Chemical Analysis Report

WAS-SECT-2019-04-03-02

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

Event Description: **Big Branch, Stafford, Coon, Stone Mill, Big Branch**
Request ID: **RQ-2018-03-26-25**
Customer: **WAS-SECT**
Project ID: **SMP**

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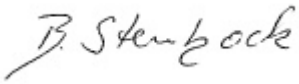
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 25-APR-2019 17:13



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: Stone Mill Creek Upstream of Dianna St **Collection Date/Time: 04/03/2019 10:12**

Field ID: G2WA0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075071	EPA 180.1 Rev. 2.0	Turbidity	21	A	NTU	P361527	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P361966	
		Sulfate	3.0		mg SO4/L	P361968	
	SM 2120 B	Color (true)	110		PCU	P361552	
	SM 2320 B-97	Total Alkalinity	14		mg CaCO3/L	P361984	
	SM 2540 C-97	TDS	68		mg/L	P362130	
	SM 2540 D-97	TSS	7	I	mg/L	P362040	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P361987	
2075074	EPA 350.1 Rev. 2.0	Ammonia-N	0.23		mg N/L	P361947	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P361829	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P362050	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P361805	
	SM 5310 B-00	Organic Carbon	8.5		mg C/L	P361726	
2075077	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P361534	

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

Sample Location: Stone Mill Creek Upstream of Dianna St **Collection Date/Time: 04/03/2019 10:12**

Field ID: G2WA0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075088	EPA 8321B	Aldicarb	0.020	U	ug/L	P361474	
		Aldicarb Sulfone	0.0020	U	ug/L	P361474	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P361474	
		Carbaryl	0.0020	U	ug/L	P361474	
		Carbofuran	0.0020	U	ug/L	P361474	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P361474	
		Methiocarb	0.0020	U	ug/L	P361474	
		Methomyl	0.0020	U	ug/L	P361474	
		Oxamyl	0.0020	U	ug/L	P361474	
		Propoxur	0.0020	U	ug/L	P361474	
2075090		2,4-D	0.0020	U	ug/L	P361561	
		Acesulfame K**	0.10	U	ug/L	P361569	MS
		AMPA**	0.10	U	ug/L	P361569	
		Sucralose**	0.083		ug/L	P361569	
		Acetaminophen**	0.0080	U	ug/L	P361561	
		Endothall**	0.25	U	ug/L	P361569	
		Glufosinate**	0.10	U	ug/L	P361569	
		Bentazon	8.0E-04	U	ug/L	P361561	
		Glyphosate**	0.10	U	ug/L	P361569	
		Carbamazepine**	8.0E-04	U	ug/L	P361561	
		Diuron	0.0020	U	ug/L	P361561	
		Fenuron	0.016	U	ug/L	P361561	
		Fluridone**	8.0E-04	U	ug/L	P361561	
		Imazapyr**	0.016	I	ug/L	P361561	
		Hydrocodone**	0.0020	U	ug/L	P361561	
		Ibuprofen**	0.020	U	ug/L	P361561	
		Imidacloprid	0.0020	UJ	ug/L	P361561	MS
		Linuron	0.0040	U	ug/L	P361561	
		MCPP	0.0020	U	ug/L	P361561	
		Naproxen**	0.0080	U	ug/L	P361561	
		Primidone**	0.0040	U	ug/L	P361561	
		Pyraclostrobin**	0.0020	U	ug/L	P361561	
		Triclopyr**	0.0040	U	ug/L	P361561	
2075094	EPA 8270D	Aldrin	4.4	U	ng/L	P361571	
		Alpha-BHC	2.2	U	ng/L	P361571	
		Alpha-Chlordane	1.1	U	ng/L	P361571	
		Beta-BHC	11	U	ng/L	P361571	MS
		Bifenthrin**	4.4	U	ng/L	P361571	
		Delta-BHC	11	UJ	ng/L	P361571	CCV
		Gamma-BHC	11	U	ng/L	P361571	MS, RPD
		Carbophenothion	13	U	ng/L	P361571	
		Chlorothalonil	2.2	UJ	ng/L	P361571	LCS, RPD
		Cis-Nonachlor**	1.1	U	ng/L	P361571	
		Cypermethrin	22	U	ng/L	P361571	

Field ID: G2WA0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075094	EPA 8270D	DDD-p,p'	8.8	UJ	ng/L	P361571	CCV
		DDE-p,p'	8.8	U	ng/L	P361571	
		DDT-p,p'	11	U	ng/L	P361571	
		Dicofol	33	U	ng/L	P361571	
		Dieldrin	4.4	U	ng/L	P361571	
		Endosulfan I	4.4	U	ng/L	P361571	
		Endosulfan II	4.4	U	ng/L	P361571	
		Endosulfan Sulfate	2.2	U	ng/L	P361571	
		Endrin	2.2	U	ng/L	P361571	
		Endrin Aldehyde	2.2	U	ng/L	P361571	
		Endrin Ketone	2.2	U	ng/L	P361571	
		Ethalfluralin**	3.3	U	ng/L	P361571	
		Gamma-Chlordane	1.1	U	ng/L	P361571	
		Heptachlor	1.6	U	ng/L	P361571	
		Heptachlor Epoxide	2.2	U	ng/L	P361571	
		Hexachlorobenzene**	2.2	U	ng/L	P361571	
		Methoxychlor	4.4	U	ng/L	P361571	
		Mirex	2.2	UJ	ng/L	P361571	LCS
		Permethrin	11	UJ	ng/L	P361571	LCS
		Trans-Nonachlor**	1.1	U	ng/L	P361571	
		Trifluralin	2.7	U	ng/L	P361571	
	EPA 8276	Chlordane	5.5	U	ng/L	P361571	
		Toxaphene	33	U	ng/L	P361571	
2075096	EPA 8270D	Acetochlor	0.24	U	ng/L	P361536	
		Alachlor	0.24	U	ng/L	P361536	
		Ametryn	0.58	U	ng/L	P361536	
		Atrazine	0.24	U	ng/L	P361536	
		Atrazine Desethyl	1.4	U	ng/L	P361536	
		Azinphos Methyl	4.8	U	ng/L	P361536	
		Bromacil	0.48	U	ng/L	P361536	
		Butylate	0.38	U	ng/L	P361536	
		Chlorpyrifos Ethyl	0.24	UJ	ng/L	P361536	LCS, MS
		Chlorpyrifos Methyl	0.096	U	ng/L	P361536	MS
		Cyanazine	3.1	U	ng/L	P361536	
		Demeton	6.7	U	ng/L	P361536	
		Diazinon	0.12	U	ng/L	P361536	
		Dimethenamid**	0.096	U	ng/L	P361536	
		Disulfoton	0.48	U	ng/L	P361536	
		Dithiopyr**	0.096	U	ng/L	P361536	
		EPTC	1.2	U	ng/L	P361536	RPD
		Ethion	0.14	U	ng/L	P361536	
		Ethoprop	0.096	U	ng/L	P361536	
		Fenamiphos	0.48	U	ng/L	P361536	
		Fipronil	0.24	U	ng/L	P361536	
		Fipronil Desulfinyl**	0.12	U	ng/L	P361536	

Field ID: G2WA0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075096	EPA 8270D	Fipronil Sulfide	0.14	U	ng/L	P361536	
		Fipronil Sulfone	0.14	U	ng/L	P361536	
		Fonofos	0.19	U	ng/L	P361536	
		Hexazinone	0.48	U	ng/L	P361536	
		Malathion	0.34	UJ	ng/L	P361536	LCS, MS
		Metalaxyl	0.29	U	ng/L	P361536	
		Metolachlor	0.50	I	ng/L	P361536	
		Metribuzin	0.72	U	ng/L	P361536	
		Mevinphos	0.48	U	ng/L	P361536	
		Molinate	0.29	U	ng/L	P361536	
		Norflurazon	0.48	U	ng/L	P361536	
		Oxadiazon**	0.096	U	ng/L	P361536	
		Parathion Ethyl	0.24	U	ng/L	P361536	
		Parathion Methyl	0.53	U	ng/L	P361536	MS
		Pendimethalin	0.96	U	ng/L	P361536	
		Phorate	0.24	U	ng/L	P361536	
		Prodiamine**	0.17	U	ng/L	P361536	
		Prometon	0.86	U	ng/L	P361536	
		Prometryn	0.19	U	ng/L	P361536	
		Simazine	0.48	U	ng/L	P361536	
		Tebuconazole**	0.48	U	ng/L	P361536	MS
		Terbufos	0.096	U	ng/L	P361536	
		Terbuthylazine	0.41	U	ng/L	P361536	
2075098	EPA 200.7 Rev. 4.4	Barium	14.3		ug/L	P361749	
		Calcium	6.76		mg/L	P361749	
		Iron	1.05E+03		ug/L	P361749	
		Magnesium	1.04		mg/L	P361749	
		Potassium	0.47	I	mg/L	P361749	
		Sodium	3.3		mg/L	P361749	
		Zinc	5.0	U	ug/L	P361749	
	EPA 200.8 Rev. 5.4	Aluminum	730		ug/L	P361749	
		Antimony	0.050	U	ug/L	P361749	
		Arsenic	0.25		ug/L	P361749	
		Boron**	8.7		ug/L	P361749	
		Cadmium	0.020	U	ug/L	P361749	
		Chromium	0.68	I	ug/L	P361749	
		Copper	0.40	U	ug/L	P361749	
		Lead	0.69		ug/L	P361749	
		Nickel	0.50	U	ug/L	P361749	
		Selenium	0.20	U	ug/L	P361749	
		Silver	0.010	U	ug/L	P361749	
		Thallium	0.10	U	ug/L	P361749	

Field ID: G2WA0012 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: MS accuracies for atrazine, simazine, ethoprop, metolachlor, and metribuzin not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.
EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 04/17/2019.

