

Chemical Analysis Report

SE-DIST-2019-12-12-01

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

Event Description: **SMP-Greasy**
Request ID: **RQ-2019-12-09-59**
Customer: **SE-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 06-JAN-2020 16:41



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: North New River Canal (NNR-3)

Collection Date/Time: 12/11/2019 13:45

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143314	EPA 180.1 Rev. 2.0	Turbidity	0.65		NTU	P375815	
	EPA 300.0 Rev. 2.1	Chloride	80		mg Cl/L	P376310	
		Sulfate	2.2		mg SO4/L	P376312	
	SM 2120 B	Color (true)	43		PCU	P375752	
	SM 2320 B-97	Total Alkalinity	222		mg CaCO3/L	P376251	
	SM 2540 C-97	TDS	360		mg/L	P376416	
	SM 2540 D-97	TSS	2	I	mg/L	P376356	
	SM 4500 F-C-97	Fluoride	0.31		mg F/L	P376254	
2143316	EPA 350.1 Rev. 2.0	Ammonia-N	0.35		mg N/L	P376140	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P375909	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.077		mg N/L	P375893	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P375923	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P375848	
2143318	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P375764	
2143330	EPA 8321B	Aldicarb	0.020	UJ	ug/L	P375695	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P375695	
		Aldicarb Sulfoxide	0.0020	UJ	ug/L	P375695	MS
		Carbaryl	0.0020	U	ug/L	P375695	
		Carbofuran	0.0020	U	ug/L	P375695	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P375695	
		Methiocarb	0.0020	U	ug/L	P375695	
		Methomyl	0.0020	U	ug/L	P375695	
		Oxamyl	0.0020	U	ug/L	P375695	
		Propoxur	0.0020	U	ug/L	P375695	
2143332		2,4-D	0.0073	I	ug/L	P375695	
		Acesulfame K**	0.10	U	ug/L	P375838	
		AMPA**	0.10	U	ug/L	P375838	
		Sucralose**	0.010	U	ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	0.10	U	ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	0.020		ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	8.0E-04	U	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.0020	U	ug/L	P375695	
		Fenuron	0.016	U	ug/L	P375695	
		Fluridone**	0.0028	I	ug/L	P375695	
		Imazapyr**	0.12		ug/L	P375695	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143332	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.0036	I	ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCP	0.0020	U	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0020	U	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	
2143340	EPA 8270E	Aldrin	4.3	U	ng/L	P375721	
		Alpha-BHC	2.2	U	ng/L	P375721	
		Alpha-Chlordane	1.1	U	ng/L	P375721	
		Beta-BHC	11	U	ng/L	P375721	
		Bifenthrin**	4.3	U	ng/L	P375721	
		Delta-BHC	8.7	U	ng/L	P375721	
		Gamma-BHC	8.7	U	ng/L	P375721	
		Carbophenothion	11	U	ng/L	P375721	
		Chlorothalonil	2.2	U	ng/L	P375721	
		Cis-Nonachlor**	1.1	U	ng/L	P375721	
		Cypermethrin	22	U	ng/L	P375721	
		DDD-p,p'	6.5	U	ng/L	P375721	
		DDE-p,p'	6.5	U	ng/L	P375721	
		DDT-p,p'	7.6	U	ng/L	P375721	
		Dicofol	32	U	ng/L	P375721	
		Dieldrin	4.3	U	ng/L	P375721	
		Endosulfan I	4.3	U	ng/L	P375721	
		Endosulfan II	4.3	U	ng/L	P375721	
		Endosulfan Sulfate	2.2	U	ng/L	P375721	
		Endrin	2.2	U	ng/L	P375721	
		Endrin Aldehyde	2.2	U	ng/L	P375721	
		Endrin Ketone	2.2	U	ng/L	P375721	
		Ethalfuralin**	3.2	U	ng/L	P375721	
		Gamma-Chlordane	1.1	U	ng/L	P375721	
		Heptachlor	1.6	U	ng/L	P375721	
		Heptachlor Epoxide	2.2	U	ng/L	P375721	
		Hexachlorobenzene	2.2	U	ng/L	P375721	
		Methoxychlor	4.3	U	ng/L	P375721	
		Mirex	2.2	U	ng/L	P375721	
		Permethrin	11	U	ng/L	P375721	
		Trans-Nonachlor**	1.1	U	ng/L	P375721	
		Trifluralin	2.7	U	ng/L	P375721	
	EPA 8276	Chlordane	5.4	U	ng/L	P375721	

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143340	EPA 8276	Toxaphene	32	U	ng/L	P375721	
2143342	EPA 8270E	Acetochlor	0.25	U	ng/L	P375696	
		Alachlor	0.25	U	ng/L	P375696	
		Ametryn	1.0	I	ng/L	P375696	
		Atrazine	11		ng/L	P375696	
		Atrazine Desethyl	1.5	U	ng/L	P375696	
		Azinphos Methyl	4.9	U	ng/L	P375696	
		Bromacil	0.49	U	ng/L	P375696	
		Butylate	0.39	U	ng/L	P375696	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P375696	
		Chlorpyrifos Methyl	0.098	U	ng/L	P375696	
		Cyanazine	3.2	U	ng/L	P375696	
		Demeton	6.9	U	ng/L	P375696	
		Diazinon	0.12	U	ng/L	P375696	
		Dimethenamid**	0.098	U	ng/L	P375696	
		Disulfoton	0.49	U	ng/L	P375696	
		Dithiopyr**	0.098	U	ng/L	P375696	
		EPTC	1.2	U	ng/L	P375696	
		Ethion	0.15	U	ng/L	P375696	
		Ethoprop	0.098	U	ng/L	P375696	
		Fenamiphos	0.49	U	ng/L	P375696	
		Fipronil	0.25	U	ng/L	P375696	
		Fipronil Desulfinyl**	0.12	U	ng/L	P375696	
		Fipronil Sulfide	0.15	U	ng/L	P375696	
		Fipronil Sulfone	0.15	U	ng/L	P375696	
		Fonofos	0.20	U	ng/L	P375696	
		Hexazinone	2.5		ng/L	P375696	
		Malathion	0.34	U	ng/L	P375696	
		Metalaxyl	0.29	U	ng/L	P375696	
		Metolachlor	0.49	U	ng/L	P375696	
		Metribuzin	0.74	U	ng/L	P375696	
		Mevinphos	0.49	U	ng/L	P375696	
		Molinate	0.29	U	ng/L	P375696	
		Norflurazon	0.49	U	ng/L	P375696	
		Oxadiazon**	0.73		ng/L	P375696	
		Parathion Ethyl	0.25	U	ng/L	P375696	
		Parathion Methyl	0.54	U	ng/L	P375696	
		Pendimethalin	0.98	U	ng/L	P375696	
		Phorate	0.25	U	ng/L	P375696	
		Prodiamine**	0.17	UJ	ng/L	P375696	LCS, MS, RPD
		Prometon	0.88	U	ng/L	P375696	
		Prometryn	0.20	U	ng/L	P375696	
		Simazine	0.49	U	ng/L	P375696	
		Tebuconazole**	0.49	UJ	ng/L	P375696	RPD

Field ID: G4SENNR3

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143342	EPA 8270E	Terbufos	0.098	U	ng/L	P375696	
		Terbuthylazine	0.42	U	ng/L	P375696	
2143368	EPA 200.7 Rev. 4.4	Barium	28.8		ug/L	P375930	
		Calcium	70.7		mg/L	P375930	
		Iron	58	I	ug/L	P375930	
		Magnesium	13.5		mg/L	P375930	
		Potassium	3.8		mg/L	P375930	
		Sodium	52.6		mg/L	P375930	
		Zinc	5.0	U	ug/L	P375930	
	EPA 200.8 Rev. 5.4	Aluminum	7.7	I	ug/L	P375930	
		Antimony	0.068	I	ug/L	P375930	
		Arsenic	0.56		ug/L	P375930	
		Boron**	48.7		ug/L	P375930	
		Cadmium	0.020	U	ug/L	P375930	
		Chromium	0.40	U	ug/L	P375930	
		Copper	0.47	I	ug/L	P375930	
		Lead	0.20	U	ug/L	P375930	
		Nickel	0.50	U	ug/L	P375930	
		Selenium	0.20	U	ug/L	P375930	
		Silver	0.010	U	ug/L	P375930	
		Thallium	0.10	U	ug/L	P375930	

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

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

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

EPA 8270E: MS accuracy for atrazine 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.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: C-11 East @ 61st

Collection Date/Time: 12/11/2019 12:30

Field ID: G4SE0110

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143338	EPA 8321B	2,4-D	0.031		ug/L	P375695	
		Acesulfame K**	0.21	I	ug/L	P375838	
		AMPA**	0.12	I	ug/L	P375838	
		Sucralose**	0.29		ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	0.31	I	ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	8.0E-04	U	ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	0.0017	I	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.010		ug/L	P375695	
		Fenuron	0.016	U	ug/L	P375695	
		Fluridone**	0.046		ug/L	P375695	
		Imazapyr**	0.31		ug/L	P375695	
		Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.0053	I	ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCPP	0.0023	I	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0033	I	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	

Ref. Method and Comment:

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

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

Sample Location: C-11 (East) @ George Anderson Footbridge

Collection Date/Time: 12/11/2019 12:40

Field ID: G4SE0122

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143339	EPA 8321B	2,4-D	0.030		ug/L	P375695	
		Acesulfame K**	0.19	I	ug/L	P375838	
		AMPA**	0.14	I	ug/L	P375838	
		Sucralose**	0.26		ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	0.35	I	ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	8.0E-04	U	ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	0.0019	I	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.011		ug/L	P375695	
		Fenuron	0.016	U	ug/L	P375695	
		Fluridone**	0.046		ug/L	P375695	
		Imazapyr**	0.33		ug/L	P375695	
		Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.0063	I	ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCPP	0.0020	U	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0052	I	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	

Ref. Method and Comment:

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

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

Sample Location: C-11 @ Foot Bridge

Collection Date/Time: 12/11/2019 12:10

Field ID: G4SE0109

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143334	EPA 8321B	2,4-D	0.066		ug/L	P375695	
		Acesulfame K**	0.10	U	ug/L	P375838	
		AMPA**	0.10	U	ug/L	P375838	
		Sucralose**	0.093		ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	0.10	U	ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	0.031		ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	8.0E-04	U	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.0033	I	ug/L	P375695	
		Fenuron	0.016	U	ug/L	P375695	
		Fluridone**	0.024		ug/L	P375695	
		Imazapyr**	0.59		ug/L	P375695	
		Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.025	J	ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCPP	0.0020	UJ	ug/L	P375695	MS
		Naproxen**	0.0080	UJ	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0020	U	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	

Ref. Method and Comment:

