Chemical Analysis Report

NW-DIST-2019-05-15-01

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-2019-05-13-26**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator Date Certified: 05-JUN-2019 14:03

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: 05/14/2019 10:20**

Field ID: G4NW0404 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2086308	EPA 180.1 Rev. 2.0	Turbidity	25		NTU	P364015	
	EPA 300.0 Rev. 2.1	Chloride	3.7		mg Cl/L	P364113	
		Sulfate	3.3		mg SO4/L	P364115	
	SM 2120 B	Color (true)	44		PCU	P364021	
	SM 2320 B-97	Total Alkalinity	18		mg CaCO3/L	P364309	
	SM 2540 C-97	TDS	53		mg/L	P364393	
	SM 2540 D-97	TSS	30		mg/L	P364399	
	SM 4500 F-C-97	Fluoride	0.036	I	mg F/L	P364313	
2086309	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P364285	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P364467	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P364298	
	EPA 365.1 Rev. 2.0	Total-P	0.060		mg P/L	P364386	
	SM 5310 B-00	Organic Carbon	6.8		mg C/L	P364413	
2086310	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P364006	

Sample Location: ESCAMBIA RIVER 100 METERS UPSTREAM OF HWY 90 BRIDGE **Collection Date/Time: 05/14/2019 12:30**

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2086311	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P364015	
	EPA 300.0 Rev. 2.1	Chloride	8.3		mg Cl/L	P364200	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P364310	
	SM 2540 D-97	TSS	6	I	mg/L	P364399	
	SM 4500 F-C-97	Fluoride	0.038	I	mg F/L	P364314	
2086312	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P364285	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38		mg N/L	P364467	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P364298	
	EPA 365.1 Rev. 2.0	Total-P	0.036		mg P/L	P364386	
	SM 5310 B-00	Organic Carbon	5.3		mg C/L	P364413	
2086313	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.009	I	mg P/L	P364006	
2086321	EPA 8321B	Aldicarb	0.020	U	ug/L	P363978	
		Aldicarb Sulfone	0.0020	U	ug/L	P363978	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P363978	MS
		Carbaryl	0.0020	U	ug/L	P363978	
		Carbofuran	0.0020	U	ug/L	P363978	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P363978	
		Methiocarb	0.0020	U	ug/L	P363978	
		Methomyl	0.0020	U	ug/L	P363978	
		Oxamyl	0.0020	U	ug/L	P363978	
		Propoxur	0.0020	U	ug/L	P363978	
2086322		2,4-D	0.011		ug/L	P363990	
		Acesulfame K**	0.10	U	ug/L	P364012	
		AMPA**	0.19	I	ug/L	P364012	
		Sucralose**	0.12		ug/L	P364012	
		Acetaminophen**	0.0080	U	ug/L	P363990	
		Endothall**	0.25	U	ug/L	P364012	
		Glufosinate**	0.10	U	ug/L	P364012	
		Bentazon	8.0E-04	U	ug/L	P363990	
		Glyphosate**	0.10	U	ug/L	P364012	
		Carbamazepine**	8.0E-04	U	ug/L	P363990	
		Diuron	0.0020	U	ug/L	P363990	
		Fenuron	0.016	U	ug/L	P363990	
		Fluridone**	8.0E-04	U	ug/L	P363990	
		Imazapyr**	0.026		ug/L	P363990	MS
		Hydrocodone**	0.0020	U	ug/L	P363990	
		Ibuprofen**	0.020	U	ug/L	P363990	
		Imidacloprid	0.0038	I	ug/L	P363990	MS
		Linuron	0.0040	U	ug/L	P363990	
		MCPP	0.0020	U	ug/L	P363990	MS
		Naproxen**	0.0080	U	ug/L	P363990	
		Primidone**	0.0040	U	ug/L	P363990	

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2086322	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P363990	
		Triclopyr**	0.0040	U	ug/L	P363990	RPD
2086323	EPA 8270D	Aldrin	4.6	U	ng/L	P364035	
		Alpha-BHC	2.3	U	ng/L	P364035	
		Alpha-Chlordane	1.1	U	ng/L	P364035	
		Beta-BHC	11	U	ng/L	P364035	
		Bifenthrin**	4.6	U	ng/L	P364035	
		Delta-BHC	11	U	ng/L	P364035	
		Gamma-BHC	11	U	ng/L	P364035	
		Carbophenothion	14	UJ	ng/L	P364035	CCV
		Chlorothalonil	2.3	UJ	ng/L	P364035	CCV
		Cis-Nonachlor**	1.1	U	ng/L	P364035	
		Cypermethrin	23	U	ng/L	P364035	
		DDD-p,p'	9.1	U	ng/L	P364035	
		DDE-p,p'	9.1	U	ng/L	P364035	
		DDT-p,p'	11	U	ng/L	P364035	
		Dicofol	34	U	ng/L	P364035	
		Dieldrin	4.6	U	ng/L	P364035	
		Endosulfan I	4.6	U	ng/L	P364035	
		Endosulfan II	4.6	U	ng/L	P364035	
		Endosulfan Sulfate	2.3	U	ng/L	P364035	
		Endrin	2.3	U	ng/L	P364035	
		Endrin Aldehyde	2.3	U	ng/L	P364035	
		Endrin Ketone	2.3	U	ng/L	P364035	
		Ethalfluralin**	3.4	U	ng/L	P364035	
		Gamma-Chlordane	1.1	U	ng/L	P364035	
		Heptachlor	1.7	U	ng/L	P364035	
		Heptachlor Epoxide	2.3	U	ng/L	P364035	
		Hexachlorobenzene**	2.3	U	ng/L	P364035	
		Methoxychlor	4.6	U	ng/L	P364035	
		Mirex	2.3	U	ng/L	P364035	
		Permethrin	11	U	ng/L	P364035	
		Trans-Nonachlor**	1.1	U	ng/L	P364035	
		Trifluralin	2.9	U	ng/L	P364035	
	EPA 8276	Chlordane	5.7	U	ng/L	P364035	
		Toxaphene	34	U	ng/L	P364035	
2086324	EPA 8270E	Acetochlor	0.32	I	ng/L	P364341	
		Alachlor	0.28	U	ng/L	P364341	
		Ametryn	0.67	U	ng/L	P364341	
		Atrazine	54		ng/L	P364341	
		Atrazine Desethyl	5.4	I	ng/L	P364341	
		Azinphos Methyl	5.6	U	ng/L	P364341	
		Bromacil	0.77	I	ng/L	P364341	
		Butylate	0.45	U	ng/L	P364341	
		Chlorpyrifos Ethyl	0.28	U	ng/L	P364341	

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2086324	EPA 8270E	Chlorpyrifos Methyl	0.11	UJ	ng/L	P364341	LCS
		Cyanazine	3.6	U	ng/L	P364341	
		Demeton	7.8	UJ	ng/L	P364341	LCS
		Diazinon	0.14	U	ng/L	P364341	
		Dimethenamid**	0.11	U	ng/L	P364341	
		Disulfoton	0.56	UJ	ng/L	P364341	LCS
		Dithiopyr**	0.11	U	ng/L	P364341	
		EPTC	1.4	UJ	ng/L	P364341	RPD
		Ethion	0.17	U	ng/L	P364341	
		Ethoprop	0.11	U	ng/L	P364341	
		Fenamiphos	0.56	UJ	ng/L	P364341	LCS, RPD
		Fipronil	0.28	U	ng/L	P364341	
		Fipronil Desulfinyl**	0.14	U	ng/L	P364341	
		Fipronil Sulfide	0.17	U	ng/L	P364341	
		Fipronil Sulfone	0.17	UJ	ng/L	P364341	LCS
		Fonofos	0.22	U	ng/L	P364341	
		Hexazinone	5.9	J	ng/L	P364341	LCS, MS, RPD
		Malathion	0.39	U	ng/L	P364341	
		Metalaxyl	0.33	UJ	ng/L	P364341	LCS, MS, RPD
		Metolachlor	24		ng/L	P364341	
		Metribuzin	0.84	U	ng/L	P364341	
		Mevinphos	0.56	U	ng/L	P364341	
		Molinate	0.33	U	ng/L	P364341	
		Norflurazon	0.56	U	ng/L	P364341	
		Oxadiazon**	0.41	I	ng/L	P364341	
		Parathion Ethyl	0.28	U	ng/L	P364341	
		Parathion Methyl	0.61	U	ng/L	P364341	
		Pendimethalin	1.1	U	ng/L	P364341	
		Phorate	0.28	UJ	ng/L	P364341	LCS
		Prodiamine**	0.19	UJ	ng/L	P364341	CCV
		Prometon	1.0	UJ	ng/L	P364341	LCS, RPD
		Prometryn	0.22	U	ng/L	P364341	
		Simazine	0.56	U	ng/L	P364341	
		Tebuconazole**	0.56	U	ng/L	P364341	
		Terbufos	0.11	UJ	ng/L	P364341	LCS
		Terbuthylazine	0.47	U	ng/L	P364341	
2086325	EPA 200.7 Rev. 4.4	Barium	24.8		ug/L	P364222	
		Calcium	8.30		mg/L	P364222	
		Iron	1.42E+03		ug/L	P364222	
		Magnesium	1.49		mg/L	P364222	
		Manganese	42.1		ug/L	P364222	
		Potassium	1.1	I	mg/L	P364222	
		Selenium	20	U	ug/L	P364222	
		Sodium	7.5		mg/L	P364222	