Sample Location: Big Branch Downstream of Road 5 **Collection Date/Time: 04/03/2019 11:04**

Field ID: G2WA0010 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075072	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P361527	
	EPA 300.0 Rev. 2.1	Chloride	4.1		mg Cl/L	P361966	
		Sulfate	0.33	I	mg SO4/L	P361968	
	SM 2120 B	Color (true)	160		PCU	P361551	
	SM 2320 B-97	Total Alkalinity	2.0	I	mg CaCO3/L	P361984	
	SM 2540 C-97	TDS	46		mg/L	P362130	
	SM 2540 D-97	TSS	6	I	mg/L	P362040	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P361987	
2075075	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P361952	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P361829	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P362050	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P361805	
	SM 5310 B-00	Organic Carbon	8.4		mg C/L	P361726	
2075078	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P361534	

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

Sample Location: Stafford Creek 100 meters upstream of SR 69 **Collection Date/Time: 04/03/2019 12:15**

Field ID: G2WA0004 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075073	EPA 180.1 Rev. 2.0	Turbidity	6.6		NTU	P361527	
	EPA 300.0 Rev. 2.1	Chloride	7.6		mg Cl/L	P361966	
		Sulfate	0.62		mg SO4/L	P361968	
	SM 2120 B	Color (true)	110		PCU	P361551	
	SM 2320 B-97	Total Alkalinity	11		mg CaCO3/L	P361984	
	SM 2540 C-97	TDS	67		mg/L	P362131	
	SM 2540 D-97	TSS	4	I	mg/L	P362041	
	SM 4500 F-C-97	Fluoride	0.035	I	mg F/L	P361987	
2075076	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P361952	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P361829	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.48		mg N/L	P362050	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P361805	
	SM 5310 B-00	Organic Carbon	8.5		mg C/L	P361726	
2075079	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P361534	

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

Sample Location: Stafford Creek 100 meters upstream of SR 69 **Collection Date/Time: 04/03/2019 12:15**

Field ID: G2WA0004 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075089	EPA 8321B	Aldicarb	0.020	U	ug/L	P361474	
		Aldicarb Sulfone	0.0020	U	ug/L	P361474	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P361474	
		Carbaryl	0.0020	U	ug/L	P361474	
		Carbofuran	0.0020	U	ug/L	P361474	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P361474	
		Methiocarb	0.0020	U	ug/L	P361474	
		Methomyl	0.0020	U	ug/L	P361474	
		Oxamyl	0.0020	U	ug/L	P361474	
		Propoxur	0.0020	U	ug/L	P361474	
2075091		2,4-D	0.0020	U	ug/L	P361561	
		Acesulfame K**	0.10	U	ug/L	P361569	MS
		AMPA**	0.10	U	ug/L	P361569	
		Sucralose**	0.015	I	ug/L	P361569	
		Acetaminophen**	0.0080	U	ug/L	P361561	
		Endothall**	0.25	U	ug/L	P361569	
		Glufosinate**	0.10	U	ug/L	P361569	
		Bentazon	8.0E-04	U	ug/L	P361561	
		Glyphosate**	0.10	U	ug/L	P361569	
		Carbamazepine**	8.0E-04	U	ug/L	P361561	
		Diuron	0.0020	U	ug/L	P361561	
		Fenuron	0.016	U	ug/L	P361561	
		Fluridone**	8.0E-04	U	ug/L	P361561	
		Imazapyr**	0.015	I	ug/L	P361561	
		Hydrocodone**	0.0020	U	ug/L	P361561	
		Ibuprofen**	0.020	U	ug/L	P361561	
		Imidacloprid	0.0034	I	ug/L	P361561	MS
		Linuron	0.0040	U	ug/L	P361561	
		MCPP	0.0020	U	ug/L	P361561	
		Naproxen**	0.0080	U	ug/L	P361561	
		Primidone**	0.0040	U	ug/L	P361561	
		Pyraclostrobin**	0.0020	U	ug/L	P361561	
		Triclopyr**	0.0040	U	ug/L	P361561	
2075095	EPA 8270D	Aldrin	4.1	U	ng/L	P361571	
		Alpha-BHC	2.1	U	ng/L	P361571	
		Alpha-Chlordane	1.0	U	ng/L	P361571	
		Beta-BHC	10	U	ng/L	P361571	MS
		Bifenthrin**	4.1	U	ng/L	P361571	
		Delta-BHC	10	U	ng/L	P361571	
		Gamma-BHC	10	U	ng/L	P361571	MS, RPD
		Carbophenothion	12	U	ng/L	P361571	
		Chlorothalonil	2.1	UJ	ng/L	P361571	LCS, RPD
		Cis-Nonachlor**	1.0	U	ng/L	P361571	
		Cypermethrin	21	U	ng/L	P361571	

Field ID: G2WA0004 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075095	EPA 8270D	DDD-p,p'	8.2	U	ng/L	P361571	
		DDE-p,p'	8.2	U	ng/L	P361571	
		DDT-p,p'	10	U	ng/L	P361571	
		Dicofol	31	U	ng/L	P361571	
		Dieldrin	4.1	U	ng/L	P361571	
		Endosulfan I	4.1	U	ng/L	P361571	
		Endosulfan II	4.1	U	ng/L	P361571	
		Endosulfan Sulfate	2.1	U	ng/L	P361571	
		Endrin	2.1	U	ng/L	P361571	
		Endrin Aldehyde	2.1	U	ng/L	P361571	
		Endrin Ketone	2.1	U	ng/L	P361571	
		Ethalfluralin**	3.1	U	ng/L	P361571	
		Gamma-Chlordane	1.0	U	ng/L	P361571	
		Heptachlor	1.5	U	ng/L	P361571	
		Heptachlor Epoxide	2.1	U	ng/L	P361571	
		Hexachlorobenzene**	2.1	U	ng/L	P361571	
		Methoxychlor	4.1	U	ng/L	P361571	
		Mirex	2.1	UJ	ng/L	P361571	LCS
		Permethrin	10	UJ	ng/L	P361571	LCS
		Trans-Nonachlor**	1.0	U	ng/L	P361571	
		Trifluralin	2.6	U	ng/L	P361571	
	EPA 8276	Chlordane	5.2	U	ng/L	P361571	
		Toxaphene	31	U	ng/L	P361571	
2075097	EPA 8270D	Acetochlor	0.24	U	ng/L	P361536	
		Alachlor	0.24	U	ng/L	P361536	
		Ametryn	0.59	U	ng/L	P361536	
		Atrazine	0.26	I	ng/L	P361536	
		Atrazine Desethyl	1.5	U	ng/L	P361536	
		Azinphos Methyl	4.9	U	ng/L	P361536	
		Bromacil	0.49	U	ng/L	P361536	
		Butylate	0.39	U	ng/L	P361536	
		Chlorpyrifos Ethyl	0.24	UJ	ng/L	P361536	LCS, MS
		Chlorpyrifos Methyl	0.098	U	ng/L	P361536	MS
		Cyanazine	3.2	U	ng/L	P361536	
		Demeton	6.8	U	ng/L	P361536	
		Diazinon	0.12	U	ng/L	P361536	
		Dimethenamid**	0.098	U	ng/L	P361536	
		Disulfoton	0.49	U	ng/L	P361536	
		Dithiopyr**	0.098	U	ng/L	P361536	
		EPTC	1.2	U	ng/L	P361536	RPD
		Ethion	0.15	U	ng/L	P361536	
		Ethoprop	0.098	U	ng/L	P361536	
		Fenamiphos	0.49	U	ng/L	P361536	
		Fipronil	0.24	U	ng/L	P361536	
		Fipronil Desulfinyl**	0.12	U	ng/L	P361536	

Field ID: G2WA0004 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2075097	EPA 8270D	Fipronil Sulfide	0.15	U	ng/L	P361536	
		Fipronil Sulfone	0.15	U	ng/L	P361536	
		Fonofos	0.20	U	ng/L	P361536	
		Hexazinone	0.49	U	ng/L	P361536	
		Malathion	0.34	UJ	ng/L	P361536	LCS, MS
		Metalaxyl	0.29	U	ng/L	P361536	
		Metolachlor	2.0		ng/L	P361536	
		Metribuzin	0.73	U	ng/L	P361536	
		Mevinphos	0.49	U	ng/L	P361536	
		Molinate	0.29	U	ng/L	P361536	
		Norflurazon	0.49	U	ng/L	P361536	
		Oxadiazon**	0.098	U	ng/L	P361536	
		Parathion Ethyl	0.24	U	ng/L	P361536	
		Parathion Methyl	0.54	U	ng/L	P361536	MS
		Pendimethalin	0.98	U	ng/L	P361536	
		Phorate	0.24	U	ng/L	P361536	
		Prodiamine**	0.17	U	ng/L	P361536	
		Prometon	0.88	U	ng/L	P361536	
		Prometryn	0.20	U	ng/L	P361536	
		Simazine	0.49	U	ng/L	P361536	
		Tebuconazole**	0.49	U	ng/L	P361536	MS
		Terbufos	0.098	U	ng/L	P361536	
		Terbuthylazine	0.42	U	ng/L	P361536	
2075099	EPA 200.7 Rev. 4.4	Barium	28.4		ug/L	P361749	
		Calcium	5.24		mg/L	P361749	
		Iron	1.02E+03		ug/L	P361749	
		Magnesium	2.49		mg/L	P361749	
		Potassium	1.3		mg/L	P361749	
		Sodium	2.8		mg/L	P361749	
		Zinc	5.0	U	ug/L	P361749	
	EPA 200.8 Rev. 5.4	Aluminum	313		ug/L	P361749	
		Antimony	0.050	U	ug/L	P361749	
		Arsenic	0.50		ug/L	P361749	
		Boron**	9.0		ug/L	P361749	
		Cadmium	0.020	U	ug/L	P361749	
		Chromium	0.52	I	ug/L	P361749	
		Copper	0.40	U	ug/L	P361749	
		Lead	0.40		ug/L	P361749	
		Nickel	0.50	U	ug/L	P361749	
		Selenium	0.20	U	ug/L	P361749	
		Silver	0.010	U	ug/L	P361749	
		Thallium	0.10	U	ug/L	P361749	

Ref. Method and Comment:
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8270D: MS accuracies for atrazine, simazine, ethoprop, metolachlor, and metribuzin not assessed due to high content of these parameters in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361527

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361749

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: P361749

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: P361966

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361968

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361947

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361952

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361829

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362050

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361805

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361534

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

Reference Method: EPA 8270D
Batch ID: P361536

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 8270D
Batch ID: P361536

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
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270D
Batch ID: P361571

