfenpyrad	54.9	61.3	59.2			3.38
	Triclopyr	91.8	110	106			3.44
SM 2120 B	Color (true)	98.8				2.40	
	Color (true)	98.4				0.118	
SM 2320 B-97	Total Alkalinity	104				1.15	
SM 2540 C-97	TDS					5.61	
SM 4500 F-C-97	Fluoride	98.2	97.0	97.5			0.484
SM 5310 B-00	Organic Carbon	96.6	98.5	96.1			1.49

Reference Method Descriptions

Method / DoH Cert #
EPA 180.1 Rev. 2.0 /
E31780

Description
Turbidity in aqueous matrices

Associated Samples
2138799, 2138800, 2138801

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2138868, 2138869, 2138870
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2138868, 2138869, 2138870
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2138799, 2138800, 2138801
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2138799, 2138800, 2138801
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2138802, 2138803, 2138804
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2138802, 2138803, 2138804
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2138802, 2138803, 2138804
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2138802, 2138803, 2138804
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2138805, 2138806, 2138807
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2138862, 2138863, 2138864
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2138865, 2138866, 2138867
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2138862, 2138863, 2138864
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2138850, 2138851, 2138852
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2138853, 2138854, 2138855, 2138856, 2138857, 2138858, 2138859, 2138860
SM 2120 B / E31780	True Color measured at 450 nm	2138799, 2138800, 2138801
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2138799, 2138800, 2138801
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2138799, 2138800, 2138801
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2138799, 2138800, 2138801
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2138799, 2138800, 2138801
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2138802, 2138803, 2138804

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	11/22/2019			11/22/2019 16:25	Yen Ta	2138799, 2138800, 2138801
EPA 200.7 Rev. 4.4	11/22/2019	11/26/2019 17:50	Elliott D. Healy	11/27/2019 17:17	Betina Topolski	2138868
	11/22/2019	11/26/2019 17:50	Elliott D. Healy	11/27/2019 17:42	Betina Topolski	2138869
	11/22/2019	11/26/2019 17:50	Elliott D. Healy	11/27/2019 17:49	Betina Topolski	2138870
EPA 200.8 Rev. 5.4	11/22/2019	11/26/2019 17:50	Elliott D. Healy	12/06/2019 05:02	Alexander Thompson	2138868
	11/22/2019	11/26/2019 17:50	Elliott D. Healy	12/06/2019 06:11	Alexander Thompson	2138869
	11/22/2019	11/26/2019 17:50	Elliott D. Healy	12/06/2019 06:21	Alexander Thompson	2138870
EPA 300.0 Rev. 2.1	11/22/2019			12/05/2019 02:52	Lipi Saha	2138799
	11/22/2019			12/05/2019 05:53	Lipi Saha	2138800
	11/22/2019			12/05/2019 06:05	Lipi Saha	2138801
EPA 350.1 Rev. 2.0	11/22/2019			12/02/2019 12:12	Ping Hua	2138802
	11/22/2019			12/02/2019 12:24	Ping Hua	2138803
	11/22/2019			12/02/2019 12:25	Ping Hua	2138804
EPA 351.2 Rev. 2.0	11/22/2019	12/02/2019 12:24	Sima Feizi	12/03/2019 19:10	Jhamieka S. Greenwood	2138802
	11/22/2019	12/02/2019 12:24	Sima Feizi	12/03/2019 19:15	Jhamieka S. Greenwood	2138803
	11/22/2019	12/02/2019 12:24	Sima Feizi	12/03/2019 19:16	Jhamieka S. Greenwood	2138804
EPA 353.2 Rev. 2.0	11/22/2019			11/25/2019 11:40	Beverly Y. Sanders	2138802
	11/22/2019			11/25/2019 11:46	Beverly Y. Sanders	2138803
	11/22/2019			11/25/2019 11:47	Beverly Y. Sanders	2138804
EPA 365.1 Rev. 2.0	11/22/2019	12/04/2019 12:29	Yen Ta	12/05/2019 16:10	Benjamin T. Nordmann	2138803
	11/22/2019	12/04/2019 12:29	Yen Ta	12/05/2019 16:11	Benjamin T. Nordmann	2138804
	11/22/2019	12/04/2019 12:29	Yen Ta	12/06/2019 14:12	Benjamin T. Nordmann	2138802
EPA 365.1 Rev. 2.0 dissolved	11/22/2019			11/22/2019 16:32	Samantha Davila	2138806
	11/22/2019			11/22/2019 16:55	Samantha Davila	2138805
	11/22/2019			11/22/2019 17:10	Samantha Davila	2138807
EPA 8270E	11/22/2019	11/23/2019 11:30	Rasheda Ghaffari	11/26/2019 20:40	Vandana T. Nagar	2138865
	11/22/2019	11/23/2019 11:30	Rasheda Ghaffari	11/26/2019 21:06	Vandana T. Nagar	2138866
	11/22/2019	11/23/2019 11:30	Rasheda Ghaffari	11/26/2019 21:32	Vandana T. Nagar	2138867
	11/22/2019	11/23/2019 11:30	Rasheda Ghaffari	12/03/2019 17:50	Vandana T. Nagar	2138865
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	11/27/2019 23:51	Arthur Maknenko	2138862
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	11/28/2019 00:22	Arthur Maknenko	2138863
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	11/28/2019 00:54	Arthur Maknenko	2138864
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	12/03/2019 02:50	Arthur Maknenko	2138862
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	12/03/2019 03:23	Arthur Maknenko	2138863
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	12/03/2019 03:57	Arthur Maknenko	2138864
EPA 8276	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	12/02/2019 02:40	Michael Poppell	2138863
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	12/02/2019 03:35	Michael Poppell	2138862
	11/22/2019	11/26/2019 10:00	Rasheda Ghaffari	12/02/2019 04:31	Michael Poppell	2138864
EPA 8321B	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 20:14	Rebecca Ware	2138853
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 20:28	Rebecca Ware	2138854