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

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

Sample Location: S New River (C-11) @ 27

Collection Date/Time: 12/11/2019 11:40

Field ID: G4SE0029

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143335	EPA 8321B	2,4-D	0.022		ug/L	P375695	
		Acesulfame K**	0.10	U	ug/L	P375838	
		AMPA**	0.10	U	ug/L	P375838	
		Sucralose**	0.058		ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	0.10	U	ug/L	P375838	
		Afidopyropen**	0.0024	UJ	ug/L	P375695	
		Bentazon	0.041		ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	8.0E-04	U	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.0060	I	ug/L	P375695	
		Fenuron	0.016	U	ug/L	P375695	
		Fluridone**	0.0022	I	ug/L	P375695	
		Imazapyr**	0.21		ug/L	P375695	
		Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.0020	U	ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCPP	0.0020	U	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0020	U	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	

Ref. Method and Comment:

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

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

Sample Location: North New River @ Hiatus

Collection Date/Time: 12/11/2019 13:15

Field ID: G4SE0114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143315	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P375815	
	EPA 300.0 Rev. 2.1	Chloride	78		mg Cl/L	P376310	
		Sulfate	1.7		mg SO4/L	P376312	
	SM 2120 B	Color (true)	44		PCU	P375752	
	SM 2320 B-97	Total Alkalinity	216		mg CaCO3/L	P376251	
	SM 2540 C-97	TDS	353		mg/L	P376416	
	SM 2540 D-97	TSS	2	U	mg/L	P376356	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P376254	
2143317	EPA 350.1 Rev. 2.0	Ammonia-N	0.47		mg N/L	P376140	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P375909	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.016		mg N/L	P375893	
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P375923	
	SM 5310 B-00	Organic Carbon	17		mg C/L	P375848	
2143319	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P375765	
2143331	EPA 8321B	Aldicarb	0.020	U	ug/L	P375695	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P375695	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P375695	MS
		Carbaryl	0.0020	U	ug/L	P375695	
		Carbofuran	0.0020	U	ug/L	P375695	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P375695	
		Methiocarb	0.0020	U	ug/L	P375695	
		Methomyl	0.0020	U	ug/L	P375695	
		Oxamyl	0.0020	U	ug/L	P375695	
		Propoxur	0.0020	U	ug/L	P375695	
2143333		2,4-D	0.0077	I	ug/L	P375695	
		Acesulfame K**	0.10	U	ug/L	P375838	
		AMPA**	0.10	U	ug/L	P375838	
		Sucralose**	0.029	I	ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	0.10	U	ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	0.021		ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	8.0E-04	U	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.0042	I	ug/L	P375695	
		Fenuron	0.016	U	ug/L	P375695	
		Fluridone**	0.0012	I	ug/L	P375695	
		Imazapyr**	0.10		ug/L	P375695	

Field ID: G4SE0114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143333	EPA 8321B	Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.0029	I	ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCP	0.0020	U	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0020	U	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	
2143341	EPA 8270E	Aldrin	4.4	U	ng/L	P375721	
		Alpha-BHC	2.2	U	ng/L	P375721	
		Alpha-Chlordane	1.1	U	ng/L	P375721	
		Beta-BHC	11	U	ng/L	P375721	
		Bifenthrin**	4.4	U	ng/L	P375721	
		Delta-BHC	8.8	U	ng/L	P375721	
		Gamma-BHC	8.8	U	ng/L	P375721	
		Carbophenothion	11	U	ng/L	P375721	
		Chlorothalonil	2.2	U	ng/L	P375721	
		Cis-Nonachlor**	1.1	U	ng/L	P375721	
		Cypermethrin	22	U	ng/L	P375721	
		DDD-p,p'	6.6	U	ng/L	P375721	
		DDE-p,p'	6.6	U	ng/L	P375721	
		DDT-p,p'	7.7	U	ng/L	P375721	
		Dicofol	33	U	ng/L	P375721	
		Dieldrin	4.4	U	ng/L	P375721	
		Endosulfan I	4.4	U	ng/L	P375721	
		Endosulfan II	4.4	U	ng/L	P375721	
		Endosulfan Sulfate	2.2	U	ng/L	P375721	
		Endrin	2.2	U	ng/L	P375721	
		Endrin Aldehyde	2.2	U	ng/L	P375721	
		Endrin Ketone	2.2	U	ng/L	P375721	
		Ethalfuralin**	3.3	U	ng/L	P375721	
		Gamma-Chlordane	1.1	U	ng/L	P375721	
		Heptachlor	1.6	U	ng/L	P375721	
		Heptachlor Epoxide	2.2	U	ng/L	P375721	
		Hexachlorobenzene	2.2	U	ng/L	P375721	
		Methoxychlor	4.4	U	ng/L	P375721	
		Mirex	2.2	U	ng/L	P375721	
		Permethrin	11	U	ng/L	P375721	
		Trans-Nonachlor**	1.1	U	ng/L	P375721	
		Trifluralin	2.7	U	ng/L	P375721	
		Chlordane	5.5	U	ng/L	P375721	

Field ID: G4SE0114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143341	EPA 8276	Toxaphene	33	U	ng/L	P375721	
2143343	EPA 8270E	Acetochlor	0.24	U	ng/L	P375696	
		Alachlor	0.24	U	ng/L	P375696	
		Ametryn	3.3		ng/L	P375696	
		Atrazine	17		ng/L	P375696	
		Atrazine Desethyl	1.5	U	ng/L	P375696	
		Azinphos Methyl	4.9	U	ng/L	P375696	
		Bromacil	0.49	U	ng/L	P375696	
		Butylate	0.39	U	ng/L	P375696	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P375696	
		Chlorpyrifos Methyl	0.098	U	ng/L	P375696	
		Cyanazine	3.2	U	ng/L	P375696	
		Demeton	6.8	U	ng/L	P375696	
		Diazinon	0.12	U	ng/L	P375696	
		Dimethenamid**	0.098	U	ng/L	P375696	
		Disulfoton	0.49	U	ng/L	P375696	
		Dithiopyr**	0.098	U	ng/L	P375696	
		EPTC	1.2	U	ng/L	P375696	
		Ethion	0.15	U	ng/L	P375696	
		Ethoprop	0.098	U	ng/L	P375696	
		Fenamiphos	0.49	U	ng/L	P375696	
		Fipronil	0.24	U	ng/L	P375696	
		Fipronil Desulfinyl**	0.12	U	ng/L	P375696	
		Fipronil Sulfide	0.15	U	ng/L	P375696	
		Fipronil Sulfone	0.15	U	ng/L	P375696	
		Fonofos	0.20	U	ng/L	P375696	
		Hexazinone	2.0		ng/L	P375696	
		Malathion	0.34	U	ng/L	P375696	
		Metalaxyl	0.29	U	ng/L	P375696	
		Metolachlor	0.49	U	ng/L	P375696	
		Metribuzin	0.73	U	ng/L	P375696	
		Mevinphos	0.49	U	ng/L	P375696	
		Molinate	0.29	U	ng/L	P375696	
		Norflurazon	0.49	U	ng/L	P375696	
		Oxadiazon**	0.28	I	ng/L	P375696	
		Parathion Ethyl	0.24	U	ng/L	P375696	
		Parathion Methyl	0.54	U	ng/L	P375696	
		Pendimethalin	0.98	U	ng/L	P375696	
		Phorate	0.24	U	ng/L	P375696	
		Prodiamine**	0.17	UJ	ng/L	P375696	LCS, MS, RPD
		Prometon	0.88	U	ng/L	P375696	
		Prometryn	0.20	U	ng/L	P375696	
		Simazine	0.49	U	ng/L	P375696	
		Tebuconazole**	0.49	UJ	ng/L	P375696	RPD

Field ID: G4SE0114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143343	EPA 8270E	Terbufos	0.098	U	ng/L	P375696	
		Terbutylazine	0.42	U	ng/L	P375696	
2143369	EPA 200.7 Rev. 4.4	Barium	27.8		ug/L	P375930	
		Calcium	67.7		mg/L	P375930	
		Iron	180		ug/L	P375930	
		Magnesium	12.8		mg/L	P375930	
		Potassium	3.6		mg/L	P375930	
		Sodium	49.9		mg/L	P375930	
		Zinc	5.0	U	ug/L	P375930	
		Aluminum	7.3	I	ug/L	P375930	
	EPA 200.8 Rev. 5.4	Antimony	0.050	U	ug/L	P375930	
		Arsenic	0.48		ug/L	P375930	
		Boron**	46.6		ug/L	P375930	
		Cadmium	0.020	U	ug/L	P375930	
		Chromium	0.40	U	ug/L	P375930	
		Copper	0.40	U	ug/L	P375930	
		Lead	0.20	U	ug/L	P375930	
		Nickel	0.50	U	ug/L	P375930	
		Selenium	0.20	U	ug/L	P375930	
		Silver	0.010	U	ug/L	P375930	
		Thallium	0.10	U	ug/L	P375930	

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

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

EPA 8270E: MS accuracy for atrazine 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.

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: C-12 @ Sunrise & 9th

Collection Date/Time: 12/11/2019 14:30

Field ID: G4SEB128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143336	EPA 8321B	2,4-D	0.035		ug/L	P375695	
		Acesulfame K**	0.10	U	ug/L	P375838	
		AMPA**	4.3		ug/L	P375838	
		Sucralose**	0.091		ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	1.0		ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	0.033		ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	0.0015	I	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.13		ug/L	P375695	
		Fenuron	0.036	I	ug/L	P375695	
		Fluridone**	0.016		ug/L	P375695	
		Imazapyr**	3.0		ug/L	P375695	
		Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.013		ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCPP	0.0020	U	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0020	U	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	

Ref. Method and Comment:

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

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

Sample Location: C-12 @ NW 8th Ct

Collection Date/Time: 12/11/2019 14:45

Field ID: G4SE0126

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2143337	EPA 8321B	2,4-D	0.029		ug/L	P375695	
		Acesulfame K**	0.10	U	ug/L	P375838	
		AMPA**	4.9		ug/L	P375838	
		Sucralose**	0.093		ug/L	P375838	
		Acetaminophen**	0.0080	U	ug/L	P375695	
		Acetamiprid**	0.0020	U	ug/L	P375695	
		Endothall**	0.25	U	ug/L	P375838	
		Glufosinate**	0.10	U	ug/L	P375838	
		Glyphosate**	1.1		ug/L	P375838	
		Afidopyropen**	0.0020	UJ	ug/L	P375695	
		Bentazon	0.031		ug/L	P375695	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P375695	
		Carbamazepine**	0.0014	I	ug/L	P375695	
		Clothianidin**	0.0020	U	ug/L	P375695	
		Dinotefuran**	0.0020	U	ug/L	P375695	
		Diuron	0.13		ug/L	P375695	
		Fenuron	0.032	I	ug/L	P375695	
		Fluridone**	0.015		ug/L	P375695	
		Imazapyr**	2.4		ug/L	P375695	
		Hydrocodone**	0.0020	U	ug/L	P375695	
		Ibuprofen**	0.020	U	ug/L	P375695	
		Imidacloprid	0.012		ug/L	P375695	MS
		Linuron	0.0040	U	ug/L	P375695	
		Mandestrobin**	0.0020	UJ	ug/L	P375695	
		MCPP	0.0020	U	ug/L	P375695	MS
		Naproxen**	0.0080	U	ug/L	P375695	RPD
		Primidone**	0.0040	U	ug/L	P375695	
		Pyraclostrobin**	0.0020	U	ug/L	P375695	
		Thiamethoxam**	0.0020	U	ug/L	P375695	
		Tolfenpyrad**	0.0020	U	ug/L	P375695	
		Triclopyr**	0.0040	U	ug/L	P375695	

