Chemical Analysis Report

NW-DIST-2019-03-28-01

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

Event Description: **Escambia River Run**
Request ID: **RQ-2019-03-25-15**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

For additional information please contact
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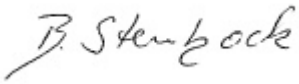
Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator Date Certified: 19-APR-2019 19:02



NON-CONFORMANCE REPORT INCLUDED

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: ESCAMBIA RIVER UPSTREAM OF MITCHELL CREEK **Collection Date/Time: 03/27/2019 10:25**

Field ID: G4NW0404 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073272	EPA 180.1 Rev. 2.0	Turbidity	9.8		NTU	P361221	
	EPA 300.0	Bromide	0.026	I	mg Br/L	P361847	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P361653	
	SM 2540 D-97	TSS	11		mg/L	P361345	
	SM 4500 F-C-97	Fluoride	0.038	I	mg F/L	P361657	
2073274	EPA 350.1 Rev. 2.0	Ammonia-N	0.073		mg N/L	P361541	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P361367	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P361296	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P361365	
	SM 5310 B-00	Organic Carbon	3.5		mg C/L	P361357	
2073276	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P361215	

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: ESCAMBIA RIVER DOWNSTREAM OF COTTON LAKE **Collection Date/Time: 03/27/2019 11:10**

Field ID: G4NW0403 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073266	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P361221	
	EPA 300.0 Rev. 2.1	Chloride	5.9		mg Cl/L	P361709	MS
		Sulfate	9.6		mg SO4/L	P361711	MS
	SM 2120 B	Color (true)	49	A	PCU	P361224	
	SM 2320 B-97	Total Alkalinity	31		mg CaCO3/L	P361653	
	SM 2540 C-97	TDS	73		mg/L	P361397	
	SM 2540 D-97	TSS	12		mg/L	P361344	
	SM 4500 F-C-97	Fluoride	0.039	I	mg F/L	P361657	
2073267	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P361462	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.28		mg N/L	P361679	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P361296	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P361365	
	SM 5310 B-00	Organic Carbon	3.4		mg C/L	P361357	
2073268	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.014		mg P/L	P361215	
2073289	EPA 200.7 Rev. 4.4	Barium	27.3		ug/L	P361347	
		Calcium	11.9		mg/L	P361347	
		Iron	1.52E+03		ug/L	P361347	
		Magnesium	1.38		mg/L	P361347	
		Potassium	1.1	I	mg/L	P361347	
		Sodium	7.7		mg/L	P361347	
		Zinc	5.0	U	ug/L	P361347	
	EPA 200.8 Rev. 5.4	Aluminum	374		ug/L	P361347	
		Antimony	0.050	U	ug/L	P361347	
		Arsenic	0.62		ug/L	P361347	
		Boron**	9.9		ug/L	P361347	
		Cadmium	0.020	U	ug/L	P361347	
		Chromium	0.95	I	ug/L	P361347	
		Copper	0.41	I	ug/L	P361347	
		Lead	0.38	I	ug/L	P361347	
		Nickel	0.79	I	ug/L	P361347	
		Selenium	0.20	U	ug/L	P361347	
		Silver	0.010	U	ug/L	P361347	
		Thallium	0.10	U	ug/L	P361347	

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: ESCAMBIA RIVER DOWNSTREAM OF TENMILE CREEK

Collection Date/Time: 03/27/2019 12:05

Field ID: G4NW0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073269	EPA 180.1 Rev. 2.0	Turbidity	16		NTU	P361221	
	EPA 300.0 Rev. 2.1	Chloride	5.7		mg Cl/L	P361709	MS
		Sulfate	9.0		mg SO4/L	P361711	MS
	SM 2120 B	Color (true)	15	A	PCU	P361226	
	SM 2320 B-97	Total Alkalinity	28		mg CaCO3/L	P361653	
	SM 2540 C-97	TDS	74		mg/L	P361397	
	SM 2540 D-97	TSS	14		mg/L	P361344	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P361657	
2073270	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P361541	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37		mg N/L	P361374	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P361296	
	EPA 365.1 Rev. 2.0	Total-P	0.045		mg P/L	P361365	
	SM 5310 B-00	Organic Carbon	3.4		mg C/L	P361357	
2073271	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013		mg P/L	P361215	
2073290	EPA 200.7 Rev. 4.4	Barium	28.8		ug/L	P361347	
		Calcium	11.0		mg/L	P361347	
		Iron	1.72E+03		ug/L	P361347	
		Magnesium	1.38		mg/L	P361347	
		Potassium	1.0	I	mg/L	P361347	
		Sodium	7.2		mg/L	P361347	
		Zinc	5.0	U	ug/L	P361347	
	EPA 200.8 Rev. 5.4	Aluminum	562		ug/L	P361347	
		Antimony	0.050	U	ug/L	P361347	
		Arsenic	0.66		ug/L	P361347	
		Boron**	9.4		ug/L	P361347	
		Cadmium	0.020	U	ug/L	P361347	
		Chromium	1.3	I	ug/L	P361347	
		Copper	0.43	I	ug/L	P361347	
		Lead	0.50		ug/L	P361347	
		Nickel	0.74	I	ug/L	P361347	
		Selenium	0.20	U	ug/L	P361347	
		Silver	0.010	U	ug/L	P361347	
		Thallium	0.10	U	ug/L	P361347	

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: ESCAMBIA RIVER 100 METERS UPSTREAM OF HWY 90 BRIDGE **Collection Date/Time: 03/27/2019 13:10**

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073273	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P361221	
	EPA 300.0	Bromide	0.73		mg Br/L	P361847	
	SM 2320 B-97	Total Alkalinity	29		mg CaCO3/L	P361653	
	SM 2540 D-97	TSS	7	IA	mg/L	P361345	
	SM 4500 F-C-97	Fluoride	0.048	I	mg F/L	P361657	
2073275	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P361541	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P361367	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.34		mg N/L	P361296	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P361365	
	SM 5310 B-00	Organic Carbon	3.4		mg C/L	P361357	
2073277	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.01	I	mg P/L	P361216	
2073285	EPA 8321B	Aldicarb	0.020	U	ug/L	P361100	
		Aldicarb Sulfone	0.0020	U	ug/L	P361100	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P361100	
		Carbaryl	0.0020	U	ug/L	P361100	
		Carbofuran	0.0020	U	ug/L	P361100	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P361100	
		Methiocarb	0.0020	U	ug/L	P361100	
		Methomyl	0.0020	U	ug/L	P361100	
		Oxamyl	0.0020	U	ug/L	P361100	
		Propoxur	0.0020	U	ug/L	P361100	
2073286		2,4-D	0.022		ug/L	P361100	
		Acesulfame K**	0.10	U	ug/L	P361130	
		AMPA**	0.10	U	ug/L	P361130	
		Sucralose**	0.18		ug/L	P361130	
		Acetaminophen**	0.0080	U	ug/L	P361100	
		Endothall**	0.25	U	ug/L	P361130	
		Glufosinate**	0.10	U	ug/L	P361130	
		Bentazon	8.0E-04	U	ug/L	P361100	
		Glyphosate**	0.10	U	ug/L	P361130	
		Carbamazepine**	8.0E-04	U	ug/L	P361100	
		Diuron	0.0020	U	ug/L	P361100	
		Fenuron	0.016	U	ug/L	P361100	
		Fluridone**	8.0E-04	U	ug/L	P361100	
		Imazapyr**	0.017		ug/L	P361100	
		Hydrocodone**	0.0020	U	ug/L	P361100	
		Ibuprofen**	0.020	U	ug/L	P361100	
		Imidacloprid	0.0020	U	ug/L	P361100	
		Linuron	0.0040	U	ug/L	P361100	
		MCPP	0.0020	U	ug/L	P361100	
		Naproxen**	0.0080	U	ug/L	P361100	
		Primidone**	0.0040	U	ug/L	P361100	

