Chemical Analysis Report

NW-DIST-2019-09-13-02

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

Event Description: **Perdido/Bridge resample**
Request ID: **RQ-2019-09-09-54**
Customer: **NW-DIST**
Project ID: **SMP**

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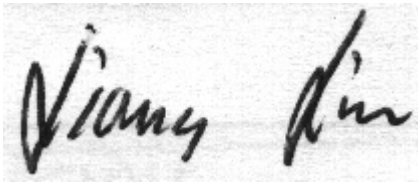
Date Certified: 03-OCT-2019 16:45



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: Sanders Beach off I Street Dock **Collection Date/Time: 09/12/2019 09:40**

Field ID: G4NW0492 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119143	EPA 8321B	2,4-D	0.0020	U	ug/L	P370771	
		Acesulfame K**	0.10	U	ug/L	P370674	
		AMPA**	1.0	U	ug/L	P370674	
		Sucralose**	0.14		ug/L	P370674	
		Acetaminophen**	0.0080	U	ug/L	P370771	
		Acetamiprid**	0.0020	U	ug/L	P370771	
		Endothall**	0.25	U	ug/L	P370674	
		Glufosinate**	1.0	U	ug/L	P370674	
		Glyphosate**	1.0	U	ug/L	P370674	
		Afidopyropen**	0.0020	UJ	ug/L	P370771	
		Bentazon	8.0E-04	U	ug/L	P370771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370771	
		Carbamazepine**	8.0E-04	U	ug/L	P370771	
		Clothianidin**	0.0020	U	ug/L	P370771	
		Dinotefuran**	0.0020	U	ug/L	P370771	
		Diuron	0.0020	U	ug/L	P370771	
		Fenuron	0.016	U	ug/L	P370771	
		Fluridone**	8.0E-04	U	ug/L	P370771	
		Imazapyr**	0.0040	U	ug/L	P370771	
		Hydrocodone**	0.0020	U	ug/L	P370771	
		Ibuprofen**	0.020	U	ug/L	P370771	
		Imidacloprid	0.0020	U	ug/L	P370771	
		Linuron	0.0040	U	ug/L	P370771	
		Mandestrobin**	0.0020	UJ	ug/L	P370771	
		MCPP	0.0020	U	ug/L	P370771	
		Naproxen**	0.0080	U	ug/L	P370771	
		Primidone**	0.0040	U	ug/L	P370771	
		Pyraclostrobin**	0.0020	U	ug/L	P370771	
		Thiamethoxam**	0.0020	U	ug/L	P370771	
		Tolfenpyrad**	0.0020	U	ug/L	P370771	
		Triclopyr**	0.0040	U	ug/L	P370771	

Ref. Method and Comment:
EPA 8321B: J - second source check standards for some analytes were not available for analysis.
EPA 8321B: MDL for some parameters elevated due to matrix interference.

Sample Location: BAYOU CHICO **Collection Date/Time: 09/12/2019 10:25**

Field ID: G4NW0483 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119144	EPA 8321B	2,4-D	0.0020	U	ug/L	P370771	
		Acesulfame K**	0.10	U	ug/L	P370674	
		AMPA**	1.0	U	ug/L	P370674	
		Sucralose**	0.43		ug/L	P370674	
		Acetaminophen**	0.0080	U	ug/L	P370771	
		Acetamiprid**	0.0020	U	ug/L	P370771	
		Endothall**	0.25	U	ug/L	P370674	
		Glufosinate**	1.0	U	ug/L	P370674	
		Glyphosate**	1.0	U	ug/L	P370674	
		Afidopyropen**	0.0020	UJ	ug/L	P370771	
		Bentazon	8.0E-04	U	ug/L	P370771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370771	
		Carbamazepine**	0.0023	I	ug/L	P370771	
		Clothianidin**	0.0020	U	ug/L	P370771	
		Dinotefuran**	0.0020	U	ug/L	P370771	
		Diuron	0.0020	U	ug/L	P370771	
		Fenuron	0.016	U	ug/L	P370771	
		Fluridone**	8.0E-04	U	ug/L	P370771	
		Imazapyr**	0.0040	U	ug/L	P370771	
		Hydrocodone**	0.0020	U	ug/L	P370771	
		Ibuprofen**	0.020	U	ug/L	P370771	
		Imidacloprid	0.0065	I	ug/L	P370771	
		Linuron	0.0040	U	ug/L	P370771	
		Mandestrobin**	0.0020	UJ	ug/L	P370771	
		MCPP	0.0020	U	ug/L	P370771	
		Naproxen**	0.0080	U	ug/L	P370771	
		Primidone**	0.0040	U	ug/L	P370771	
		Pyraclostrobin**	0.0020	U	ug/L	P370771	
		Thiamethoxam**	0.0020	U	ug/L	P370771	
		Tolfenpyrad**	0.0020	U	ug/L	P370771	
		Triclopyr**	0.0040	U	ug/L	P370771	

Ref. Method and Comment:
EPA 8321B: J - second source check standards for some analytes were not available for analysis.
EPA 8321B: MDL for some parameters elevated due to matrix interference.

Sample Location: Weekly Bayou Creek @ County Rd 293 **Collection Date/Time: 09/12/2019 11:20**

Field ID: G4NW0482 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119127	EPA 180.1 Rev. 2.0	Turbidity	33	A	NTU	P370652	
	EPA 300.0	Bromide	35		mg Br/L	P371116	
	EPA 300.0 Rev. 2.1	Chloride	9.5E+03		mg Cl/L	P370975	
		Sulfate	1.3E+03		mg SO4/L	P370978	
	SM 2120 B	Color (true)	26	A	PCU	P370656	
	SM 2320 B-97	Total Alkalinity	81		mg CaCO3/L	P371103	
	SM 2540 C-97	TDS	1.62E+04		mg/L	P371185	
	SM 2540 D-97	TSS	30		mg/L	P371187	
	SM 4500 F-C-97	Fluoride	0.60		mg F/L	P371107	
2119129	EPA 350.1 Rev. 2.0	Ammonia-N	0.045		mg N/L	P370846	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P371441	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P370778	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P370786	
	SM 5310 B-00	Organic Carbon	6.9		mg C/L	P371023	
2119131	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P370638	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Bridge Creek (Tidal Portion) **Collection Date/Time: 09/12/2019 12:15**