Field ID: G4NW0009 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2086325	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P364222	
	EPA 200.8 Rev. 5.4	Aluminum	357		ug/L	P364222	
		Antimony	0.050	U	ug/L	P364222	
		Arsenic	0.73		ug/L	P364222	
		Cadmium	0.020	U	ug/L	P364222	
		Chromium	0.79	I	ug/L	P364222	
		Copper	0.64	I	ug/L	P364222	
		Lead	0.43		ug/L	P364222	
		Nickel	0.81	I	ug/L	P364222	
		Selenium	0.20	U	ug/L	P364222	
		Silver	0.010	U	ug/L	P364222	
		Thallium	0.10	U	ug/L	P364222	

Ref. Method and Comment:
EPA 8270D: Refer to the narrative for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine, simazine, and fipronil sulfone not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P364015

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P364222

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
Selenium	20	U	ug/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P364222

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	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: P364113

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364115

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364200

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364285

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364467

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364298

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364386

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364006

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

Reference Method: EPA 8270D
Batch ID: P364035

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270D
Batch ID: P364035

Component	Result	Code	Units
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 8270E
Batch ID: P364341

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P364341

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

Reference Method: EPA 8276
Batch ID: P364035

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

Reference Method: EPA 8321B
Batch ID: P363978

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: P363990

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: P364012

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: P364021

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P364309

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

Reference Method: SM 2320 B-97
Batch ID: P364310

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

Reference Method: SM 2540 C-97
Batch ID: P364393

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P364399

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P364313

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P364314

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P364413

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: P364222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	100		P	85 - 115
Calcium	106		P	85 - 115
Iron	103		P	85 - 115
Magnesium	110		P	85 - 115
Manganese	99.6		P	85 - 115
Potassium	102		P	85 - 115
Selenium	104		P	85 - 115
Sodium	105		P	85 - 115
Zinc	98.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P364222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	99.3		P	85 - 115
Arsenic	101		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	97.7		P	85 - 115
Copper	98.7		P	85 - 115
Lead	95.6		P	85 - 115
Nickel	98.6		P	85 - 115
Selenium	101		P	85 - 115
Silver	102		P	85 - 115
Thallium	99.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364113

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364200

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364285

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364467

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364298

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: P364386

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364006

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

Reference Method: EPA 8270D
Batch ID: P364035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	51.7	51.1	P/P	20 - 93.0
Alpha-BHC	91.2	87.9	P/P	57 - 119
Alpha-Chlordane	77.9	76.3	P/P	58 - 112
Beta-BHC	119	118	P/P	56 - 149
Bifenthrin	74.8	72.7	P/P	50 - 130
Carbophenothion	132	129	P/P	26 - 147
Chlorothalonil	56.5	50.4	P/P	20 - 155
Cis-Nonachlor	78.0	75.5	P/P	50 - 130
Cypermethrin	73.0	67.5	P/P	40 - 137
DDD-p,p'	86.0	83.0	P/P	65 - 129
DDE-p,p'	79.5	79.3	P/P	57 - 116
DDT-p,p'	89.3	88.6	P/P	53 - 133
Delta-BHC	131	124	P/P	59 - 163
Dicofol	89.0	80.8	P/P	24 - 138
Dieldrin	79.4	79.3	P/P	60 - 120
Endosulfan I	84.1	79.9	P/P	64 - 118
Endosulfan II	92.6	89.9	P/P	58 - 142
Endosulfan Sulfate	78.6	76.4	P/P	60 - 127
Endrin	85.7	88.5	P/P	59 - 122
Endrin Aldehyde	87.7	84.6	P/P	49 - 132
Endrin Ketone	80.5	77.4	P/P	64 - 121
Ethalfluralin	83.4	76.4	P/P	50 - 130
Gamma-BHC	116	111	P/P	56 - 141
Gamma-Chlordane	74.5	73.7	P/P	56 - 110
Heptachlor	62.5	60.9	P/P	46 - 96.0
Heptachlor Epoxide	81.1	78.9	P/P	61 - 112
Hexachlorobenzene	69.1	66.9	P/P	50 - 130
Methoxychlor	99.1	97.1	P/P	63 - 134

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P364035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Mirex	58.6	58.2	P/P	45 - 100
Permethrin	67.9	63.6	P/P	53 - 115
Trans-Nonachlor	73.3	70.8	P/P	50 - 130
Trifluralin	81.4	80.6	P/P	39 - 142

Reference Method: EPA 8270E
Batch ID: P364341

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	103	98.3	P/P	71 - 121
Alachlor	102	95.3	P/P	72 - 119
Ametryn	93.7	83.4	P/P	47 - 144
Atrazine	105	95.5	P/P	75 - 123
Atrazine Desethyl	57.5	51.1	P/P	45 - 133
Azinphos Methyl	95.5	85.3	P/P	66 - 165
Bromacil	59.3	45.9	P/P	43 - 123
Butylate	71.3	53.6	P/P	27 - 83.0
Chlorpyrifos Ethyl	77.5	82.3	P/P	70 - 117
Chlorpyrifos Methyl	64.2	71.0	F/P	71 - 120
Cyanazine	81.6	72.2	P/P	34 - 264
Demeton	34.3	34.5	F/F	41 - 122
Diazinon	95.6	89.5	P/P	70 - 127
Dimethenamid	103	99.7	P/P	66 - 123
Disulfoton	33.3	36.9	F/F	56 - 127
Dithiopyr	101	93.7	P/P	67 - 125
EPTC	69.0	46.1	P/P	24 - 84.0
Ethion	105	103	P/P	53 - 132
Ethoprop	103	90.4	P/P	57 - 117
Fenamiphos	16.4	6.14	F/F	55 - 136
Fipronil	95.6	85.2	P/P	64 - 126
Fipronil Desulfinyl	98.2	92.4	P/P	47 - 114
Fipronil Sulfide	104	96.8	P/P	57 - 120
Fipronil Sulfone	125	96.2	F/P	52 - 115
Fonofos	70.9	61.6	P/P	61 - 121
Hexazinone	66.3	44.8	P/F	62 - 131
Malathion	100	98.2	P/P	67 - 126
Metalaxyl	5.36	10.5	F/F	54 - 128
Metolachlor	104	98.1	P/P	71 - 118
Metribuzin	78.1	81.1	P/P	42 - 221
Mevinphos	51.7	45.0	P/P	45 - 114
Molinate	84.3	65.4	P/P	33 - 91.0
Norflurazon	88.2	67.6	P/P	60 - 123
Oxadiazon	107	106	P/P	66 - 121
Parathion Ethyl	89.9	88.7	P/P	73 - 111
Parathion Methyl	94.0	88.4	P/P	74 - 126
Pendimethalin	80.6	83.1	P/P	63 - 131
Phorate	39.8	39.6	F/F	54 - 115
Prodiamine	91.2	90.1	P/P	38 - 140
Prometon	70.7	45.5	P/F	61 - 120
Prometryn	90.9	86.6	P/P	62 - 126
Simazine	99.0	90.0	P/P	75 - 126
Tebuconazole	42.8	34.8	P/P	21 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P364341