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073286	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P361100	
		Triclopyr**	0.0040	U	ug/L	P361100	MS, RPD
2073287	EPA 8270D	Aldrin	4.2	U	ng/L	P361264	
		Alpha-BHC	2.1	U	ng/L	P361264	
		Alpha-Chlordane	1.1	U	ng/L	P361264	
		Beta-BHC	11	U	ng/L	P361264	MS, RPD
		Bifenthrin**	4.2	U	ng/L	P361264	
		Delta-BHC	11	U	ng/L	P361264	MS, RPD
		Gamma-BHC	11	U	ng/L	P361264	
		Carbophenothion	13	U	ng/L	P361264	RPD
		Chlorothalonil	2.1	U	ng/L	P361264	RPD
		Cis-Nonachlor**	1.1	U	ng/L	P361264	
		Cypermethrin	21	U	ng/L	P361264	
		DDD-p,p'	8.4	U	ng/L	P361264	
		DDE-p,p'	8.4	U	ng/L	P361264	
		DDT-p,p'	11	U	ng/L	P361264	
		Dicofol	32	U	ng/L	P361264	
		Dieldrin	4.2	U	ng/L	P361264	
		Endosulfan I	4.2	U	ng/L	P361264	
		Endosulfan II	4.2	U	ng/L	P361264	
		Endosulfan Sulfate	2.1	U	ng/L	P361264	
		Endrin	2.1	U	ng/L	P361264	
		Endrin Aldehyde	2.1	U	ng/L	P361264	
		Endrin Ketone	2.1	U	ng/L	P361264	
		Ethalfluralin**	3.2	U	ng/L	P361264	
		Gamma-Chlordane	1.1	U	ng/L	P361264	
		Heptachlor	1.6	U	ng/L	P361264	
		Heptachlor Epoxide	2.1	U	ng/L	P361264	
		Hexachlorobenzene**	2.1	U	ng/L	P361264	
		Methoxychlor	4.2	U	ng/L	P361264	
		Mirex	2.1	U	ng/L	P361264	
		Permethrin	11	U	ng/L	P361264	
		Trans-Nonachlor**	1.1	U	ng/L	P361264	
		Trifluralin	2.6	U	ng/L	P361264	
	EPA 8276	Chlordane	5.3	U	ng/L	P361264	
		Toxaphene	32	U	ng/L	P361264	
2073288	EPA 8270D	Acetochlor	0.27	U	ng/L	P361310	
		Alachlor	0.27	U	ng/L	P361310	
		Ametryn	0.64	U	ng/L	P361310	
		Atrazine	1.2		ng/L	P361310	
		Atrazine Desethyl	1.6	U	ng/L	P361310	
		Azinphos Methyl	5.3	U	ng/L	P361310	
		Bromacil	0.53	U	ng/L	P361310	
		Butylate	0.43	U	ng/L	P361310	
		Chlorpyrifos Ethyl	0.27	U	ng/L	P361310	

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073288	EPA 8270D	Chlorpyrifos Methyl	0.11	U	ng/L	P361310	
		Cyanazine	3.5	U	ng/L	P361310	
		Demeton	7.4	U	ng/L	P361310	
		Diazinon	0.13	U	ng/L	P361310	
		Dimethenamid**	0.11	U	ng/L	P361310	
		Disulfoton	0.53	U	ng/L	P361310	
		Dithiopyr**	0.11	U	ng/L	P361310	
		EPTC	1.3	U	ng/L	P361310	
		Ethion	0.16	U	ng/L	P361310	
		Ethoprop	0.11	U	ng/L	P361310	
		Fenamiphos	0.53	U	ng/L	P361310	MS, RPD
		Fipronil	0.27	U	ng/L	P361310	
		Fipronil Desulfinyl**	0.13	U	ng/L	P361310	
		Fipronil Sulfide	0.16	U	ng/L	P361310	RPD
		Fipronil Sulfone	0.16	U	ng/L	P361310	
		Fonofos	0.21	U	ng/L	P361310	
		Hexazinone	1.9	I	ng/L	P361310	
		Malathion	0.37	U	ng/L	P361310	
		Metalaxyl	0.32	U	ng/L	P361310	
		Metolachlor	1.6	I	ng/L	P361310	
		Metribuzin	0.80	UJ	ng/L	P361310	LCS
		Mevinphos	0.53	U	ng/L	P361310	
		Molinate	0.32	U	ng/L	P361310	
		Norflurazon	0.53	U	ng/L	P361310	
		Oxadiazon**	0.12	I	ng/L	P361310	
		Parathion Ethyl	0.27	U	ng/L	P361310	
		Parathion Methyl	0.59	U	ng/L	P361310	
		Pendimethalin	1.1	U	ng/L	P361310	
		Phorate	0.27	UJ	ng/L	P361310	LCS
		Prodiamine**	0.19	U	ng/L	P361310	
		Prometon	0.96	UJ	ng/L	P361310	LCS, RPD
		Prometryn	0.21	U	ng/L	P361310	
		Simazine	0.53	U	ng/L	P361310	
		Tebuconazole**	0.53	U	ng/L	P361310	RPD
		Terbufos	0.11	U	ng/L	P361310	
		Terbuthylazine	0.45	U	ng/L	P361310	
2073291	EPA 200.7 Rev. 4.4	Iron	1.38E+03		ug/L	P361347	
		Manganese	47.3		ug/L	P361347	
		Zinc	5.0	U	ug/L	P361347	
	EPA 200.8 Rev. 5.4	Aluminum	405		ug/L	P361347	
		Antimony	0.050	U	ug/L	P361347	
		Arsenic	0.61		ug/L	P361347	
		Cadmium	0.020	U	ug/L	P361347	
		Chromium	0.90	I	ug/L	P361347	
		Copper	0.49	I	ug/L	P361347	

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2073291	EPA 200.8 Rev. 5.4	Lead	0.36	I	ug/L	P361347	
		Nickel	0.64	I	ug/L	P361347	
		Selenium	0.20	U	ug/L	P361347	
		Silver	0.010	U	ug/L	P361347	
		Thallium	0.10	U	ug/L	P361347	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Non-Conformance Report

NCR ID: 7633

Event(s)	Job(s)	Sample(s)	Test(s)
NW-DIST-2019-03-28-01			

NCR Type: SHIPPING/RECEIVING **NCR Category: Receiving**

Observation: Samples received don’t match samples requested, RQ modified by customer after original RQ was sent to the field.

Resolution: Samples logged in according to submittal forms received; customers Mike King and Cheryl Bunch are aware of discrepancies.

Authorized by/Date: Joshua Ayres 4/19/2019

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361221

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361347

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
Manganese	1.0	U	ug/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: P361347

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
Batch ID: P361847

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361709

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361711

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361462

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361541

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361367

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361374

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361679

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361296

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361365

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361215

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361216

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P361264

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
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 8270D
Batch ID: P361310

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P361310

Component	Result	Code	Units
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P361264

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

Reference Method: EPA 8321B
Batch ID: P361100

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
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
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P361100

Component	Result	Code	Units
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
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
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P361130

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: P361224

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P361226

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P361653

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

Reference Method: SM 2540 C-97
Batch ID: P361397

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P361344

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P361345

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P361657

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P361357

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: P361347

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.6		P	85 - 115
Calcium	106		P	85 - 115
Iron	107		P	85 - 115
Magnesium	102		P	85 - 115
Manganese	104		P	85 - 115
Potassium	101		P	85 - 115
Sodium	98.6		P	85 - 115
Zinc	99.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361347

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.6		P	85 - 115
Antimony	98.4		P	85 - 115
Arsenic	106		P	85 - 115
Boron	96.0		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	95.3		P	85 - 115
Copper	106		P	85 - 115
Lead	93.1		P	85 - 115
Nickel	105		P	85 - 115
Selenium	100		P	85 - 115
Silver	101		P	85 - 115
Thallium	97.2		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P361847

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361709

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361711

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.0		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361541

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361367

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361374

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.7		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361296

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361365

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361215

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361216

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

Reference Method: EPA 8270D
Batch ID: P361264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	39.6	46.3	P/P	20 - 93.0
Alpha-BHC	103	101	P/P	57 - 119
Alpha-Chlordane	74.9	78.9	P/P	58 - 112
Beta-BHC	135	134	P/P	56 - 149

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P361264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bifenthrin	66.3	75.3	P/P	50 - 130
Carbophenothion	78.5	73.2	P/P	26 - 147
Chlorothalonil	131	138	P/P	20 - 155
Cis-Nonachlor	85.4	91.3	P/P	50 - 130
Cypermethrin	65.8	67.2	P/P	40 - 137
DDD-p,p'	92.7	95.9	P/P	65 - 129
DDE-p,p'	79.9	84.8	P/P	57 - 116
DDT-p,p'	95.4	98.0	P/P	53 - 133
Delta-BHC	142	153	P/P	59 - 163
Dicofol	95.5	93.8	P/P	24 - 138
Dieldrin	84.7	86.7	P/P	60 - 120
Endosulfan I	84.9	89.1	P/P	64 - 118
Endosulfan II	109	109	P/P	58 - 142
Endosulfan Sulfate	84.7	88.2	P/P	60 - 127
Endrin	97.0	102	P/P	59 - 122
Endrin Aldehyde	93.9	88.4	P/P	49 - 132
Endrin Ketone	84.9	85.6	P/P	64 - 121
Ethalfluralin	83.3	86.5	P/P	50 - 130
Gamma-BHC	120	118	P/P	56 - 141
Gamma-Chlordane	72.5	77.4	P/P	56 - 110
Heptachlor	58.5	63.2	P/P	46 - 96.0
Heptachlor Epoxide	75.2	77.0	P/P	61 - 112
Hexachlorobenzene	64.3	70.9	P/P	50 - 130
Methoxychlor	97.1	104	P/P	63 - 134
Mirex	57.4	66.0	P/P	45 - 100
Permethrin	63.6	69.4	P/P	53 - 115
Trans-Nonachlor	71.5	75.9	P/P	50 - 130
Trifluralin	79.7	87.5	P/P	39 - 142

Reference Method: EPA 8270D
Batch ID: P361310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	93.3	94.3	P/P	71 - 121
Alachlor	94.7	95.0	P/P	72 - 119
Ametryn	92.3	90.2	P/P	47 - 144
Atrazine	96.8	92.6	P/P	75 - 123
Atrazine Desethyl	102	103	P/P	45 - 133
Azinphos Methyl	131	119	P/P	66 - 165
Bromacil	82.5	80.7	P/P	43 - 123
Butylate	68.0	64.8	P/P	27 - 83.0
Chlorpyrifos Ethyl	101	104	P/P	70 - 117
Chlorpyrifos Methyl	107	106	P/P	71 - 120
Cyanazine	135	121	P/P	34 - 264
Demeton	93.3	93.3	P/P	41 - 122
Diazinon	92.3	92.1	P/P	70 - 127
Dimethenamid	92.6	93.2	P/P	60 - 130
Disulfoton	98.5	106	P/P	56 - 127
Dithiopyr	94.9	93.5	P/P	60 - 130
EPTC	65.4	66.9	P/P	24 - 84.0
Ethion	82.5	90.4	P/P	53 - 132
Ethoprop	95.6	91.8	P/P	57 - 117