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	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	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
Ethalfluralin	3.0	U	ng/L
Gamma-BHC	10	U	ng/L
Gamma-Chlordane	1.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P361571

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: P361571

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

Reference Method: EPA 8321B
Batch ID: P361474

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

Reference Method: EPA 8321B
Batch ID: P361561

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	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
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P361569

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: P361551

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P361552

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P361984

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

Reference Method: SM 2540 C-97
Batch ID: P362130

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P362131

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P362040

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P362041

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P361987

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P361726

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: P361749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	104		P	85 - 115
Iron	107		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	104		P	85 - 115
Sodium	104		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361749

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	91.6		P	85 - 115
Antimony	93.8		P	85 - 115
Arsenic	96.7		P	85 - 115
Boron	91.8		P	85 - 115
Cadmium	95.8		P	85 - 115
Chromium	89.3		P	85 - 115
Copper	94.9		P	85 - 115
Lead	98.7		P	85 - 115
Nickel	95.3		P	85 - 115
Selenium	95.8		P	85 - 115
Silver	110		P	85 - 115
Thallium	93.3		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361966

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361968

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361947

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361952

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361829

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362050

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361805

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361534

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

Reference Method: EPA 8270D
Batch ID: P361536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	102	102	P/P	71 - 121
Alachlor	89.3	95.7	P/P	72 - 119
Ametryn	102	95.7	P/P	47 - 144
Atrazine	95.3	91.3	P/P	75 - 123
Atrazine Desethyl	74.9	71.1	P/P	45 - 133
Azinphos Methyl	119	117	P/P	66 - 165
Bromacil	91.9	76.2	P/P	43 - 123
Butylate	51.1	49.7	P/P	27 - 83.0
Chlorpyrifos Ethyl	121	111	F/P	70 - 117
Chlorpyrifos Methyl	105	103	P/P	71 - 120
Cyanazine	92.4	81.9	P/P	34 - 264
Demeton	71.3	67.5	P/P	41 - 122
Diazinon	73.3	78.4	P/P	70 - 127
Dimethenamid	108	107	P/P	60 - 130
Disulfoton	91.6	80.7	P/P	56 - 127
Dithiopyr	89.5	96.9	P/P	60 - 130
EPTC	50.0	48.3	P/P	24 - 84.0
Ethion	115	97.8	P/P	53 - 132
Ethoprop	62.8	79.6	P/P	57 - 117
Fenamiphos	94.8	81.2	P/P	55 - 136
Fipronil	86.8	79.8	P/P	64 - 126
Fipronil Desulfinyl	99.1	93.3	P/P	60 - 130
Fipronil Sulfide	92.9	94.4	P/P	57 - 120
Fipronil Sulfone	105	81.1	P/P	52 - 115
Fonofos	76.3	81.3	P/P	61 - 121
Hexazinone	106	108	P/P	62 - 131
Malathion	127	109	F/P	67 - 126
Metalaxyl	89.0	93.1	P/P	54 - 128

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P361536

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Metolachlor	90.5	93.5	P/P	71 - 118
Metribuzin	146	117	P/P	42 - 221
Mevinphos	78.1	84.6	P/P	45 - 114
Molinate	58.6	57.9	P/P	33 - 91.0
Norflurazon	95.2	91.8	P/P	60 - 123
Oxadiazon	84.1	82.1	P/P	60 - 130
Parathion Ethyl	87.0	82.9	P/P	73 - 111
Parathion Methyl	111	116	P/P	74 - 126
Pendimethalin	70.4	84.2	P/P	63 - 131
Phorate	68.4	69.4	P/P	54 - 115
Prodiamine	116	114	P/P	60 - 130
Prometon	96.2	89.5	P/P	61 - 120
Prometryn	95.6	91.1	P/P	62 - 126
Simazine	104	98.6	P/P	75 - 126
Tebuconazole	94.2	86.4	P/P	30 - 100
Terbufos	80.3	78.4	P/P	65 - 116
Terbuthylazine	101	93.8	P/P	73 - 117

Reference Method: EPA 8270D
Batch ID: P361571

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	38.6	46.8	P/P	20 - 93.0
Alpha-BHC	96.1	109	P/P	57 - 119
Alpha-Chlordane	63.9	74.4	P/P	58 - 112
Beta-BHC	105	129	P/P	56 - 149
Bifenthrin	53.7	65.1	P/P	50 - 130
Carbophenothion	61.3	70.6	P/P	26 - 147
Chlorothalonil	131	174	P/F	20 - 155
Cis-Nonachlor	67.0	78.6	P/P	50 - 130
Cypermethrin	58.1	68.9	P/P	40 - 137
DDD-p,p'	93.6	108	P/P	65 - 129
DDE-p,p'	65.0	77.3	P/P	57 - 116
DDT-p,p'	71.3	85.7	P/P	53 - 133
Delta-BHC	110	138	P/P	59 - 163
Dicofol	74.1	87.4	P/P	24 - 138
Dieldrin	70.4	81.1	P/P	60 - 120
Endosulfan I	81.4	95.9	P/P	64 - 118
Endosulfan II	93.3	113	P/P	58 - 142
Endosulfan Sulfate	103	122	P/P	60 - 127
Endrin	72.9	81.9	P/P	59 - 122
Endrin Aldehyde	98.5	108	P/P	49 - 132
Endrin Ketone	87.1	99.9	P/P	64 - 121
Ethalfluralin	70.9	79.9	P/P	50 - 130
Gamma-BHC	99.7	98.5	P/P	56 - 141
Gamma-Chlordane	59.8	70.2	P/P	56 - 110
Heptachlor	63.5	72.2	P/P	46 - 96.0
Heptachlor Epoxide	75.3	85.8	P/P	61 - 112
Hexachlorobenzene	50.5	59.8	P/P	50 - 130
Methoxychlor	95.0	108	P/P	63 - 134
Mirex	41.7	52.3	F/P	45 - 100
Permethrin	48.1	56.8	F/P	53 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P361571

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Trans-Nonachlor	55.9	65.9	P/P	50 - 130
Trifluralin	67.8	79.5	P/P	39 - 142

Reference Method: EPA 8276
Batch ID: P361571

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	78.6	81.0	P/P	43 - 128
Toxaphene	72.6	74.0	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P361474

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	67.0		P	40 - 150
Aldicarb	70.6		P	30 - 150
Aldicarb Sulfone	84.0		P	40 - 150
Aldicarb Sulfoxide	77.3		P	40 - 150
Carbaryl	73.7		P	40 - 150
Carbofuran	68.8		P	40 - 150
Methiocarb	71.6		P	40 - 150
Methomyl	85.0		P	40 - 150
Oxamyl	82.0		P	40 - 150
Propoxur	73.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	70.2		P	40 - 150
Acetaminophen	93.5		P	30 - 150
Bentazon	105		P	30 - 150
Carbamazepine	91.0		P	40 - 150
Diuron	82.9		P	40 - 150
Fenuron	114		P	40 - 150
Fluridone	96.7		P	40 - 150
Hydrocodone	96.6		P	40 - 150
Ibuprofen	57.2		P	40 - 150
Imazapyr	76.9		P	40 - 150
Imidacloprid	117		P	40 - 150
Linuron	71.9		P	40 - 150
MCPP	81.1		P	40 - 150
Naproxen	69.4		P	40 - 150
Primidone	66.9		P	40 - 150
Pyraclostrobin	63.6		P	40 - 150
Triclopyr	53.3		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361569

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	118		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P361569

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	88.0		P	40 - 150
Endothall	93.0		P	40 - 150
Glufosinate	112		P	40 - 150
Glyphosate	124		P	40 - 140
Sucralose	86.2		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P361551

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

Reference Method: SM 2120 B
Batch ID: P361552

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

Reference Method: SM 2320 B-97
Batch ID: P361984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.8		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P361987

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

Reference Method: SM 5310 B-00
Batch ID: P361726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	102		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075698	Barium	100	101	P/P	80 - 120
2075698	Calcium	101		P	80 - 120
2075698	Iron	105	105	P/P	80 - 120
2075698	Magnesium	103		P	80 - 120
2075698	Potassium	104	105	P/P	80 - 120
2075698	Sodium	105		P	80 - 120
2075698	Zinc	101	103	P/P	80 - 120
2076328	Barium	99.5		P	80 - 120
2076328	Calcium	99.3		P	80 - 120
2076328	Iron	103		P	80 - 120
2076328	Magnesium	101		P	80 - 120
2076328	Potassium	106		P	80 - 120
2076328	Sodium	107		P	80 - 120
2076328	Zinc	101		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361749

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075698	Aluminum	92.1	91.5	P/P	80 - 120
2075698	Antimony	93.9	92.1	P/P	80 - 120
2075698	Arsenic	96.4	95.5	P/P	80 - 120
2075698	Boron	94.4	93.5	P/P	80 - 120
2075698	Cadmium	94.8	94.8	P/P	80 - 120
2075698	Chromium	90.2	90.3	P/P	80 - 120
2075698	Copper	93.9	92.6	P/P	80 - 120
2075698	Lead	99.3	98.3	P/P	80 - 120
2075698	Nickel	94.9	94.1	P/P	80 - 120
2075698	Selenium	93.3	92.9	P/P	80 - 120
2075698	Silver	110	109	P/P	80 - 120
2075698	Thallium	95.5	95.6	P/P	80 - 120
2076328	Aluminum	91.9		P	80 - 120
2076328	Antimony	93.5		P	80 - 120
2076328	Arsenic	95.3		P	80 - 120
2076328	Boron	93.4		P	80 - 120
2076328	Cadmium	95.7		P	80 - 120
2076328	Chromium	89.9		P	80 - 120
2076328	Copper	92.7		P	80 - 120
2076328	Lead	99.0		P	80 - 120
2076328	Nickel	94.2		P	80 - 120
2076328	Selenium	90.9		P	80 - 120
2076328	Silver	110		P	80 - 120
2076328	Thallium	95.8		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075064	Chloride	101		P	90 - 110
2075134	Chloride	102		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361968

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075064	Sulfate	99.7		P	90 - 110
2075134	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361947

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075065	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075135	Ammonia-N	102	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075065	Kjeldahl Nitrogen	90.7	92.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075075	NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361805

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075065	Total-P	100	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361534