Field ID: G5NW0129 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119124	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P370652	
	EPA 300.0	Bromide	21		mg Br/L	P371116	
	SM 2320 B-97	Total Alkalinity	50		mg CaCO3/L	P371102	
	SM 2540 D-97	TSS	5	I	mg/L	P371187	
	SM 4500 F-C-97	Fluoride	0.36		mg F/L	P371519	
2119125	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P370846	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P371441	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P370778	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P370786	
	SM 5310 B-00	Organic Carbon	7.1		mg C/L	P371023	
2119126	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P370638	
2119141	EPA 8321B	Aldicarb	0.020	U	ug/L	P370852	
		Aldicarb Sulfone	0.0020	U	ug/L	P370852	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P370852	
		Carbaryl	0.0020	U	ug/L	P370852	
		Carbofuran	0.0020	U	ug/L	P370852	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P370852	
		Methiocarb	0.0020	U	ug/L	P370852	
		Methomyl	0.0020	U	ug/L	P370852	
		Oxamyl	0.0020	U	ug/L	P370852	
		Propoxur	0.0020	U	ug/L	P370852	
2119142		2,4-D	0.0020	U	ug/L	P370771	
		Acesulfame K**	0.10	UJ	ug/L	P370674	SUR
		AMPA**	1.0	U	ug/L	P370674	
		Sucralose**	0.65		ug/L	P370674	
		Acetaminophen**	0.0080	U	ug/L	P370771	
		Acetamiprid**	0.0020	U	ug/L	P370771	
		Endothall**	0.25	UJ	ug/L	P370674	SUR
		Glufosinate**	1.0	U	ug/L	P370674	
		Glyphosate**	1.0	U	ug/L	P370674	
		Afidopyropen**	0.0020	UJ	ug/L	P370771	
		Bentazon	8.0E-04	U	ug/L	P370771	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P370771	
		Carbamazepine**	0.0012	I	ug/L	P370771	
		Clothianidin**	0.0020	U	ug/L	P370771	
		Dinotefuran**	0.0020	U	ug/L	P370771	
		Diuron	0.0020	U	ug/L	P370771	
		Fenuron	0.016	U	ug/L	P370771	
		Fluridone**	8.0E-04	U	ug/L	P370771	
		Imazapyr**	0.0053	I	ug/L	P370771	
		Hydrocodone**	0.0020	U	ug/L	P370771	
		Ibuprofen**	0.020	U	ug/L	P370771	
		Imidacloprid	0.0038	I	ug/L	P370771	

Field ID: G5NW0129 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119142	EPA 8321B	Linuron	0.0040	U	ug/L	P370771	
		Mandestrobin**	0.0020	UJ	ug/L	P370771	
		MCPP	0.0020	U	ug/L	P370771	
		Naproxen**	0.0080	U	ug/L	P370771	
		Primidone**	0.0040	U	ug/L	P370771	
		Pyraclostrobin**	0.0020	U	ug/L	P370771	
		Thiamethoxam**	0.0020	U	ug/L	P370771	
		Tolfenpyrad**	0.0020	U	ug/L	P370771	
		Triclopyr**	0.0040	U	ug/L	P370771	
2119145	EPA 8270E	Aldrin	4.8	UJ	ng/L	P370757	LCS, RPD
		Alpha-BHC	2.4	U	ng/L	P370757	
		Alpha-Chlordane	1.2	U	ng/L	P370757	
		Beta-BHC	12	U	ng/L	P370757	
		Bifenthrin**	4.8	UJ	ng/L	P370757	RPD
		Delta-BHC	9.6	U	ng/L	P370757	
		Gamma-BHC	9.6	U	ng/L	P370757	
		Carbophenothion	12	U	ng/L	P370757	
		Chlorothalonil	4.3	IJ	ng/L	P370757	CCV
		Cis-Nonachlor**	1.2	U	ng/L	P370757	
		Cypermethrin	24	UJ	ng/L	P370757	RPD
		DDD-p,p'	7.2	U	ng/L	P370757	
		DDE-p,p'	7.2	U	ng/L	P370757	
		DDT-p,p'	8.4	UJ	ng/L	P370757	RPD
		Dicofol	36	U	ng/L	P370757	
		Dieldrin	4.8	U	ng/L	P370757	
		Endosulfan I	4.8	U	ng/L	P370757	
		Endosulfan II	4.8	U	ng/L	P370757	
		Endosulfan Sulfate	2.4	UJ	ng/L	P370757	LCS, MS
		Endrin	2.4	U	ng/L	P370757	
		Endrin Aldehyde	2.4	U	ng/L	P370757	
		Endrin Ketone	2.4	U	ng/L	P370757	
		Ethalfluralin**	3.6	U	ng/L	P370757	
		Gamma-Chlordane	1.2	U	ng/L	P370757	
		Heptachlor	1.8	U	ng/L	P370757	
		Heptachlor Epoxide	2.4	U	ng/L	P370757	
		Hexachlorobenzene	2.4	U	ng/L	P370757	
		Methoxychlor	4.8	UJ	ng/L	P370757	RPD
		Mirex	2.4	UJ	ng/L	P370757	LCS
		Permethrin	12	UJ	ng/L	P370757	RPD
		Trans-Nonachlor**	1.2	U	ng/L	P370757	
		Trifluralin	3.0	U	ng/L	P370757	
	EPA 8276	Chlordane	6.0	U	ng/L	P370757	
		Toxaphene	36	U	ng/L	P370757	
2119146	EPA 8270E	Acetochlor	0.26	U	ng/L	P370888	
		Alachlor	0.26	U	ng/L	P370888	

Field ID: G5NW0129 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119146	EPA 8270E	Ametryn	0.63	U	ng/L	P370888	
		Atrazine	15		ng/L	P370888	
		Atrazine Desethyl	4.6	I	ng/L	P370888	
		Azinphos Methyl	5.3	U	ng/L	P370888	
		Bromacil	0.53	U	ng/L	P370888	
		Butylate	0.42	U	ng/L	P370888	
		Chlorpyrifos Ethyl	0.26	U	ng/L	P370888	
		Chlorpyrifos Methyl	0.11	U	ng/L	P370888	
		Cyanazine	3.4	U	ng/L	P370888	
		Demeton	7.4	U	ng/L	P370888	
		Diazinon	0.13	U	ng/L	P370888	
		Dimethenamid**	0.11	U	ng/L	P370888	
		Disulfoton	0.53	U	ng/L	P370888	
		Dithiopyr**	0.11	U	ng/L	P370888	
		EPTC	1.3	U	ng/L	P370888	
		Ethion	0.16	U	ng/L	P370888	
		Ethoprop	0.11	U	ng/L	P370888	
		Fenamiphos	0.53	U	ng/L	P370888	
		Fipronil	0.26	U	ng/L	P370888	
		Fipronil Desulfinyl**	0.13	U	ng/L	P370888	
		Fipronil Sulfide	0.16	U	ng/L	P370888	
		Fipronil Sulfone	0.22	I	ng/L	P370888	
		Fonofos	0.21	U	ng/L	P370888	
		Hexazinone	0.53	U	ng/L	P370888	
		Malathion	0.37	U	ng/L	P370888	
		Metalaxyl	0.32	U	ng/L	P370888	
		Metolachlor	0.53	U	ng/L	P370888	
		Metribuzin	0.79	U	ng/L	P370888	
		Mevinphos	0.53	U	ng/L	P370888	
		Molinate	0.32	U	ng/L	P370888	
		Norflurazon	0.53	U	ng/L	P370888	
		Oxadiazon**	0.11	U	ng/L	P370888	
		Parathion Ethyl	0.26	U	ng/L	P370888	
		Parathion Methyl	0.58	U	ng/L	P370888	
		Pendimethalin	1.1	U	ng/L	P370888	
		Phorate	0.26	U	ng/L	P370888	
		Prodiamine**	0.18	U	ng/L	P370888	
		Prometon	0.95	U	ng/L	P370888	
		Prometryn	0.21	U	ng/L	P370888	
		Simazine	1.4	I	ng/L	P370888	
		Tebuconazole**	0.88	I	ng/L	P370888	
		Terbufos	0.11	U	ng/L	P370888	
		Terbuthylazine	0.45	U	ng/L	P370888	
2119149	EPA 200.7 Rev. 4.4	Iron	180	I	ug/L	P370727	
		Manganese	43		ug/L	P370727	