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P361310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenamiphos	101	101	P/P	55 - 136
Fipronil	86.0	87.1	P/P	64 - 126
Fipronil Desulfinyl	82.0	80.4	P/P	60 - 130
Fipronil Sulfide	101	95.5	P/P	57 - 120
Fipronil Sulfone	92.9	102	P/P	52 - 115
Fonofos	103	100	P/P	61 - 121
Hexazinone	102	98.4	P/P	62 - 131
Malathion	113	110	P/P	67 - 126
Metalaxyl	83.7	90.8	P/P	54 - 128
Metolachlor	88.9	89.6	P/P	71 - 118
Metribuzin	232	230	F/F	42 - 221
Mevinphos	86.5	79.3	P/P	45 - 114
Molinate	75.2	78.6	P/P	33 - 91.0
Norflurazon	86.9	82.1	P/P	60 - 123
Oxadiazon	81.2	83.7	P/P	60 - 130
Parathion Ethyl	87.3	88.2	P/P	73 - 111
Parathion Methyl	97.3	101	P/P	74 - 126
Pendimethalin	78.8	80.5	P/P	63 - 131
Phorate	114	117	P/F	54 - 115
Prodiamine	90.5	89.9	P/P	60 - 130
Prometon	81.2	56.9	P/F	61 - 120
Prometryn	82.3	83.4	P/P	62 - 126
Simazine	94.5	100	P/P	75 - 126
Tebuconazole	62.2	66.4	P/P	30 - 100
Terbufos	102	102	P/P	65 - 116
Terbuthylazine	90.1	91.5	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P361264

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	78.8	90.3	P/P	43 - 128
Toxaphene	72.6	80.2	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P361100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	64.8		P	40 - 150
3-Hydroxycarbofuran	63.1		P	40 - 150
Acetaminophen	81.0		P	30 - 150
Aldicarb	48.7		P	30 - 150
Aldicarb Sulfone	83.6		P	40 - 150
Aldicarb Sulfoxide	95.7		P	40 - 150
Bentazon	104		P	30 - 150
Carbamazepine	80.8		P	40 - 150
Carbaryl	73.8		P	40 - 150
Carbofuran	71.0		P	40 - 150
Diuron	71.2		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	124		P	40 - 150
Hydrocodone	86.0		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P361100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ibuprofen	63.4		P	40 - 150
Imazapyr	79.3		P	40 - 150
Imidacloprid	80.8		P	40 - 150
Linuron	68.1		P	40 - 150
MCPP	69.0		P	40 - 150
Methiocarb	71.4		P	40 - 150
Methomyl	62.8		P	40 - 150
Naproxen	64.0		P	40 - 150
Oxamyl	83.7		P	40 - 150
Primidone	82.0		P	40 - 150
Propoxur	54.9		P	40 - 150
Pyraclostrobin	64.9		P	40 - 150
Triclopyr	50.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361130

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	126		P	40 - 150
AMPA	99.1		P	40 - 150
Endothall	114		P	40 - 150
Glufosinate	109		P	40 - 150
Glyphosate	110		P	40 - 140
Sucralose	88.9		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P361224

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.7		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P361226

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

Reference Method: SM 2320 B-97
Batch ID: P361653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.6		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P361657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	91 - 105

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P361357

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073461	Barium	100	98.9	P/P	80 - 120
2073461	Calcium	109		P	80 - 120
2073461	Iron	108	106	P/P	80 - 120
2073461	Magnesium	104		P	80 - 120
2073461	Manganese	105	104	P/P	80 - 120
2073461	Potassium	102	99.0	P/P	80 - 120
2073461	Sodium	102	97.9	P/P	80 - 120
2073461	Zinc	101	99.6	P/P	80 - 120
2073520	Barium	101		P	80 - 120
2073520	Calcium	110		P	80 - 120
2073520	Iron	108		P	80 - 120
2073520	Magnesium	107		P	80 - 120
2073520	Manganese	104		P	80 - 120
2073520	Potassium	99.5		P	80 - 120
2073520	Sodium	98.1		P	80 - 120
2073520	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073461	Aluminum	98.7	100	P/P	80 - 120
2073461	Antimony	101	103	P/P	80 - 120
2073461	Arsenic	104	106	P/P	80 - 120
2073461	Boron	98.7	104	P/P	80 - 120
2073461	Cadmium	103	106	P/P	80 - 120
2073461	Chromium	95.8	97.3	P/P	80 - 120
2073461	Copper	99.8	100	P/P	80 - 120
2073461	Lead	94.2	96.3	P/P	80 - 120
2073461	Nickel	102	104	P/P	80 - 120
2073461	Selenium	102	103	P/P	80 - 120
2073461	Silver	99.7	100	P/P	80 - 120
2073461	Thallium	99.0	103	P/P	80 - 120
2073520	Aluminum	90.6		P	80 - 120
2073520	Antimony	92.1		P	80 - 120
2073520	Arsenic	95.1		P	80 - 120
2073520	Boron	92.3		P	80 - 120
2073520	Cadmium	95.3		P	80 - 120
2073520	Chromium	86.2		P	80 - 120
2073520	Copper	102		P	80 - 120
2073520	Lead	86.0		P	80 - 120
2073520	Nickel	97.2		P	80 - 120
2073520	Selenium	92.5		P	80 - 120
2073520	Silver	92.8		P	80 - 120
2073520	Thallium	92.3		P	80 - 120

Reference Method: EPA 300.0
Batch ID: P361847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073272	Bromide	97.7	97.9	P/P	90 - 110
2074743	Bromide	99.9		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073199	Chloride	86.5		F	90 - 110
2073458	Chloride	97.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361711

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073199	Sulfate	87.4		F	90 - 110
2073458	Sulfate	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073192	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361541

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072707	Ammonia-N	99.2	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361367

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072979	Kjeldahl Nitrogen	112	95.7	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361374

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073195	Kjeldahl Nitrogen	95.0	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2074401	Kjeldahl Nitrogen	101	108	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361296

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073267	NO2NO3-N	98.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073267	Total-P	101	103	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361215

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073271	O-Phosphate-P	93.5	94.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073359	O-Phosphate-P	90.8	91.3	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P361264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073116	Aldrin	56.1	55.1	P/P	25 - 92.0
2073116	Alpha-BHC	129	116	P/P	49 - 130
2073116	Alpha-Chlordane	81.3	70.3	P/P	50 - 115
2073116	Beta-BHC	190	113	F/P	43 - 157
2073116	Bifenthrin	77.0	75.2	P/P	50 - 130
2073116	Carbophenothion	124	86.3	P/P	27 - 180
2073116	Chlorothalonil	129	87.7	P/P	10 - 216
2073116	Cis-Nonachlor	95.1	84.0	P/P	50 - 130
2073116	Cypermethrin	89.5	81.3	P/P	40 - 153
2073116	DDD-p,p'	107	90.7	P/P	53 - 128
2073116	DDE-p,p'	93.5	82.2	P/P	48 - 116
2073116	DDT-p,p'	101	91.9	P/P	47 - 128
2073116	Delta-BHC	248	154	F/P	51 - 196
2073116	Dicofol	98.9	108	P/P	10 - 147
2073116	Dieldrin	89.7	77.7	P/P	48 - 128
2073116	Endosulfan I	103	82.1	P/P	58 - 126
2073116	Endosulfan II	127	105	P/P	50 - 150
2073116	Endosulfan Sulfate	108	85.9	P/P	56 - 130
2073116	Endrin	89.4	94.0	P/P	50 - 126
2073116	Endrin Aldehyde	93.0	77.4	P/P	12 - 145
2073116	Endrin Ketone	97.4	82.9	P/P	59 - 132
2073116	Ethalfluralin	92.7	85.3	P/P	50 - 130
2073116	Gamma-BHC	146	122	P/P	50 - 155
2073116	Gamma-Chlordane	79.6	68.1	P/P	50 - 112
2073116	Heptachlor	65.2	67.1	P/P	41 - 98.0
2073116	Heptachlor Epoxide	82.4	70.9	P/P	55 - 117
2073116	Hexachlorobenzene	72.1	68.3	P/P	50 - 130
2073116	Methoxychlor	109	101	P/P	55 - 133
2073116	Mirex	70.4	62.3	P/P	44 - 101
2073116	Permethrin	72.6	78.6	P/P	52 - 124
2073116	Trans-Nonachlor	76.4	61.3	P/P	50 - 130
2073116	Trifluralin	92.9	82.2	P/P	10 - 201

Reference Method: EPA 8270D
Batch ID: P361310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073235	Acetochlor	89.5	109	P/P	63 - 129
2073235	Alachlor	90.1	95.7	P/P	65 - 127
2073235	Ametryn	90.9	102	P/P	40 - 164