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Terbufos	59.3	61.0	F/F	65 - 116
Terbuthylazine	104	99.0	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P364035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	76.1	71.5	P/P	43 - 128
Toxaphene	54.5	54.4	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P363978

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	61.6		P	40 - 150
Aldicarb	78.5		P	30 - 150
Aldicarb Sulfone	87.1		P	40 - 150
Aldicarb Sulfoxide	77.0		P	40 - 150
Carbaryl	72.5		P	40 - 150
Carbofuran	69.7		P	40 - 150
Methiocarb	69.5		P	40 - 150
Methomyl	75.0		P	40 - 150
Oxamyl	90.7		P	40 - 150
Propoxur	71.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P363990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	108		P	40 - 150
Acetaminophen	85.7		P	30 - 150
Bentazon	111		P	30 - 150
Carbamazepine	91.8		P	40 - 150
Diuron	85.5		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	105		P	40 - 150
Hydrocodone	90.0		P	40 - 150
Ibuprofen	87.4		P	40 - 150
Imazapyr	97.4		P	40 - 150
Imidacloprid	93.3		P	40 - 150
Linuron	82.5		P	40 - 150
MCPP	117		P	40 - 150
Naproxen	95.0		P	40 - 150
Primidone	84.9		P	40 - 150
Pyraclostrobin	80.0		P	40 - 150
Triclopyr	70.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P364012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	95.4		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P364012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
AMPA	124		P	40 - 150
Endothall	84.0		P	40 - 150
Glufosinate	107		P	40 - 150
Glyphosate	98.8		P	40 - 140
Sucralose	103		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P364021

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

Reference Method: SM 2320 B-97
Batch ID: P364309

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P364310

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P364313

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P364314

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P364413

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P364222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086663	Barium	101	101	P/P	80 - 120
2086663	Calcium	106	105	P/P	80 - 120
2086663	Iron	104	103	P/P	80 - 120
2086663	Magnesium	111	109	P/P	80 - 120
2086663	Manganese	99.4	99.3	P/P	80 - 120
2086663	Potassium	107	107	P/P	80 - 120
2086663	Selenium	106	107	P/P	80 - 120
2086663	Sodium	104	103	P/P	80 - 120
2086663	Zinc	99.8	100	P/P	80 - 120
2086727	Barium	98.0		P	80 - 120
2086727	Calcium	101		P	80 - 120
2086727	Iron	103		P	80 - 120
2086727	Magnesium	106		P	80 - 120
2086727	Manganese	97.8		P	80 - 120
2086727	Potassium	101		P	80 - 120
2086727	Selenium	104		P	80 - 120
2086727	Sodium	103		P	80 - 120
2086727	Zinc	100		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P364222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086663	Aluminum	102	102	P/P	80 - 120
2086663	Antimony	100	101	P/P	80 - 120
2086663	Arsenic	105	105	P/P	80 - 120
2086663	Cadmium	105	105	P/P	80 - 120
2086663	Chromium	101	101	P/P	80 - 120
2086663	Copper	103	102	P/P	80 - 120
2086663	Lead	97.2	96.6	P/P	80 - 120
2086663	Nickel	103	103	P/P	80 - 120
2086663	Selenium	108	108	P/P	80 - 120
2086663	Silver	104	103	P/P	80 - 120
2086663	Thallium	94.5	95.1	P/P	80 - 120
2086727	Aluminum	103		P	80 - 120
2086727	Antimony	99.3		P	80 - 120
2086727	Arsenic	103		P	80 - 120
2086727	Cadmium	100		P	80 - 120
2086727	Chromium	97.2		P	80 - 120
2086727	Copper	97.7		P	80 - 120
2086727	Lead	98.6		P	80 - 120
2086727	Nickel	98.1		P	80 - 120
2086727	Selenium	103		P	80 - 120
2086727	Silver	101		P	80 - 120
2086727	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364113

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086153	Chloride	101		P	90 - 110
2086219	Chloride	99.0		P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086153	Sulfate	99.9		P	90 - 110
2086219	Sulfate	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364200

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086311	Chloride	100		P	90 - 110
2086635	Chloride	98.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086297	Ammonia-N	103	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086224	Kjeldahl Nitrogen	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086309	NO2NO3-N	98.5	97.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364386

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086216	Total-P	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364006

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086310	O-Phosphate-P	94.6	93.0	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P364035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086314	Aldrin	53.0	51.9	P/P	25 - 92.0
2086314	Alpha-BHC	109	112	P/P	49 - 130
2086314	Alpha-Chlordane	81.7	76.3	P/P	50 - 115
2086314	Beta-BHC	149	140	P/P	43 - 157
2086314	Bifenthrin	66.6	75.0	P/P	50 - 130
2086314	Carbophenothion	157	152	P/P	27 - 180
2086314	Chlorothalonil	96.3	78.1	P/P	10 - 216
2086314	Cis-Nonachlor	82.0	76.9	P/P	50 - 130

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P364035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086314	Cypermethrin	66.8	63.7	P/P	40 - 153
2086314	DDD-p,p'	93.7	89.2	P/P	53 - 128
2086314	DDE-p,p'	77.4	65.3	P/P	48 - 116
2086314	DDT-p,p'	95.4	97.2	P/P	47 - 128
2086314	Delta-BHC	158	191	P/P	51 - 196
2086314	Dicofol	97.5	101	P/P	10 - 147
2086314	Dieldrin	90.5	87.0	P/P	48 - 128
2086314	Endosulfan I	93.2	83.7	P/P	58 - 126
2086314	Endosulfan II	101	95.9	P/P	50 - 150
2086314	Endosulfan Sulfate	98.8	95.7	P/P	56 - 130
2086314	Endrin	96.4	88.1	P/P	50 - 126
2086314	Endrin Aldehyde	89.9	81.7	P/P	12 - 145
2086314	Endrin Ketone	95.2	97.5	P/P	59 - 132
2086314	Ethalfluralin	93.0	93.8	P/P	50 - 130
2086314	Gamma-BHC	139	128	P/P	50 - 155
2086314	Gamma-Chlordane	77.7	71.9	P/P	50 - 112
2086314	Heptachlor	62.4	61.4	P/P	41 - 98.0
2086314	Heptachlor Epoxide	87.4	81.8	P/P	55 - 117
2086314	Hexachlorobenzene	67.9	67.0	P/P	50 - 130
2086314	Methoxychlor	101	103	P/P	55 - 133
2086314	Mirex	53.7	51.2	P/P	44 - 101
2086314	Permethrin	63.8	66.4	P/P	52 - 124
2086314	Trans-Nonachlor	75.6	69.4	P/P	50 - 130
2086314	Trifluralin	89.6	87.2	P/P	10 - 201

Reference Method: EPA 8270E
Batch ID: P364341

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085860	Acetochlor	91.9	101	P/P	63 - 129
2085860	Alachlor	89.5	96.2	P/P	65 - 127
2085860	Ametryn	106	105	P/P	40 - 164
2085860	Atrazine Desethyl	61.8	58.6	P/P	14 - 157
2085860	Azinphos Methyl	86.1	92.2	P/P	49 - 180
2085860	Bromacil	77.2	93.3	P/P	48 - 130
2085860	Butylate	31.6	25.9	P/P	10 - 94.0
2085860	Chlorpyrifos Ethyl	86.4	87.9	P/P	58 - 123
2085860	Chlorpyrifos Methyl	80.3	85.2	P/P	58 - 125
2085860	Cyanazine	81.0	79.4	P/P	24 - 253
2085860	Demeton	42.9	46.5	P/P	25 - 149
2085860	Diazinon	80.0	88.8	P/P	59 - 144
2085860	Dimethenamid	94.9	102	P/P	46 - 139
2085860	Disulfoton	61.2	66.4	P/P	54 - 132
2085860	Dithiopyr	85.6	94.0	P/P	64 - 130
2085860	EPTC	30.8	25.9	P/P	10 - 92.0
2085860	Ethion	94.5	98.5	P/P	30 - 148
2085860	Ethoprop	73.6	80.5	P/P	50 - 130
2085860	Fenamiphos	102	89.6	P/P	49 - 142
2085860	Fipronil	90.4	103	P/P	46 - 140
2085860	Fipronil Desulfinyl	94.8	103	P/P	30 - 121
2085860	Fipronil Sulfide	94.4	98.7	P/P	31 - 136
2085860	Fonofos	59.3	70.4	P/P	55 - 129