Field ID: G5NW0129 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119149	EPA 200.7 Rev. 4.4	Zinc	15	U	ug/L	P370727	
	EPA 200.8 Rev. 5.4	Aluminum	138		ug/L	P370727	
		Antimony	0.20	U	ug/L	P370727	
		Arsenic	1.26		ug/L	P370727	
		Cadmium	0.080	U	ug/L	P370727	
		Chromium	4.0	U	ug/L	P370727	
		Copper	1.6	U	ug/L	P370727	
		Lead	0.80	U	ug/L	P370727	
		Nickel	2.0	U	ug/L	P370727	
		Selenium	0.80	U	ug/L	P370727	
		Silver	0.040	U	ug/L	P370727	
		Thallium	0.40	U	ug/L	P370727	

Ref. Method and Comment:
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: J - second source check standards for some analytes were not available for analysis.
EPA 8321B: Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate. MDL for some parameters elevated due to matrix interference.
EPA 8270E: Refer to the narrative for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked.

Sample Location: Perdido Bay (lower segment) off Du Pont Point Collection Date/Time: 09/12/2019 12:55

Field ID: G5NW0130 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2119128	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P370652	
	EPA 300.0	Bromide	31		mg Br/L	P371116	
	EPA 300.0 Rev. 2.1	Chloride	8.6E+03		mg Cl/L	P370975	
		Sulfate	1.2E+03		mg SO4/L	P370978	
	SM 2120 B	Color (true)	15	A	PCU	P370655	
	SM 2320 B-97	Total Alkalinity	68		mg CaCO3/L	P371103	
	SM 2540 C-97	TDS	1.41E+04		mg/L	P371185	
	SM 2540 D-97	TSS	3	U	mg/L	P371187	
	SM 4500 F-C-97	Fluoride	0.55		mg F/L	P371107	
2119130	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P370846	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.43		mg N/L	P371441	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P370778	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P370786	
	SM 5310 B-00	Organic Carbon	5.6		mg C/L	P371023	
2119132	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P370638	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370652

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P370727

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370727

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
Batch ID: P371116

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370975

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370978

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370846

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371441

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370778

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370786

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370638

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

Reference Method: EPA 8270E
Batch ID: P370757

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Bifenthrin	4.0	U	ng/L
Carbophenothion	10	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	6.0	U	ng/L
DDE-p,p'	6.0	U	ng/L
DDT-p,p'	7.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Ethalfluralin	3.0	U	ng/L
Gamma-BHC	8.0	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P370757

Component	Result	Code	Units
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: P370888

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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P370888

Component	Result	Code	Units
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P370757

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

Reference Method: EPA 8321B
Batch ID: P370674

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

Reference Method: EPA 8321B
Batch ID: P370771

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P370852

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

Reference Method: SM 2120 B
Batch ID: P370655

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P370656

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371102

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

Reference Method: SM 2320 B-97
Batch ID: P371103

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

Reference Method: SM 2540 C-97
Batch ID: P371185

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P371187

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371107

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371023

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: P370727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	101		P	85 - 115
Manganese	100		P	85 - 115
Zinc	99.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	105		P	85 - 115
Antimony	98.0		P	85 - 115
Arsenic	101		P	85 - 115
Cadmium	97.2		P	85 - 115
Chromium	91.3		P	85 - 115
Copper	98.6		P	85 - 115
Lead	98.4		P	85 - 115
Nickel	98.1		P	85 - 115
Selenium	101		P	85 - 115
Silver	98.6		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P371116

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Bromide	98.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370975

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370978

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370846

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.9		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371441

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370778

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370786

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370638

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

Reference Method: EPA 8270E
Batch ID: P370757

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	17.4	32.2	F/P	20 - 93.0
Alpha-BHC	67.2	89.7	P/P	55 - 133
Alpha-Chlordane	70.5	91.0	P/P	58 - 112
Beta-BHC	92.4	124	P/P	54 - 168
Bifenthrin	53.6	74.3	P/P	30 - 134
Carbophenothion	57.8	67.4	P/P	26 - 147
Chlorothalonil	52.7	68.6	P/P	20 - 155
Cis-Nonachlor	69.4	91.4	P/P	54 - 115
Cypermethrin	43.7	66.5	P/P	40 - 137
DDD-p,p'	80.1	105	P/P	65 - 129
DDE-p,p'	64.1	86.3	P/P	57 - 116
DDT-p,p'	64.0	90.6	P/P	53 - 133
Delta-BHC	96.9	124	P/P	59 - 178
Dicofol	75.3	87.9	P/P	24 - 138
Dieldrin	84.8	111	P/P	60 - 120
Endosulfan I	82.8	107	P/P	64 - 118
Endosulfan II	92.4	113	P/P	58 - 142
Endosulfan Sulfate	105	132	P/F	60 - 127
Endrin	89.2	107	P/P	59 - 122
Endrin Aldehyde	86.8	112	P/P	49 - 132
Endrin Ketone	92.6	117	P/P	64 - 121
Ethalfluralin	74.5	95.7	P/P	60 - 126
Gamma-BHC	88.1	111	P/P	57 - 154
Gamma-Chlordane	60.3	79.4	P/P	56 - 110
Heptachlor	58.1	74.3	P/P	46 - 96.0
Heptachlor Epoxide	77.3	97.8	P/P	61 - 112
Hexachlorobenzene	65.7	85.3	P/P	44 - 98.0
Methoxychlor	64.5	88.6	P/P	63 - 134
Mirex	39.7	52.2	F/P	45 - 100
Permethrin	58.4	79.0	P/P	53 - 115
Trans-Nonachlor	60.9	78.9	P/P	47 - 110
Trifluralin	73.1	94.3	P/P	39 - 142