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P361310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073235	Atrazine	77.1	88.2	P/P	66 - 135
2073235	Atrazine Desethyl	105	103	P/P	14 - 157
2073235	Azinphos Methyl	148	167	P/P	49 - 180
2073235	Bromacil	70.7	88.8	P/P	48 - 130
2073235	Butylate	61.0	72.0	P/P	10 - 94.0
2073235	Chlorpyrifos Ethyl	86.9	94.0	P/P	58 - 123
2073235	Chlorpyrifos Methyl	95.0	103	P/P	58 - 125
2073235	Cyanazine	118	130	P/P	24 - 253
2073235	Demeton	95.2	101	P/P	25 - 149
2073235	Diazinon	92.0	105	P/P	59 - 144
2073235	Dimethenamid	78.5	99.6	P/P	60 - 130
2073235	Disulfoton	103	111	P/P	54 - 132
2073235	Dithiopyr	80.9	96.5	P/P	60 - 130
2073235	EPTC	65.3	76.1	P/P	10 - 92.0
2073235	Ethion	39.9	53.6	P/P	30 - 148
2073235	Ethoprop	99.2	94.0	P/P	50 - 130
2073235	Fenamiphos	90.0	163	P/F	49 - 142
2073235	Fipronil	82.5	94.6	P/P	46 - 140
2073235	Fipronil Desulfinyl	73.5	86.9	P/P	60 - 130
2073235	Fipronil Sulfide	70.4	102	P/P	31 - 136
2073235	Fipronil Sulfone	89.8	97.7	P/P	16 - 136
2073235	Fonofos	101	102	P/P	55 - 129
2073235	Hexazinone	89.6	105	P/P	56 - 141
2073235	Malathion	88.3	102	P/P	56 - 135
2073235	Metalaxyl	73.2	86.8	P/P	54 - 135
2073235	Metolachlor	76.2	95.0	P/P	51 - 140
2073235	Metribuzin	211	246	P/P	45 - 254
2073235	Mevinphos	92.6	105	P/P	33 - 131
2073235	Molinate	80.9	94.2	P/P	14 - 98.0
2073235	Norflurazon	81.9	98.9	P/P	34 - 136
2073235	Oxadiazon	70.9	84.5	P/P	60 - 130
2073235	Parathion Ethyl	74.7	91.5	P/P	66 - 118
2073235	Parathion Methyl	97.5	116	P/P	64 - 136
2073235	Pendimethalin	81.0	92.1	P/P	59 - 144
2073235	Phorate	112	129	P/P	42 - 130
2073235	Prodiamine	107	104	P/P	60 - 130
2073235	Prometon	76.4	82.9	P/P	59 - 134
2073235	Prometryn	76.2	84.9	P/P	54 - 135
2073235	Simazine	82.9	102	P/P	53 - 156
2073235	Tebuconazole	34.0	53.4	P/P	30 - 100
2073235	Terbufos	101	107	P/P	57 - 131
2073235	Terbuthylazine	81.8	92.2	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P361264

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073170	Chlordane	91.9	96.1	P/P	34 - 136
2073170	Toxaphene	84.5	91.8	P/P	22 - 152

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P361100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073227	3-Hydroxycarbofuran	77.3	75.8	P/P	40 - 150
2073227	Aldicarb	81.9	71.7	P/P	30 - 150
2073227	Aldicarb Sulfone	94.2	96.8	P/P	40 - 150
2073227	Aldicarb Sulfoxide	48.5	45.8	P/P	40 - 150
2073227	Carbaryl	67.4	66.3	P/P	40 - 150
2073227	Carbofuran	65.1	63.5	P/P	40 - 150
2073227	Methiocarb	62.3	62.5	P/P	40 - 150
2073227	Methomyl	70.1	72.1	P/P	40 - 150
2073227	Oxamyl	76.3	73.7	P/P	40 - 150
2073227	Propoxur	69.7	68.4	P/P	40 - 150
2073228	2,4-D	63.7	71.8	P/P	40 - 150
2073228	Acetaminophen	73.5	84.4	P/P	30 - 150
2073228	Bentazon	87.4	91.5	P/P	30 - 150
2073228	Carbamazepine	81.3	84.0	P/P	40 - 150
2073228	Diuron	64.1	68.4	P/P	40 - 150
2073228	Fenuron	108	117	P/P	40 - 150
2073228	Fluridone	144	148	P/P	40 - 150
2073228	Hydrocodone	83.6	87.2	P/P	40 - 150
2073228	Ibuprofen	84.6	83.3	P/P	40 - 150
2073228	Imazapyr	81.8	90.0	P/P	40 - 150
2073228	Imidacloprid	148	139	P/P	40 - 150
2073228	Linuron	71.7	63.6	P/P	40 - 150
2073228	MCPP	87.7	99.0	P/P	40 - 150
2073228	Naproxen	61.2	67.4	P/P	40 - 150
2073228	Primidone	62.5	78.4	P/P	40 - 150
2073228	Pyraclostrobin	75.2	74.1	P/P	40 - 150
2073228	Triclopyr	36.3	54.6	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P361130

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2072421	Acesulfame K	105	113	P/P	40 - 150
2072421	AMPA	103	96.2	P/P	40 - 150
2072421	Endothall	82.8	78.6	P/P	40 - 150
2072421	Glufosinate	99.9	100	P/P	40 - 150
2072421	Glyphosate	93.8	103	P/P	40 - 140
2072421	Sucralose	57.2	73.2	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P361657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073355	Fluoride	98.0	99.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P361357

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2073201	Organic Carbon	98.3	98.3	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P361221

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073254	Turbidity	0.454	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P361347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073461	Barium	1.53	Spike	P	0 - 20
2073461	Calcium	0.769	Spike	P	0 - 20
2073461	Iron	1.79	Spike	P	0 - 20
2073461	Magnesium	1.82	Spike	P	0 - 20
2073461	Manganese	1.46	Spike	P	0 - 20
2073461	Potassium	2.53	Spike	P	0 - 20
2073461	Sodium	2.22	Spike	P	0 - 20
2073461	Zinc	1.39	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P361347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073461	Aluminum	1.60	Spike	P	0 - 20
2073461	Antimony	1.73	Spike	P	0 - 20
2073461	Arsenic	1.47	Spike	P	0 - 20
2073461	Boron	4.75	Spike	P	0 - 20
2073461	Cadmium	2.63	Spike	P	0 - 20
2073461	Chromium	1.54	Spike	P	0 - 20
2073461	Copper	0.630	Spike	P	0 - 20
2073461	Lead	2.19	Spike	P	0 - 20
2073461	Nickel	2.36	Spike	P	0 - 20
2073461	Selenium	0.594	Spike	P	0 - 20
2073461	Silver	0.446	Spike	P	0 - 20
2073461	Thallium	3.89	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P361847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073272	Bromide	0.117	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073458	Chloride	0.748	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P361711

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073458	Sulfate	1.66	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073192	Ammonia-N	0.163	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P361541

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072707	Ammonia-N	0.614	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361367

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072979	Kjeldahl Nitrogen	8.61	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073195	Kjeldahl Nitrogen	3.36	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P361679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2074401	Kjeldahl Nitrogen	4.35	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P361296