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P364341

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085860	Hexazinone	166	154	F/F	56 - 141
2085860	Malathion	95.8	102	P/P	56 - 135
2085860	Metalaxyl	129	32.4	P/F	54 - 135
2085860	Metolachlor	89.6	98.8	P/P	51 - 140
2085860	Metribuzin	94.3	95.7	P/P	45 - 254
2085860	Mevinphos	76.3	76.4	P/P	33 - 131
2085860	Molinate	40.1	39.1	P/P	14 - 98.0
2085860	Norflurazon	86.9	92.1	P/P	34 - 136
2085860	Oxadiazon	88.6	95.0	P/P	67 - 116
2085860	Parathion Ethyl	91.0	98.8	P/P	66 - 118
2085860	Parathion Methyl	93.1	101	P/P	64 - 136
2085860	Pendimethalin	88.7	94.8	P/P	59 - 144
2085860	Phorate	55.1	56.4	P/P	42 - 130
2085860	Prodiamine	108	107	P/P	42 - 148
2085860	Prometon	103	118	P/P	59 - 134
2085860	Prometryn	90.8	97.8	P/P	54 - 135
2085860	Tebuconazole	89.9	84.8	P/P	10 - 131
2085860	Terbufos	66.9	73.7	P/P	57 - 131
2085860	Terbuthylazine	93.8	99.9	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P364035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2087008	Chlordane	91.2	91.7	P/P	34 - 136
2087008	Toxaphene	59.7	63.1	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P363978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2085811	3-Hydroxycarbofuran	64.0	72.6	P/P	40 - 150
2085811	Aldicarb	72.3	75.2	P/P	30 - 150
2085811	Aldicarb Sulfone	79.8	86.5	P/P	40 - 150
2085811	Aldicarb Sulfoxide	33.4	42.0	F/P	40 - 150
2085811	Carbaryl	53.7	58.8	P/P	40 - 150
2085811	Carbofuran	55.1	58.6	P/P	40 - 150
2085811	Methiocarb	52.6	57.1	P/P	40 - 150
2085811	Methomyl	65.6	72.5	P/P	40 - 150
2085811	Oxamyl	76.7	87.9	P/P	40 - 150
2085811	Propoxur	50.1	59.8	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P363990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086141	2,4-D	114	127	P/P	40 - 150
2086141	Acetaminophen	100	92.1	P/P	30 - 150
2086141	Bentazon	81.1	79.8	P/P	30 - 150
2086141	Carbamazepine	90.1	86.7	P/P	40 - 150
2086141	Diuron	78.4	73.9	P/P	40 - 150
2086141	Fenuron	98.8	96.4	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P363990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086141	Fluridone	107	103	P/P	40 - 150
2086141	Hydrocodone	104	99.8	P/P	40 - 150
2086141	Ibuprofen	86.6	87.0	P/P	40 - 150
2086141	Imazapyr	162	140	F/P	40 - 150
2086141	Imidacloprid	159	165	F/F	40 - 150
2086141	Linuron	69.6	68.0	P/P	40 - 150
2086141	MCPP	151	151	F/F	40 - 150
2086141	Naproxen	88.8	93.8	P/P	40 - 150
2086141	Primidone	97.6	96.1	P/P	40 - 150
2086141	Pyraclostrobin	92.3	90.1	P/P	40 - 150
2086141	Triclopyr	76.5	110	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P364012

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086322	Acesulfame K	90.9	106	P/P	40 - 150
2086322	AMPA	81.4	77.4	P/P	40 - 150
2086322	Endothall	76.3	75.9	P/P	40 - 150
2086322	Glufosinate	93.8	94.0	P/P	40 - 150
2086322	Glyphosate	84.5	90.2	P/P	40 - 140
2086322	Sucralose	96.8	95.5	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P364313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086221	Fluoride	95.6	96.7	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P364314

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086656	Fluoride	98.4	98.4	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P364413

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2086216	Organic Carbon	97.9	96.7	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P364015

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086270	Turbidity	2.23	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P364222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086663	Barium	0.0454	Spike	P	0 - 20
2086663	Calcium	1.08	Spike	P	0 - 20
2086663	Iron	1.36	Spike	P	0 - 20
2086663	Magnesium	1.29	Spike	P	0 - 20
2086663	Manganese	0.0110	Spike	P	0 - 20
2086663	Potassium	0.208	Spike	P	0 - 20
2086663	Selenium	0.174	Spike	P	0 - 20
2086663	Sodium	0.924	Spike	P	0 - 20
2086663	Zinc	0.327	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P364222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086663	Aluminum	0.229	Spike	P	0 - 20
2086663	Antimony	0.917	Spike	P	0 - 20
2086663	Arsenic	0.0710	Spike	P	0 - 20
2086663	Cadmium	0.0917	Spike	P	0 - 20
2086663	Chromium	0.129	Spike	P	0 - 20
2086663	Copper	0.618	Spike	P	0 - 20
2086663	Lead	0.518	Spike	P	0 - 20
2086663	Nickel	0.140	Spike	P	0 - 20
2086663	Selenium	0.117	Spike	P	0 - 20
2086663	Silver	1.23	Spike	P	0 - 20
2086663	Thallium	0.563	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364113

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086219	Chloride	0.210	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086219	Sulfate	0.114	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P364200

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086635	Chloride	0.467	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P364285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086297	Ammonia-N	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P364467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086224	Kjeldahl Nitrogen	0.625	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P364298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086309	NO2NO3-N	0.881	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P364386

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086216	Total-P	1.29	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P364006