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P370888

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	97.8	105	P/P	69 - 122
Alachlor	97.0	103	P/P	71 - 120
Ametryn	99.1	102	P/P	47 - 138
Atrazine	102	101	P/P	74 - 124
Atrazine Desethyl	67.4	74.1	P/P	38 - 138
Azinphos Methyl	98.9	100	P/P	69 - 154
Bromacil	92.4	86.4	P/P	39 - 121
Butylate	57.2	60.2	P/P	27 - 87.0
Chlorpyrifos Ethyl	92.2	95.5	P/P	69 - 118
Chlorpyrifos Methyl	75.0	79.1	P/P	70 - 120
Cyanazine	72.6	91.9	P/P	20 - 250
Demeton	64.9	62.5	P/P	39 - 118
Diazinon	90.5	97.8	P/P	68 - 127
Dimethenamid	101	105	P/P	66 - 125
Disulfoton	68.0	68.3	P/P	52 - 126
Dithiopyr	94.7	100	P/P	67 - 127
EPTC	63.7	66.4	P/P	24 - 88.0
Ethion	96.9	94.9	P/P	51 - 132
Ethoprop	82.9	93.1	P/P	58 - 117
Fenamiphos	96.1	83.5	P/P	38 - 139
Fipronil	111	107	P/P	61 - 124
Fipronil Desulfinyl	97.0	96.5	P/P	47 - 120
Fipronil Sulfide	91.5	85.9	P/P	56 - 119
Fipronil Sulfone	97.6	95.6	P/P	50 - 117
Fonofos	65.9	70.2	P/P	60 - 121
Hexazinone	111	119	P/P	55 - 137
Malathion	98.1	100	P/P	66 - 126
Metalaxyl	78.6	83.2	P/P	33 - 140
Metolachlor	99.9	102	P/P	69 - 119
Metribuzin	77.3	85.5	P/P	31 - 238
Mevinphos	80.6	90.1	P/P	42 - 113
Molinate	69.7	77.8	P/P	32 - 96.0
Norflurazon	110	108	P/P	54 - 123
Oxadiazon	98.8	96.6	P/P	63 - 128
Parathion Ethyl	85.5	88.3	P/P	72 - 111
Parathion Methyl	81.3	84.6	P/P	74 - 126
Pendimethalin	84.8	84.9	P/P	61 - 131
Phorate	74.4	75.3	P/P	51 - 115
Prodiamine	104	93.4	P/P	38 - 144
Prometon	100	98.0	P/P	54 - 119
Prometryn	96.1	98.2	P/P	63 - 120
Simazine	100	96.5	P/P	75 - 126
Tebuconazole	97.4	97.5	P/P	20 - 119
Terbufos	69.4	73.9	P/P	64 - 116
Terbuthylazine	97.5	98.5	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P370757

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	75.5	74.8	P/P	43 - 128
Toxaphene	55.4	66.1	P/P	38 - 140

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P370674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	63.8		P	40 - 150
AMPA	107		P	40 - 150
Endothall	107		P	40 - 150
Glufosinate	132		P	40 - 150
Glyphosate	132		P	40 - 140
Sucralose	65.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P370771

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	148		P	40 - 160
Acetaminophen	76.0		P	30 - 160
Acetamiprid	95.9		P	40 - 160
Afidopyropen	101		P	40 - 160
Bentazon	125		P	30 - 160
Benzovindiflupyr	94.1		P	40 - 160
Carbamazepine	103		P	40 - 160
Clothianidin	90.9		P	40 - 160
Dinotefuran	88.3		P	40 - 160
Diuron	107		P	40 - 160
Fenuron	101		P	40 - 160
Fluridone	97.3		P	40 - 160
Hydrocodone	93.1		P	40 - 160
Ibuprofen	96.4		P	30 - 160
Imazapyr	93.2		P	40 - 160
Imidacloprid	99.5		P	40 - 160
Linuron	84.6		P	40 - 160
Mandestrobin	92.2		P	40 - 160
MCPP	146		P	40 - 160
Naproxen	96.9		P	40 - 160
Primidone	93.5		P	40 - 160
Pyraclostrobin	91.9		P	30 - 160
Thiamethoxam	90.7		P	40 - 160
Tolfenpyrad	73.2		P	40 - 160
Triclopyr	120		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P370852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	90.9		P	40 - 160
Aldicarb	82.6		P	30 - 160
Aldicarb Sulfone	94.5		P	40 - 160
Aldicarb Sulfoxide	83.6		P	40 - 160
Carbaryl	78.5		P	40 - 160
Carbofuran	85.4		P	40 - 160
Methiocarb	71.9		P	40 - 160
Methomyl	83.7		P	40 - 160
Oxamyl	93.2		P	40 - 160
Propoxur	86.7		P	40 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P370655

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P370656

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

Reference Method: SM 2320 B-97
Batch ID: P371102

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

Reference Method: SM 2320 B-97
Batch ID: P371103

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

Reference Method: SM 4500 F-C-97
Batch ID: P371107

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.6		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.1		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P370727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117903	Iron	95.8	95.7	P/P	80 - 120
2117903	Manganese	93.9	94.6	P/P	80 - 120
2117903	Zinc	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117903	Aluminum	112	113	P/P	70 - 130
2117903	Antimony	101	103	P/P	70 - 130
2117903	Arsenic	108	109	P/P	70 - 130
2117903	Cadmium	99.1	98.4	P/P	70 - 130
2117903	Chromium	93.7	91.4	P/P	70 - 130
2117903	Copper	97.4	98.9	P/P	70 - 130
2117903	Lead	103	102	P/P	70 - 130
2117903	Nickel	95.0	96.3	P/P	70 - 130
2117903	Selenium	102	104	P/P	70 - 130
2117903	Silver	94.3	94.9	P/P	70 - 130
2117903	Thallium	105	106	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P371116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2120060	Bromide	95.7	96.1	P/P	90 - 110
2120064	Bromide	95.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370975

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119106	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119106	Sulfate	104		P	90 - 110
2119178	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370846

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118841	Ammonia-N	104	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118841	Kjeldahl Nitrogen	98.7	99.8	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118842	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370786

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118842	Total-P	92.6	96.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119009	O-Phosphate-P	97.6	98.3	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P370757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118310	Aldrin	44.4	39.6	P/P	25 - 92.0
2118310	Alpha-BHC	101	101	P/P	48 - 150
2118310	Alpha-Chlordane	73.9	72.3	P/P	50 - 115
2118310	Beta-BHC	105	110	P/P	39 - 184
2118310	Bifenthrin	93.5	90.8	P/P	46 - 116
2118310	Carbophenothion	94.0	98.2	P/P	27 - 180
2118310	Chlorothalonil	42.3	40.3	P/P	10 - 216
2118310	Cis-Nonachlor	77.1	76.4	P/P	55 - 112
2118310	Cypermethrin	101	105	P/P	40 - 153
2118310	DDD-p,p'	85.5	85.2	P/P	53 - 128
2118310	DDE-p,p'	73.8	71.5	P/P	48 - 116
2118310	DDT-p,p'	79.5	75.3	P/P	47 - 128
2118310	Delta-BHC	104	110	P/P	48 - 221
2118310	Dicofol	67.6	76.2	P/P	10 - 147
2118310	Dieldrin	86.7	95.5	P/P	48 - 128
2118310	Endosulfan I	85.8	89.7	P/P	58 - 126
2118310	Endosulfan II	99.4	102	P/P	50 - 150
2118310	Endosulfan Sulfate	120	140	P/F	56 - 130
2118310	Endrin	94.2	97.9	P/P	50 - 126
2118310	Endrin Aldehyde	51.8	50.7	P/P	12 - 145
2118310	Endrin Ketone	113	122	P/P	59 - 132
2118310	Ethalfluralin	77.0	75.9	P/P	65 - 122
2118310	Gamma-BHC	95.6	87.1	P/P	40 - 190
2118310	Gamma-Chlordane	67.0	64.9	P/P	50 - 112
2118310	Heptachlor	58.9	58.9	P/P	41 - 98.0
2118310	Heptachlor Epoxide	80.8	83.3	P/P	55 - 117
2118310	Hexachlorobenzene	58.6	58.4	P/P	47 - 91.0
2118310	Methoxychlor	66.6	75.8	P/P	55 - 133
2118310	Mirex	55.6	48.1	P/P	44 - 101
2118310	Permethrin	70.5	71.8	P/P	52 - 124
2118310	Trans-Nonachlor	61.4	61.2	P/P	53 - 99.0
2118310	Trifluralin	74.2	72.4	P/P	10 - 201