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073267	NO2NO3-N	0.192	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P361365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073267	Total-P	1.73	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073271	O-Phosphate-P	1.12	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P361216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073359	O-Phosphate-P	0.549	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P361264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073116	Aldrin	1.88	Spike	P	0 - 30
2073116	Alpha-BHC	10.7	Spike	P	0 - 30
2073116	Alpha-Chlordane	14.5	Spike	P	0 - 30
2073116	Beta-BHC	50.4	Spike	F	0 - 30
2073116	Bifenthrin	2.31	Spike	P	0 - 30
2073116	Carbophenothion	35.9	Spike	F	0 - 30
2073116	Chlorothalonil	38.2	Spike	F	0 - 30
2073116	Cis-Nonachlor	12.4	Spike	P	0 - 30
2073116	Cypermethrin	9.66	Spike	P	0 - 30
2073116	DDD-p,p'	16.1	Spike	P	0 - 30
2073116	DDE-p,p'	12.8	Spike	P	0 - 30
2073116	DDT-p,p'	9.04	Spike	P	0 - 30
2073116	Delta-BHC	46.9	Spike	F	0 - 30
2073116	Dicofol	8.71	Spike	P	0 - 30
2073116	Dieldrin	14.4	Spike	P	0 - 30
2073116	Endosulfan I	23.0	Spike	P	0 - 30
2073116	Endosulfan II	18.5	Spike	P	0 - 30
2073116	Endosulfan Sulfate	22.9	Spike	P	0 - 30
2073116	Endrin	5.00	Spike	P	0 - 30
2073116	Endrin Aldehyde	18.4	Spike	P	0 - 30
2073116	Endrin Ketone	16.1	Spike	P	0 - 30
2073116	Ethalfluralin	8.30	Spike	P	0 - 30
2073116	Gamma-BHC	17.9	Spike	P	0 - 30
2073116	Gamma-Chlordane	15.7	Spike	P	0 - 30
2073116	Heptachlor	2.77	Spike	P	0 - 30
2073116	Heptachlor Epoxide	14.9	Spike	P	0 - 30
2073116	Hexachlorobenzene	5.43	Spike	P	0 - 30
2073116	Methoxychlor	7.92	Spike	P	0 - 30
2073116	Mirex	12.2	Spike	P	0 - 30
2073116	Permethrin	7.96	Spike	P	0 - 30
2073116	Trans-Nonachlor	21.9	Spike	P	0 - 30
2073116	Trifluralin	12.3	Spike	P	0 - 30
LFB	Aldrin	15.7	LCS	P	0 - 30
LFB	Alpha-BHC	1.66	LCS	P	0 - 30
LFB	Alpha-Chlordane	5.22	LCS	P	0 - 30
LFB	Beta-BHC	1.01	LCS	P	0 - 30
LFB	Bifenthrin	12.7	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P361264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Carbophenothion	6.91	LCS	P	0 - 30
LFB	Chlorothalonil	5.23	LCS	P	0 - 30
LFB	Cis-Nonachlor	6.72	LCS	P	0 - 30
LFB	Cypermethrin	2.08	LCS	P	0 - 30
LFB	DDD-p,p'	3.39	LCS	P	0 - 30
LFB	DDE-p,p'	5.95	LCS	P	0 - 30
LFB	DDT-p,p'	2.71	LCS	P	0 - 30
LFB	Delta-BHC	7.44	LCS	P	0 - 30
LFB	Dicofol	1.84	LCS	P	0 - 30
LFB	Dieldrin	2.25	LCS	P	0 - 30
LFB	Endosulfan I	4.81	LCS	P	0 - 30
LFB	Endosulfan II	0.381	LCS	P	0 - 30
LFB	Endosulfan Sulfate	4.05	LCS	P	0 - 30
LFB	Endrin	4.94	LCS	P	0 - 30
LFB	Endrin Aldehyde	6.12	LCS	P	0 - 30
LFB	Endrin Ketone	0.851	LCS	P	0 - 30
LFB	Ethalfluralin	3.75	LCS	P	0 - 30
LFB	Gamma-BHC	1.29	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.47	LCS	P	0 - 30
LFB	Heptachlor	7.72	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.30	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.68	LCS	P	0 - 30
LFB	Methoxychlor	6.86	LCS	P	0 - 30
LFB	Mirex	14.0	LCS	P	0 - 30
LFB	Permethrin	8.75	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.90	LCS	P	0 - 30
LFB	Trifluralin	9.29	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P361310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073235	Acetochlor	19.4	Spike	P	0 - 30
2073235	Alachlor	6.06	Spike	P	0 - 30
2073235	Ametryn	11.1	Spike	P	0 - 30
2073235	Atrazine	6.84	Spike	P	0 - 30
2073235	Atrazine Desethyl	2.06	Spike	P	0 - 30
2073235	Azinphos Methyl	11.7	Spike	P	0 - 30
2073235	Bromacil	22.7	Spike	P	0 - 30
2073235	Butylate	16.5	Spike	P	0 - 30
2073235	Chlorpyrifos Ethyl	7.87	Spike	P	0 - 30
2073235	Chlorpyrifos Methyl	8.59	Spike	P	0 - 30
2073235	Cyanazine	9.91	Spike	P	0 - 30
2073235	Demeton	5.71	Spike	P	0 - 30
2073235	Diazinon	12.9	Spike	P	0 - 30
2073235	Dimethenamid	23.7	Spike	P	0 - 30
2073235	Disulfoton	7.45	Spike	P	0 - 30
2073235	Dithiopyr	17.1	Spike	P	0 - 30
2073235	EPTC	15.2	Spike	P	0 - 30
2073235	Ethion	29.4	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P361310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073235	Ethoprop	5.44	Spike	P	0 - 30
2073235	Fenamiphos	57.8	Spike	F	0 - 30
2073235	Fipronil	13.7	Spike	P	0 - 30
2073235	Fipronil Desulfinyl	16.7	Spike	P	0 - 30
2073235	Fipronil Sulfide	37.0	Spike	F	0 - 30
2073235	Fipronil Sulfone	8.52	Spike	P	0 - 30
2073235	Fonofos	0.0739	Spike	P	0 - 30
2073235	Hexazinone	15.7	Spike	P	0 - 30
2073235	Malathion	14.3	Spike	P	0 - 30
2073235	Metalaxyl	17.0	Spike	P	0 - 30
2073235	Metolachlor	15.9	Spike	P	0 - 30
2073235	Metribuzin	15.3	Spike	P	0 - 30
2073235	Mevinphos	12.7	Spike	P	0 - 30
2073235	Molinate	15.2	Spike	P	0 - 30
2073235	Norflurazon	18.8	Spike	P	0 - 30
2073235	Oxadiazon	17.5	Spike	P	0 - 30
2073235	Parathion Ethyl	20.3	Spike	P	0 - 30
2073235	Parathion Methyl	17.3	Spike	P	0 - 30
2073235	Pendimethalin	12.8	Spike	P	0 - 30
2073235	Phorate	14.1	Spike	P	0 - 30
2073235	Prodiamine	3.26	Spike	P	0 - 30
2073235	Prometon	8.16	Spike	P	0 - 30
2073235	Prometryn	10.8	Spike	P	0 - 30
2073235	Simazine	20.2	Spike	P	0 - 30
2073235	Tebuconazole	35.3	Spike	F	0 - 30
2073235	Terbufos	5.24	Spike	P	0 - 30
2073235	Terbuthylazine	12.0	Spike	P	0 - 30
LFB	Acetochlor	1.03	LCS	P	0 - 30
LFB	Alachlor	0.378	LCS	P	0 - 30
LFB	Ametryn	2.33	LCS	P	0 - 30
LFB	Atrazine	4.49	LCS	P	0 - 30
LFB	Atrazine Desethyl	0.984	LCS	P	0 - 30
LFB	Azinphos Methyl	10.1	LCS	P	0 - 30
LFB	Bromacil	2.14	LCS	P	0 - 30
LFB	Butylate	4.76	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.74	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.30	LCS	P	0 - 30
LFB	Cyanazine	11.3	LCS	P	0 - 30
LFB	Demeton	0.0362	LCS	P	0 - 30
LFB	Diazinon	0.178	LCS	P	0 - 30
LFB	Dimethenamid	0.666	LCS	P	0 - 30
LFB	Disulfoton	7.74	LCS	P	0 - 30
LFB	Dithiopyr	1.52	LCS	P	0 - 30
LFB	EPTC	2.21	LCS	P	0 - 30
LFB	Ethion	9.04	LCS	P	0 - 30
LFB	Ethoprop	4.14	LCS	P	0 - 30
LFB	Fenamiphos	0.240	LCS	P	0 - 30
LFB	Fipronil	1.30	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.94	LCS	P	0 - 30
LFB	Fipronil Sulfide	5.59	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.21	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P361310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fonofos	2.27	LCS	P	0 - 30
LFB	Hexazinone	3.18	LCS	P	0 - 30
LFB	Malathion	2.94	LCS	P	0 - 30
LFB	Metalaxyl	8.16	LCS	P	0 - 30
LFB	Metolachlor	0.865	LCS	P	0 - 30
LFB	Metribuzin	0.784	LCS	P	0 - 30
LFB	Mevinphos	8.75	LCS	P	0 - 30
LFB	Molinate	4.39	LCS	P	0 - 30
LFB	Norflurazon	5.70	LCS	P	0 - 30
LFB	Oxadiazon	3.04	LCS	P	0 - 30
LFB	Parathion Ethyl	1.04	LCS	P	0 - 30
LFB	Parathion Methyl	3.49	LCS	P	0 - 30
LFB	Pendimethalin	2.13	LCS	P	0 - 30
LFB	Phorate	2.78	LCS	P	0 - 30
LFB	Prodiamine	0.720	LCS	P	0 - 30
LFB	Prometon	35.1	LCS	F	0 - 30
LFB	Prometryn	1.32	LCS	P	0 - 30
LFB	Simazine	6.07	LCS	P	0 - 30
LFB	Tebuconazole	6.68	LCS	P	0 - 30
LFB	Terbufos	0.363	LCS	P	0 - 30
LFB	Terbuthylazine	1.52	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P361264

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073170	Chlordane	4.46	Spike	P	0 - 30
2073170	Toxaphene	8.31	Spike	P	0 - 30
LFB	Chlordane	13.6	LCS	P	0 - 30
LFB	Toxaphene	9.91	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P361100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073227	3-Hydroxycarbofuran	1.99	Spike	P	0 - 30
2073227	Aldicarb	13.3	Spike	P	0 - 30
2073227	Aldicarb Sulfone	2.67	Spike	P	0 - 30
2073227	Aldicarb Sulfoxide	5.69	Spike	P	0 - 30
2073227	Carbaryl	1.69	Spike	P	0 - 30
2073227	Carbofuran	2.44	Spike	P	0 - 30
2073227	Methiocarb	0.380	Spike	P	0 - 30
2073227	Methomyl	2.86	Spike	P	0 - 30
2073227	Oxamyl	3.43	Spike	P	0 - 30
2073227	Propoxur	1.94	Spike	P	0 - 30
2073228	2,4-D	11.9	Spike	P	0 - 30
2073228	Acetaminophen	13.8	Spike	P	0 - 30
2073228	Bentazon	4.54	Spike	P	0 - 30
2073228	Carbamazepine	3.26	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P361100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073228	Diuron	6.50	Spike	P	0 - 30
2073228	Fenuron	7.29	Spike	P	0 - 30
2073228	Fluridone	2.43	Spike	P	0 - 30
2073228	Hydrocodone	4.22	Spike	P	0 - 30
2073228	Ibuprofen	1.47	Spike	P	0 - 30
2073228	Imazapyr	9.54	Spike	P	0 - 30
2073228	Imidacloprid	6.33	Spike	P	0 - 30
2073228	Linuron	12.1	Spike	P	0 - 30
2073228	MCPP	12.0	Spike	P	0 - 30
2073228	Naproxen	9.59	Spike	P	0 - 30
2073228	Primidone	22.5	Spike	P	0 - 30
2073228	Pyraclostrobin	1.43	Spike	P	0 - 30
2073228	Triclopyr	40.3	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P361130