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 20:42	Rebecca Ware	2138855
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 20:56	Rebecca Ware	2138856
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 21:10	Rebecca Ware	2138857
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/22/2019 21:24	Rebecca Ware	2138858
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 11:03	Rebecca Ware	2138859
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 11:16	Rebecca Ware	2138860
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 18:40	Rebecca Ware	2138853
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 18:50	Rebecca Ware	2138854
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 19:01	Rebecca Ware	2138855
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 19:23	Rebecca Ware	2138857
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 19:34	Rebecca Ware	2138858
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 19:44	Rebecca Ware	2138859
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/23/2019 20:06	Rebecca Ware	2138860
	11/22/2019	11/22/2019 14:30	Rebecca Ware	11/25/2019 11:31	Rebecca Ware	2138856
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 15:19	Rebecca Ware	2138853
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 15:31	Rebecca Ware	2138854
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 15:43	Rebecca Ware	2138855
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 15:54	Rebecca Ware	2138856
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 16:06	Rebecca Ware	2138857
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 16:18	Rebecca Ware	2138858
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 16:30	Rebecca Ware	2138859
	11/22/2019	11/22/2019 14:30	Rebecca Ware	12/04/2019 17:05	Rebecca Ware	2138860
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 07:29	Juyoung Kim	2138853
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 08:38	Juyoung Kim	2138854
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 09:13	Juyoung Kim	2138855
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 09:47	Juyoung Kim	2138856
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 10:22	Juyoung Kim	2138857
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 10:56	Juyoung Kim	2138858
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 11:31	Juyoung Kim	2138859
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 12:06	Juyoung Kim	2138860
	11/22/2019	11/26/2019 10:00	Hoor Shaik	11/27/2019 16:22	Juyoung Kim	2138856
	11/22/2019	11/26/2019 10:00	Hoor Shaik	12/03/2019 21:11	Juyoung Kim	2138853
	11/22/2019	11/26/2019 10:00	Hoor Shaik	12/03/2019 21:46	Juyoung Kim	2138855
	11/22/2019	11/26/2019 10:00	Hoor Shaik	12/03/2019 22:20	Juyoung Kim	2138857
	11/22/2019	11/26/2019 10:00	Hoor Shaik	12/03/2019 22:55	Juyoung Kim	2138858
	11/22/2019	11/26/2019 10:00	Hoor Shaik	12/03/2019 23:29	Juyoung Kim	2138859
	11/22/2019	11/26/2019 10:00	Hoor Shaik	12/04/2019 00:04	Juyoung Kim	2138860
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/27/2019 19:50	Juyoung Kim	2138850
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/27/2019 20:25	Juyoung Kim	2138851
	11/22/2019	11/27/2019 09:00	Hoor Shaik	11/27/2019 20:59	Juyoung Kim	2138852

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	11/22/2019			11/22/2019 16:02	Julia Storbeck	2138799
	11/22/2019			11/22/2019 16:08	Julia Storbeck	2138800
	11/22/2019			11/22/2019 16:14	Julia Storbeck	2138801
SM 2320 B-97	11/22/2019			11/27/2019 17:40	Dale L. Simmons	2138799
	11/22/2019			11/27/2019 17:52	Dale L. Simmons	2138800
	11/22/2019			11/27/2019 18:05	Dale L. Simmons	2138801
SM 2540 C-97	11/22/2019			11/25/2019 15:56	Yijie Li	2138799, 2138800, 2138801
SM 2540 D-97	11/22/2019			11/25/2019 15:56	Yijie Li	2138799, 2138800, 2138801
SM 4500 F-C-97	11/22/2019			11/27/2019 17:40	Dale L. Simmons	2138799
	11/22/2019			11/27/2019 17:52	Dale L. Simmons	2138800
	11/22/2019			11/27/2019 18:05	Dale L. Simmons	2138801
SM 5310 B-00	11/22/2019			11/26/2019 03:37	Lauren Lees	2138803
	11/22/2019			11/26/2019 04:19	Lauren Lees	2138802
	11/22/2019			11/26/2019 05:04	Lauren Lees	2138804