Ref. Method and Comment:

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

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P375815

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P375930

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: P375930

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: P376310

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376312

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376140

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: P375909

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P375893

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375923

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375764

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375765

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

Reference Method: EPA 8270E
Batch ID: P375696

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: P375696

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: P375721

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: P375721

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: P375721

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

Reference Method: EPA 8321B
Batch ID: P375695

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P375695

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

Reference Method: EPA 8321B
Batch ID: P375838

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

Reference Method: SM 2120 B
Batch ID: P375752

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P376251

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

Reference Method: SM 2540 C-97
Batch ID: P376416

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P376356

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P376254

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P375848

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: P375930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	106		P	85 - 115
Iron	107		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	103		P	85 - 115
Sodium	106		P	85 - 115
Zinc	97.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P375930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	106		P	85 - 115
Antimony	110		P	85 - 115
Arsenic	108		P	85 - 115
Boron	112		P	85 - 115
Cadmium	109		P	85 - 115
Chromium	100		P	85 - 115
Copper	104		P	85 - 115
Lead	108		P	85 - 115
Nickel	105		P	85 - 115
Selenium	105		P	85 - 115
Silver	111		P	85 - 115
Thallium	107		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376312

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376140

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375909

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.8		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P375893

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: P375923

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375764

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375765

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

Reference Method: EPA 8270E
Batch ID: P375696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	86.6	98.6	P/P	69 - 122
Alachlor	87.0	102	P/P	71 - 120
Ametryn	90.5	106	P/P	47 - 138
Atrazine	93.6	104	P/P	74 - 124
Atrazine Desethyl	71.9	72.6	P/P	38 - 138
Azinphos Methyl	87.3	98.1	P/P	69 - 154
Bromacil	104	85.8	P/P	39 - 121
Butylate	57.7	61.7	P/P	27 - 87.0
Chlorpyrifos Ethyl	92.2	109	P/P	69 - 118
Chlorpyrifos Methyl	92.9	99.0	P/P	70 - 120
Cyanazine	77.5	93.5	P/P	20 - 250
Demeton	84.3	83.6	P/P	39 - 118
Diazinon	85.1	94.2	P/P	68 - 127
Dimethenamid	83.7	92.9	P/P	66 - 125
Disulfoton	85.4	87.8	P/P	52 - 126
Dithiopyr	82.0	98.9	P/P	67 - 127
EPTC	55.2	62.5	P/P	24 - 88.0
Ethion	81.7	108	P/P	51 - 132
Ethoprop	84.7	89.2	P/P	58 - 117
Fenamiphos	89.4	107	P/P	38 - 139
Fipronil	82.9	101	P/P	61 - 124
Fipronil Desulfinyl	79.4	103	P/P	47 - 120
Fipronil Sulfide	69.3	84.0	P/P	56 - 119
Fipronil Sulfone	77.9	95.1	P/P	50 - 117
Fonofos	86.0	87.9	P/P	60 - 121
Hexazinone	87.6	109	P/P	55 - 137
Malathion	100	105	P/P	66 - 126
Metalaxyl	86.6	103	P/P	33 - 140

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P375696

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	79.2	93.1	P/P	69 - 119
Metribuzin	97.7	93.8	P/P	31 - 238
Mevinphos	90.0	89.1	P/P	42 - 113
Molinate	69.2	70.5	P/P	32 - 96.0
Norflurazon	79.8	97.0	P/P	54 - 123
Oxadiazon	80.1	98.1	P/P	63 - 128
Parathion Ethyl	84.9	98.5	P/P	72 - 111
Parathion Methyl	95.7	101	P/P	74 - 126
Pendimethalin	74.2	97.6	P/P	61 - 131
Phorate	90.5	83.6	P/P	51 - 115
Prodiamine	36.3	58.4	F/P	38 - 144
Prometon	75.6	94.8	P/P	54 - 119
Prometryn	83.9	98.3	P/P	63 - 120
Simazine	96.7	103	P/P	75 - 126
Tebuconazole	37.6	73.0	P/P	20 - 119
Terbufos	90.5	95.0	P/P	64 - 116
Terbutylazine	87.1	100	P/P	73 - 117

Reference Method: EPA 8270E
Batch ID: P375721

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	62.1	59.6	P/P	20 - 93.0
Alpha-BHC	92.1	96.5	P/P	55 - 133
Alpha-Chlordane	82.6	77.1	P/P	58 - 112
Beta-BHC	99.9	104	P/P	54 - 168
Bifenthrin	82.0	82.1	P/P	30 - 134
Carbophenothion	86.0	85.3	P/P	26 - 147
Chlorothalonil	103	107	P/P	20 - 155
Cis-Nonachlor	80.4	75.5	P/P	54 - 115
Cypermethrin	75.2	75.7	P/P	40 - 137
DDD-p,p'	86.6	82.4	P/P	65 - 129
DDE-p,p'	78.6	75.0	P/P	57 - 116
DDT-p,p'	81.8	82.2	P/P	53 - 133
Delta-BHC	103	114	P/P	59 - 178
Dicofol	83.1	84.3	P/P	24 - 138
Dieldrin	84.6	79.6	P/P	60 - 120
Endosulfan I	87.0	82.1	P/P	64 - 118
Endosulfan II	94.2	91.2	P/P	58 - 142
Endosulfan Sulfate	87.7	87.2	P/P	60 - 127
Endrin	87.5	82.4	P/P	59 - 122
Endrin Aldehyde	92.4	88.2	P/P	49 - 132
Endrin Ketone	91.5	90.2	P/P	64 - 121
Ethalfuralin	74.2	74.9	P/P	60 - 126
Gamma-BHC	91.5	102	P/P	57 - 154
Gamma-Chlordane	78.5	73.9	P/P	56 - 110
Heptachlor	75.1	72.1	P/P	46 - 96.0
Heptachlor Epoxide	84.2	79.2	P/P	61 - 112
Hexachlorobenzene	71.3	68.9	P/P	44 - 98.0
Methoxychlor	101	104	P/P	63 - 134
Mirex	66.6	65.7	P/P	45 - 100
Permethrin	80.8	82.3	P/P	53 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P375721

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trans-Nonachlor	77.2	72.7	P/P	47 - 110
Trifluralin	76.4	78.7	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P375721

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	88.0	89.7	P/P	43 - 128
Toxaphene	84.5	88.5	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P375695

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	125		P	40 - 160
3-Hydroxycarbofuran	70.2		P	40 - 160
Acetaminophen	77.9		P	30 - 160
Acetamiprid	89.9		P	40 - 160
Afidopyropen	66.1		P	40 - 160
Aldicarb	73.5		P	30 - 160
Aldicarb Sulfone	72.0		P	40 - 160
Aldicarb Sulfoxide	74.5		P	40 - 160
Bentazon	93.0		P	30 - 160
Benzovindiflupyr	80.8		P	40 - 160
Carbamazepine	92.1		P	40 - 160
Carbaryl	70.9		P	40 - 160
Carbofuran	74.5		P	40 - 160
Clothianidin	89.2		P	40 - 160
Dinotefuran	78.3		P	40 - 160
Diuron	88.1		P	40 - 160
Fenuron	93.3		P	40 - 160
Fluridone	79.6		P	40 - 160
Hydrocodone	87.9		P	40 - 160
Ibuprofen	87.7		P	30 - 160
Imazapyr	103		P	40 - 160
Imidacloprid	96.5		P	40 - 160
Linuron	77.8		P	40 - 160
Mandestrobin	83.0		P	40 - 160
MCPP	144		P	40 - 160
Methiocarb	69.6		P	40 - 160
Methomyl	69.4		P	40 - 160
Naproxen	109		P	40 - 160
Oxamyl	79.0		P	40 - 160
Primidone	87.4		P	40 - 160
Propoxur	65.3		P	40 - 160
Pyraclostrobin	84.2		P	30 - 160
Thiamethoxam	95.2		P	40 - 160
Tolfenpyrad	53.2		P	40 - 160
Triclopyr	59.8		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P375838

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	92.7		P	40 - 150
AMPA	85.3		P	40 - 150
Endothall	94.5		P	40 - 150
Glufosinate	87.5		P	40 - 150
Glyphosate	119		P	40 - 140
Sucralose	77.9		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P375752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.2		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P376251

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P376254

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P375848

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P375930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143006	Barium	98.4		P	75 - 125
2143006	Iron	107		P	75 - 125
2143006	Magnesium	106		P	75 - 125
2143006	Potassium	105		P	75 - 125
2143006	Sodium	104		P	75 - 125
2143006	Zinc	95.5		P	75 - 125
2143131	Barium	99.5	100	P/P	80 - 120
2143131	Calcium	107	103	P/P	80 - 120
2143131	Iron	109	105	P/P	80 - 120
2143131	Magnesium	107	105	P/P	80 - 120
2143131	Potassium	103	100	P/P	80 - 120
2143131	Sodium	104	103	P/P	80 - 120
2143131	Zinc	96.3	94.9	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P375930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143006	Aluminum	109		P	75 - 125
2143006	Antimony	115		P	75 - 125
2143006	Arsenic	112		P	75 - 125
2143006	Boron	105		P	75 - 125
2143006	Cadmium	110		P	75 - 125
2143006	Chromium	103		P	75 - 125
2143006	Copper	104		P	75 - 125
2143006	Lead	110		P	75 - 125
2143006	Nickel	109		P	75 - 125
2143006	Selenium	99.2		P	75 - 125
2143006	Silver	112		P	75 - 125
2143006	Thallium	114		P	75 - 125
2143131	Aluminum	107	109	P/P	80 - 120
2143131	Antimony	113	112	P/P	80 - 120
2143131	Arsenic	99.8	101	P/P	80 - 120
2143131	Boron	110	111	P/P	80 - 120
2143131	Cadmium	112	108	P/P	80 - 120
2143131	Chromium	105	106	P/P	80 - 120
2143131	Copper	96.7	98.0	P/P	80 - 120
2143131	Lead	109	108	P/P	80 - 120
2143131	Nickel	96.8	97.8	P/P	80 - 120
2143131	Selenium	96.6	98.2	P/P	80 - 120
2143131	Silver	111	111	P/P	80 - 120
2143131	Thallium	109	111	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142804	Chloride	104		P	90 - 110
2143344	Chloride	105		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142804	Sulfate	104		P	90 - 110
2143344	Sulfate	107		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376140