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P370888

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119146	Acetochlor	108	113	P/P	63 - 129
2119146	Alachlor	101	108	P/P	65 - 127
2119146	Ametryn	139	144	P/P	40 - 164
2119146	Atrazine Desethyl	116	112	P/P	14 - 157
2119146	Azinphos Methyl	99.0	126	P/P	49 - 180
2119146	Bromacil	92.9	113	P/P	48 - 130
2119146	Butylate	61.9	65.3	P/P	10 - 94.0
2119146	Chlorpyrifos Ethyl	88.1	87.4	P/P	58 - 123
2119146	Chlorpyrifos Methyl	99.7	100	P/P	58 - 125
2119146	Cyanazine	128	139	P/P	24 - 253
2119146	Demeton	97.5	102	P/P	25 - 149
2119146	Diazinon	115	123	P/P	59 - 144
2119146	Dimethenamid	106	110	P/P	46 - 139
2119146	Disulfoton	103	101	P/P	54 - 132
2119146	Dithiopyr	105	108	P/P	64 - 130
2119146	EPTC	66.1	70.9	P/P	10 - 92.0
2119146	Ethion	60.3	55.3	P/P	30 - 148
2119146	Ethoprop	104	107	P/P	50 - 130
2119146	Fenamiphos	103	95.9	P/P	49 - 142
2119146	Fipronil	113	114	P/P	46 - 140
2119146	Fipronil Desulfinyl	97.1	99.7	P/P	30 - 121
2119146	Fipronil Sulfide	108	92.6	P/P	31 - 136
2119146	Fipronil Sulfone	81.8	84.0	P/P	16 - 136
2119146	Fonofos	104	109	P/P	55 - 129
2119146	Hexazinone	126	123	P/P	56 - 141
2119146	Malathion	102	95.4	P/P	56 - 135
2119146	Metalaxyl	98.7	102	P/P	54 - 135
2119146	Metolachlor	100	104	P/P	51 - 140
2119146	Metribuzin	206	203	P/P	45 - 254
2119146	Mevinphos	99.5	105	P/P	33 - 131
2119146	Molinate	86.6	95.0	P/P	14 - 98.0
2119146	Norflurazon	103	105	P/P	34 - 136
2119146	Oxadiazon	96.1	97.0	P/P	67 - 116
2119146	Parathion Ethyl	97.5	101	P/P	66 - 118
2119146	Parathion Methyl	109	114	P/P	64 - 136
2119146	Pendimethalin	98.3	102	P/P	59 - 144
2119146	Phorate	108	114	P/P	42 - 130
2119146	Prodiamine	53.1	53.2	P/P	42 - 148
2119146	Prometon	108	108	P/P	59 - 134
2119146	Prometryn	111	119	P/P	54 - 135
2119146	Simazine	111	109	P/P	53 - 156
2119146	Tebuconazole	57.4	50.1	P/P	10 - 131
2119146	Terbufos	114	118	P/P	57 - 131
2119146	Terbuthylazine	101	102	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P370757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119145	Chlordane	68.1	67.5	P/P	34 - 136
2119145	Toxaphene	61.9	66.1	P/P	22 - 152

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P370674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119049	Acesulfame K	55.2	56.2	P/P	40 - 150
2119049	AMPA	49.9	46.3	P/P	40 - 150
2119049	Endothall	83.8	84.7	P/P	40 - 150
2119049	Glufosinate	94.5	97.7	P/P	40 - 150
2119049	Glyphosate	113	113	P/P	40 - 140
2119049	Sucralose	53.9	52.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P370771

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119072	2,4-D	141	141	P/P	40 - 160
2119072	Acetaminophen	88.5	86.5	P/P	30 - 160
2119072	Acetamiprid	110	100	P/P	40 - 160
2119072	Afidopyropen	109	93.4	P/P	40 - 160
2119072	Bentazon	109	101	P/P	30 - 160
2119072	Benzovindiflupyr	96.0	93.5	P/P	40 - 160
2119072	Carbamazepine	108	102	P/P	40 - 160
2119072	Clothianidin	102	97.1	P/P	40 - 160
2119072	Dinotefuran	103	101	P/P	40 - 160
2119072	Diuron	106	103	P/P	40 - 160
2119072	Fenuron	100	98.4	P/P	40 - 160
2119072	Fluridone	94.4	92.7	P/P	40 - 160
2119072	Hydrocodone	103	95.6	P/P	40 - 160
2119072	Ibuprofen	92.9	93.2	P/P	30 - 160
2119072	Imazapyr	112	103	P/P	40 - 160
2119072	Imidacloprid	124	136	P/P	40 - 160
2119072	Linuron	82.3	81.0	P/P	40 - 160
2119072	Mandestrobin	95.2	95.3	P/P	40 - 160
2119072	MCPP	151	147	P/P	40 - 160
2119072	Naproxen	97.8	95.8	P/P	40 - 160
2119072	Primidone	86.4	88.8	P/P	40 - 160
2119072	Pyraclostrobin	91.3	92.0	P/P	30 - 160
2119072	Thiamethoxam	118	115	P/P	40 - 160
2119072	Tolfenpyrad	71.1	73.6	P/P	40 - 160
2119072	Triclopyr	111	122	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P370852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119069	3-Hydroxycarbofuran	94.4	95.0	P/P	40 - 160
2119069	Aldicarb	96.9	84.5	P/P	30 - 160
2119069	Aldicarb Sulfone	102	98.4	P/P	40 - 160
2119069	Aldicarb Sulfoxide	45.8	47.6	P/P	40 - 160
2119069	Carbaryl	77.9	76.0	P/P	40 - 160
2119069	Carbofuran	83.3	81.4	P/P	40 - 160
2119069	Methiocarb	72.6	73.8	P/P	40 - 160
2119069	Methomyl	85.5	87.6	P/P	40 - 160
2119069	Oxamyl	98.5	93.0	P/P	40 - 160
2119069	Propoxur	86.8	83.5	P/P	40 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P371107

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2117596	Fluoride	93.6	96.2	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2119124	Fluoride	95.1	95.1	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2118626	Organic Carbon	94.4	96.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P370652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119127	Turbidity	4.27	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P370727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117903	Iron	0.0664	Spike	P	0 - 20
2117903	Manganese	0.602	Spike	P	0 - 20
2117903	Zinc	0.355	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P370727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117903	Aluminum	0.634	Spike	P	0 - 20
2117903	Antimony	1.68	Spike	P	0 - 20
2117903	Arsenic	1.20	Spike	P	0 - 20
2117903	Cadmium	0.716	Spike	P	0 - 20
2117903	Chromium	2.50	Spike	P	0 - 20
2117903	Copper	1.42	Spike	P	0 - 20
2117903	Lead	1.16	Spike	P	0 - 20
2117903	Nickel	1.36	Spike	P	0 - 20
2117903	Selenium	1.65	Spike	P	0 - 20
2117903	Silver	0.607	Spike	P	0 - 20
2117903	Thallium	1.26	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P371116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2120060	Bromide	0.450	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370975