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075078	O-Phosphate-P	96.9	98.2	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P361536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074888	Acetochlor	118	111	P/P	63 - 129
2074888	Alachlor	106	107	P/P	65 - 127
2074888	Ametryn	150	138	P/P	40 - 164
2074888	Atrazine Desethyl	114	112	P/P	14 - 157
2074888	Azinphos Methyl	134	132	P/P	49 - 180
2074888	Bromacil	94.1	95.0	P/P	48 - 130
2074888	Butylate	27.6	36.2	P/P	10 - 94.0
2074888	Chlorpyrifos Ethyl	114	132	P/F	58 - 123
2074888	Chlorpyrifos Methyl	142	135	F/F	58 - 125

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P361536

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074888	Cyanazine	92.3	97.7	P/P	24 - 253
2074888	Demeton	76.7	69.2	P/P	25 - 149
2074888	Diazinon	92.9	113	P/P	59 - 144
2074888	Dimethenamid	124	121	P/P	60 - 130
2074888	Disulfoton	117	122	P/P	54 - 132
2074888	Dithiopyr	106	104	P/P	60 - 130
2074888	EPTC	23.5	33.5	P/P	10 - 92.0
2074888	Ethion	123	117	P/P	30 - 148
2074888	Fenamiphos	107	103	P/P	49 - 142
2074888	Fipronil	93.7	83.9	P/P	46 - 140
2074888	Fipronil Desulfinyl	116	118	P/P	60 - 130
2074888	Fipronil Sulfide	105	104	P/P	31 - 136
2074888	Fipronil Sulfone	127	117	P/P	16 - 136
2074888	Fonofos	108	119	P/P	55 - 129
2074888	Hexazinone	118	115	P/P	56 - 141
2074888	Malathion	140	136	F/F	56 - 135
2074888	Metalaxyl	106	108	P/P	54 - 135
2074888	Mevinphos	95.2	107	P/P	33 - 131
2074888	Molinate	50.4	56.8	P/P	14 - 98.0
2074888	Norflurazon	108	103	P/P	34 - 136
2074888	Oxadiazon	92.7	86.1	P/P	60 - 130
2074888	Parathion Ethyl	96.7	94.3	P/P	66 - 118
2074888	Parathion Methyl	158	130	F/P	64 - 136
2074888	Pendimethalin	93.1	78.6	P/P	59 - 144
2074888	Phorate	91.9	87.8	P/P	42 - 130
2074888	Prodiamine	127	130	P/P	60 - 130
2074888	Prometon	94.1	93.9	P/P	59 - 134
2074888	Prometryn	99.0	96.5	P/P	54 - 135
2074888	Tebuconazole	108	106	F/F	30 - 100
2074888	Terbufos	92.4	92.3	P/P	57 - 131
2074888	Terbuthylazine	98.6	96.3	P/P	68 - 125

Reference Method: EPA 8270D
Batch ID: P361571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075776	Aldrin	49.6	58.4	P/P	25 - 92.0
2075776	Alpha-BHC	103	111	P/P	49 - 130
2075776	Alpha-Chlordane	76.3	83.4	P/P	50 - 115
2075776	Beta-BHC	188	143	F/P	43 - 157
2075776	Bifenthrin	68.6	80.5	P/P	50 - 130
2075776	Carbophenothion	78.1	75.7	P/P	27 - 180
2075776	Chlorothalonil	132	39.7	P/P	10 - 216
2075776	Cis-Nonachlor	80.9	88.9	P/P	50 - 130
2075776	Cypermethrin	74.9	84.5	P/P	40 - 153
2075776	DDD-p,p'	89.4	97.2	P/P	53 - 128
2075776	DDE-p,p'	72.4	84.7	P/P	48 - 116
2075776	DDT-p,p'	85.9	95.0	P/P	47 - 128
2075776	Delta-BHC	172	165	P/P	51 - 196
2075776	Dicofol	83.1	92.0	P/P	10 - 147
2075776	Dieldrin	84.3	92.1	P/P	48 - 128
2075776	Endosulfan I	85.2	93.3	P/P	58 - 126

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P361571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075776	Endosulfan II	109	116	P/P	50 - 150
2075776	Endosulfan Sulfate	93.9	96.3	P/P	56 - 130
2075776	Endrin	85.7	105	P/P	50 - 126
2075776	Endrin Aldehyde	90.1	93.5	P/P	12 - 145
2075776	Endrin Ketone	90.4	99.8	P/P	59 - 132
2075776	Ethalfluralin	72.8	80.7	P/P	50 - 130
2075776	Gamma-BHC	132	227	P/F	50 - 155
2075776	Gamma-Chlordane	72.6	80.5	P/P	50 - 112
2075776	Heptachlor	56.4	66.4	P/P	41 - 98.0
2075776	Heptachlor Epoxide	80.6	88.6	P/P	55 - 117
2075776	Hexachlorobenzene	52.3	57.0	P/P	50 - 130
2075776	Methoxychlor	97.8	108	P/P	55 - 133
2075776	Mirex	56.2	64.0	P/P	44 - 101
2075776	Permethrin	59.7	67.3	P/P	52 - 124
2075776	Trans-Nonachlor	72.4	79.6	P/P	50 - 130
2075776	Trifluralin	74.9	82.9	P/P	10 - 201

Reference Method: EPA 8276
Batch ID: P361571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075152	Chlordane	81.6	73.4	P/P	34 - 136
2075152	Toxaphene	86.2	90.9	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P361474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074597	3-Hydroxycarbofuran	80.6	97.8	P/P	40 - 150
2074597	Aldicarb	74.4	90.9	P/P	30 - 150
2074597	Aldicarb Sulfone	97.2	99.1	P/P	40 - 150
2074597	Aldicarb Sulfoxide	52.1	59.4	P/P	40 - 150
2074597	Carbaryl	71.3	76.9	P/P	40 - 150
2074597	Carbofuran	63.4	73.0	P/P	40 - 150
2074597	Methiocarb	68.8	72.5	P/P	40 - 150
2074597	Methomyl	91.9	99.3	P/P	40 - 150
2074597	Oxamyl	90.3	96.1	P/P	40 - 150
2074597	Propoxur	73.7	74.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075090	2,4-D	72.9	60.4	P/P	40 - 150
2075090	Acetaminophen	93.6	88.0	P/P	30 - 150
2075090	Bentazon	55.8	59.9	P/P	30 - 150
2075090	Carbamazepine	83.6	72.2	P/P	40 - 150
2075090	Diuron	62.5	67.1	P/P	40 - 150
2075090	Fenuron	104	112	P/P	40 - 150
2075090	Fluridone	114	139	P/P	40 - 150
2075090	Hydrocodone	91.7	91.6	P/P	40 - 150
2075090	Ibuprofen	71.8	83.8	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P361561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075090	Imazapyr	83.3	74.9	P/P	40 - 150
2075090	Imidacloprid	167	167	F/F	40 - 150
2075090	Linuron	68.0	66.1	P/P	40 - 150
2075090	MCPP	97.4	96.6	P/P	40 - 150
2075090	Naproxen	66.2	68.4	P/P	40 - 150
2075090	Primidone	77.8	77.7	P/P	40 - 150
2075090	Pyraclostrobin	60.6	55.9	P/P	40 - 150
2075090	Triclopyr	67.4	64.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361569

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074312	Acesulfame K	154	147	F/P	40 - 150
2074312	AMPA	56.8	58.6	P/P	40 - 150
2074312	Endothall	74.8	77.6	P/P	40 - 150
2074312	Glufosinate	94.6	91.0	P/P	40 - 150
2074312	Glyphosate	90.7	69.3	P/P	40 - 140
2074312	Sucralose	102	92.0	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P361987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2075852	Fluoride	98.4	99.0	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P361726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074863	Organic Carbon	100	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075071	Turbidity	1.43	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075698	Barium	0.668	Spike	P	0 - 20
2075698	Calcium	0.811	Spike	P	0 - 20
2075698	Iron	0.179	Spike	P	0 - 20
2075698	Magnesium	1.20	Spike	P	0 - 20
2075698	Potassium	0.570	Spike	P	0 - 20
2075698	Sodium	0.0388	Spike	P	0 - 20
2075698	Zinc	1.34	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361749

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075698	Aluminum	0.589	Spike	P	0 - 20
2075698	Antimony	1.99	Spike	P	0 - 20
2075698	Arsenic	0.913	Spike	P	0 - 20
2075698	Boron	0.868	Spike	P	0 - 20
2075698	Cadmium	0.00787	Spike	P	0 - 20
2075698	Chromium	0.0971	Spike	P	0 - 20
2075698	Copper	1.40	Spike	P	0 - 20
2075698	Lead	0.968	Spike	P	0 - 20
2075698	Nickel	0.803	Spike	P	0 - 20
2075698	Selenium	0.416	Spike	P	0 - 20
2075698	Silver	1.20	Spike	P	0 - 20
2075698	Thallium	0.0718	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075134	Chloride	1.46	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075134	Sulfate	0.864	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361947

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075065	Ammonia-N	0.658	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075135	Ammonia-N	1.63	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075065	Kjeldahl Nitrogen	1.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075075	NO2NO3-N	0.487	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361805

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075065	Total-P	4.10	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361534