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143253	Ammonia-N	100	97.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143350	Kjeldahl Nitrogen	94.1	93.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P375893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143253	NO2NO3-N	98.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375923

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143316	Total-P	108	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142988	O-Phosphate-P	98.9	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143319	O-Phosphate-P	94.2	96.3	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P375696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142778	Acetochlor	89.0	93.8	P/P	63 - 129
2142778	Alachlor	86.5	92.8	P/P	65 - 127
2142778	Ametryn	78.2	79.4	P/P	40 - 164
2142778	Atrazine Desethyl	61.7	73.6	P/P	14 - 157
2142778	Azinphos Methyl	76.8	85.7	P/P	49 - 180
2142778	Bromacil	70.8	78.3	P/P	48 - 130
2142778	Butylate	40.2	49.6	P/P	10 - 94.0
2142778	Chlorpyrifos Ethyl	101	99.3	P/P	58 - 123
2142778	Chlorpyrifos Methyl	91.7	97.9	P/P	58 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P375696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142778	Cyanazine	78.3	81.5	P/P	24 - 253
2142778	Demeton	90.6	110	P/P	25 - 149
2142778	Diazinon	91.2	98.1	P/P	59 - 144
2142778	Dimethenamid	83.6	96.8	P/P	46 - 139
2142778	Disulfoton	81.4	81.0	P/P	54 - 132
2142778	Dithiopyr	88.8	89.9	P/P	64 - 130
2142778	EPTC	40.3	48.1	P/P	10 - 92.0
2142778	Ethion	96.7	83.7	P/P	30 - 148
2142778	Ethoprop	89.1	99.6	P/P	50 - 130
2142778	Fenamiphos	99.2	80.5	P/P	49 - 142
2142778	Fipronil	93.4	88.4	P/P	46 - 140
2142778	Fipronil Desulfinyf	88.7	90.9	P/P	30 - 121
2142778	Fipronil Sulfide	76.6	69.8	P/P	31 - 136
2142778	Fipronil Sulfone	86.4	80.1	P/P	16 - 136
2142778	Fonofos	86.5	97.1	P/P	55 - 129
2142778	Hexazinone	104	105	P/P	56 - 141
2142778	Malathion	98.8	93.3	P/P	56 - 135
2142778	Metalaxyl	91.7	94.2	P/P	54 - 135
2142778	Metolachlor	80.6	81.5	P/P	51 - 140
2142778	Metribuzin	109	118	P/P	45 - 254
2142778	Mevinphos	78.8	106	P/P	33 - 131
2142778	Molinate	58.5	73.8	P/P	14 - 98.0
2142778	Norflurazon	76.2	81.0	P/P	34 - 136
2142778	Oxadiazon	77.2	75.9	P/P	67 - 116
2142778	Parathion Ethyl	92.4	100	P/P	66 - 118
2142778	Parathion Methyl	96.8	115	P/P	64 - 136
2142778	Pendimethalin	104	99.2	P/P	59 - 144
2142778	Phorate	75.7	100	P/P	42 - 130
2142778	Prodiamine	90.7	40.2	P/F	42 - 148
2142778	Prometon	88.0	88.8	P/P	59 - 134
2142778	Prometryn	93.7	88.5	P/P	54 - 135
2142778	Simazine	89.4	97.5	P/P	53 - 156
2142778	Tebuconazole	70.7	48.9	P/P	10 - 131
2142778	Terbufos	96.7	104	P/P	57 - 131
2142778	Terbutylazine	90.5	96.4	P/P	68 - 125

Reference Method: EPA 8270E
Batch ID: P375721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143506	Aldrin	62.3	59.5	P/P	25 - 92.0
2143506	Alpha-BHC	93.5	93.0	P/P	48 - 150
2143506	Alpha-Chlordane	85.5	79.3	P/P	50 - 115
2143506	Beta-BHC	99.6	106	P/P	39 - 184
2143506	Bifenthrin	85.5	85.4	P/P	46 - 116
2143506	Carbophenothion	93.3	88.9	P/P	27 - 180
2143506	Chlorothalonil	101	88.5	P/P	10 - 216
2143506	Cis-Nonachlor	79.8	75.9	P/P	55 - 112
2143506	Cypermethrin	84.1	82.7	P/P	40 - 153
2143506	DDD-p,p'	83.3	80.9	P/P	53 - 128
2143506	DDE-p,p'	79.4	76.0	P/P	48 - 116
2143506	DDT-p,p'	79.7	77.9	P/P	47 - 128

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P375721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143506	Delta-BHC	119	117	P/P	48 - 221
2143506	Dicofol	77.4	83.5	P/P	10 - 147
2143506	Dieldrin	82.1	79.2	P/P	48 - 128
2143506	Endosulfan I	82.3	80.9	P/P	58 - 126
2143506	Endosulfan II	110	99.6	P/P	50 - 150
2143506	Endosulfan Sulfate	88.6	78.2	P/P	56 - 130
2143506	Endrin	83.1	81.3	P/P	50 - 126
2143506	Endrin Aldehyde	84.4	74.9	P/P	12 - 145
2143506	Endrin Ketone	88.1	86.3	P/P	59 - 132
2143506	Ethalfuralin	68.2	71.0	P/P	65 - 122
2143506	Gamma-BHC	97.2	85.3	P/P	40 - 190
2143506	Gamma-Chlordane	78.4	73.7	P/P	50 - 112
2143506	Heptachlor	75.0	70.1	P/P	41 - 98.0
2143506	Heptachlor Epoxide	109	101	P/P	55 - 117
2143506	Hexachlorobenzene	67.8	72.0	P/P	47 - 91.0
2143506	Methoxychlor	99.6	94.0	P/P	55 - 133
2143506	Mirex	68.5	68.6	P/P	44 - 101
2143506	Permethrin	82.1	81.8	P/P	52 - 124
2143506	Trans-Nonachlor	80.4	76.6	P/P	53 - 99.0
2143506	Trifluralin	77.1	75.9	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P375721

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142738	Chlordane	98.1	96.4	P/P	34 - 136
2142738	Toxaphene	92.8	94.8	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P375695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143330	3-Hydroxycarbofuran	54.0	67.2	P/P	40 - 160
2143330	Aldicarb	34.6	57.3	P/P	30 - 160
2143330	Aldicarb Sulfone	82.9	74.7	P/P	40 - 160
2143330	Aldicarb Sulfoxide	37.7	42.8	F/P	40 - 160
2143330	Carbaryl	52.4	58.5	P/P	40 - 160
2143330	Carbofuran	56.8	58.2	P/P	40 - 160
2143330	Methiocarb	57.0	67.9	P/P	40 - 160
2143330	Methomyl	63.5	64.2	P/P	40 - 160
2143330	Oxamyl	60.2	66.9	P/P	40 - 160
2143330	Propoxur	50.9	51.4	P/P	40 - 160
2143334	2,4-D	143	109	P/P	40 - 160
2143334	Acetaminophen	100	103	P/P	30 - 160
2143334	Acetamiprid	94.9	92.1	P/P	40 - 160
2143334	Afidopyropen	79.8	74.6	P/P	40 - 160
2143334	Benzovindiflupyr	88.4	86.8	P/P	40 - 160
2143334	Carbamazepine	93.4	101	P/P	40 - 160
2143334	Clothianidin	117	117	P/P	40 - 160
2143334	Dinotefuran	112	125	P/P	40 - 160
2143334	Diuron	88.7	90.4	P/P	40 - 160
2143334	Fenuron	88.4	93.5	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P375695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143334	Hydrocodone	90.8	92.1	P/P	40 - 160
2143334	Ibuprofen	85.8	80.6	P/P	30 - 160
2143334	Imidacloprid	170	153	F/P	40 - 160
2143334	Linuron	82.6	80.0	P/P	40 - 160
2143334	Mandestrobin	85.3	87.6	P/P	40 - 160
2143334	MCPD	187	167	F/F	40 - 160
2143334	Naproxen	54.4	113	P/P	40 - 160
2143334	Primidone	111	106	P/P	40 - 160
2143334	Pyraclostrobin	89.8	87.3	P/P	30 - 160
2143334	Thiamethoxam	147	154	P/P	40 - 160
2143334	Tolfenpyrad	61.8	53.9	P/P	40 - 160
2143334	Triclopyr	117	120	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P375838

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2142668	Acesulfame K	127	131	P/P	40 - 150
2142668	AMPA	69.1	83.7	P/P	40 - 150
2142668	Endothall	93.1	72.3	P/P	40 - 150
2142668	Glufosinate	99.9	84.5	P/P	40 - 150
2142668	Sucralose	79.2	79.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P376254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143445	Fluoride	101	100	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P375848

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2143351	Organic Carbon	99.2	99.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P375815

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143239	Turbidity	3.85	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P375930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143131	Barium	0.871	Spike	P	0 - 20
2143131	Calcium	2.93	Spike	P	0 - 20
2143131	Iron	3.08	Spike	P	0 - 20
2143131	Magnesium	1.81	Spike	P	0 - 20
2143131	Potassium	2.64	Spike	P	0 - 20
2143131	Sodium	0.857	Spike	P	0 - 20
2143131	Zinc	1.48	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P375930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143131	Aluminum	1.18	Spike	P	0 - 20
2143131	Antimony	1.36	Spike	P	0 - 20
2143131	Arsenic	1.32	Spike	P	0 - 20
2143131	Boron	0.442	Spike	P	0 - 20
2143131	Cadmium	3.61	Spike	P	0 - 20
2143131	Chromium	0.794	Spike	P	0 - 20
2143131	Copper	1.26	Spike	P	0 - 20
2143131	Lead	0.712	Spike	P	0 - 20
2143131	Nickel	1.02	Spike	P	0 - 20
2143131	Selenium	1.64	Spike	P	0 - 20
2143131	Silver	0.0244	Spike	P	0 - 20
2143131	Thallium	2.15	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142804	Chloride	0.216	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P376312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142804	Sulfate	0.417	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P376140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143253	Ammonia-N	2.03	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P375909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143350	Kjeldahl Nitrogen	0.471	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P375893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143253	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P375923