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086310	O-Phosphate-P	1.56	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P364035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086314	Aldrin	2.02	Spike	P	0 - 30
2086314	Alpha-BHC	2.88	Spike	P	0 - 30
2086314	Alpha-Chlordane	6.82	Spike	P	0 - 30
2086314	Beta-BHC	6.54	Spike	P	0 - 30
2086314	Bifenthrin	11.9	Spike	P	0 - 30
2086314	Carbophenothion	3.58	Spike	P	0 - 30
2086314	Chlorothalonil	20.9	Spike	P	0 - 30
2086314	Cis-Nonachlor	6.43	Spike	P	0 - 30
2086314	Cypermethrin	4.82	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P364035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086314	DDD-p,p'	4.98	Spike	P	0 - 30
2086314	DDE-p,p'	16.9	Spike	P	0 - 30
2086314	DDT-p,p'	1.95	Spike	P	0 - 30
2086314	Delta-BHC	18.7	Spike	P	0 - 30
2086314	Dicofol	3.54	Spike	P	0 - 30
2086314	Dieldrin	3.85	Spike	P	0 - 30
2086314	Endosulfan I	10.7	Spike	P	0 - 30
2086314	Endosulfan II	4.82	Spike	P	0 - 30
2086314	Endosulfan Sulfate	3.16	Spike	P	0 - 30
2086314	Endrin	9.07	Spike	P	0 - 30
2086314	Endrin Aldehyde	9.55	Spike	P	0 - 30
2086314	Endrin Ketone	2.38	Spike	P	0 - 30
2086314	Ethalfluralin	0.789	Spike	P	0 - 30
2086314	Gamma-BHC	8.15	Spike	P	0 - 30
2086314	Gamma-Chlordane	7.70	Spike	P	0 - 30
2086314	Heptachlor	1.61	Spike	P	0 - 30
2086314	Heptachlor Epoxide	6.66	Spike	P	0 - 30
2086314	Hexachlorobenzene	1.43	Spike	P	0 - 30
2086314	Methoxychlor	2.33	Spike	P	0 - 30
2086314	Mirex	4.76	Spike	P	0 - 30
2086314	Permethrin	4.03	Spike	P	0 - 30
2086314	Trans-Nonachlor	8.53	Spike	P	0 - 30
2086314	Trifluralin	2.64	Spike	P	0 - 30
LFB	Aldrin	1.15	LCS	P	0 - 30
LFB	Alpha-BHC	3.76	LCS	P	0 - 30
LFB	Alpha-Chlordane	2.03	LCS	P	0 - 30
LFB	Beta-BHC	0.698	LCS	P	0 - 30
LFB	Bifenthrin	2.87	LCS	P	0 - 30
LFB	Carbophenothion	2.30	LCS	P	0 - 30
LFB	Chlorothalonil	11.4	LCS	P	0 - 30
LFB	Cis-Nonachlor	3.22	LCS	P	0 - 30
LFB	Cypermethrin	7.87	LCS	P	0 - 30
LFB	DDD-p,p'	3.57	LCS	P	0 - 30
LFB	DDE-p,p'	0.249	LCS	P	0 - 30
LFB	DDT-p,p'	0.776	LCS	P	0 - 30
LFB	Delta-BHC	5.42	LCS	P	0 - 30
LFB	Dicofol	9.68	LCS	P	0 - 30
LFB	Dieldrin	0.103	LCS	P	0 - 30
LFB	Endosulfan I	5.16	LCS	P	0 - 30
LFB	Endosulfan II	2.93	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.83	LCS	P	0 - 30
LFB	Endrin	3.25	LCS	P	0 - 30
LFB	Endrin Aldehyde	3.61	LCS	P	0 - 30
LFB	Endrin Ketone	3.95	LCS	P	0 - 30
LFB	Ethalfluralin	8.83	LCS	P	0 - 30
LFB	Gamma-BHC	4.03	LCS	P	0 - 30
LFB	Gamma-Chlordane	1.09	LCS	P	0 - 30
LFB	Heptachlor	2.59	LCS	P	0 - 30
LFB	Heptachlor Epoxide	2.74	LCS	P	0 - 30
LFB	Hexachlorobenzene	3.12	LCS	P	0 - 30
LFB	Methoxychlor	2.04	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270D
Batch ID: P364035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	0.820	LCS	P	0 - 30
LFB	Permethrin	6.64	LCS	P	0 - 30
LFB	Trans-Nonachlor	3.41	LCS	P	0 - 30
LFB	Trifluralin	0.944	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P364341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085860	Acetochlor	9.88	Spike	P	0 - 30
2085860	Alachlor	7.19	Spike	P	0 - 30
2085860	Ametryn	1.15	Spike	P	0 - 30
2085860	Atrazine	5.98	Spike	P	0 - 30
2085860	Atrazine Desethyl	2.23	Spike	P	0 - 30
2085860	Azinphos Methyl	6.85	Spike	P	0 - 30
2085860	Bromacil	11.7	Spike	P	0 - 30
2085860	Butylate	19.8	Spike	P	0 - 30
2085860	Chlorpyrifos Ethyl	1.76	Spike	P	0 - 30
2085860	Chlorpyrifos Methyl	5.84	Spike	P	0 - 30
2085860	Cyanazine	2.01	Spike	P	0 - 30
2085860	Demeton	8.13	Spike	P	0 - 30
2085860	Diazinon	10.4	Spike	P	0 - 30
2085860	Dimethenamid	7.27	Spike	P	0 - 30
2085860	Disulfoton	8.16	Spike	P	0 - 30
2085860	Dithiopyr	8.34	Spike	P	0 - 30
2085860	EPTC	17.1	Spike	P	0 - 30
2085860	Ethion	4.17	Spike	P	0 - 30
2085860	Ethoprop	8.98	Spike	P	0 - 30
2085860	Fenamiphos	13.4	Spike	P	0 - 30
2085860	Fipronil	7.21	Spike	P	0 - 30
2085860	Fipronil Desulfinyl	6.70	Spike	P	0 - 30
2085860	Fipronil Sulfide	3.21	Spike	P	0 - 30
2085860	Fipronil Sulfone	6.44	Spike	P	0 - 30
2085860	Fonofos	17.2	Spike	P	0 - 30
2085860	Hexazinone	7.89	Spike	P	0 - 30
2085860	Malathion	6.43	Spike	P	0 - 30
2085860	Metalaxyl	120	Spike	F	0 - 30
2085860	Metolachlor	8.16	Spike	P	0 - 30
2085860	Metribuzin	1.51	Spike	P	0 - 30
2085860	Mevinphos	0.138	Spike	P	0 - 30
2085860	Molinate	2.46	Spike	P	0 - 30
2085860	Norflurazon	5.71	Spike	P	0 - 30
2085860	Oxadiazon	6.33	Spike	P	0 - 30
2085860	Parathion Ethyl	8.23	Spike	P	0 - 30
2085860	Parathion Methyl	8.40	Spike	P	0 - 30
2085860	Pendimethalin	6.68	Spike	P	0 - 30
2085860	Phorate	2.16	Spike	P	0 - 30
2085860	Prodiamine	0.504	Spike	P	0 - 30
2085860	Prometon	14.2	Spike	P	0 - 30
2085860	Prometryn	7.49	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P364341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085860	Simazine	5.34	Spike	P	0 - 30
2085860	Tebuconazole	5.00	Spike	P	0 - 30
2085860	Terbufos	9.76	Spike	P	0 - 30
2085860	Terbuthylazine	5.39	Spike	P	0 - 30
LFB	Acetochlor	4.30	LCS	P	0 - 30
LFB	Alachlor	6.48	LCS	P	0 - 30
LFB	Ametryn	11.7	LCS	P	0 - 30
LFB	Atrazine	9.80	LCS	P	0 - 30
LFB	Atrazine Desethyl	11.7	LCS	P	0 - 30
LFB	Azinphos Methyl	11.3	LCS	P	0 - 30
LFB	Bromacil	25.5	LCS	P	0 - 30
LFB	Butylate	28.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	6.01	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	10.0	LCS	P	0 - 30
LFB	Cyanazine	12.2	LCS	P	0 - 30
LFB	Demeton	0.431	LCS	P	0 - 30
LFB	Diazinon	6.62	LCS	P	0 - 30
LFB	Dimethenamid	3.06	LCS	P	0 - 30
LFB	Disulfoton	10.1	LCS	P	0 - 30
LFB	Dithiopyr	7.42	LCS	P	0 - 30
LFB	EPTC	39.8	LCS	F	0 - 30
LFB	Ethion	2.16	LCS	P	0 - 30
LFB	Ethoprop	12.6	LCS	P	0 - 30
LFB	Fenamiphos	91.2	LCS	F	0 - 30
LFB	Fipronil	11.5	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	6.04	LCS	P	0 - 30
LFB	Fipronil Sulfide	7.03	LCS	P	0 - 30
LFB	Fipronil Sulfone	26.1	LCS	P	0 - 30
LFB	Fonofos	14.0	LCS	P	0 - 30
LFB	Hexazinone	38.7	LCS	F	0 - 30
LFB	Malathion	2.14	LCS	P	0 - 30
LFB	Metalaxyl	65.2	LCS	F	0 - 30
LFB	Metolachlor	5.84	LCS	P	0 - 30
LFB	Metribuzin	3.75	LCS	P	0 - 30
LFB	Mevinphos	13.7	LCS	P	0 - 30
LFB	Molinate	25.2	LCS	P	0 - 30
LFB	Norflurazon	26.4	LCS	P	0 - 30
LFB	Oxadiazon	1.36	LCS	P	0 - 30
LFB	Parathion Ethyl	1.31	LCS	P	0 - 30
LFB	Parathion Methyl	6.16	LCS	P	0 - 30
LFB	Pendimethalin	3.12	LCS	P	0 - 30
LFB	Phorate	0.579	LCS	P	0 - 30
LFB	Prodiamine	1.25	LCS	P	0 - 30
LFB	Prometon	43.3	LCS	F	0 - 30
LFB	Prometryn	4.86	LCS	P	0 - 30
LFB	Simazine	9.57	LCS	P	0 - 30
LFB	Tebuconazole	20.5	LCS	P	0 - 30
LFB	Terbufos	2.83	LCS	P	0 - 30
LFB	Terbuthylazine	5.25	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8276
Batch ID: P364035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2087008	Chlordane	0.368	Spike	P	0 - 30
2087008	Toxaphene	5.62	Spike	P	0 - 30
LFB	Chlordane	6.23	LCS	P	0 - 30
LFB	Toxaphene	0.163	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2085811	3-Hydroxycarbofuran	12.5	Spike	P	0 - 30
2085811	Aldicarb	3.90	Spike	P	0 - 30
2085811	Aldicarb Sulfone	8.02	Spike	P	0 - 30
2085811	Aldicarb Sulfoxide	22.9	Spike	P	0 - 30
2085811	Carbaryl	8.97	Spike	P	0 - 30
2085811	Carbofuran	6.19	Spike	P	0 - 30
2085811	Methiocarb	8.20	Spike	P	0 - 30
2085811	Methomyl	9.93	Spike	P	0 - 30
2085811	Oxamyl	13.5	Spike	P	0 - 30
2085811	Propoxur	17.8	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P363990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086141	2,4-D	11.2	Spike	P	0 - 30
2086141	Acetaminophen	7.48	Spike	P	0 - 30
2086141	Bentazon	1.62	Spike	P	0 - 30
2086141	Carbamazepine	2.92	Spike	P	0 - 30
2086141	Diuron	5.23	Spike	P	0 - 30
2086141	Fenuron	2.47	Spike	P	0 - 30
2086141	Fluridone	3.77	Spike	P	0 - 30
2086141	Hydrocodone	4.44	Spike	P	0 - 30
2086141	Ibuprofen	0.542	Spike	P	0 - 30
2086141	Imazapyr	9.42	Spike	P	0 - 30
2086141	Imidacloprid	3.52	Spike	P	0 - 30
2086141	Linuron	2.22	Spike	P	0 - 30
2086141	MCPP	0.308	Spike	P	0 - 30
2086141	Naproxen	5.46	Spike	P	0 - 30
2086141	Primidone	1.58	Spike	P	0 - 30
2086141	Pyraclostrobin	2.39	Spike	P	0 - 30
2086141	Triclopyr	35.8	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P364012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086322	Acesulfame K	14.9	Spike	P	0 - 30
2086322	AMPA	3.99	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P364012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086322	Endothall	0.500	Spike	P	0 - 30
2086322	Glufosinate	0.291	Spike	P	0 - 30
2086322	Glyphosate	6.60	Spike	P	0 - 30
2086322	Sucralose	1.25	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P364021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086158	Color (true)	7.87	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P364309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086221	Total Alkalinity	1.02	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P364310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086656	Total Alkalinity	0.578	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P364393