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075078	O-Phosphate-P	1.33	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P361536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074888	Acetochlor	5.57	Spike	P	0 - 30
2074888	Alachlor	0.421	Spike	P	0 - 30
2074888	Ametryn	8.11	Spike	P	0 - 30
2074888	Atrazine	17.8	Spike	P	0 - 30
2074888	Atrazine Desethyl	1.39	Spike	P	0 - 30
2074888	Azinphos Methyl	1.75	Spike	P	0 - 30
2074888	Bromacil	0.825	Spike	P	0 - 30
2074888	Butylate	27.1	Spike	P	0 - 30
2074888	Chlorpyrifos Ethyl	14.8	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P361536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074888	Chlorpyrifos Methyl	5.74	Spike	P	0 - 30
2074888	Cyanazine	5.68	Spike	P	0 - 30
2074888	Demeton	10.2	Spike	P	0 - 30
2074888	Diazinon	19.5	Spike	P	0 - 30
2074888	Dimethenamid	2.22	Spike	P	0 - 30
2074888	Disulfoton	3.41	Spike	P	0 - 30
2074888	Dithiopyr	1.11	Spike	P	0 - 30
2074888	EPTC	34.9	Spike	F	0 - 30
2074888	Ethion	5.33	Spike	P	0 - 30
2074888	Ethoprop	2.24	Spike	P	0 - 30
2074888	Fenamiphos	3.99	Spike	P	0 - 30
2074888	Fipronil	9.11	Spike	P	0 - 30
2074888	Fipronil Desulfinyl	1.99	Spike	P	0 - 30
2074888	Fipronil Sulfide	0.731	Spike	P	0 - 30
2074888	Fipronil Sulfone	4.25	Spike	P	0 - 30
2074888	Fonofos	10.2	Spike	P	0 - 30
2074888	Hexazinone	1.33	Spike	P	0 - 30
2074888	Malathion	3.41	Spike	P	0 - 30
2074888	Metalaxyl	1.53	Spike	P	0 - 30
2074888	Metolachlor	13.6	Spike	P	0 - 30
2074888	Metribuzin	6.92	Spike	P	0 - 30
2074888	Mevinphos	12.2	Spike	P	0 - 30
2074888	Molinate	11.9	Spike	P	0 - 30
2074888	Norflurazon	4.48	Spike	P	0 - 30
2074888	Oxadiazon	6.12	Spike	P	0 - 30
2074888	Parathion Ethyl	2.58	Spike	P	0 - 30
2074888	Parathion Methyl	19.8	Spike	P	0 - 30
2074888	Pendimethalin	16.8	Spike	P	0 - 30
2074888	Phorate	4.52	Spike	P	0 - 30
2074888	Prodiamine	1.75	Spike	P	0 - 30
2074888	Prometon	0.239	Spike	P	0 - 30
2074888	Prometryn	2.56	Spike	P	0 - 30
2074888	Simazine	21.9	Spike	P	0 - 30
2074888	Tebuconazole	1.38	Spike	P	0 - 30
2074888	Terbufos	0.147	Spike	P	0 - 30
2074888	Terbuthylazine	2.33	Spike	P	0 - 30
LFB	Acetochlor	0.423	LCS	P	0 - 30
LFB	Alachlor	6.92	LCS	P	0 - 30
LFB	Ametryn	6.43	LCS	P	0 - 30
LFB	Atrazine	4.35	LCS	P	0 - 30
LFB	Atrazine Desethyl	5.31	LCS	P	0 - 30
LFB	Azinphos Methyl	1.64	LCS	P	0 - 30
LFB	Bromacil	18.7	LCS	P	0 - 30
LFB	Butylate	2.65	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	9.23	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.53	LCS	P	0 - 30
LFB	Cyanazine	12.1	LCS	P	0 - 30
LFB	Demeton	5.48	LCS	P	0 - 30
LFB	Diazinon	6.79	LCS	P	0 - 30
LFB	Dimethenamid	0.0430	LCS	P	0 - 30
LFB	Disulfoton	12.6	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P361536

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Dithiopyr	7.92	LCS	P	0 - 30
LFB	EPTC	3.48	LCS	P	0 - 30
LFB	Ethion	15.8	LCS	P	0 - 30
LFB	Ethoprop	23.6	LCS	P	0 - 30
LFB	Fenamiphos	15.4	LCS	P	0 - 30
LFB	Fipronil	8.30	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	5.98	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.60	LCS	P	0 - 30
LFB	Fipronil Sulfone	25.3	LCS	P	0 - 30
LFB	Fonofos	6.29	LCS	P	0 - 30
LFB	Hexazinone	1.74	LCS	P	0 - 30
LFB	Malathion	15.9	LCS	P	0 - 30
LFB	Metalaxyl	4.47	LCS	P	0 - 30
LFB	Metolachlor	3.31	LCS	P	0 - 30
LFB	Metribuzin	22.2	LCS	P	0 - 30
LFB	Mevinphos	8.03	LCS	P	0 - 30
LFB	Molinate	1.19	LCS	P	0 - 30
LFB	Norflurazon	3.59	LCS	P	0 - 30
LFB	Oxadiazon	2.50	LCS	P	0 - 30
LFB	Parathion Ethyl	4.82	LCS	P	0 - 30
LFB	Parathion Methyl	4.89	LCS	P	0 - 30
LFB	Pendimethalin	17.9	LCS	P	0 - 30
LFB	Phorate	1.50	LCS	P	0 - 30
LFB	Prodiamine	2.06	LCS	P	0 - 30
LFB	Prometon	7.27	LCS	P	0 - 30
LFB	Prometryn	4.88	LCS	P	0 - 30
LFB	Simazine	5.76	LCS	P	0 - 30
LFB	Tebuconazole	8.67	LCS	P	0 - 30
LFB	Terbufos	2.41	LCS	P	0 - 30
LFB	Terbuthylazine	7.15	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P361571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075776	Aldrin	16.4	Spike	P	0 - 30
2075776	Alpha-BHC	8.01	Spike	P	0 - 30
2075776	Alpha-Chlordane	8.96	Spike	P	0 - 30
2075776	Beta-BHC	27.4	Spike	P	0 - 30
2075776	Bifenthrin	16.1	Spike	P	0 - 30
2075776	Carbophenothion	3.11	Spike	P	0 - 30
2075776	Chlorothalonil	107	Spike	F	0 - 30
2075776	Cis-Nonachlor	9.35	Spike	P	0 - 30
2075776	Cypermethrin	12.0	Spike	P	0 - 30
2075776	DDD-p,p'	8.39	Spike	P	0 - 30
2075776	DDE-p,p'	15.6	Spike	P	0 - 30
2075776	DDT-p,p'	10.0	Spike	P	0 - 30
2075776	Delta-BHC	3.77	Spike	P	0 - 30
2075776	Dicofol	10.1	Spike	P	0 - 30
2075776	Dieldrin	8.76	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P361571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075776	Endosulfan I	9.13	Spike	P	0 - 30
2075776	Endosulfan II	6.28	Spike	P	0 - 30
2075776	Endosulfan Sulfate	2.58	Spike	P	0 - 30
2075776	Endrin	20.2	Spike	P	0 - 30
2075776	Endrin Aldehyde	3.65	Spike	P	0 - 30
2075776	Endrin Ketone	9.84	Spike	P	0 - 30
2075776	Ethalfluralin	10.2	Spike	P	0 - 30
2075776	Gamma-BHC	53.3	Spike	F	0 - 30
2075776	Gamma-Chlordane	10.4	Spike	P	0 - 30
2075776	Heptachlor	16.2	Spike	P	0 - 30
2075776	Heptachlor Epoxide	9.45	Spike	P	0 - 30
2075776	Hexachlorobenzene	8.71	Spike	P	0 - 30
2075776	Methoxychlor	9.75	Spike	P	0 - 30
2075776	Mirex	12.9	Spike	P	0 - 30
2075776	Permethrin	11.9	Spike	P	0 - 30
2075776	Trans-Nonachlor	9.52	Spike	P	0 - 30
2075776	Trifluralin	10.2	Spike	P	0 - 30
LFB	Aldrin	19.1	LCS	P	0 - 30
LFB	Alpha-BHC	13.0	LCS	P	0 - 30
LFB	Alpha-Chlordane	15.1	LCS	P	0 - 30
LFB	Beta-BHC	20.5	LCS	P	0 - 30
LFB	Bifenthrin	19.1	LCS	P	0 - 30
LFB	Carbophenothion	14.1	LCS	P	0 - 30
LFB	Chlorothalonil	28.0	LCS	P	0 - 30
LFB	Cis-Nonachlor	15.8	LCS	P	0 - 30
LFB	Cypermethrin	17.0	LCS	P	0 - 30
LFB	DDD-p,p'	14.5	LCS	P	0 - 30
LFB	DDE-p,p'	17.2	LCS	P	0 - 30
LFB	DDT-p,p'	18.2	LCS	P	0 - 30
LFB	Delta-BHC	22.5	LCS	P	0 - 30
LFB	Dicofol	16.4	LCS	P	0 - 30
LFB	Dieldrin	14.1	LCS	P	0 - 30
LFB	Endosulfan I	16.3	LCS	P	0 - 30
LFB	Endosulfan II	19.2	LCS	P	0 - 30
LFB	Endosulfan Sulfate	16.1	LCS	P	0 - 30
LFB	Endrin	11.7	LCS	P	0 - 30
LFB	Endrin Aldehyde	9.53	LCS	P	0 - 30
LFB	Endrin Ketone	13.7	LCS	P	0 - 30
LFB	Ethalfluralin	11.8	LCS	P	0 - 30
LFB	Gamma-BHC	1.29	LCS	P	0 - 30
LFB	Gamma-Chlordane	16.0	LCS	P	0 - 30
LFB	Heptachlor	12.8	LCS	P	0 - 30
LFB	Heptachlor Epoxide	13.1	LCS	P	0 - 30
LFB	Hexachlorobenzene	16.9	LCS	P	0 - 30
LFB	Methoxychlor	12.3	LCS	P	0 - 30
LFB	Mirex	22.4	LCS	P	0 - 30
LFB	Permethrin	16.4	LCS	P	0 - 30
LFB	Trans-Nonachlor	16.3	LCS	P	0 - 30
LFB	Trifluralin	15.9	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P361571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075152	Chlordane	10.6	Spike	P	0 - 30
2075152	Toxaphene	5.28	Spike	P	0 - 30
LFB	Chlordane	2.97	LCS	P	0 - 30
LFB	Toxaphene	1.86	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P361474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074597	3-Hydroxycarbofuran	19.3	Spike	P	0 - 30
2074597	Aldicarb	20.0	Spike	P	0 - 30
2074597	Aldicarb Sulfone	1.91	Spike	P	0 - 30
2074597	Aldicarb Sulfoxide	13.0	Spike	P	0 - 30
2074597	Carbaryl	7.59	Spike	P	0 - 30
2074597	Carbofuran	14.0	Spike	P	0 - 30
2074597	Methiocarb	5.23	Spike	P	0 - 30
2074597	Methomyl	7.76	Spike	P	0 - 30
2074597	Oxamyl	6.23	Spike	P	0 - 30
2074597	Propoxur	0.807	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P361561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075090	2,4-D	18.9	Spike	P	0 - 30
2075090	Acetaminophen	6.15	Spike	P	0 - 30
2075090	Bentazon	7.21	Spike	P	0 - 30
2075090	Carbamazepine	14.7	Spike	P	0 - 30
2075090	Diuron	7.07	Spike	P	0 - 30
2075090	Fenuron	6.91	Spike	P	0 - 30
2075090	Fluridone	19.5	Spike	P	0 - 30
2075090	Hydrocodone	0.0336	Spike	P	0 - 30
2075090	Ibuprofen	15.5	Spike	P	0 - 30
2075090	Imazapyr	8.45	Spike	P	0 - 30
2075090	Imidacloprid	0.0188	Spike	P	0 - 30
2075090	Linuron	2.81	Spike	P	0 - 30
2075090	MCPP	0.798	Spike	P	0 - 30
2075090	Naproxen	3.30	Spike	P	0 - 30
2075090	Primidone	0.130	Spike	P	0 - 30
2075090	Pyraclostrobin	8.11	Spike	P	0 - 30
2075090	Triclopyr	4.43	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P361569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074312	Acesulfame K	5.18	Spike	P	0 - 30
2074312	AMPA	1.22	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P361569