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119106	Chloride	0.168	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P370978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119106	Sulfate	0.00305	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P370846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118841	Ammonia-N	0.358	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118841	Kjeldahl Nitrogen	0.924	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P370778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118842	NO2NO3-N	1.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P370786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118842	Total-P	3.83	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P370638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119009	O-Phosphate-P	0.640	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P370757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118310	Aldrin	11.3	Spike	P	0 - 30
2118310	Alpha-BHC	0.315	Spike	P	0 - 30
2118310	Alpha-Chlordane	2.24	Spike	P	0 - 30
2118310	Beta-BHC	5.39	Spike	P	0 - 30
2118310	Bifenthrin	2.95	Spike	P	0 - 30
2118310	Carbophenothion	4.39	Spike	P	0 - 30
2118310	Chlorothalonil	4.69	Spike	P	0 - 30
2118310	Cis-Nonachlor	0.871	Spike	P	0 - 30
2118310	Cypermethrin	3.85	Spike	P	0 - 30
2118310	DDD-p,p'	0.372	Spike	P	0 - 30
2118310	DDE-p,p'	3.15	Spike	P	0 - 30
2118310	DDT-p,p'	5.40	Spike	P	0 - 30
2118310	Delta-BHC	5.45	Spike	P	0 - 30
2118310	Dicofol	12.0	Spike	P	0 - 30
2118310	Dieldrin	9.58	Spike	P	0 - 30
2118310	Endosulfan I	4.47	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118310	Endosulfan II	2.62	Spike	P	0 - 30
2118310	Endosulfan Sulfate	14.8	Spike	P	0 - 30
2118310	Endrin	3.79	Spike	P	0 - 30
2118310	Endrin Aldehyde	2.08	Spike	P	0 - 30
2118310	Endrin Ketone	7.57	Spike	P	0 - 30
2118310	Ethalfluralin	1.54	Spike	P	0 - 30
2118310	Gamma-BHC	9.33	Spike	P	0 - 30
2118310	Gamma-Chlordane	3.09	Spike	P	0 - 30
2118310	Heptachlor	0.0682	Spike	P	0 - 30
2118310	Heptachlor Epoxide	3.14	Spike	P	0 - 30
2118310	Hexachlorobenzene	0.320	Spike	P	0 - 30
2118310	Methoxychlor	12.9	Spike	P	0 - 30
2118310	Mirex	14.5	Spike	P	0 - 30
2118310	Permethrin	1.78	Spike	P	0 - 30
2118310	Trans-Nonachlor	0.183	Spike	P	0 - 30
2118310	Trifluralin	2.40	Spike	P	0 - 30
LFB	Aldrin	59.9	LCS	F	0 - 30
LFB	Alpha-BHC	28.8	LCS	P	0 - 30
LFB	Alpha-Chlordane	25.3	LCS	P	0 - 30
LFB	Beta-BHC	29.2	LCS	P	0 - 30
LFB	Bifenthrin	32.5	LCS	F	0 - 30
LFB	Carbophenothion	15.3	LCS	P	0 - 30
LFB	Chlorothalonil	26.3	LCS	P	0 - 30
LFB	Cis-Nonachlor	27.3	LCS	P	0 - 30
LFB	Cypermethrin	41.5	LCS	F	0 - 30
LFB	DDD-p,p'	26.4	LCS	P	0 - 30
LFB	DDE-p,p'	29.5	LCS	P	0 - 30
LFB	DDT-p,p'	34.4	LCS	F	0 - 30
LFB	Delta-BHC	24.5	LCS	P	0 - 30
LFB	Dicofol	15.4	LCS	P	0 - 30
LFB	Dieldrin	26.7	LCS	P	0 - 30
LFB	Endosulfan I	25.6	LCS	P	0 - 30
LFB	Endosulfan II	19.8	LCS	P	0 - 30
LFB	Endosulfan Sulfate	23.2	LCS	P	0 - 30
LFB	Endrin	18.0	LCS	P	0 - 30
LFB	Endrin Aldehyde	25.7	LCS	P	0 - 30
LFB	Endrin Ketone	23.1	LCS	P	0 - 30
LFB	Ethalfluralin	24.8	LCS	P	0 - 30
LFB	Gamma-BHC	23.0	LCS	P	0 - 30
LFB	Gamma-Chlordane	27.4	LCS	P	0 - 30
LFB	Heptachlor	24.5	LCS	P	0 - 30
LFB	Heptachlor Epoxide	23.4	LCS	P	0 - 30
LFB	Hexachlorobenzene	26.0	LCS	P	0 - 30
LFB	Methoxychlor	31.4	LCS	F	0 - 30
LFB	Mirex	27.3	LCS	P	0 - 30
LFB	Permethrin	30.0	LCS	F	0 - 30
LFB	Trans-Nonachlor	25.7	LCS	P	0 - 30
LFB	Trifluralin	25.4	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119146	Acetochlor	4.58	Spike	P	0 - 30
2119146	Alachlor	6.72	Spike	P	0 - 30
2119146	Ametryn	3.53	Spike	P	0 - 30
2119146	Atrazine	9.33	Spike	P	0 - 30
2119146	Atrazine Desethyl	2.48	Spike	P	0 - 30
2119146	Azinphos Methyl	23.7	Spike	P	0 - 30
2119146	Bromacil	19.1	Spike	P	0 - 30
2119146	Butylate	5.29	Spike	P	0 - 30
2119146	Chlorpyrifos Ethyl	0.761	Spike	P	0 - 30
2119146	Chlorpyrifos Methyl	0.506	Spike	P	0 - 30
2119146	Cyanazine	8.33	Spike	P	0 - 30
2119146	Demeton	4.98	Spike	P	0 - 30
2119146	Diazinon	6.68	Spike	P	0 - 30
2119146	Dimethenamid	3.88	Spike	P	0 - 30
2119146	Disulfoton	1.58	Spike	P	0 - 30
2119146	Dithiopyr	2.51	Spike	P	0 - 30
2119146	EPTC	6.98	Spike	P	0 - 30
2119146	Ethion	8.68	Spike	P	0 - 30
2119146	Ethoprop	2.49	Spike	P	0 - 30
2119146	Fenamiphos	6.83	Spike	P	0 - 30
2119146	Fipronil	0.693	Spike	P	0 - 30
2119146	Fipronil Desulfinyl	2.66	Spike	P	0 - 30
2119146	Fipronil Sulfide	15.2	Spike	P	0 - 30
2119146	Fipronil Sulfone	2.36	Spike	P	0 - 30
2119146	Fonofos	5.10	Spike	P	0 - 30
2119146	Hexazinone	2.19	Spike	P	0 - 30
2119146	Malathion	6.94	Spike	P	0 - 30
2119146	Metalaxyl	3.26	Spike	P	0 - 30
2119146	Metolachlor	3.92	Spike	P	0 - 30