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2072421	Acesulfame K	6.91	Spike	P	0 - 30
2072421	AMPA	6.83	Spike	P	0 - 30
2072421	Endothall	5.17	Spike	P	0 - 30
2072421	Glufosinate	0.383	Spike	P	0 - 30
2072421	Glyphosate	7.87	Spike	P	0 - 30
2072421	Sucralose	19.9	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P361224

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073266	Color (true)	1.54	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P361226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073269	Color (true)	10.1	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P361653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073355	Total Alkalinity	0.904	Sample	P	0 - 1.6

Quality Assurance Report
Precision

Reference Method: SM 2540 C-97
Batch ID: P361397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073254	TDS	0.927	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P361657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073355	Fluoride	0.948	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P361357

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2073201	Organic Carbon	0.0404	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: 2073285
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	83.2	P	30 - 160

Lab Sample ID: 2073286
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.8	P	30 - 160
EPA 8321B	Diuron-d6	90.7	P	30 - 160
EPA 8321B	Endothall-d6	51.7	P	30 - 160
EPA 8321B	Endothall-d6	51.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	82.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.8	P	30 - 160
EPA 8321B	Primidone-d5	85.9	P	30 - 160
EPA 8321B	Sucralose-d6	75.5	P	30 - 160
EPA 8321B	Sucralose-d6	75.5	P	30 - 160

Lab Sample ID: 2073287
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	57.5	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	40.7	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	37.2	P	30 - 103
EPA 8276	PCNB	87.8	P	37 - 143

Lab Sample ID: 2073288
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	102	P	68 - 130
EPA 8270D	Terbufos-d10	102	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A90302
Included Lab Sample IDs: 2073268, 2073271, 2073276, 2073277

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	94.9	95.5	P/P	90 - 110
O-Phosphate-P	97.0	96.9	P/P	90 - 110
O-Phosphate-P	98.9	97.0	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A90304
Included Lab Sample IDs: 2073266, 2073269, 2073272, 2073273

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

Reference Method: SM 2120 B
Run ID: A90305
Included Lab Sample IDs: 2073266, 2073269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	100	P/P	90 - 115
Color (true)	101	99.5	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A90326
Included Lab Sample IDs: 2073267, 2073270, 2073274, 2073275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	97.0	97.0	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A90345
Included Lab Sample IDs: 2073267, 2073270, 2073274, 2073275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.4	P/P	90 - 110

Reference Method: EPA 8270D
Run ID: A90361
Included Lab Sample IDs: 2073287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	100		P	80 - 120
Alpha-BHC	95.1		P	80 - 120
Alpha-Chlordane	95.4		P	80 - 120
Beta-BHC	87.5		P	80 - 120
Bifenthrin	92.8		P	80 - 120
Carbophenothion	90.6		P	80 - 120
Chlorothalonil	105		P	80 - 120
Cis-Nonachlor	93.6		P	80 - 120
Cypermethrin	86.2		P	80 - 120
DDD-p,p'	99.9		P	80 - 120
DDE-p,p'	97.2		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	90.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A90361
Included Lab Sample IDs: 2073287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dicofol	97.5		P	80 - 120
Dieldrin	93.4		P	80 - 120
Endosulfan I	95.3		P	80 - 120
Endosulfan II	89.7		P	80 - 120
Endosulfan Sulfate	90.5		P	80 - 120
Endrin	96.0		P	80 - 120
Endrin Aldehyde	89.8		P	80 - 120
Endrin Ketone	92.9		P	80 - 120
Ethalfluralin	91.2		P	80 - 120
Gamma-BHC	97.2		P	80 - 120
Gamma-Chlordane	93.8		P	80 - 120
Heptachlor	96.2		P	80 - 120
Heptachlor Epoxide	97.9		P	80 - 120
Hexachlorobenzene	98.7		P	80 - 120
Methoxychlor	101		P	80 - 120
Mirex	92.9		P	80 - 120
Permethrin	92.2		P	80 - 120
Trans-Nonachlor	94.9		P	80 - 120
Trifluralin	93.2		P	80 - 120

Reference Method: EPA 8321B
Run ID: A90372
Included Lab Sample IDs: 2073286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	124	124	P/P	60 - 160
Glufosinate	117	121	P/P	60 - 160
Glyphosate	121	118	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A90375
Included Lab Sample IDs: 2073286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	74.1	61.0	P/P	60 - 160
Endothall	102	104	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90390
Included Lab Sample IDs: 2073270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90396
Included Lab Sample IDs: 2073267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	104	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A90397
Included Lab Sample IDs: 2073267, 2073270, 2073274, 2073275

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A90420
Included Lab Sample IDs: 2073289, 2073290, 2073291

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	96.3	98.0	P/P	90 - 110
Calcium	103	104	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	100	101	P/P	90 - 110
Manganese	103	104	P/P	90 - 110
Potassium	95.3	96.5	P/P	90 - 110
Sodium	93.2	95.8	P/P	90 - 110
Zinc	98.1	99.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A90426
Included Lab Sample IDs: 2073270, 2073274, 2073275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90431
Included Lab Sample IDs: 2073286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	124	92.1	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90439
Included Lab Sample IDs: 2073289, 2073290, 2073291

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	99.0	P/P	90 - 110
Antimony	97.5	99.9	P/P	90 - 110
Arsenic	103	101	P/P	90 - 110
Boron	99.5	98.6	P/P	90 - 110
Cadmium	99.2	102	P/P	90 - 110
Copper	104	101	P/P	90 - 110
Lead	92.9	95.6	P/P	90 - 110
Nickel	102	101	P/P	90 - 110
Selenium	99.0	99.6	P/P	90 - 110
Silver	98.5	99.7	P/P	90 - 110
Thallium	90.7	93.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90441
Included Lab Sample IDs: 2073274, 2073275

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.3	98.0	P/P	90 - 110
Kjeldahl Nitrogen	98.0	95.9	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A90457
Included Lab Sample IDs: 2073287

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.4		P	80 - 120
Toxaphene	114		P	80 - 120

Reference Method: SM 2320 B-97
Run ID: A90475
Included Lab Sample IDs: 2073266, 2073269, 2073272, 2073273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.9	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A90475
Included Lab Sample IDs: 2073266, 2073269, 2073272, 2073273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A90496
Included Lab Sample IDs: 2073289, 2073290, 2073291

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	94.4	96.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A90506
Included Lab Sample IDs: 2073266, 2073269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.3	100	P/P	90 - 110
Sulfate	100	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A90519
Included Lab Sample IDs: 2073267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.9	98.7	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0
Run ID: A90561
Included Lab Sample IDs: 2073272, 2073273

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	99.3	99.0	P/P	90 - 110
Bromide	99.6	100	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A90583
Included Lab Sample IDs: 2073285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	118	118	P/P	60 - 150
Aldicarb	105	100	P/P	60 - 150
Aldicarb Sulfone	99.5	111	P/P	50 - 150
Aldicarb Sulfoxide	109	114	P/P	50 - 150
Carbaryl	103	106	P/P	60 - 150
Carbofuran	109	109	P/P	50 - 150
Methiocarb	111	108	P/P	50 - 150
Methomyl	103	97.2	P/P	50 - 150
Oxamyl	109	98.5	P/P	50 - 150
Propoxur	104	110	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A90623
Included Lab Sample IDs: 2073286

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	150	P/P	50 - 150
Acetaminophen	86.3	115	P/P	60 - 160
Bentazon	105	107	P/P	50 - 160
Carbamazepine	115	115	P/P	60 - 150
Diuron	119	119	P/P	60 - 150
Fenuron	104	102	P/P	60 - 150
Fluridone	70.8	141	P/P	60 - 160
Hydrocodone	115	112	P/P	60 - 150
Ibuprofen	74.8	124	P/P	50 - 160
Imazapyr	114	102	P/P	50 - 150
Imidacloprid	100	110	P/P	60 - 150
Linuron	144	125	P/P	60 - 150
MCPP	103	103	P/P	50 - 150
Naproxen	116	132	P/P	50 - 160
Primidone	125	127	P/P	60 - 150
Pyraclostrobin	106	93.6	P/P	60 - 150
Triclopyr	108	114	P/P	50 - 150

Reference Method: EPA 8270D
Run ID: A90657
Included Lab Sample IDs: 2073288

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	98.9		P	80 - 120
Alachlor	99.1		P	80 - 120
Ametryn	91.7		P	80 - 120
Atrazine	95.9		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A90657
Included Lab Sample IDs: 2073288