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074312	Endothall	3.65	Spike	P	0 - 30
2074312	Glufosinate	3.95	Spike	P	0 - 30
2074312	Glyphosate	21.2	Spike	P	0 - 30
2074312	Sucralose	10.1	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P361551

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074836	Color (true)	3.70	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P361552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074698	Color (true)	2.40	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P361984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075852	Total Alkalinity	0.826	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P362130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074710	TDS	5.47	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P362131

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074382	TDS	3.77	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P361987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2075852	Fluoride	0.479	Spike	P	0 - 2.5

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P361726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074863	Organic Carbon	0.622	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2075088
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	60.4	P	30 - 160

Lab Sample ID: 2075089
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	71.3	P	30 - 160

Lab Sample ID: 2075090
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.0	P	30 - 160
EPA 8321B	Diuron-d6	60.0	P	30 - 160
EPA 8321B	Endothall-d6	44.4	P	30 - 160
EPA 8321B	Endothall-d6	44.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	30 - 160
EPA 8321B	Ibuprofen-d3	48.6	P	30 - 160
EPA 8321B	Primidone-d5	77.3	P	30 - 160
EPA 8321B	Sucralose-d6	95.4	P	30 - 160
EPA 8321B	Sucralose-d6	95.4	P	30 - 160

Lab Sample ID: 2075091
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	68.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.8	P	30 - 160
EPA 8321B	Diuron-d6	78.8	P	30 - 160
EPA 8321B	Endothall-d6	40.8	P	30 - 160
EPA 8321B	Endothall-d6	40.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	111	P	30 - 160
EPA 8321B	Ibuprofen-d3	82.8	P	30 - 160
EPA 8321B	Primidone-d5	77.8	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2075094
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	61.9	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	38.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	52.7	P	30 - 103
EPA 8276	PCNB	122	P	37 - 143

Quality Assurance Report
Surrogates

Lab Sample ID: 2075095
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	63.5	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	44.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	42.5	P	30 - 103
EPA 8276	PCNB	105	P	37 - 143

Lab Sample ID: 2075096
Field Sample ID: G2WA0012

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	92.7	P	68 - 130
EPA 8270D	Terbufos-d10	125	P	61 - 136

Lab Sample ID: 2075097
Field Sample ID: G2WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	89.3	P	68 - 130
EPA 8270D	Terbufos-d10	110	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A90416
Included Lab Sample IDs: 2075071, 2075072, 2075073

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A90417
Included Lab Sample IDs: 2075077, 2075078, 2075079

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	97.1	P/P	90 - 110
O-Phosphate-P	99.5	97.3	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A90429
Included Lab Sample IDs: 2075073

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

Reference Method: SM 2120 B
Run ID: A90430
Included Lab Sample IDs: 2075071, 2075072

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.6		P	90 - 115

Reference Method: SM 5310 B-00
Run ID: A90508
Included Lab Sample IDs: 2075074, 2075075, 2075076

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

Reference Method: EPA 8321B
Run ID: A90517
Included Lab Sample IDs: 2075090, 2075091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	74.4	71.0	P/P	60 - 160
Glufosinate	106	98.6	P/P	60 - 160
Glyphosate	113	99.8	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A90521
Included Lab Sample IDs: 2075090, 2075091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	60.1	75.6	P/P	60 - 160
Endothall	110	106	P/P	60 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A90538
Included Lab Sample IDs: 2075071, 2075072, 2075073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	103	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A90556
Included Lab Sample IDs: 2075098, 2075099

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	102	P/P	95 - 105
Barium	102	101	P/P	90 - 110
Calcium	101	103	P/P	95 - 105
Calcium	103	102	P/P	90 - 110
Iron	100	101	P/P	90 - 110
Iron	99.9	100	P/P	95 - 105
Magnesium	101	102	P/P	95 - 105
Magnesium	102	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Potassium	99.7	101	P/P	95 - 105
Sodium	101	105	P/P	95 - 105
Sodium	105	107	P/P	90 - 110
Zinc	103	101	P/P	90 - 110
Zinc	103	103	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A90572
Included Lab Sample IDs: 2075090, 2075091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	100	95.6	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A90584
Included Lab Sample IDs: 2075094, 2075095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	96.7		P	80 - 120
Toxaphene	97.6		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90591
Included Lab Sample IDs: 2075074, 2075075, 2075076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.3	99.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90598
Included Lab Sample IDs: 2075074, 2075075, 2075076

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90598
Included Lab Sample IDs: 2075074, 2075075, 2075076

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

Reference Method: EPA 8270D
Run ID: A90617
Included Lab Sample IDs: 2075095

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Alpha-BHC	95.9		P	80 - 120
Alpha-Chlordane	90.7		P	80 - 120
Beta-BHC	86.5		P	80 - 120
Bifenthrin	93.3		P	80 - 120
Carbophenothion	82.8		P	80 - 120
Chlorothalonil	90.4		P	80 - 120
Cis-Nonachlor	92.2		P	80 - 120
Cypermethrin	85.3		P	80 - 120
DDD-p,p'	98.8		P	80 - 120
DDE-p,p'	95.8		P	80 - 120
DDT-p,p'	103		P	80 - 120
Delta-BHC	85.6		P	80 - 120
Dicofol	98.1		P	80 - 120
Dieldrin	94.8		P	80 - 120
Endosulfan I	91.7		P	80 - 120
Endosulfan II	98.9		P	80 - 120
Endosulfan Sulfate	93.5		P	80 - 120
Endrin	91.1		P	80 - 120
Endrin Aldehyde	92.6		P	80 - 120
Endrin Ketone	92.9		P	80 - 120
Ethalfluralin	93.9		P	80 - 120
Gamma-BHC	95.5		P	80 - 120
Gamma-Chlordane	90.8		P	80 - 120
Heptachlor	97.2		P	80 - 120
Heptachlor Epoxide	92.6		P	80 - 120
Hexachlorobenzene	96.5		P	80 - 120
Methoxychlor	104		P	80 - 120
Mirex	92.7		P	80 - 120
Permethrin	90.1		P	80 - 120
Trans-Nonachlor	90.9		P	80 - 120
Trifluralin	95.5		P	80 - 120

Reference Method: SM 2320 B-97
Run ID: A90626
Included Lab Sample IDs: 2075071, 2075072, 2075073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.9	99.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A90626
Included Lab Sample IDs: 2075071, 2075072, 2075073

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A90631
Included Lab Sample IDs: 2075094

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	112		P	80 - 120
Alpha-BHC	94.8		P	80 - 120
Alpha-Chlordane	89.3		P	80 - 120
Beta-BHC	82.8		P	80 - 120
Bifenthrin	102		P	80 - 120
Carbophenothion	91.6		P	80 - 120
Chlorothalonil	99.2		P	80 - 120
Cis-Nonachlor	94.2		P	80 - 120
Cypermethrin	90.9		P	80 - 120
DDD-p,p'	121*		F	80 - 120
DDE-p,p'	107		P	80 - 120
DDT-p,p'	99.1		P	80 - 120
Delta-BHC	79.2*		F	80 - 120
Dicofol	97.0		P	80 - 120
Dieldrin	89.0		P	80 - 120
Endosulfan I	98.9		P	80 - 120
Endosulfan II	103		P	80 - 120
Endosulfan Sulfate	117		P	80 - 120
Endrin	89.8		P	80 - 120
Endrin Aldehyde	96.2		P	80 - 120
Endrin Ketone	99.6		P	80 - 120
Ethalfluralin	96.6		P	80 - 120
Gamma-BHC	84.2		P	80 - 120
Gamma-Chlordane	89.8		P	80 - 120
Heptachlor	111		P	80 - 120
Heptachlor Epoxide	93.7		P	80 - 120
Hexachlorobenzene	91.3		P	80 - 120
Methoxychlor	98.2		P	80 - 120
Mirex	98.2		P	80 - 120
Permethrin	96.7		P	80 - 120
Trans-Nonachlor	84.6		P	80 - 120
Trifluralin	96.9		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90637
Included Lab Sample IDs: 2075074, 2075075, 2075076

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	98.8	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A90667
Included Lab Sample IDs: 2075074, 2075075, 2075076

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

Reference Method: EPA 8321B
Run ID: A90744
Included Lab Sample IDs: 2075088, 2075089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	109	112	P/P	60 - 150
Aldicarb	114	118	P/P	60 - 150
Aldicarb Sulfone	107	110	P/P	50 - 150
Aldicarb Sulfoxide	103	104	P/P	50 - 150
Carbaryl	100	100	P/P	60 - 150
Carbofuran	94.3	103	P/P	50 - 150
Methiocarb	107	105	P/P	50 - 150
Methomyl	103	117	P/P	50 - 150
Oxamyl	102	96.5	P/P	50 - 150
Propoxur	102	103	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90781
Included Lab Sample IDs: 2075098, 2075099