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086295	TDS	3.06	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P364399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086295	TSS	7.41	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P364313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086221	Fluoride	0.968	Spike	P	0 - 2.5

Quality Assurance Report
Precision

Reference Method: SM 4500 F-C-97
Batch ID: P364314

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086656	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P364413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2086216	Organic Carbon	0.727	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: 2086321
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	85.5	P	30 - 160

Lab Sample ID: 2086322
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.3	P	30 - 160
EPA 8321B	Diuron-d6	68.1	P	30 - 160
EPA 8321B	Endothall-d6	81.5	P	30 - 160
EPA 8321B	Endothall-d6	81.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	109	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.4	P	30 - 160
EPA 8321B	Primidone-d5	82.5	P	30 - 160
EPA 8321B	Sucralose-d6	96.9	P	30 - 160
EPA 8321B	Sucralose-d6	96.9	P	30 - 160

Lab Sample ID: 2086323
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	53.4	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	42.1	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	67.2	P	30 - 103
EPA 8276	PCNB	72.8	P	37 - 143

Lab Sample ID: 2086324
Field Sample ID: G4NW0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	110	P	68 - 130
EPA 8270E	Terbufos-d10	72.0	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A91404
Included Lab Sample IDs: 2086308, 2086311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Chloride	96.2	101	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A91453
Included Lab Sample IDs: 2086310, 2086313

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.1	97.5	P/P	90 - 110
O-Phosphate-P	98.2	97.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A91457
Included Lab Sample IDs: 2086308, 2086311

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

Reference Method: SM 2120 B
Run ID: A91460
Included Lab Sample IDs: 2086308

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

Reference Method: EPA 8321B
Run ID: A91508
Included Lab Sample IDs: 2086322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	90.7	97.4	P/P	60 - 160
Endothall	89.3	107	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A91524
Included Lab Sample IDs: 2086322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.8	84.0	P/P	50 - 150
Acetaminophen	108	109	P/P	60 - 160
Bentazon	94.9	92.7	P/P	50 - 160
Carbamazepine	97.8	97.0	P/P	60 - 150
Diuron	101	103	P/P	60 - 150
Fenuron	105	101	P/P	60 - 150
Fluridone	116	106	P/P	60 - 160
Hydrocodone	98.5	98.6	P/P	60 - 150
Ibuprofen	108	119	P/P	50 - 160
Imazapyr	98.3	92.7	P/P	50 - 150
Imidacloprid	89.4	93.9	P/P	60 - 150
Linuron	103	104	P/P	60 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A91524
Included Lab Sample IDs: 2086322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPP	96.7	105	P/P	50 - 150
Naproxen	118	131	P/P	50 - 160
Primidone	88.3	94.1	P/P	60 - 150
Pyraclostrobin	106	105	P/P	60 - 150
Triclopyr	95.4	103	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A91528
Included Lab Sample IDs: 2086322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	131	127	P/P	60 - 160
Glufosinate	115	105	P/P	60 - 160
Glyphosate	105	93.1	P/P	60 - 160

Reference Method: EPA 8270D
Run ID: A91543
Included Lab Sample IDs: 2086323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.6		P	80 - 120
Alpha-BHC	96.3		P	80 - 120
Alpha-Chlordane	97.6		P	80 - 120
Beta-BHC	91.5		P	80 - 120
Bifenthrin	93.6		P	80 - 120
Carbophenothion	150*		F	80 - 120
Chlorothalonil	61.7*		F	80 - 120
Cis-Nonachlor	98.6		P	80 - 120
Cypermethrin	86.1		P	80 - 120
DDD-p,p'	99.4		P	80 - 120
DDE-p,p'	98.4		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	88.0		P	80 - 120
Dicofol	99.8		P	80 - 120
Dieldrin	96.2		P	80 - 120
Endosulfan I	93.3		P	80 - 120
Endosulfan II	95.0		P	80 - 120
Endosulfan Sulfate	92.6		P	80 - 120
Endrin	97.7		P	80 - 120
Endrin Aldehyde	90.6		P	80 - 120
Endrin Ketone	93.3		P	80 - 120
Ethalfluralin	95.8		P	80 - 120
Gamma-BHC	95.4		P	80 - 120
Gamma-Chlordane	95.6		P	80 - 120
Heptachlor	98.9		P	80 - 120
Heptachlor Epoxide	95.8		P	80 - 120
Hexachlorobenzene	95.7		P	80 - 120
Methoxychlor	98.9		P	80 - 120
Mirex	96.4		P	80 - 120
Permethrin	91.3		P	80 - 120
Trans-Nonachlor	96.9		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270D
Run ID: A91543
Included Lab Sample IDs: 2086323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Trifluralin	94.5		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A91558
Included Lab Sample IDs: 2086309, 2086312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	105	105	P/P	90 - 110
Ammonia-N	106	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A91563
Included Lab Sample IDs: 2086309, 2086312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.0	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A91564
Included Lab Sample IDs: 2086308, 2086311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	105	P/P	90 - 110
Total Alkalinity	105	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A91564
Included Lab Sample IDs: 2086308, 2086311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	99.1	P/P	90 - 110
Fluoride	99.1	99.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A91577
Included Lab Sample IDs: 2086325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	100	P/P	90 - 110
Calcium	101	99.0	P/P	90 - 110
Iron	101	99.3	P/P	90 - 110
Magnesium	101	100	P/P	90 - 110
Manganese	100	100	P/P	90 - 110
Potassium	100	99.2	P/P	90 - 110
Selenium	99.6	98.8	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Zinc	101	101	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A91605
Included Lab Sample IDs: 2086309, 2086312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.1	99.5	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A91610
Included Lab Sample IDs: 2086321

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	80.5	88.5	P/P	60 - 150
Aldicarb	89.0	92.8	P/P	60 - 150
Aldicarb Sulfone	99.7	104	P/P	50 - 150
Aldicarb Sulfoxide	74.0	95.5	P/P	50 - 150
Carbaryl	100	96.6	P/P	60 - 150
Carbofuran	103	96.5	P/P	50 - 150
Methiocarb	106	101	P/P	50 - 150
Methomyl	98.8	86.4	P/P	50 - 150
Oxamyl	103	94.4	P/P	50 - 150
Propoxur	102	99.6	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A91613
Included Lab Sample IDs: 2086325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	104	P/P	90 - 110
Antimony	96.3	97.2	P/P	90 - 110
Arsenic	101	102	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	102	101	P/P	90 - 110
Copper	102	102	P/P	90 - 110
Lead	98.2	99.1	P/P	90 - 110
Nickel	101	100	P/P	90 - 110
Selenium	103	103	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	103	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A91619
Included Lab Sample IDs: 2086309