2119146	Metribuzin	1.27	Spike	P	0 - 30
2119146	Mevinphos	5.30	Spike	P	0 - 30
2119146	Molinate	9.31	Spike	P	0 - 30
2119146	Norflurazon	1.68	Spike	P	0 - 30
2119146	Oxadiazon	0.928	Spike	P	0 - 30
2119146	Parathion Ethyl	3.78	Spike	P	0 - 30
2119146	Parathion Methyl	4.15	Spike	P	0 - 30
2119146	Pendimethalin	4.03	Spike	P	0 - 30
2119146	Phorate	5.17	Spike	P	0 - 30
2119146	Prodiamine	0.241	Spike	P	0 - 30
2119146	Prometon	0.00866	Spike	P	0 - 30
2119146	Prometryn	7.14	Spike	P	0 - 30
2119146	Simazine	1.47	Spike	P	0 - 30
2119146	Tebuconazole	12.1	Spike	P	0 - 30
2119146	Terbufos	3.35	Spike	P	0 - 30
2119146	Terbuthylazine	1.00	Spike	P	0 - 30
LFB	Acetochlor	6.99	LCS	P	0 - 30
LFB	Alachlor	5.74	LCS	P	0 - 30
LFB	Ametryn	3.41	LCS	P	0 - 30
LFB	Atrazine	1.30	LCS	P	0 - 30
LFB	Atrazine Desethyl	9.49	LCS	P	0 - 30
LFB	Azinphos Methyl	1.57	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P370888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Bromacil	6.71	LCS	P	0 - 30
LFB	Butylate	5.08	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	3.46	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.34	LCS	P	0 - 30
LFB	Cyanazine	23.4	LCS	P	0 - 30
LFB	Demeton	3.80	LCS	P	0 - 30
LFB	Diazinon	7.79	LCS	P	0 - 30
LFB	Dimethenamid	3.54	LCS	P	0 - 30
LFB	Disulfoton	0.356	LCS	P	0 - 30
LFB	Dithiopyr	5.66	LCS	P	0 - 30
LFB	EPTC	4.23	LCS	P	0 - 30
LFB	Ethion	2.11	LCS	P	0 - 30
LFB	Ethoprop	11.6	LCS	P	0 - 30
LFB	Fenamiphos	14.0	LCS	P	0 - 30
LFB	Fipronil	2.98	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	0.565	LCS	P	0 - 30
LFB	Fipronil Sulfide	6.33	LCS	P	0 - 30
LFB	Fipronil Sulfone	2.05	LCS	P	0 - 30
LFB	Fonofos	6.33	LCS	P	0 - 30
LFB	Hexazinone	7.24	LCS	P	0 - 30
LFB	Malathion	2.06	LCS	P	0 - 30
LFB	Metalaxyl	5.65	LCS	P	0 - 30
LFB	Metolachlor	1.92	LCS	P	0 - 30
LFB	Metribuzin	10.1	LCS	P	0 - 30
LFB	Mevinphos	11.2	LCS	P	0 - 30
LFB	Molinate	11.1	LCS	P	0 - 30
LFB	Norflurazon	1.72	LCS	P	0 - 30
LFB	Oxadiazon	2.30	LCS	P	0 - 30
LFB	Parathion Ethyl	3.23	LCS	P	0 - 30
LFB	Parathion Methyl	3.97	LCS	P	0 - 30
LFB	Pendimethalin	0.115	LCS	P	0 - 30
LFB	Phorate	1.33	LCS	P	0 - 30
LFB	Prodiamine	10.9	LCS	P	0 - 30
LFB	Prometon	2.19	LCS	P	0 - 30
LFB	Prometryn	2.22	LCS	P	0 - 30
LFB	Simazine	3.89	LCS	P	0 - 30
LFB	Tebuconazole	0.184	LCS	P	0 - 30
LFB	Terbufos	6.27	LCS	P	0 - 30
LFB	Terbuthylazine	1.06	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P370757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119145	Chlordane	0.778	Spike	P	0 - 30
2119145	Toxaphene	6.54	Spike	P	0 - 30
LFB	Chlordane	0.904	LCS	P	0 - 30
LFB	Toxaphene	17.7	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P370674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119049	Acesulfame K	1.78	Spike	P	0 - 30
2119049	AMPA	5.11	Spike	P	0 - 30
2119049	Endothall	0.988	Spike	P	0 - 30
2119049	Glufosinate	3.34	Spike	P	0 - 30
2119049	Glyphosate	0.485	Spike	P	0 - 30
2119049	Sucralose	3.40	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P370771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119072	2,4-D	0.219	Spike	P	0 - 30
2119072	Acetaminophen	2.37	Spike	P	0 - 30
2119072	Acetamiprid	8.84	Spike	P	0 - 30
2119072	Afidopyropen	15.0	Spike	P	0 - 30
2119072	Bentazon	7.30	Spike	P	0 - 30
2119072	Benzovindiflupyr	2.61	Spike	P	0 - 30
2119072	Carbamazepine	5.56	Spike	P	0 - 30
2119072	Clothianidin	5.27	Spike	P	0 - 30
2119072	Dinotefuran	2.02	Spike	P	0 - 30
2119072	Diuron	2.37	Spike	P	0 - 30
2119072	Fenuron	1.65	Spike	P	0 - 30
2119072	Fluridone	1.79	Spike	P	0 - 30
2119072	Hydrocodone	7.85	Spike	P	0 - 30
2119072	Ibuprofen	0.280	Spike	P	0 - 30
2119072	Imazapyr	8.42	Spike	P	0 - 30
2119072	Imidacloprid	6.52	Spike	P	0 - 30
2119072	Linuron	1.66	Spike	P	0 - 30
2119072	Mandestrobin	0.115	Spike	P	0 - 30
2119072	MCPP	2.13	Spike	P	0 - 30
2119072	Naproxen	2.00	Spike	P	0 - 30
2119072	Primidone	2.79	Spike	P	0 - 30
2119072	Pyraclostrobin	0.692	Spike	P	0 - 30
2119072	Thiamethoxam	2.87	Spike	P	0 - 30
2119072	Tolfenpyrad	3.55	Spike	P	0 - 30
2119072	Triclopyr	9.27	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P370852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119069	3-Hydroxycarbofuran	0.708	Spike	P	0 - 30
2119069	Aldicarb	13.6	Spike	P	0 - 30
2119069	Aldicarb Sulfone	4.04	Spike	P	0 - 30
2119069	Aldicarb Sulfoxide	3.91	Spike	P	0 - 30
2119069	Carbaryl	2.47	Spike	P	0 - 30
2119069	Carbofuran	2.25	Spike	P	0 - 30
2119069	Methiocarb	1.58	Spike	P	0 - 30
2119069	Methomyl	2.47	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P370852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119069	Oxamyl	5.75	Spike	P	0 - 30
2119069	Propoxur	3.86	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P370655