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143316	Total-P	3.36	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142988	O-Phosphate-P	0.914	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P375765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143319	O-Phosphate-P	2.20	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P375696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142778	Acetochlor	5.25	Spike	P	0 - 30
2142778	Alachlor	7.01	Spike	P	0 - 30
2142778	Ametryn	1.02	Spike	P	0 - 30
2142778	Atrazine	9.05	Spike	P	0 - 30
2142778	Atrazine Desethyl	17.6	Spike	P	0 - 30
2142778	Azinphos Methyl	11.0	Spike	P	0 - 30
2142778	Bromacil	10.1	Spike	P	0 - 30
2142778	Butylate	20.8	Spike	P	0 - 30
2142778	Chlorpyrifos Ethyl	2.18	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P375696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142778	Chlorpyrifos Methyl	6.60	Spike	P	0 - 30
2142778	Cyanazine	3.94	Spike	P	0 - 30
2142778	Demeton	19.5	Spike	P	0 - 30
2142778	Diazinon	7.28	Spike	P	0 - 30
2142778	Dimethenamid	14.7	Spike	P	0 - 30
2142778	Disulfoton	0.408	Spike	P	0 - 30
2142778	Dithiopyr	1.21	Spike	P	0 - 30
2142778	EPTC	17.7	Spike	P	0 - 30
2142778	Ethion	14.4	Spike	P	0 - 30
2142778	Ethoprop	11.1	Spike	P	0 - 30
2142778	Fenamiphos	20.9	Spike	P	0 - 30
2142778	Fipronil	5.51	Spike	P	0 - 30
2142778	Fipronil Desulfinyl	2.42	Spike	P	0 - 30
2142778	Fipronil Sulfide	9.19	Spike	P	0 - 30
2142778	Fipronil Sulfone	7.57	Spike	P	0 - 30
2142778	Fonofos	11.5	Spike	P	0 - 30
2142778	Hexazinone	0.968	Spike	P	0 - 30
2142778	Malathion	5.72	Spike	P	0 - 30
2142778	Metalaxyl	2.62	Spike	P	0 - 30
2142778	Metolachlor	1.01	Spike	P	0 - 30
2142778	Metribuzin	8.07	Spike	P	0 - 30
2142778	Mevinphos	29.4	Spike	P	0 - 30
2142778	Molinate	23.1	Spike	P	0 - 30
2142778	Norflurazon	6.09	Spike	P	0 - 30
2142778	Oxadiazon	1.65	Spike	P	0 - 30
2142778	Parathion Ethyl	8.36	Spike	P	0 - 30
2142778	Parathion Methyl	16.9	Spike	P	0 - 30
2142778	Pendimethalin	4.95	Spike	P	0 - 30
2142778	Phorate	27.8	Spike	P	0 - 30
2142778	Prodiamine	77.2	Spike	F	0 - 30
2142778	Prometon	0.887	Spike	P	0 - 30
2142778	Prometryn	5.75	Spike	P	0 - 30
2142778	Simazine	8.63	Spike	P	0 - 30
2142778	Tebuconazole	36.4	Spike	F	0 - 30
2142778	Terbufos	7.74	Spike	P	0 - 30
2142778	Terbuthylazine	6.23	Spike	P	0 - 30
LFB	Acetochlor	13.0	LCS	P	0 - 30
LFB	Alachlor	15.5	LCS	P	0 - 30
LFB	Ametryn	15.4	LCS	P	0 - 30
LFB	Atrazine	10.3	LCS	P	0 - 30
LFB	Atrazine Desethyl	0.955	LCS	P	0 - 30
LFB	Azinphos Methyl	11.7	LCS	P	0 - 30
LFB	Bromacil	19.1	LCS	P	0 - 30
LFB	Butylate	6.78	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	16.8	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	6.28	LCS	P	0 - 30
LFB	Cyanazine	18.7	LCS	P	0 - 30
LFB	Demeton	0.898	LCS	P	0 - 30
LFB	Diazinon	10.1	LCS	P	0 - 30
LFB	Dimethenamid	10.4	LCS	P	0 - 30
LFB	Disulfoton	2.73	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P375696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	18.6	LCS	P	0 - 30
LFB	EPTC	12.4	LCS	P	0 - 30
LFB	Ethion	27.8	LCS	P	0 - 30
LFB	Ethoprop	5.22	LCS	P	0 - 30
LFB	Fenamiphos	18.3	LCS	P	0 - 30
LFB	Fipronil	19.7	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	25.6	LCS	P	0 - 30
LFB	Fipronil Sulfide	19.3	LCS	P	0 - 30
LFB	Fipronil Sulfone	19.9	LCS	P	0 - 30
LFB	Fonofos	2.23	LCS	P	0 - 30
LFB	Hexazinone	21.3	LCS	P	0 - 30
LFB	Malathion	4.05	LCS	P	0 - 30
LFB	Metaxyl	17.2	LCS	P	0 - 30
LFB	Metolachlor	16.1	LCS	P	0 - 30
LFB	Metribuzin	4.12	LCS	P	0 - 30
LFB	Mevinphos	1.00	LCS	P	0 - 30
LFB	Molinate	1.96	LCS	P	0 - 30
LFB	Norflurazon	19.4	LCS	P	0 - 30
LFB	Oxadiazon	20.1	LCS	P	0 - 30
LFB	Parathion Ethyl	14.8	LCS	P	0 - 30
LFB	Parathion Methyl	5.13	LCS	P	0 - 30
LFB	Pendimethalin	27.2	LCS	P	0 - 30
LFB	Phorate	7.87	LCS	P	0 - 30
LFB	Prodiamine	46.7	LCS	F	0 - 30
LFB	Prometon	22.5	LCS	P	0 - 30
LFB	Prometryn	15.7	LCS	P	0 - 30
LFB	Simazine	6.41	LCS	P	0 - 30
LFB	Tebuconazole	64.0	LCS	F	0 - 30
LFB	Terbufos	4.86	LCS	P	0 - 30
LFB	Terbutylazine	14.1	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P375721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143506	Aldrin	4.57	Spike	P	0 - 30
2143506	Alpha-BHC	0.617	Spike	P	0 - 30
2143506	Alpha-Chlordane	5.43	Spike	P	0 - 30
2143506	Beta-BHC	6.20	Spike	P	0 - 30
2143506	Bifenthrin	0.121	Spike	P	0 - 30
2143506	Carbophenothion	4.83	Spike	P	0 - 30
2143506	Chlorothalonil	13.6	Spike	P	0 - 30
2143506	Cis-Nonachlor	5.01	Spike	P	0 - 30
2143506	Cypermethrin	1.58	Spike	P	0 - 30
2143506	DDD-p,p'	2.93	Spike	P	0 - 30
2143506	DDE-p,p'	4.35	Spike	P	0 - 30
2143506	DDT-p,p'	2.25	Spike	P	0 - 30
2143506	Delta-BHC	1.54	Spike	P	0 - 30
2143506	Dicofol	7.56	Spike	P	0 - 30
2143506	Dieldrin	3.59	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P375721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143506	Endosulfan I	1.79	Spike	P	0 - 30
2143506	Endosulfan II	10.4	Spike	P	0 - 30
2143506	Endosulfan Sulfate	12.4	Spike	P	0 - 30
2143506	Endrin	2.13	Spike	P	0 - 30
2143506	Endrin Aldehyde	12.0	Spike	P	0 - 30
2143506	Endrin Ketone	2.00	Spike	P	0 - 30
2143506	Ethalfuralin	4.06	Spike	P	0 - 30
2143506	Gamma-BHC	13.0	Spike	P	0 - 30
2143506	Gamma-Chlordane	4.99	Spike	P	0 - 30
2143506	Heptachlor	6.74	Spike	P	0 - 30
2143506	Heptachlor Epoxide	2.10	Spike	P	0 - 30
2143506	Hexachlorobenzene	5.99	Spike	P	0 - 30
2143506	Methoxychlor	5.82	Spike	P	0 - 30
2143506	Mirex	0.0960	Spike	P	0 - 30
2143506	Permethrin	0.346	Spike	P	0 - 30
2143506	Trans-Nonachlor	4.81	Spike	P	0 - 30
2143506	Trifluralin	1.65	Spike	P	0 - 30
LFB	Aldrin	4.20	LCS	P	0 - 30
LFB	Alpha-BHC	4.67	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.86	LCS	P	0 - 30
LFB	Beta-BHC	3.97	LCS	P	0 - 30
LFB	Bifenthrin	0.160	LCS	P	0 - 30
LFB	Carbophenothion	0.907	LCS	P	0 - 30
LFB	Chlorothalonil	3.82	LCS	P	0 - 30
LFB	Cis-Nonachlor	6.22	LCS	P	0 - 30
LFB	Cypermethrin	0.619	LCS	P	0 - 30
LFB	DDD-p,p'	5.01	LCS	P	0 - 30
LFB	DDE-p,p'	4.63	LCS	P	0 - 30
LFB	DDT-p,p'	0.413	LCS	P	0 - 30
LFB	Delta-BHC	9.95	LCS	P	0 - 30
LFB	Dicofol	1.45	LCS	P	0 - 30
LFB	Dieldrin	6.06	LCS	P	0 - 30
LFB	Endosulfan I	5.78	LCS	P	0 - 30
LFB	Endosulfan II	3.22	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.584	LCS	P	0 - 30
LFB	Endrin	6.00	LCS	P	0 - 30
LFB	Endrin Aldehyde	4.68	LCS	P	0 - 30
LFB	Endrin Ketone	1.46	LCS	P	0 - 30
LFB	Ethalfuralin	0.987	LCS	P	0 - 30
LFB	Gamma-BHC	10.9	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.05	LCS	P	0 - 30
LFB	Heptachlor	4.08	LCS	P	0 - 30
LFB	Heptachlor Epoxide	6.08	LCS	P	0 - 30
LFB	Hexachlorobenzene	3.43	LCS	P	0 - 30
LFB	Methoxychlor	3.51	LCS	P	0 - 30
LFB	Mirex	1.32	LCS	P	0 - 30
LFB	Permethrin	1.85	LCS	P	0 - 30
LFB	Trans-Nonachlor	6.10	LCS	P	0 - 30
LFB	Trifluralin	2.95	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276
Batch ID: P375721

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142738	Chlordane	1.72	Spike	P	0 - 30
2142738	Toxaphene	2.06	Spike	P	0 - 30
LFB	Chlordane	1.89	LCS	P	0 - 30
LFB	Toxaphene	4.63	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P375695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143330	3-Hydroxycarbofuran	21.8	Spike	P	0 - 30
2143330	Aldicarb	49.2	Spike	F	0 - 30
2143330	Aldicarb Sulfone	10.5	Spike	P	0 - 30
2143330	Aldicarb Sulfoxide	12.7	Spike	P	0 - 30
2143330	Carbaryl	10.9	Spike	P	0 - 30
2143330	Carbofuran	2.33	Spike	P	0 - 30
2143330	Methiocarb	17.5	Spike	P	0 - 30
2143330	Methomyl	1.09	Spike	P	0 - 30
2143330	Oxamyl	10.5	Spike	P	0 - 30
2143330	Propoxur	0.915	Spike	P	0 - 30
2143334	2,4-D	16.5	Spike	P	0 - 30
2143334	Acetaminophen	2.53	Spike	P	0 - 30
2143334	Acetamiprid	3.06	Spike	P	0 - 30
2143334	Afidopyropen	6.71	Spike	P	0 - 30
2143334	Bentazon	11.1	Spike	P	0 - 30
2143334	Benzovindiflupyr	1.88	Spike	P	0 - 30
2143334	Carbamazepine	8.21	Spike	P	0 - 30
2143334	Clothianidin	0.159	Spike	P	0 - 30
2143334	Dinotefuran	10.2	Spike	P	0 - 30
2143334	Diuron	1.78	Spike	P	0 - 30
2143334	Fenuron	5.56	Spike	P	0 - 30
2143334	Fluridone	0.613	Spike	P	0 - 30
2143334	Hydrocodone	1.46	Spike	P	0 - 30
2143334	Ibuprofen	6.23	Spike	P	0 - 30
2143334	Imazapyr	4.71	Spike	P	0 - 30
2143334	Imidacloprid	8.85	Spike	P	0 - 30
2143334	Linuron	3.22	Spike	P	0 - 30
2143334	Mandestrobin	2.67	Spike	P	0 - 30
2143334	MCP	11.4	Spike	P	0 - 30
2143334	Naproxen	69.8	Spike	F	0 - 30
2143334	Primidone	4.81	Spike	P	0 - 30
2143334	Pyraclostrobin	2.80	Spike	P	0 - 30
2143334	Thiamethoxam	4.54	Spike	P	0 - 30
2143334	Tolfenpyrad	13.5	Spike	P	0 - 30
2143334	Triclopyr	2.52	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P375838