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.5	95.6	P/P	90 - 110
Antimony	95.8	95.3	P/P	90 - 110
Arsenic	98.4	97.7	P/P	90 - 110
Boron	93.4	93.1	P/P	90 - 110
Cadmium	96.8	96.3	P/P	90 - 110
Chromium	96.8	96.7	P/P	90 - 110
Copper	97.3	96.4	P/P	90 - 110
Lead	103	103	P/P	90 - 110
Nickel	97.5	97.7	P/P	90 - 110
Selenium	97.2	96.5	P/P	90 - 110
Thallium	91.4	91.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90784
Included Lab Sample IDs: 2075090, 2075091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	95.8	105	P/P	50 - 150
Acetaminophen	110	95.8	P/P	60 - 160
Bentazon	127	133	P/P	50 - 160
Carbamazepine	90.9	105	P/P	60 - 150
Diuron	102	106	P/P	60 - 150
Fenuron	99.4	103	P/P	60 - 150
Fluridone	134	123	P/P	60 - 160
Hydrocodone	102	89.9	P/P	60 - 150
Ibuprofen	99.2	93.6	P/P	50 - 160
Imazapyr	92.6	103	P/P	50 - 150
Imidacloprid	105	98.5	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A90784
Included Lab Sample IDs: 2075090, 2075091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	97.2	99.7	P/P	60 - 150
MCPP	90.0	96.4	P/P	50 - 150
Naproxen	115	92.2	P/P	50 - 160
Primidone	103	78.9	P/P	60 - 150
Pyraclostrobin	96.5	106	P/P	60 - 150
Triclopyr	98.9	106	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90835
Included Lab Sample IDs: 2075098, 2075099

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

Reference Method: EPA 8270D
Run ID: A90911
Included Lab Sample IDs: 2075096, 2075097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.6		P	80 - 120
Alachlor	112		P	80 - 120
Ametryn	108		P	80 - 120
Atrazine	97.1		P	80 - 120
Atrazine Desethyl	99.4		P	80 - 120
Azinphos Methyl	109		P	80 - 120
Bromacil	97.8		P	80 - 120
Butylate	95.2		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	100		P	80 - 120
Cyanazine	97.7		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	95.3		P	80 - 120
Dimethenamid	98.1		P	80 - 120
Disulfoton	91.5		P	80 - 120
Dithiopyr	106		P	80 - 120
EPTC	95.2		P	80 - 120
Ethion	89.5		P	80 - 120
Ethoprop	90.7		P	80 - 120
Fenamiphos	93.4		P	80 - 120
Fipronil	107		P	80 - 120
Fipronil Desulfinyl	113		P	80 - 120
Fipronil Sulfide	115		P	80 - 120
Fipronil Sulfone	87.4		P	80 - 120
Fonofos	92.3		P	80 - 120
Hexazinone	98.3		P	80 - 120
Malathion	101		P	80 - 120
Metalaxyl	105		P	80 - 120
Metolachlor	102		P	80 - 120
Metribuzin	118		P	80 - 120
Mevinphos	91.3		P	80 - 120
Molinate	96.6		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A90911
Included Lab Sample IDs: 2075096, 2075097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Norflurazon	99.8		P	80 - 120
Oxadiazon	89.7		P	80 - 120
Parathion Ethyl	96.2		P	80 - 120
Parathion Methyl	109		P	80 - 120
Pendimethalin	93.7		P	80 - 120
Phorate	89.8		P	80 - 120
Prodiamine	107		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	106		P	80 - 120
Simazine	107		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	89.9		P	80 - 120
Terbuthylazine	102		P	80 - 120

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

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			Precision		
							LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity							1.43	
EPA 200.7 Rev. 4.4	Barium	102		100	101	99.5			0.668
	Calcium	104		101	99.3				0.811
	Iron	107		105	105	103			0.179
	Magnesium	104		103	101				1.20
	Potassium	104		104	105	106			0.570
	Sodium	104		105	107				0.0388
	Zinc	102		101	103	101			1.34
EPA 200.8 Rev. 5.4	Aluminum	91.6		92.1	91.5	91.9			0.589
	Antimony	93.8		93.9	92.1	93.5			1.99
	Arsenic	96.7		96.4	95.5	95.3			0.913
	Boron	91.8		94.4	93.5	93.4			0.868
	Cadmium	95.8		94.8	94.8	95.7			0.0078
	Chromium	89.3		90.2	90.3	89.9			0.0971
	Copper	94.9		93.9	92.6	92.7			1.40
	Lead	98.7		99.3	98.3	99.0			0.968
	Nickel	95.3		94.9	94.1	94.2			0.803
	Selenium	95.8		93.3	92.9	90.9			0.416
	Silver	110		110	109	110			1.20
	Thallium	93.3		95.5	95.6	95.8			0.0718
EPA 300.0 Rev. 2.1	Chloride	99.5		102	101			1.46	
	Sulfate	101		101	99.7			0.864	
EPA 350.1 Rev. 2.0	Ammonia-N	102		103	102				0.658
	Ammonia-N	105		102	100				1.63
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.4		90.7	92.7				1.59
EPA 353.2 Rev. 2.0	NO2NO3-N	104		98.5	99.0				0.487
EPA 365.1 Rev. 2.0	Total-P	103		100	104				4.10
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2		96.9	98.2				1.33
EPA 8270D	Acetochlor	102	102	118	111		0.423		5.57
	Alachlor	89.3	95.7	106	107		6.92		0.421
	Aldrin	38.6	46.8	49.6	58.4		19.1		16.4
	Alpha-BHC	96.1	109	103	111		13.0		8.01
	Alpha-Chlordane	63.9	74.4	76.3	83.4		15.1		8.96
	Ametryn	102	95.7	150	138		6.43		8.11
	Atrazine	91.3	95.3				4.35		17.8
	Atrazine Desethyl	71.1	74.9	114	112		5.31		1.39
	Azinphos Methyl	117	119	134	132		1.64		1.75
	Beta-BHC	105	129	188	143		20.5		27.4
	Bifenthrin	53.7	65.1	68.6	80.5		19.1		16.1
	Bromacil	76.2	91.9	94.1	95.0		18.7		0.825
	Butylate	49.7	51.1	27.6	36.2		2.65		27.1
	Carbophenothion	61.3	70.6	78.1	75.7		14.1		3.11
	Chlorothalonil	131	174	132	39.7		28.0		107
	Chlorpyrifos Ethyl	111	121	114	132		9.23		14.8
	Chlorpyrifos Methyl	105	103	142	135		2.53		5.74
	Cis-Nonachlor	67.0	78.6	80.9	88.9		15.8		9.35
	Cyanazine	92.4	81.9	92.3	97.7		12.1		5.68
	Cypermethrin	58.1	68.9	74.9	84.5		17.0		12.0
	DDD-p,p'	93.6	108	89.4	97.2		14.5		8.39
	DDE-p,p'	65.0	77.3	72.4	84.7		17.2		15.6
	DDT-p,p'	71.3	85.7	85.9	95.0		18.2		10.0
	Delta-BHC	110	138	172	165		22.5		3.77
	Demeton	71.3	67.5	76.7	69.2		5.48		10.2
	Diazinon	73.3	78.4	92.9	113		6.79		19.5

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Dicofol	74.1	87.4	83.1	92.0	16.4		10.1
	Dieldrin	70.4	81.1	84.3	92.1	14.1		8.76
	Dimethenamid	108	107	124	121	0.0430		2.22
	Disulfoton	91.6	80.7	117	122	12.6		3.41
	Dithiopyr	89.5	96.9	106	104	7.92		1.11
	Endosulfan I	81.4	95.9	85.2	93.3	16.3		9.13
	Endosulfan II	93.3	113	109	116	19.2		6.28
	Endosulfan Sulfate	103	122	93.9	96.3	16.1		2.58
	Endrin	72.9	81.9	85.7	105	11.7		20.2
	Endrin Aldehyde	98.5	108	90.1	93.5	9.53		3.65
	Endrin Ketone	87.1	99.9	90.4	99.8	13.7		9.84
	EPTC	50.0	48.3	23.5	33.5	3.48		34.9
	Ethalfluralin	70.9	79.9	72.8	80.7	11.8		10.2
	Ethion	115	97.8	123	117	15.8		5.33
	Ethoprop	62.8	79.6			23.6		2.24
	Fenamiphos	94.8	81.2	107	103	15.4		3.99
	Fipronil	86.8	79.8	93.7	83.9	8.30		9.11
	Fipronil Desulfinyl	99.1	93.3	116	118	5.98		1.99
	Fipronil Sulfide	92.9	94.4	105	104	1.60		0.731
	Fipronil Sulfone	105	81.1	127	117	25.3		4.25
	Fonofos	76.3	81.3	108	119	6.29		10.2
	Gamma-BHC	99.7	98.5	227	132	1.29		53.3
	Gamma-Chlordane	59.8	70.2	72.6	80.5	16.0		10.4
	Heptachlor	63.5	72.2	56.4	66.4	12.8		16.2
	Heptachlor Epoxide	75.3	85.8	80.6	88.6	13.1		9.45
	Hexachlorobenzene	50.5	59.8	52.3	57.0	16.9		8.71
	Hexazinone	106	108	118	115	1.74		1.33
	Malathion	127	109	140	136	15.9		3.41
	Metalaxyl	89.0	93.1	106	108	4.47		1.53
	Methoxychlor	95.0	108	97.8	108	12.3		9.75
	Metolachlor	90.5	93.5			3.31		13.6
	Metribuzin	146	117			22.2		6.92
	Mevinphos	78.1	84.6	95.2	107	8.03		12.2
	Mirex	41.7	52.3	56.2	64.0	22.4		12.9
	Molinate	58.6	57.9	50.4	56.8	1.19		11.9
	Norflurazon	95.2	91.8	108	103	3.59		4.48
	Oxadiazon	84.1	82.1	92.7	86.1	2.50		6.12
	Parathion Ethyl	87.0	82.9	96.7	94.3	4.82		2.58
	Parathion Methyl	111	116	158	130	4.89		19.8
	Pendimethalin	84.2	70.4	93.1	78.6	17.9		16.8
	Permethrin	48.1	56.8	59.7	67.3	16.4		11.9
	Phorate	69.4	68.4	91.9	87.8	1.50		4.52
	Prodiamine	114	116	127	130	2.06		1.75
	Prometon	89.5	96.2	94.1	93.9	7.27		0.239
	Prometryn	91.1	95.6	99.0	96.5	4.88		2.56
	Simazine	98.6	104			5.76		21.9
	Tebuconazole	86.4	94.2	108	106	8.67		1.38
	Terbufos	78.4	80.3	92.4	92.3	2.41		0.147
	Terbuthylazine	93.8	101	98.6	96.3	7.15		2.33
	Trans-Nonachlor	55.9	65.9	72.4	79.6	16.3		9.52
	Trifluralin	67.8	79.5	74.9	82.9	15.9		10.2
EPA 8276	Chlordane	78.6	81.0	81.6	73.4	2.97		10.6
	Toxaphene	72.6	74.0	86.2	90.9	1.86		5.28
EPA 8321B	2,4-D	70.2		72.9	60.4			18.9