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A91621
Included Lab Sample IDs: 2086312

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A91647
Included Lab Sample IDs: 2086322

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	100	103	P/P	60 - 160

Reference Method: EPA 8276
Run ID: A91671
Included Lab Sample IDs: 2086323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.2		P	80 - 120
Toxaphene	84.7		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A91693
Included Lab Sample IDs: 2086309, 2086312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.9	95.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A91710
Included Lab Sample IDs: 2086324

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	100		P	80 - 120
Atrazine	100		P	80 - 120
Atrazine Desethyl	94.3		P	80 - 120
Azinphos Methyl	80.8		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	97.9		P	80 - 120
Chlorpyrifos Ethyl	90.4		P	80 - 120
Chlorpyrifos Methyl	94.3		P	80 - 120
Cyanazine	94.5		P	80 - 120
Demeton	96.5		P	80 - 120
Diazinon	100		P	80 - 120
Dimethenamid	101		P	80 - 120
Disulfoton	92.7		P	80 - 120
Dithiopyr	99.1		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	93.2		P	80 - 120
Ethoprop	99.1		P	80 - 120
Fenamiphos	98.7		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	94.8		P	80 - 120
Fipronil Sulfone	96.4		P	80 - 120
Fonofos	95.1		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	90.7		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	103		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A91710
Included Lab Sample IDs: 2086324

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metribuzin	85.6		P	80 - 120
Mevinphos	96.9		P	80 - 120
Molinate	101		P	80 - 120
Norflurazon	93.9		P	80 - 120
Oxadiazon	106		P	80 - 120
Parathion Ethyl	94.6		P	80 - 120
Parathion Methyl	92.4		P	80 - 120
Pendimethalin	89.9		P	80 - 120
Phorate	95.4		P	80 - 120
Prodiamine	77.9*		F	80 - 120
Prometon	102		P	80 - 120
Prometryn	98.8		P	80 - 120
Simazine	94.9		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	92.8		P	80 - 120
Terbuthylazine	99.3		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							2.23	
EPA 200.7 Rev. 4.4	Barium	100		101	101	98.0			0.0454
	Calcium	106		106	105	101			1.08
	Iron	103		104	103	103			1.36
	Magnesium	110		111	109	106			1.29
	Manganese	99.6		99.4	99.3	97.8			0.0110
	Potassium	102		107	107	101			0.208
	Selenium	104		106	107	104			0.174
	Sodium	105		104	103	103			0.924
	Zinc	98.9		99.8	100	100			0.327
EPA 200.8 Rev. 5.4	Aluminum	101		102	102	103			0.229
	Antimony	99.3		100	101	99.3			0.917
	Arsenic	101		105	105	103			0.0710
	Cadmium	103		105	105	100			0.0917
	Chromium	97.7		101	101	97.2			0.129
	Copper	98.7		103	102	97.7			0.618
	Lead	95.6		97.2	96.6	98.6			0.518
	Nickel	98.6		103	103	98.1			0.140
	Selenium	101		108	108	103			0.117
	Silver	102		104	103	101			1.23
	Thallium	99.9		94.5	95.1	103			0.563
EPA 300.0 Rev. 2.1	Chloride	98.7		99.0	101			0.210	
	Chloride	99.0		98.8	100			0.467	
	Sulfate	97.9		100	99.9			0.114	
EPA 350.1 Rev. 2.0	Ammonia-N	103		103	105				1.66
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.8		101	100				0.625
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		98.5	97.0				0.881
EPA 365.1 Rev. 2.0	Total-P	100		102	101				1.29
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.0		94.6	93.0				1.56
EPA 8270D	Aldrin	51.7	51.1	53.0	51.9		1.15		2.02
	Alpha-BHC	87.9	91.2	109	112		3.76		2.88
	Alpha-Chlordane	76.3	77.9	81.7	76.3		2.03		6.82
	Beta-BHC	118	119	149	140		0.698		6.54
	Bifenthrin	72.7	74.8	66.6	75.0		2.87		11.9
	Carbophenothion	129	132	157	152		2.30		3.58
	Chlorothalonil	50.4	56.5	96.3	78.1		11.4		20.9
	Cis-Nonachlor	75.5	78.0	82.0	76.9		3.22		6.43
	Cypermethrin	67.5	73.0	66.8	63.7		7.87		4.82
	DDD-p,p'	83.0	86.0	93.7	89.2		3.57		4.98
	DDE-p,p'	79.3	79.5	77.4	65.3		0.249		16.9
	DDT-p,p'	88.6	89.3	95.4	97.2		0.776		1.95
	Delta-BHC	124	131	158	191		5.42		18.7
	Dicofol	80.8	89.0	97.5	101		9.68		3.54
	Dieldrin	79.3	79.4	90.5	87.0		0.103		3.85
	Endosulfan I	79.9	84.1	93.2	83.7		5.16		10.7
	Endosulfan II	89.9	92.6	101	95.9		2.93		4.82
	Endosulfan Sulfate	76.4	78.6	98.8	95.7		2.83		3.16
	Endrin	88.5	85.7	96.4	88.1		3.25		9.07
	Endrin Aldehyde	84.6	87.7	89.9	81.7		3.61		9.55
	Endrin Ketone	77.4	80.5	95.2	97.5		3.95		2.38
	Ethalfluralin	76.4	83.4	93.0	93.8		8.83		0.789
	Gamma-BHC	111	116	139	128		4.03		8.15
	Gamma-Chlordane	73.7	74.5	77.7	71.9		1.09		7.70
	Heptachlor	60.9	62.5	62.4	61.4		2.59		1.61

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270D	Heptachlor Epoxide	78.9	81.1	87.4	81.8	2.74		6.66
	Hexachlorobenzene	66.9	69.1	67.9	67.0	3.12		1.43
	Methoxychlor	97.1	99.1	101	103	2.04		2.33
	Mirex	58.2	58.6	53.7	51.2	0.820		4.76
	Permethrin	63.6	67.9	63.8	66.4	6.64		4.03
	Trans-Nonachlor	70.8	73.3	75.6	69.4	3.41		8.53
	Trifluralin	80.6	81.4	89.6	87.2	0.944		2.64
EPA 8270E	Acetochlor	103	98.3	91.9	101	4.30		9.88
	Alachlor	102	95.3	89.5	96.2	6.48		7.19
	Ametryn	93.7	83.4	106	105	11.7		1.15
	Atrazine	105	95.5			9.80		5.98
	Atrazine Desethyl	57.5	51.1	61.8	58.6	11.7		2.23
	Azinphos Methyl	95.5	85.3	86.1	92.2	11.3		6.85
	Bromacil	59.3	45.9	77.2	93.3	25.5		11.7
	Butylate	71.3	53.6	31.6	25.9	28.3		19.8
	Chlorpyrifos Ethyl	77.5	82.3	86.4	87.9	6.01		1.76
	Chlorpyrifos Methyl	64.2	71.0	80.3	85.2	10.0		5.84
	Cyanazine	81.6	72.2	81.0	79.4	12.2		2.01
	Demeton	34.3	34.5	42.9	46.5	0.431		8.13
	Diazinon	95.6	89.5	80.0	88.8	6.62		10.4
	Dimethenamid	103	99.7	94.9	102	3.06		7.27
	Disulfoton	33.3	36.9	61.2	66.4	10.1		8.16
	Dithiopyr	101	93.7	85.6	94.0	7.42		8.34
	EPTC	69.0	46.1	30.8	25.9	39.8		17.1
	Ethion	105	103	94.5	98.5	2.16		4.17
	Ethoprop	103	90.4	73.6	80.5	12.6		8.98
	Fenamiphos	16.4	6.14	102	89.6	91.2		13.4
	Fipronil	95.6	85.2	90.4	103	11.5		7.21
	Fipronil Desulfinyl	98.2	92.4	94.8	103	6.04		6.70
	Fipronil Sulfide	104	96.8	94.4	98.7	7.03		3.21
	Fipronil Sulfone	125	96.2			26.1		6.44
	Fonofos	70.9	61.6	59.3	70.4	14.0		17.2
	Hexazinone	66.3	44.8	166	154	38.7		7.89
	Malathion	100	98.2	95.8	102	2.14		6.43
	Metalaxyl	5.36	10.5	129	32.4	65.2		120
	Metolachlor	104	98.1	89.6	98.8	5.84		8.16
	Metribuzin	78.1	81.1	94.3	95.7	3.75		1.51
	Mevinphos	51.7	45.0	76.3	76.4	13.7		0.138
	Molinate	84.3	65.4	40.1	39.1	25.2		2.46
	Norflurazon	88.2	67.6	86.9	92.1	26.4		5.71
	Oxadiazon	107	106	88.6	95.0	1.36		6.33
	Parathion Ethyl	89.9	88.7	91.0	98.8	1.31		8.23
	Parathion Methyl	94.0	88.4	93.1	101	6.16		8.40
	Pendimethalin	80.6	83.1	88.7	94.8	3.12		6.68
	Phorate	39.8	39.6	55.1	56.4	0.579		2.16
	Prodiamine	91.2	90.1	108	107	1.25		0.504
	Prometon	70.7	45.5	103	118	43.3		14.2
	Prometryn	90.9	86.6	90.8	97.8	4.86		7.49
	Simazine	99.0	90.0			9.57		5.34
	Tebuconazole	42.8	34.8	89.9	84.8	20.5		5.00
	Terbufos	59.3	61.0	66.9	73.7	2.83		9.76
	Terbuthylazine	104	99.0	93.8	99.9	5.25		5.39
EPA 8276	Chlordane	76.1	71.5	91.2	91.7	6.23		0.368
	Toxaphene	54.5	54.4	59.7	63.1	0.163		5.62