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

Reference Method: EPA 8321B
Batch ID: P375838

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2142668	Acesulfame K	3.34	Spike	P	0 - 30
2142668	AMPA	9.25	Spike	P	0 - 30
2142668	Endothall	25.2	Spike	P	0 - 30
2142668	Glufosinate	16.7	Spike	P	0 - 30
2142668	Glyphosate	7.27	Spike	P	0 - 30
2142668	Sucralose	0.00455	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P375752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143345	Color (true)	2.49	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P376251

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143445	Total Alkalinity	0.0509	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P376416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143239	TDS	5.88	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P376254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143445	Fluoride	0.979	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P375848

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2143351	Organic Carbon	0.0853	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2143330
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	55.0	P	30 - 160

Lab Sample ID: 2143331
Field Sample ID: G4SE0114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	50.3	P	30 - 160

Lab Sample ID: 2143332
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	154	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.9	P	30 - 160
EPA 8321B	Diuron-d6	59.1	P	30 - 160
EPA 8321B	Endothall-d6	67.9	P	30 - 160
EPA 8321B	Endothall-d6	67.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.0	P	30 - 160
EPA 8321B	Primidone-d5	87.7	P	30 - 160
EPA 8321B	Sucralose-d6	89.0	P	30 - 160
EPA 8321B	Sucralose-d6	89.0	P	30 - 160

Lab Sample ID: 2143333
Field Sample ID: G4SE0114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	152	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.1	P	30 - 160
EPA 8321B	Diuron-d6	79.8	P	30 - 160
EPA 8321B	Endothall-d6	79.1	P	30 - 160
EPA 8321B	Endothall-d6	79.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	88.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	88.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	63.5	P	30 - 160
EPA 8321B	Primidone-d5	106	P	30 - 160
EPA 8321B	Sucralose-d6	90.9	P	30 - 160
EPA 8321B	Sucralose-d6	90.9	P	30 - 160

Lab Sample ID: 2143334
Field Sample ID: G4SE0109

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	103	P	30 - 160
EPA 8321B	Acetaminophen-d4	103	P	30 - 160
EPA 8321B	Carbamazepine-d10	86.0	P	30 - 160
EPA 8321B	Diuron-d6	80.3	P	30 - 160
EPA 8321B	Endothall-d6	72.4	P	30 - 160
EPA 8321B	Endothall-d6	72.4	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2143334
Field Sample ID: G4SE0109

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	76.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	107	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	89.5	P	30 - 160
EPA 8321B	Sucralose-d6	89.5	P	30 - 160

Lab Sample ID: 2143335
Field Sample ID: G4SE0029

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.8	P	30 - 160
EPA 8321B	Diuron-d6	83.8	P	30 - 160
EPA 8321B	Endothall-d6	78.6	P	30 - 160
EPA 8321B	Endothall-d6	78.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.7	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	87.5	P	30 - 160
EPA 8321B	Sucralose-d6	87.5	P	30 - 160

Lab Sample ID: 2143336
Field Sample ID: G4SEB128

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	141	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.0	P	30 - 160
EPA 8321B	Diuron-d6	88.3	P	30 - 160
EPA 8321B	Endothall-d6	65.2	P	30 - 160
EPA 8321B	Endothall-d6	65.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.7	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	92.4	P	30 - 160
EPA 8321B	Sucralose-d6	92.4	P	30 - 160

Lab Sample ID: 2143337
Field Sample ID: G4SE0126

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	74.0	P	30 - 160
EPA 8321B	Diuron-d6	69.5	P	30 - 160
EPA 8321B	Endothall-d6	76.9	P	30 - 160
EPA 8321B	Endothall-d6	76.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.4	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2143337
Field Sample ID: G4SE0126

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	89.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.7	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	93.0	P	30 - 160
EPA 8321B	Sucralose-d6	93.0	P	30 - 160

Lab Sample ID: 2143338
Field Sample ID: G4SE0110

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	147	P	30 - 160
EPA 8321B	Acetaminophen-d4	118	P	30 - 160
EPA 8321B	Carbamazepine-d10	103	P	30 - 160
EPA 8321B	Diuron-d6	67.6	P	30 - 160
EPA 8321B	Endothall-d6	50.8	P	30 - 160
EPA 8321B	Endothall-d6	50.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	96.6	P	30 - 160
EPA 8321B	Primidone-d5	135	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2143339
Field Sample ID: G4SE0122

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	100	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.4	P	30 - 160
EPA 8321B	Diuron-d6	70.8	P	30 - 160
EPA 8321B	Endothall-d6	48.6	P	30 - 160
EPA 8321B	Endothall-d6	48.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	72.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	84.2	P	30 - 160
EPA 8321B	Primidone-d5	91.7	P	30 - 160
EPA 8321B	Sucralose-d6	93.8	P	30 - 160
EPA 8321B	Sucralose-d6	93.8	P	30 - 160

Lab Sample ID: 2143340
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	76.1	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	61.0	P	35 - 106
EPA 8276	Decachlorobiphenyl	60.8	P	30 - 103
EPA 8276	PCNB	83.7	P	37 - 143

Quality Assurance Report Surrogates

Lab Sample ID: 2143341
Field Sample ID: G4SE0114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	73.4	P	43 - 111
EPA 8270E	Tetrachloro-m-xylene	54.2	P	35 - 106
EPA 8276	Decachlorobiphenyl	58.0	P	30 - 103
EPA 8276	PCNB	79.0	P	37 - 143

Lab Sample ID: 2143342
Field Sample ID: G4SENNR3

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	113	P	68 - 130
EPA 8270E	Terbufos-d10	120	P	61 - 136

Lab Sample ID: 2143343
Field Sample ID: G4SE0114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	112	P	68 - 130
EPA 8270E	Terbufos-d10	118	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A96307

Included Lab Sample IDs: 2143314, 2143315

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.0	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A96310

Included Lab Sample IDs: 2143318, 2143319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	96.1	96.2	P/P	90 - 110
O-Phosphate-P	97.8	96.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A96325

Included Lab Sample IDs: 2143314, 2143315

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

Reference Method: SM 5310 B-00

Run ID: A96344

Included Lab Sample IDs: 2143316, 2143317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.4	96.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A96357

Included Lab Sample IDs: 2143316, 2143317

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

Reference Method: EPA 8321B

Run ID: A96386

Included Lab Sample IDs: 2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	76.2	85.0	P/P	60 - 160
AMPA	85.0	79.2	P/P	60 - 160
Glufosinate	104	92.5	P/P	60 - 160
Glufosinate	97.6	104	P/P	60 - 160
Glyphosate	126	103	P/P	60 - 160
Glyphosate	132	126	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A96395

Included Lab Sample IDs: 2143316, 2143317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A96400

Included Lab Sample IDs: 2143368, 2143369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.0	98.8	P/P	90 - 110
Calcium	99.6	100	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	101	102	P/P	90 - 110
Zinc	98.1	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A96441

Included Lab Sample IDs: 2143316, 2143317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A96459

Included Lab Sample IDs: 2143316, 2143317

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	98.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A96468

Included Lab Sample IDs: 2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	139	140	P/P	60 - 160
Acesulfame K	140	139	P/P	60 - 160
Endothall	77.9	88.9	P/P	60 - 160
Endothall	84.5	77.9	P/P	60 - 160

Reference Method: EPA 8270E

Run ID: A96489

Included Lab Sample IDs: 2143340, 2143341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.8		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	100		P	80 - 120
Beta-BHC	117		P	80 - 120
Bifenthrin	95.4		P	80 - 120
Carbophenothion	90.2		P	80 - 120
Chlorothalonil	81.4		P	80 - 120
Cis-Nonachlor	98.7		P	80 - 120
Cypermethrin	90.9		P	80 - 120
DDD-p,p'	99.8		P	80 - 120
DDE-p,p'	98.7		P	80 - 120
DDT-p,p'	99.6		P	80 - 120
Delta-BHC	106		P	80 - 120
Dicofol	97.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A96489

Included Lab Sample IDs: 2143340, 2143341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	99.4		P	80 - 120
Endosulfan I	95.3		P	80 - 120
Endosulfan II	100		P	80 - 120
Endosulfan Sulfate	98.0		P	80 - 120
Endrin	99.4		P	80 - 120
Endrin Aldehyde	98.1		P	80 - 120
Endrin Ketone	98.5		P	80 - 120
Ethalfuralin	97.1		P	80 - 120
Gamma-BHC	100		P	80 - 120
Gamma-Chlordane	99.0		P	80 - 120
Heptachlor	98.5		P	80 - 120
Heptachlor Epoxide	98.7		P	80 - 120
Hexachlorobenzene	105		P	80 - 120
Methoxychlor	100		P	80 - 120
Mirex	100		P	80 - 120
Permethrin	93.8		P	80 - 120
Trans-Nonachlor	99.1		P	80 - 120
Trifluralin	99.6		P	80 - 120

Reference Method: EPA 8276

Run ID: A96504

Included Lab Sample IDs: 2143340, 2143341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	101		P	80 - 120
Toxaphene	95.6		P	80 - 120

Reference Method: SM 2320 B-97

Run ID: A96509

Included Lab Sample IDs: 2143314, 2143315

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

Reference Method: SM 4500 F-C-97

Run ID: A96509

Included Lab Sample IDs: 2143314, 2143315

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96520

Included Lab Sample IDs: 2143368, 2143369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	107	108	P/P	90 - 110
Thallium	99.9	99.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96525

Included Lab Sample IDs: 2143368, 2143369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	108	107	P/P	90 - 110
Boron	107	108	P/P	90 - 110
Cadmium	109	108	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A96533

Included Lab Sample IDs: 2143314, 2143315

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

Reference Method: EPA 8321B

Run ID: A96534

Included Lab Sample IDs: 2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	86.9	96.1	P/P	60 - 160
Sucralose	96.1	96.4	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A96565