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	3-Hydroxycarbofuran	67.0	80.6	97.8			19.3
	Acesulfame K	118	154	147			5.18
	Acetaminophen	93.5	93.6	88.0			6.15
	Aldicarb	70.6	74.4	90.9			20.0
	Aldicarb Sulfone	84.0	97.2	99.1			1.91
	Aldicarb Sulfoxide	77.3	52.1	59.4			13.0
	AMPA	88.0	56.8	58.6			1.22
	Bentazon	105	55.8	59.9			7.21
	Carbamazepine	91.0	83.6	72.2			14.7
	Carbaryl	73.7	71.3	76.9			7.59
	Carbofuran	68.8	63.4	73.0			14.0
	Diuron	82.9	62.5	67.1			7.07
	Endothall	93.0	74.8	77.6			3.65
	Fenuron	114	104	112			6.91
	Fluridone	96.7	114	139			19.5
	Glufosinate	112	94.6	91.0			3.95
	Glyphosate	124	90.7	69.3			21.2
	Hydrocodone	96.6	91.7	91.6			0.0336
	Ibuprofen	57.2	71.8	83.8			15.5
	Imazapyr	76.9	83.3	74.9			8.45
	Imidacloprid	117	167	167			0.0188
	Linuron	71.9	68.0	66.1			2.81
	MCPP	81.1	97.4	96.6			0.798
	Methiocarb	71.6	68.8	72.5			5.23
	Methomyl	85.0	91.9	99.3			7.76
	Naproxen	69.4	66.2	68.4			3.30
	Oxamyl	82.0	90.3	96.1			6.23
	Primidone	66.9	77.8	77.7			0.130
	Propoxur	73.9	73.7	74.3			0.807
	Pyraclostrobin	63.6	60.6	55.9			8.11
	Sucralose	86.2	102	92.0			10.1
	Triclopyr	53.3	67.4	64.5			4.43
SM 2120 B	Color (true)	102				3.70	
	Color (true)	101				2.40	
SM 2320 B-97	Total Alkalinity	98.8				0.826	
SM 2540 C-97	TDS					5.47	
	TDS					3.77	
SM 4500 F-C-97	Fluoride	97.5	98.4	99.0			0.479
SM 5310 B-00	Organic Carbon	102	100	101			0.622

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2075071, 2075072, 2075073
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2075098, 2075099
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2075098, 2075099
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2075071, 2075072, 2075073
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2075071, 2075072, 2075073

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2075074, 2075075, 2075076
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2075074, 2075075, 2075076
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2075074, 2075075, 2075076
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2075074, 2075075, 2075076
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2075077, 2075078, 2075079
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2075094, 2075095
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2075096, 2075097
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2075094, 2075095
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2075088, 2075089
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2075090, 2075091
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2075090, 2075091
SM 2120 B / E31780	True Color measured at 450 nm	2075071, 2075072, 2075073
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2075071, 2075072, 2075073
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2075071, 2075072, 2075073
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2075071, 2075072, 2075073
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2075071, 2075072, 2075073
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2075074, 2075075, 2075076

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	04/03/2019			04/03/2019 16:46	Adrian Shelby	2075071, 2075072, 2075073
EPA 200.7 Rev. 4.4	04/03/2019	04/08/2019 14:10	Elliott D. Healy	04/09/2019 14:11	Betina Topolski	2075098
	04/03/2019	04/08/2019 14:10	Elliott D. Healy	04/09/2019 14:33	Betina Topolski	2075099
EPA 200.8 Rev. 5.4	04/03/2019	04/08/2019 14:10	Elliott D. Healy	04/16/2019 17:39	Robert K Palmer	2075098
	04/03/2019	04/08/2019 14:10	Elliott D. Healy	04/16/2019 17:49	Robert K Palmer	2075099
	04/03/2019	04/08/2019 14:10	Elliott D. Healy	04/18/2019 18:13	Robert K Palmer	2075098
	04/03/2019	04/08/2019 14:10	Elliott D. Healy	04/18/2019 18:21	Robert K Palmer	2075099
EPA 300.0 Rev. 2.1	04/03/2019			04/11/2019 03:16	Lipi Saha	2075071
	04/03/2019			04/11/2019 03:28	Lipi Saha	2075072
	04/03/2019			04/11/2019 03:40	Lipi Saha	2075073
EPA 350.1 Rev. 2.0	04/03/2019			04/09/2019 14:08	Ping Hua	2075074
	04/03/2019			04/09/2019 14:30	Ping Hua	2075075
	04/03/2019			04/09/2019 14:32	Ping Hua	2075076
EPA 351.2 Rev. 2.0	04/03/2019	04/09/2019 12:30	Adrian Shelby	04/10/2019 15:56	Joseph Suarez	2075074
	04/03/2019	04/09/2019 12:30	Adrian Shelby	04/10/2019 15:58	Joseph Suarez	2075075
	04/03/2019	04/09/2019 12:30	Adrian Shelby	04/10/2019 16:00	Joseph Suarez	2075076
EPA 353.2 Rev. 2.0	04/03/2019			04/12/2019 10:13	Beverly Y. Sanders	2075075
	04/03/2019			04/12/2019 10:21	Beverly Y. Sanders	2075074
	04/03/2019			04/12/2019 10:22	Beverly Y. Sanders	2075076
EPA 365.1 Rev. 2.0	04/03/2019	04/09/2019 16:50	Sima Feizi	04/11/2019 13:10	Rosalyn Ballman	2075074
	04/03/2019	04/09/2019 16:50	Sima Feizi	04/11/2019 13:11	Rosalyn Ballman	2075075
	04/03/2019	04/09/2019 16:50	Sima Feizi	04/11/2019 13:12	Rosalyn Ballman	2075076
EPA 365.1 Rev. 2.0 dissolved	04/03/2019			04/03/2019 17:51	Jhamieka S. Greenwood	2075078
	04/03/2019			04/03/2019 18:33	Jhamieka S. Greenwood	2075077
	04/03/2019			04/03/2019 18:35	Jhamieka S. Greenwood	2075079
EPA 8270D	04/03/2019	04/05/2019 08:00	Fe-Val Siddell	04/09/2019 01:22	Vandana T. Nagar	2075096
	04/03/2019	04/05/2019 08:00	Fe-Val Siddell	04/09/2019 01:46	Vandana T. Nagar	2075097
	04/03/2019	04/05/2019 08:30	Rasheda Ghaffari	04/09/2019 00:23	Arthur Maknenko	2075095
	04/03/2019	04/05/2019 08:30	Rasheda Ghaffari	04/09/2019 15:42	Arthur Maknenko	2075094
EPA 8276	04/03/2019	04/05/2019 08:30	Rasheda Ghaffari	04/10/2019 03:51	Dinesh Mishra	2075094
	04/03/2019	04/05/2019 08:30	Rasheda Ghaffari	04/10/2019 04:46	Dinesh Mishra	2075095
EPA 8321B	04/03/2019	04/04/2019 13:30	Rebecca Ware	04/04/2019 21:00	Rebecca Ware	2075090
	04/03/2019	04/04/2019 13:30	Rebecca Ware	04/04/2019 21:13	Rebecca Ware	2075091
	04/03/2019	04/04/2019 13:30	Rebecca Ware	04/05/2019 15:29	Rebecca Ware	2075090
	04/03/2019	04/04/2019 13:30	Rebecca Ware	04/05/2019 15:37	Rebecca Ware	2075091
	04/03/2019	04/04/2019 13:30	Rebecca Ware	04/09/2019 22:51	Rebecca Ware	2075090
	04/03/2019	04/04/2019 13:30	Rebecca Ware	04/09/2019 23:05	Rebecca Ware	2075091
	04/03/2019	04/05/2019 10:00	Hoor Shaik	04/16/2019 01:30	Juyoung Kim	2075088
	04/03/2019	04/05/2019 10:00	Hoor Shaik	04/16/2019 02:05	Juyoung Kim	2075089
	04/03/2019	04/08/2019 10:00	Hoor Shaik	04/17/2019 10:23	Juyoung Kim	2075090

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	04/03/2019	04/08/2019 10:00	Hoor Shaik	04/17/2019 11:32	Juyoung Kim	2075091
SM 2120 B	04/03/2019			04/03/2019 17:01	Mariam Hanna	2075073
	04/03/2019			04/03/2019 17:59	Mariam Hanna	2075071
	04/03/2019			04/03/2019 18:00	Mariam Hanna	2075072
SM 2320 B-97	04/03/2019			04/11/2019 05:34	Dale L. Simmons	2075071
	04/03/2019			04/11/2019 05:47	Dale L. Simmons	2075072
	04/03/2019			04/11/2019 05:58	Dale L. Simmons	2075073
SM 2540 C-97	04/03/2019			04/05/2019 15:52	Yijie Li	2075071, 2075072, 2075073
SM 2540 D-97	04/03/2019			04/05/2019 15:52	Yijie Li	2075071, 2075072, 2075073
SM 4500 F-C-97	04/03/2019			04/11/2019 05:34	Dale L. Simmons	2075071
	04/03/2019			04/11/2019 05:47	Dale L. Simmons	2075072
	04/03/2019			04/11/2019 05:58	Dale L. Simmons	2075073
SM 5310 B-00	04/03/2019			04/06/2019 00:03	Julia Storbeck	2075074
	04/03/2019			04/06/2019 00:40	Julia Storbeck	2075075
	04/03/2019			04/06/2019 00:52	Julia Storbeck	2075076