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	2,4-D	108	114	127			11.2
	3-Hydroxycarbofuran	61.6	64.0	72.6			12.5
	Acesulfame K	95.4	90.9	106			14.9
	Acetaminophen	85.7	100	92.1			7.48
	Aldicarb	78.5	72.3	75.2			3.90
	Aldicarb Sulfone	87.1	79.8	86.5			8.02
	Aldicarb Sulfoxide	77.0	33.4	42.0			22.9
	AMPA	124	81.4	77.4			3.99
	Bentazon	111	81.1	79.8			1.62
	Carbamazepine	91.8	90.1	86.7			2.92
	Carbaryl	72.5	53.7	58.8			8.97
	Carbofuran	69.7	55.1	58.6			6.19
	Diuron	85.5	78.4	73.9			5.23
	Endothall	84.0	76.3	75.9			0.500
	Fenuron	106	98.8	96.4			2.47
	Fluridone	105	107	103			3.77
	Glufosinate	107	93.8	94.0			0.291
	Glyphosate	98.8	84.5	90.2			6.60
	Hydrocodone	90.0	104	99.8			4.44
	Ibuprofen	87.4	86.6	87.0			0.542
	Imazapyr	97.4	162	140			9.42
	Imidacloprid	93.3	159	165			3.52
	Linuron	82.5	69.6	68.0			2.22
	MCPP	117	151	151			0.308
	Methiocarb	69.5	52.6	57.1			8.20
	Methomyl	75.0	65.6	72.5			9.93
	Naproxen	95.0	88.8	93.8			5.46
	Oxamyl	90.7	76.7	87.9			13.5
	Primidone	84.9	97.6	96.1			1.58
	Propoxur	71.2	50.1	59.8			17.8
	Pyraclostrobin	80.0	92.3	90.1			2.39
	Sucralose	103	96.8	95.5			1.25
	Triclopyr	70.5	76.5	110			35.8
SM 2120 B	Color (true)	102				7.87	
SM 2320 B-97	Total Alkalinity	101				1.02	
	Total Alkalinity	102				0.578	
SM 2540 C-97	TDS					3.06	
SM 2540 D-97	TSS					7.41	
SM 4500 F-C-97	Fluoride	97.2	95.6	96.7			0.968
	Fluoride	97.2	98.4	98.4			0.0
SM 5310 B-00	Organic Carbon	98.2	97.9	96.7			0.727

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2086308, 2086311
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2086325
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2086325
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2086308, 2086311

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2086308
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2086309, 2086312
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2086309, 2086312
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2086309, 2086312
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2086309, 2086312
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2086310, 2086313
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2086323
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2086324
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2086323
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2086321
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2086322
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2086322
SM 2120 B / E31780	True Color measured at 450 nm	2086308
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2086308, 2086311
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2086308
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2086308, 2086311
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2086308, 2086311
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2086309, 2086312

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	05/15/2019			05/15/2019 15:04	Sima Feizi	2086308, 2086311
EPA 200.7 Rev. 4.4	05/15/2019	05/20/2019 14:30	Elliott D. Healy	05/21/2019 13:48	Betina Topolski	2086325
EPA 200.8 Rev. 5.4	05/15/2019	05/20/2019 14:30	Elliott D. Healy	05/22/2019 23:11	Robert K Palmer	2086325
EPA 300.0 Rev. 2.1	05/15/2019			05/17/2019 02:18	Lipi Saha	2086308
	05/15/2019			05/17/2019 16:12	Lipi Saha	2086311
EPA 350.1 Rev. 2.0	05/15/2019			05/17/2019 13:23	Ping Hua	2086309
	05/15/2019			05/17/2019 13:30	Ping Hua	2086312
EPA 351.2 Rev. 2.0	05/15/2019	05/23/2019 13:15	Adrian Shelby	05/28/2019 14:25	Joseph Suarez	2086309
	05/15/2019	05/23/2019 13:15	Adrian Shelby	05/28/2019 14:26	Joseph Suarez	2086312
EPA 353.2 Rev. 2.0	05/15/2019			05/21/2019 11:47	Beverly Y. Sanders	2086309
	05/15/2019			05/21/2019 11:50	Beverly Y. Sanders	2086312
EPA 365.1 Rev. 2.0	05/15/2019	05/22/2019 02:01	Lipi Saha	05/22/2019 19:44	Rosalyn Ballman	2086309
	05/15/2019	05/22/2019 02:01	Lipi Saha	05/23/2019 12:47	Rosalyn Ballman	2086312
EPA 365.1 Rev. 2.0 dissolved	05/15/2019			05/15/2019 16:00	Jhamieka S. Greenwood	2086310
	05/15/2019			05/15/2019 16:25	Jhamieka S. Greenwood	2086313
EPA 8270D	05/15/2019	05/17/2019 09:00	Fe-Val Siddell	05/21/2019 03:45	Arthur Maknenko	2086323
EPA 8270E	05/15/2019	05/20/2019 09:00	Julie Wi	05/22/2019 16:16	Vandana T. Nagar	2086324
EPA 8276	05/15/2019	05/17/2019 09:00	Fe-Val Siddell	05/25/2019 07:48	Dinesh Mishra	2086323
EPA 8321B	05/15/2019	05/16/2019 11:00	Hoor Shaik	05/19/2019 23:39	Juyoung Kim	2086322
	05/15/2019	05/16/2019 14:00	Rebecca Ware	05/16/2019 16:22	Rebecca Ware	2086322
	05/15/2019	05/16/2019 14:00	Rebecca Ware	05/17/2019 17:38	Rebecca Ware	2086322
	05/15/2019	05/16/2019 14:00	Rebecca Ware	05/23/2019 20:16	Rebecca Ware	2086322
	05/15/2019	05/20/2019 09:00	Hoor Shaik	05/22/2019 20:53	Juyoung Kim	2086321
SM 2120 B	05/15/2019			05/15/2019 17:09	Madeline Funaro	2086308
SM 2320 B-97	05/15/2019			05/21/2019 04:26	Dale L. Simmons	2086308
	05/15/2019			05/21/2019 07:18	Dale L. Simmons	2086311
SM 2540 C-97	05/15/2019			05/16/2019 15:31	Yijie Li	2086308
SM 2540 D-97	05/15/2019			05/16/2019 15:31	Yijie Li	2086308, 2086311
SM 4500 F-C-97	05/15/2019			05/21/2019 04:26	Dale L. Simmons	2086308
	05/15/2019			05/21/2019 07:18	Dale L. Simmons	2086311
SM 5310 B-00	05/15/2019			05/22/2019 09:20	Julia Storbeck	2086309
	05/15/2019			05/22/2019 09:33	Julia Storbeck	2086312