Included Lab Sample IDs: 2143368, 2143369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	98.7	99.4	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Copper	96.1	96.8	P/P	90 - 110
Lead	103	105	P/P	90 - 110
Nickel	95.9	96.7	P/P	90 - 110
Selenium	99.6	98.6	P/P	90 - 110
Silver	109	110	P/P	90 - 110
Thallium	90.8	93.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A96588

Included Lab Sample IDs: 2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	105	104	P/P	50 - 150
2,4-D	126	80.1	P/P	50 - 150
3-Hydroxycarbofuran	90.1	99.8	P/P	60 - 150
Acetaminophen	107	108	P/P	60 - 160
Acetaminophen	91.6	98.7	P/P	60 - 160
Acetamiprid	110	112	P/P	50 - 150
Acetamiprid	114	118	P/P	50 - 150
Afidopyropen	136	128	P/P	50 - 150
Afidopyropen	85.6	110	P/P	50 - 150
Aldicarb	70.8	94.2	P/P	60 - 150
Aldicarb Sulfone	89.5	94.2	P/P	50 - 150
Aldicarb Sulfoxide	78.2	87.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A96588

Included Lab Sample IDs: 2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bentazon	85.1	97.4	P/P	50 - 160
Bentazon	92.7	69.8	P/P	50 - 160
Benzovindiflupyr	103	109	P/P	50 - 150
Benzovindiflupyr	110	110	P/P	50 - 150
Carbamazepine	117	114	P/P	60 - 150
Carbamazepine	96.8	113	P/P	60 - 150
Carbaryl	88.5	99.0	P/P	60 - 150
Carbofuran	98.5	95.0	P/P	50 - 150
Clothianidin	107	97.5	P/P	60 - 150
Clothianidin	92.9	91.9	P/P	60 - 150
Dinotefuran	105	100	P/P	50 - 150
Dinotefuran	97.4	86.1	P/P	50 - 150
Diuron	111	119	P/P	60 - 150
Diuron	119	122	P/P	60 - 150
Fenuron	107	99.2	P/P	60 - 150
Fenuron	120	110	P/P	60 - 150
Fluridone	115	118	P/P	60 - 160
Fluridone	96.5	107	P/P	60 - 160
Hydrocodone	118	103	P/P	60 - 150
Hydrocodone	94.2	108	P/P	60 - 150
Ibuprofen	111	118	P/P	50 - 160
Ibuprofen	128	106	P/P	50 - 160
Imazapyr	112	99.8	P/P	50 - 150
Imazapyr	122	82.9	P/P	50 - 150
Imidacloprid	105	107	P/P	60 - 150
Imidacloprid	96.6	100	P/P	60 - 150
Linuron	110	114	P/P	60 - 150
Linuron	98.4	96.7	P/P	60 - 150
Mandestrobin	118	120	P/P	50 - 150
Mandestrobin	98.6	104	P/P	50 - 150
MCPP	122	76.8	P/P	50 - 150
MCPP	122	121	P/P	50 - 150
Methiocarb	95.8	99.8	P/P	50 - 150
Methomyl	93.7	92.5	P/P	50 - 150
Naproxen	132	96.1	P/P	50 - 160
Naproxen	77.8	97.0	P/P	50 - 160
Oxamyl	73.5	96.8	P/P	50 - 150
Primidone	102	110	P/P	60 - 150
Primidone	113	97.8	P/P	60 - 150
Propoxur	88.8	107	P/P	50 - 150
Pyraclostrobin	107	104	P/P	60 - 150
Pyraclostrobin	127	127	P/P	60 - 150
Thiamethoxam	106	120	P/P	50 - 150
Thiamethoxam	90.5	106	P/P	50 - 150
Tolfenpyrad	116	119	P/P	60 - 150
Tolfenpyrad	98.9	102	P/P	60 - 150
Triclopyr	102	121	P/P	50 - 150
Triclopyr	120	74.3	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A96618

Included Lab Sample IDs: 2143342, 2143343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	105		P	80 - 120
Ametryn	99.8		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	94.3		P	80 - 120
Bromacil	97.1		P	80 - 120
Butylate	99.6		P	80 - 120
Chlorpyrifos Ethyl	99.4		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	98.6		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	98.6		P	80 - 120
Dimethenamid	96.8		P	80 - 120
Disulfoton	94.3		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	100		P	80 - 120
Ethion	98.0		P	80 - 120
Ethoprop	99.8		P	80 - 120
Fenamiphos	99.3		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	104		P	80 - 120
Fipronil Sulfide	86.3		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fonofos	96.0		P	80 - 120
Hexazinone	99.8		P	80 - 120
Malathion	90.8		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	97.2		P	80 - 120
Metribuzin	90.6		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	99.6		P	80 - 120
Norflurazon	103		P	80 - 120
Oxadiazon	105		P	80 - 120
Parathion Ethyl	98.2		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	96.5		P	80 - 120
Prodiamine	87.3		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	98.8		P	80 - 120
Simazine	105		P	80 - 120
Tebuconazole	99.7		P	80 - 120
Terbufos	97.3		P	80 - 120
Terbutylazine	100		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							3.85	
EPA 200.7 Rev. 4.4	Barium	102		99.5	100	98.4			0.871
	Calcium	106		107	103				2.93
	Iron	107		109	105	107			3.08
	Magnesium	106		107	105	106			1.81
	Potassium	103		103	100	105			2.64
	Sodium	106		104	103	104			0.857
	Zinc	97.0		96.3	94.9	95.5			1.48
EPA 200.8 Rev. 5.4	Aluminum	106		109	107	109			1.18
	Antimony	110		115	113	112			1.36
	Arsenic	108		99.8	101	112			1.32
	Boron	112		105	110	111			0.442
	Cadmium	109		110	112	108			3.61
	Chromium	100		103	105	106			0.794
	Copper	104		96.7	98.0	104			1.26
	Lead	108		110	109	108			0.712
	Nickel	105		96.8	97.8	109			1.02
	Selenium	105		96.6	98.2	99.2			1.64
	Silver	111		112	111	111			0.0244
	Thallium	107		114	109	111			2.15
EPA 300.0 Rev. 2.1	Chloride	105		104	105			0.216	
	Sulfate	104		104	107			0.417	
EPA 350.1 Rev. 2.0	Ammonia-N	98.5		100	97.7				2.03
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.8		94.1	93.5				0.471
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.5	99.5				1.01
EPA 365.1 Rev. 2.0	Total-P	104		108	105				3.36
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	103		98.9	98.0				0.914
	O-Phosphate-P	98.6		94.2	96.3				2.20
EPA 8270E	Acetochlor	98.6	86.6	93.8	89.0		13.0		5.25
	Alachlor	102	87.0	86.5	92.8		15.5		7.01
	Aldrin	62.1	59.6	62.3	59.5		4.20		4.57
	Alpha-BHC	92.1	96.5	93.5	93.0		4.67		0.617
	Alpha-Chlordane	82.6	77.1	85.5	79.3		6.86		5.43
	Ametryn	106	90.5	78.2	79.4		15.4		1.02
	Atrazine	104	93.6				10.3		9.05
	Atrazine Desethyl	72.6	71.9	61.7	73.6		0.955		17.6
	Azinphos Methyl	98.1	87.3	76.8	85.7		11.7		11.0
	Beta-BHC	99.9	104	99.6	106		3.97		6.20
	Bifenthrin	82.0	82.1	85.5	85.4		0.160		0.121
	Bromacil	104	85.8	70.8	78.3		19.1		10.1
	Butylate	61.7	57.7	40.2	49.6		6.78		20.8
	Carbophenothion	86.0	85.3	93.3	88.9		0.907		4.83
	Chlorothalonil	103	107	101	88.5		3.82		13.6
	Chlorpyrifos Ethyl	109	92.2	99.3	101		16.8		2.18
	Chlorpyrifos Methyl	99.0	92.9	97.9	91.7		6.28		6.60
	Cis-Nonachlor	80.4	75.5	79.8	75.9		6.22		5.01
	Cyanazine	93.5	77.5	78.3	81.5		18.7		3.94
	Cypermethrin	75.2	75.7	84.1	82.7		0.619		1.58
	DDD-p,p'	86.6	82.4	83.3	80.9		5.01		2.93
	DDE-p,p'	78.6	75.0	79.4	76.0		4.63		4.35
	DDT-p,p'	81.8	82.2	79.7	77.9		0.413		2.25
	Delta-BHC	103	114	119	117		9.95		1.54
	Demeton	83.6	84.3	90.6	110		0.898		19.5
	Diazinon	94.2	85.1	91.2	98.1		10.1		7.28