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine Desethyl	95.4		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Bromacil	98.4		P	80 - 120
Butylate	96.9		P	80 - 120
Chlorpyrifos Ethyl	94.4		P	80 - 120
Chlorpyrifos Methyl	98.4		P	80 - 120
Cyanazine	93.3		P	80 - 120
Demeton	101		P	80 - 120
Diazinon	97.2		P	80 - 120
Dimethenamid	96.2		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	96.8		P	80 - 120
Ethion	103		P	80 - 120
Ethoprop	97.3		P	80 - 120
Fenamiphos	98.0		P	80 - 120
Fipronil	95.1		P	80 - 120
Fipronil Desulfinyl	98.6		P	80 - 120
Fipronil Sulfide	96.4		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fonofos	96.1		P	80 - 120
Hexazinone	97.0		P	80 - 120
Malathion	98.4		P	80 - 120
Metalaxyl	99.9		P	80 - 120
Metolachlor	99.3		P	80 - 120
Metribuzin	82.3		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	92.1		P	80 - 120
Norflurazon	94.3		P	80 - 120
Oxadiazon	97.6		P	80 - 120
Parathion Ethyl	99.1		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	93.7		P	80 - 120
Phorate	96.5		P	80 - 120
Prodiamine	103		P	80 - 120
Prometon	98.4		P	80 - 120
Prometryn	98.0		P	80 - 120
Simazine	95.2		P	80 - 120
Tebuconazole	94.6		P	80 - 120
Terbufos	98.5		P	80 - 120
Terbuthylazine	99.0		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							0.454	
EPA 200.7 Rev. 4.4	Barium	98.6		100	98.9	101			1.53
	Calcium	106		109	110				0.769
	Iron	107		108	106	108			1.79
	Magnesium	102		104	107				1.82
	Manganese	104		105	104	104			1.46
	Potassium	101		102	99.0	99.5			2.53
	Sodium	98.6		102	97.9	98.1			2.22
	Zinc	99.3		101	99.6	102			1.39
EPA 200.8 Rev. 5.4	Aluminum	98.6		98.7	100	90.6			1.60
	Antimony	98.4		101	103	92.1			1.73
	Arsenic	106		104	106	95.1			1.47
	Boron	96.0		98.7	104	92.3			4.75
	Cadmium	100		103	106	95.3			2.63
	Chromium	95.3		95.8	97.3	86.2			1.54
	Copper	106		99.8	100	102			0.630
	Lead	93.1		94.2	96.3	86.0			2.19
	Nickel	105		102	104	97.2			2.36
	Selenium	100		102	103	92.5			0.594
	Silver	101		99.7	100	92.8			0.446
	Thallium	97.2		99.0	103	92.3			3.89
EPA 300.0	Bromide	102		97.7	97.9	99.9			0.117
EPA 300.0 Rev. 2.1	Chloride	100		97.1	86.5			0.748	
	Sulfate	101		98.1	87.4			1.66	
EPA 350.1 Rev. 2.0	Ammonia-N	99.0		103	104				0.163
	Ammonia-N	95.0		99.2	98.5				0.614
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		112	95.7				8.61
	Kjeldahl Nitrogen	104		95.0	100				3.36
	Kjeldahl Nitrogen	95.7		101	108				4.35
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		98.8					0.192
EPA 365.1 Rev. 2.0	Total-P	101		101	103				1.73
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	96.2		93.5	94.7				1.12
	O-Phosphate-P	97.8		90.8	91.3				0.549
EPA 8270D	Acetochlor	93.3	94.3	89.5	109		1.03		19.4
	Alachlor	94.7	95.0	95.7	90.1		0.378		6.06
	Aldrin	39.6	46.3	56.1	55.1		15.7		1.88
	Alpha-BHC	103	101	129	116		1.66		10.7
	Alpha-Chlordane	74.9	78.9	81.3	70.3		5.22		14.5
	Ametryn	92.3	90.2	102	90.9		2.33		11.1
	Atrazine	96.8	92.6	88.2	77.1		4.49		6.84
	Atrazine Desethyl	102	103	103	105		0.984		2.06
	Azinphos Methyl	131	119	167	148		10.1		11.7
	Beta-BHC	135	134	190	113		1.01		50.4
	Bifenthrin	66.3	75.3	77.0	75.2		12.7		2.31
	Bromacil	82.5	80.7	88.8	70.7		2.14		22.7
	Butylate	68.0	64.8	72.0	61.0		4.76		16.5
	Carbophenothion	78.5	73.2	124	86.3		6.91		35.9
	Chlorothalonil	131	138	129	87.7		5.23		38.2
	Chlorpyrifos Ethyl	101	104	94.0	86.9		2.74		7.87
	Chlorpyrifos Methyl	107	106	95.0	103		1.30		8.59
	Cis-Nonachlor	85.4	91.3	95.1	84.0		6.72		12.4
	Cyanazine	135	121	118	130		11.3		9.91
	Cypermethrin	65.8	67.2	89.5	81.3		2.08		9.66
	DDD-p,p'	92.7	95.9	107	90.7		3.39		16.1

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	DDE-p,p'	79.9	84.8	93.5	82.2	5.95		12.8
	DDT-p,p'	95.4	98.0	101	91.9	2.71		9.04
	Delta-BHC	142	153	248	154	7.44		46.9
	Demeton	93.3	93.3	95.2	101	0.0362		5.71
	Diazinon	92.3	92.1	105	92.0	0.178		12.9
	Dicofol	95.5	93.8	98.9	108	1.84		8.71
	Dieldrin	84.7	86.7	89.7	77.7	2.25		14.4
	Dimethenamid	92.6	93.2	99.6	78.5	0.666		23.7
	Disulfoton	98.5	106	111	103	7.74		7.45
	Dithiopyr	94.9	93.5	96.5	80.9	1.52		17.1
	Endosulfan I	84.9	89.1	103	82.1	4.81		23.0
	Endosulfan II	109	109	127	105	0.381		18.5
	Endosulfan Sulfate	84.7	88.2	108	85.9	4.05		22.9
	Endrin	97.0	102	89.4	94.0	4.94		5.00
	Endrin Aldehyde	93.9	88.4	93.0	77.4	6.12		18.4
	Endrin Ketone	84.9	85.6	97.4	82.9	0.851		16.1
	EPTC	65.4	66.9	76.1	65.3	2.21		15.2
	Ethalfluralin	83.3	86.5	92.7	85.3	3.75		8.30
	Ethion	82.5	90.4	53.6	39.9	9.04		29.4
	Ethoprop	95.6	91.8	94.0	99.2	4.14		5.44
	Fenamiphos	101	101	163	90.0	0.240		57.8
	Fipronil	86.0	87.1	94.6	82.5	1.30		13.7
	Fipronil Desulfinyl	82.0	80.4	86.9	73.5	1.94		16.7
	Fipronil Sulfide	101	95.5	102	70.4	5.59		37.0
	Fipronil Sulfone	92.9	102	97.7	89.8	9.21		8.52
	Fonofos	103	100	102	101	2.27		0.0739
	Gamma-BHC	120	118	146	122	1.29		17.9
	Gamma-Chlordane	72.5	77.4	79.6	68.1	6.47		15.7
	Heptachlor	58.5	63.2	65.2	67.1	7.72		2.77
	Heptachlor Epoxide	75.2	77.0	82.4	70.9	2.30		14.9
	Hexachlorobenzene	64.3	70.9	72.1	68.3	9.68		5.43
	Hexazinone	102	98.4	105	89.6	3.18		15.7
	Malathion	113	110	102	88.3	2.94		14.3
	Metalaxyl	83.7	90.8	86.8	73.2	8.16		17.0
	Methoxychlor	97.1	104	109	101	6.86		7.92
	Metolachlor	88.9	89.6	95.0	76.2	0.865		15.9
	Metribuzin	232	230	246	211	0.784		15.3
	Mevinphos	86.5	79.3	105	92.6	8.75		12.7
	Mirex	57.4	66.0	70.4	62.3	14.0		12.2
	Molinate	75.2	78.6	94.2	80.9	4.39		15.2
	Norflurazon	86.9	82.1	98.9	81.9	5.70		18.8
	Oxadiazon	81.2	83.7	84.5	70.9	3.04		17.5
	Parathion Ethyl	87.3	88.2	91.5	74.7	1.04		20.3
	Parathion Methyl	97.3	101	116	97.5	3.49		17.3
	Pendimethalin	78.8	80.5	92.1	81.0	2.13		12.8
	Permethrin	63.6	69.4	72.6	78.6	8.75		7.96
	Phorate	114	117	129	112	2.78		14.1
	Prodiamine	90.5	89.9	104	107	0.720		3.26
	Prometon	81.2	56.9	82.9	76.4	35.1		8.16
	Prometryn	82.3	83.4	84.9	76.2	1.32		10.8
	Simazine	94.5	100	102	82.9	6.07		20.2
	Tebuconazole	62.2	66.4	53.4	34.0	6.68		35.3
	Terbufos	102	102	107	101	0.363		5.24
	Terbuthylazine	90.1	91.5	92.2	81.8	1.52		12.0

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Trans-Nonachlor	71.5	75.9	76.4	61.3	5.90		21.9
	Trifluralin	79.7	87.5	92.9	82.2	9.29		12.3
EPA 8276	Chlordane	78.8	90.3	91.9	96.1	13.6		4.46
	Toxaphene	72.6	80.2	84.5	91.8	9.91		8.31
EPA 8321B	2,4-D	64.8		63.7	71.8			11.9
	3-Hydroxycarbofuran	63.1		77.3	75.8			1.99
	Acesulfame K	126		105	113			6.91
	Acetaminophen	81.0		73.5	84.4			13.8
	Aldicarb	48.7		81.9	71.7			13.3
	Aldicarb Sulfone	83.6		94.2	96.8			2.67
	Aldicarb Sulfoxide	95.7		48.5	45.8			5.69
	AMPA	99.1		103	96.2			6.83
	Bentazon	104		87.4	91.5			4.54
	Carbamazepine	80.8		81.3	84.0			3.26
	Carbaryl	73.8		67.4	66.3			1.69
	Carbofuran	71.0		65.1	63.5			2.44
	Diuron	71.2		64.1	68.4			6.50
	Endothall	114		82.8	78.6			5.17
	Fenuron	104		108	117			7.29
	Fluridone	124		144	148			2.43
	Glufosinate	109		99.9	100			0.383
	Glyphosate	110		93.8	103			7.87
	Hydrocodone	86.0		83.6	87.2			4.22
	Ibuprofen	63.4		84.6	83.3			1.47
	Imazapyr	79.3		81.8	90.0			9.54
	Imidacloprid	80.8		148	139			6.33
	Linuron	68.1		71.7	63.6			12.1
	MCPP	69.0		87.7	99.0			12.0
	Methiocarb	71.4		62.3	62.5			0.380
	Methomyl	62.8		70.1	72.1			2.86
	Naproxen	64.0		61.2	67.4			9.59
	Oxamyl	83.7		76.3	73.7			3.43
	Primidone	82.0		62.5	78.4			22.5
	Propoxur	54.9		69.7	68.4			1.94
	Pyraclostrobin	64.9		75.2	74.1			1.43
	Sucralose	88.9		57.2	73.2			19.9
	Triclopyr	50.4		36.3	54.6			40.3
SM 2120 B	Color (true)	99.7					1.54	
	Color (true)	101					10.1	
SM 2320 B-97	Total Alkalinity	99.6					0.904	
SM 2540 C-97	TDS						0.927	
SM 4500 F-C-97	Fluoride	98.3		98.0	99.1			0.948
SM 5310 B-00	Organic Carbon	99.2		98.3	98.3			0.0404

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2073266, 2073269, 2073272, 2073273
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2073289, 2073290, 2073291
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2073289, 2073290, 2073291

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 / E31780	Bromide in aqueous matrices	2073272, 2073273
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2073266, 2073269
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2073266, 2073269
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2073267, 2073270, 2073274, 2073275
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2073267, 2073270, 2073274, 2073275
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2073267, 2073270, 2073274, 2073275
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2073267, 2073270, 2073274, 2073275
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2073268, 2073271, 2073276, 2073277
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2073287
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2073288
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2073287
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2073285
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2073286
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2073286
SM 2120 B / E31780	True Color measured at 450 nm	2073266, 2073269
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2073266, 2073269, 2073272, 2073273
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2073266, 2073269
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2073266, 2073269, 2073272, 2073273
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2073266, 2073269, 2073272, 2073273
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2073267, 2073270, 2073274, 2073275

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	03/28/2019			03/28/2019 16:32	Adrian Shelby	2073266, 2073269, 2073272, 2073273
EPA 200.7 Rev. 4.4	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/03/2019 14:14	Betina Topolski	2073289
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/03/2019 14:20	Betina Topolski	2073290
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/03/2019 14:27	Betina Topolski	2073291
EPA 200.8 Rev. 5.4	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/04/2019 09:48	Robert K Palmer	2073289
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/04/2019 09:57	Robert K Palmer	2073290
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/04/2019 10:07	Robert K Palmer	2073291
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/05/2019 21:29	Robert K Palmer	2073289
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/05/2019 21:36	Robert K Palmer	2073290
	03/28/2019	04/01/2019 13:35	Elliott D. Healy	04/05/2019 21:43	Robert K Palmer	2073291
EPA 300.0	03/28/2019			04/09/2019 16:40	Lipi Saha	2073272
	03/28/2019			04/09/2019 22:22	Lipi Saha	2073273
EPA 300.0 Rev. 2.1	03/28/2019			04/04/2019 17:39	Lipi Saha	2073266
	03/28/2019			04/04/2019 17:51	Lipi Saha	2073269
EPA 350.1 Rev. 2.0	03/28/2019			04/02/2019 12:33	Ping Hua	2073267
	03/28/2019			04/03/2019 13:48	Ping Hua	2073270
	03/28/2019			04/03/2019 13:49	Ping Hua	2073274
	03/28/2019			04/03/2019 13:51	Ping Hua	2073275
EPA 351.2 Rev. 2.0	03/28/2019	04/01/2019 13:00	Adrian Shelby	04/02/2019 15:23	Joseph Suarez	2073270
	03/28/2019	04/01/2019 13:00	Adrian Shelby	04/04/2019 13:40	Joseph Suarez	2073274
	03/28/2019	04/01/2019 13:00	Adrian Shelby	04/04/2019 13:44	Joseph Suarez	2073275
	03/28/2019	04/05/2019 13:00	Adrian Shelby	04/08/2019 11:18	Joseph Suarez	2073267
EPA 353.2 Rev. 2.0	03/28/2019			03/29/2019 12:46	Virginia P. Brown	2073267
	03/28/2019			03/29/2019 12:54	Virginia P. Brown	2073270
	03/28/2019			03/29/2019 12:55	Virginia P. Brown	2073274
	03/28/2019			03/29/2019 12:56	Virginia P. Brown	2073275
EPA 365.1 Rev. 2.0	03/28/2019	04/01/2019 14:50	Sima Feizi	04/02/2019 18:34	Rosalyn Ballman	2073267
	03/28/2019	04/01/2019 14:50	Sima Feizi	04/02/2019 18:35	Rosalyn Ballman	2073270
	03/28/2019	04/01/2019 14:50	Sima Feizi	04/02/2019 18:36	Rosalyn Ballman	2073274
	03/28/2019	04/01/2019 14:50	Sima Feizi	04/02/2019 18:37	Rosalyn Ballman	2073275
EPA 365.1 Rev. 2.0 dissolved	03/28/2019			03/28/2019 14:58	Jhamieka S. Greenwood	2073271
	03/28/2019			03/28/2019 15:15	Jhamieka S. Greenwood	2073268
	03/28/2019			03/28/2019 15:16	Jhamieka S. Greenwood	2073276
	03/28/2019			03/28/2019 15:48	Jhamieka S. Greenwood	2073277
EPA 8270D	03/28/2019	03/29/2019 08:00	Fe-Val Siddell	04/01/2019 23:49	Dinesh Mishra	2073287
	03/28/2019	04/01/2019 08:00	Rasheda Ghaffari	04/03/2019 14:55	Vandana T. Nagar	2073288
EPA 8276	03/28/2019	03/29/2019 08:00	Fe-Val Siddell	04/05/2019 05:15	Arthur Maknenko	2073287
EPA 8321B	03/28/2019	03/28/2019 14:45	Rebecca Ware	03/28/2019 18:46	Rebecca Ware	2073286
	03/28/2019	03/28/2019 14:45	Rebecca Ware	03/29/2019 18:56	Rebecca Ware	2073286
	03/28/2019	03/28/2019 14:45	Rebecca Ware	04/01/2019 23:43	Rebecca Ware	2073286

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	03/28/2019	03/29/2019 10:00	Hoor Shaik	04/10/2019 03:23	Juyoung Kim	2073285
	03/28/2019	03/29/2019 10:00	Hoor Shaik	04/11/2019 07:15	Juyoung Kim	2073286
SM 2120 B	03/28/2019			03/28/2019 16:33	Mariam Hanna	2073266
	03/28/2019			03/28/2019 16:56	Mariam Hanna	2073269
SM 2320 B-97	03/28/2019			04/04/2019 21:33	Dale L. Simmons	2073266
	03/28/2019			04/04/2019 21:46	Dale L. Simmons	2073269
	03/28/2019			04/04/2019 21:59	Dale L. Simmons	2073272
	03/28/2019			04/04/2019 22:11	Dale L. Simmons	2073273
SM 2540 C-97	03/28/2019			03/29/2019 12:55	Mariam Hanna	2073266, 2073269
SM 2540 D-97	03/28/2019			03/29/2019 12:48	Mariam Hanna	2073266, 2073269, 2073272, 2073273
SM 4500 F-C-97	03/28/2019			04/04/2019 21:33	Dale L. Simmons	2073266
	03/28/2019			04/04/2019 21:46	Dale L. Simmons	2073269
	03/28/2019			04/04/2019 21:59	Dale L. Simmons	2073272
	03/28/2019			04/04/2019 22:11	Dale L. Simmons	2073273
SM 5310 B-00	03/28/2019			03/29/2019 19:32	Julia Storbeck	2073267
	03/28/2019			03/29/2019 19:45	Julia Storbeck	2073270
	03/28/2019			03/29/2019 19:59	Julia Storbeck	2073274
	03/28/2019			03/29/2019 20:12	Julia Storbeck	2073275