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270E	Dicofol	83.1	84.3	77.4	83.5	1.45	7.56
	Dieldrin	84.6	79.6	82.1	79.2	6.06	3.59
	Dimethenamid	92.9	83.7	83.6	96.8	10.4	14.7
	Disulfoton	87.8	85.4	81.4	81.0	2.73	0.408
	Dithiopyr	98.9	82.0	88.8	89.9	18.6	1.21
	Endosulfan I	87.0	82.1	82.3	80.9	5.78	1.79
	Endosulfan II	94.2	91.2	110	99.6	3.22	10.4
	Endosulfan Sulfate	87.7	87.2	88.6	78.2	0.584	12.4
	Endrin	87.5	82.4	83.1	81.3	6.00	2.13
	Endrin Aldehyde	92.4	88.2	84.4	74.9	4.68	12.0
	Endrin Ketone	91.5	90.2	88.1	86.3	1.46	2.00
	EPTC	62.5	55.2	40.3	48.1	12.4	17.7
	Ethalfuralin	74.2	74.9	68.2	71.0	0.987	4.06
	Ethion	108	81.7	96.7	83.7	27.8	14.4
	Ethoprop	89.2	84.7	89.1	99.6	5.22	11.1
	Fenamiphos	107	89.4	99.2	80.5	18.3	20.9
	Fipronil	101	82.9	93.4	88.4	19.7	5.51
	Fipronil Desulfinyl	103	79.4	88.7	90.9	25.6	2.42
	Fipronil Sulfide	84.0	69.3	76.6	69.8	19.3	9.19
	Fipronil Sulfone	95.1	77.9	86.4	80.1	19.9	7.57
	Fonofos	87.9	86.0	86.5	97.1	2.23	11.5
	Gamma-BHC	91.5	102	97.2	85.3	10.9	13.0
	Gamma-Chlordane	78.5	73.9	78.4	73.7	6.05	4.99
	Heptachlor	75.1	72.1	75.0	70.1	4.08	6.74
	Heptachlor Epoxide	84.2	79.2	109	101	6.08	2.10
	Hexachlorobenzene	71.3	68.9	67.8	72.0	3.43	5.99
	Hexazinone	109	87.6	104	105	21.3	0.968
	Malathion	105	100	98.8	93.3	4.05	5.72
	Metalaxyl	103	86.6	91.7	94.2	17.2	2.62
	Methoxychlor	101	104	99.6	94.0	3.51	5.82
	Metolachlor	93.1	79.2	80.6	81.5	16.1	1.01
	Metribuzin	93.8	97.7	109	118	4.12	8.07
	Mevinphos	89.1	90.0	78.8	106	1.00	29.4
	Mirex	66.6	65.7	68.5	68.6	1.32	0.0960
	Molinate	70.5	69.2	58.5	73.8	1.96	23.1
	Norflurazon	97.0	79.8	76.2	81.0	19.4	6.09
	Oxadiazon	98.1	80.1	77.2	75.9	20.1	1.65
	Parathion Ethyl	98.5	84.9	92.4	100	14.8	8.36
	Parathion Methyl	101	95.7	96.8	115	5.13	16.9
	Pendimethalin	97.6	74.2	104	99.2	27.2	4.95
	Permethrin	80.8	82.3	82.1	81.8	1.85	0.346
	Phorate	83.6	90.5	75.7	100	7.87	27.8
	Prodiamine	36.3	58.4	90.7	40.2	46.7	77.2
	Prometon	94.8	75.6	88.0	88.8	22.5	0.887
	Prometryn	98.3	83.9	93.7	88.5	15.7	5.75
	Simazine	103	96.7	89.4	97.5	6.41	8.63
	Tebuconazole	37.6	73.0	70.7	48.9	64.0	36.4
	Terbufos	95.0	90.5	96.7	104	4.86	7.74
	Terbutylazine	100	87.1	90.5	96.4	14.1	6.23
	Trans-Nonachlor	77.2	72.7	80.4	76.6	6.10	4.81
	Trifluralin	76.4	78.7	77.1	75.9	2.95	1.65
EPA 8276	Chlordane	88.0	89.7	98.1	96.4	1.89	1.72
	Toxaphene	84.5	88.5	92.8	94.8	4.63	2.06
EPA 8321B	2,4-D	125		143	109		16.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 8321B	3-Hydroxycarbofuran	70.2	54.0 67.2			21.8
	Acesulfame K	92.7	127 131			3.34
	Acetaminophen	77.9	100 103			2.53
	Acetamiprid	89.9	94.9 92.1			3.06
	Afidopyropen	66.1	79.8 74.6			6.71
	Aldicarb	73.5	34.6 57.3			49.2
	Aldicarb Sulfone	72.0	82.9 74.7			10.5
	Aldicarb Sulfoxide	74.5	37.7 42.8			12.7
	AMPA	85.3	69.1 83.7			9.25
	Bentazon	93.0				11.1
	Benzovindiflupyr	80.8	88.4 86.8			1.88
	Carbamazepine	92.1	93.4 101			8.21
	Carbaryl	70.9	52.4 58.5			10.9
	Carbofuran	74.5	56.8 58.2			2.33
	Clothianidin	89.2	117 117			0.159
	Dinotefuran	78.3	112 125			10.2
	Diuron	88.1	88.7 90.4			1.78
	Endothall	94.5	93.1 72.3			25.2
	Fenuron	93.3	88.4 93.5			5.56
	Fluridone	79.6				0.613
	Glufosinate	87.5	99.9 84.5			16.7
	Glyphosate	119				7.27
	Hydrocodone	87.9	90.8 92.1			1.46
	Ibuprofen	87.7	85.8 80.6			6.23
	Imazapyr	103				4.71
	Imidacloprid	96.5	170 153			8.85
	Linuron	77.8	82.6 80.0			3.22
	Mandestrobin	83.0	85.3 87.6			2.67
	MCPP	144	187 167			11.4
	Methiocarb	69.6	57.0 67.9			17.5
	Methomyl	69.4	63.5 64.2			1.09
	Naproxen	109	54.4 113			69.8
	Oxamyl	79.0	60.2 66.9			10.5
	Primidone	87.4	111 106			4.81
	Propoxur	65.3	50.9 51.4			0.915
	Pyraclostrobin	84.2	89.8 87.3			2.80
	Sucralose	77.9	79.2 79.2			0.0045
	Thiamethoxam	95.2	147 154			4.54
	Tolfenpyrad	53.2	61.8 53.9			13.5
	Triclopyr	59.8	117 120			2.52
SM 2120 B	Color (true)	99.2			2.49	
SM 2320 B-97	Total Alkalinity	103			0.0509	
SM 2540 C-97	TDS				5.88	
SM 4500 F-C-97	Fluoride	97.5	101 100			0.979
SM 5310 B-00	Organic Carbon	101	99.2 99.2			0.0853

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2143314, 2143315
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2143368, 2143369

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2143368, 2143369
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2143314, 2143315
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2143314, 2143315
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2143316, 2143317
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2143316, 2143317
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2143316, 2143317
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2143316, 2143317
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2143318, 2143319
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2143340, 2143341
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2143342, 2143343
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2143340, 2143341
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2143330, 2143331
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2143332, 2143333, 2143334, 2143335, 2143336, 2143337, 2143338, 2143339
SM 2120 B / E31780	True Color measured at 450 nm	2143314, 2143315
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2143314, 2143315
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2143314, 2143315
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2143314, 2143315
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2143314, 2143315
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2143316, 2143317

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	12/12/2019			12/12/2019 17:19	Yen Ta	2143314, 2143315
EPA 200.7 Rev. 4.4	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/17/2019 14:00	Betina Topolski	2143368
	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/17/2019 14:06	Betina Topolski	2143369
EPA 200.8 Rev. 5.4	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/21/2019 05:52	Justin Cutchin	2143368
	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/21/2019 06:01	Justin Cutchin	2143369
	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/22/2019 05:39	Justin Cutchin	2143368
	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/22/2019 05:49	Justin Cutchin	2143369
	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/23/2019 21:55	Justin Cutchin	2143368
	12/12/2019	12/16/2019 14:40	Elliott D. Healy	12/23/2019 22:04	Justin Cutchin	2143369
EPA 300.0 Rev. 2.1	12/12/2019			12/21/2019 03:53	Lipi Saha	2143314
	12/12/2019			12/21/2019 04:05	Lipi Saha	2143315
EPA 350.1 Rev. 2.0	12/12/2019			12/17/2019 14:07	Ping Hua	2143316
	12/12/2019			12/17/2019 14:08	Ping Hua	2143317
EPA 351.2 Rev. 2.0	12/12/2019	12/16/2019 12:35	Sima Feizi	12/17/2019 12:43	Jhamieka S. Greenwood	2143316
	12/12/2019	12/16/2019 12:35	Sima Feizi	12/17/2019 12:45	Jhamieka S. Greenwood	2143317
EPA 353.2 Rev. 2.0	12/12/2019			12/13/2019 11:05	Beverly Y. Sanders	2143316
	12/12/2019			12/13/2019 11:06	Beverly Y. Sanders	2143317
EPA 365.1 Rev. 2.0	12/12/2019	12/16/2019 14:17	Yen Ta	12/18/2019 15:20	Benjamin T. Nordmann	2143316
	12/12/2019	12/16/2019 14:17	Yen Ta	12/18/2019 15:21	Benjamin T. Nordmann	2143317
EPA 365.1 Rev. 2.0 dissolved	12/12/2019			12/12/2019 16:07	Samantha Davila	2143319
	12/12/2019			12/12/2019 16:39	Samantha Davila	2143318
EPA 8270E	12/12/2019	12/13/2019 09:00	Rasheda Ghaffari	12/20/2019 01:50	Arthur Maknenko	2143340
	12/12/2019	12/13/2019 09:00	Rasheda Ghaffari	12/20/2019 02:22	Arthur Maknenko	2143341
	12/12/2019	12/16/2019 08:00	Fe-Val Siddell	12/17/2019 19:12	Vandana T. Nagar	2143342
	12/12/2019	12/16/2019 08:00	Fe-Val Siddell	12/17/2019 19:38	Vandana T. Nagar	2143343
EPA 8276	12/12/2019	12/13/2019 09:00	Rasheda Ghaffari	12/20/2019 08:49	Michael Poppell	2143340
	12/12/2019	12/13/2019 09:00	Rasheda Ghaffari	12/20/2019 09:45	Michael Poppell	2143341
EPA 8321B	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 17:16	Rebecca Ware	2143332
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 17:26	Rebecca Ware	2143333
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 17:37	Rebecca Ware	2143334
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 17:48	Rebecca Ware	2143335
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 18:09	Rebecca Ware	2143336
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 18:20	Rebecca Ware	2143337
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 18:31	Rebecca Ware	2143338
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/16/2019 18:42	Rebecca Ware	2143339
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 14:30	Rebecca Ware	2143332
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 14:44	Rebecca Ware	2143333
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 14:58	Rebecca Ware	2143334
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 15:11	Rebecca Ware	2143335
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 15:25	Rebecca Ware	2143336

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 15:39	Rebecca Ware	2143337
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 15:53	Rebecca Ware	2143338
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/17/2019 16:24	Rebecca Ware	2143339
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 15:39	Mohammad Ghaffari	2143332
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 15:53	Mohammad Ghaffari	2143333
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 16:07	Mohammad Ghaffari	2143334
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 16:21	Mohammad Ghaffari	2143335
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 16:35	Mohammad Ghaffari	2143336
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 16:49	Mohammad Ghaffari	2143337
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 17:17	Mohammad Ghaffari	2143338
	12/12/2019	12/16/2019 10:00	Rebecca Ware	12/23/2019 17:31	Mohammad Ghaffari	2143339
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 01:53	Juyoung Kim	2143330
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 02:27	Juyoung Kim	2143331
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 04:46	Juyoung Kim	2143332
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 05:21	Juyoung Kim	2143333
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 05:55	Juyoung Kim	2143334
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 07:39	Juyoung Kim	2143335
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 08:14	Juyoung Kim	2143336
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/24/2019 08:48	Juyoung Kim	2143337
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/26/2019 11:52	Juyoung Kim	2143338
	12/12/2019	12/18/2019 09:00	Hoor Shaik	12/26/2019 12:27	Juyoung Kim	2143339
SM 2120 B	12/12/2019			12/12/2019 16:44	Madeline Funaro	2143314
	12/12/2019			12/12/2019 16:45	Madeline Funaro	2143315
SM 2320 B-97	12/12/2019			12/17/2019 17:41	Dale L. Simmons	2143314
	12/12/2019			12/17/2019 17:55	Dale L. Simmons	2143315
SM 2540 C-97	12/12/2019			12/17/2019 16:36	Yijie Li	2143314, 2143315
SM 2540 D-97	12/12/2019			12/17/2019 16:36	Yijie Li	2143314, 2143315
SM 4500 F-C-97	12/12/2019			12/17/2019 17:41	Dale L. Simmons	2143314
	12/12/2019			12/17/2019 17:55	Dale L. Simmons	2143315
SM 5310 B-00	12/12/2019			12/13/2019 23:46	Madeline Funaro	2143316
	12/12/2019			12/14/2019 00:02	Madeline Funaro	2143317