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119128	Color (true)	6.60	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P370656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119127	Color (true)	2.33	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P371102

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118624	Total Alkalinity	0.706	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P371103

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117596	Total Alkalinity	0.228	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
Batch ID: P371185

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119106	TDS	6.22	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P371107

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2117596	Fluoride	1.95	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P371519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2119124	Fluoride	0.0	Spike	P	0 - 2.5

Quality Assurance Report
Precision

Reference Method: SM 5310 B-00
Batch ID: P371023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2118626	Organic Carbon	1.89	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: 2119141
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	80.0	P	30 - 160

Lab Sample ID: 2119142
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	138	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	88.8	P	30 - 160
EPA 8321B	Diuron-d6	82.5	P	30 - 160
EPA 8321B	Endothall-d6	373	F	30 - 160
EPA 8321B	Endothall-d6	373	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.9	P	30 - 160
EPA 8321B	Primidone-d5	91.0	P	30 - 160
EPA 8321B	Sucralose-d6	136	P	30 - 160
EPA 8321B	Sucralose-d6	136	P	30 - 160

Lab Sample ID: 2119143
Field Sample ID: G4NW0492

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	137	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.4	P	30 - 160
EPA 8321B	Diuron-d6	84.1	P	30 - 160
EPA 8321B	Endothall-d6	131	P	30 - 160
EPA 8321B	Endothall-d6	131	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	54.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.6	P	30 - 160
EPA 8321B	Primidone-d5	92.9	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160

Lab Sample ID: 2119144
Field Sample ID: G4NW0483

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	142	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.3	P	30 - 160
EPA 8321B	Diuron-d6	84.2	P	30 - 160
EPA 8321B	Endothall-d6	94.8	P	30 - 160
EPA 8321B	Endothall-d6	94.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	89.4	P	30 - 160
EPA 8321B	Primidone-d5	85.2	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 2119145
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	68.0	P	39 - 109
EPA 8270E	Tetrachloro-m-xylene	37.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	44.3	P	30 - 103
EPA 8276	PCNB	94.4	P	37 - 143

Lab Sample ID: 2119146
Field Sample ID: G5NW0129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Simazine-d10	129	P	68 - 130
EPA 8270E	Terbufos-d10	123	P	61 - 136

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A94198
Included Lab Sample IDs: 2119126, 2119131, 2119132

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	98.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A94201
Included Lab Sample IDs: 2119124, 2119127, 2119128

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	101	P/P	95 - 105

Reference Method: SM 2120 B
Run ID: A94204
Included Lab Sample IDs: 2119127, 2119128

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115
Color (true)	99.0	100	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A94262
Included Lab Sample IDs: 2119125, 2119129, 2119130

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

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A94268
Included Lab Sample IDs: 2119127, 2119128

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

Reference Method: EPA 8321B
Run ID: A94290
Included Lab Sample IDs: 2119142, 2119143, 2119144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	64.3	91.9	P/P	60 - 160
Acesulfame K	84.3	64.3	P/P	60 - 160
Endothall	139	141	P/P	60 - 160
Endothall	141	141	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A94295
Included Lab Sample IDs: 2119125, 2119129, 2119130

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A94300
Included Lab Sample IDs: 2119142, 2119143, 2119144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	77.1	133	P/P	60 - 160
Glufosinate	82.1	138	P/P	60 - 160
Glyphosate	86.9	158	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A94317
Included Lab Sample IDs: 2119125, 2119129, 2119130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A94322
Included Lab Sample IDs: 2119149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	98.6	96.8	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Zinc	101	99.2	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A94333
Included Lab Sample IDs: 2119142, 2119143, 2119144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	67.1	76.1	P/P	60 - 160

Reference Method: SM 5310 B-00
Run ID: A94349
Included Lab Sample IDs: 2119125, 2119129, 2119130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.1	103	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A94392
Included Lab Sample IDs: 2119124, 2119127, 2119128

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

Reference Method: SM 4500 F-C-97
Run ID: A94392
Included Lab Sample IDs: 2119127, 2119128

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	98.5	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0
Run ID: A94401
Included Lab Sample IDs: 2119124, 2119127, 2119128

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	103	105	P/P	90 - 110
Bromide	105	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94403
Included Lab Sample IDs: 2119149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	106	109	P/P	90 - 110
Antimony	97.4	97.5	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Copper	103	103	P/P	90 - 110
Lead	100	101	P/P	90 - 110
Nickel	101	100	P/P	90 - 110
Selenium	101	100	P/P	90 - 110
Silver	97.4	98.0	P/P	90 - 110
Thallium	95.1	95.8	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A94410
Included Lab Sample IDs: 2119142, 2119143, 2119144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.7	114	P/P	50 - 150
3-Hydroxycarbofuran	94.3	106	P/P	60 - 150
Acetaminophen	114	115	P/P	60 - 160
Acetamiprid	113	115	P/P	50 - 150
Afidopyropen	110	101	P/P	50 - 150
Aldicarb	91.2	106	P/P	60 - 150
Aldicarb Sulfone	90.4	106	P/P	50 - 150
Aldicarb Sulfoxide	107	105	P/P	50 - 150
Bentazon	112	109	P/P	50 - 160
Benzovindiflupyr	112	112	P/P	50 - 150
Carbamazepine	107	104	P/P	60 - 150
Carbaryl	107	99.6	P/P	60 - 150
Carbofuran	112	114	P/P	50 - 150
Clothianidin	105	102	P/P	60 - 150
Dinotefuran	109	103	P/P	50 - 150
Diuron	112	112	P/P	60 - 150
Fenuron	107	110	P/P	60 - 150
Fluridone	113	112	P/P	60 - 160
Hydrocodone	112	112	P/P	60 - 150
Ibuprofen	90.5	121	P/P	50 - 160
Imazapyr	97.7	106	P/P	50 - 150
Imidacloprid	98.6	96.0	P/P	60 - 150
Linuron	104	105	P/P	60 - 150
Mandestrobin	108	113	P/P	50 - 150
MCPP	96.7	104	P/P	50 - 150
Methiocarb	112	109	P/P	50 - 150
Methomyl	112	106	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A94410
Included Lab Sample IDs: 2119142, 2119143, 2119144

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naproxen	113	87.7	P/P	50 - 160
Oxamyl	106	105	P/P	50 - 150
Primidone	105	102	P/P	60 - 150
Propoxur	112	107	P/P	50 - 150
Pyraclostrobin	120	122	P/P	60 - 150
Thiamethoxam	104	98.6	P/P	50 - 150
Tolfenpyrad	121	127	P/P	60 - 150
Triclopyr	96.5	108	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A94440
Included Lab Sample IDs: 2119145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	92.4		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 8270E
Run ID: A94507
Included Lab Sample IDs: 2119145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	106		P	80 - 120
Alpha-BHC	113		P	80 - 120
Alpha-Chlordane	108		P	80 - 120
Beta-BHC	112		P	80 - 120
Bifenthrin	106		P	80 - 120
Carbophenothion	114		P	80 - 120
Chlorothalonil	121*		F	80 - 120
Cis-Nonachlor	107		P	80 - 120
Cypermethrin	115		P	80 - 120
DDD-p,p'	109		P	80 - 120
DDE-p,p'	109		P	80 - 120
DDT-p,p'	108		P	80 - 120
Delta-BHC	110		P	80 - 120
Dicofol	107		P	80 - 120
Dieldrin	108		P	80 - 120
Endosulfan I	108		P	80 - 120
Endosulfan II	106		P	80 - 120
Endosulfan Sulfate	110		P	80 - 120
Endrin	107		P	80 - 120
Endrin Aldehyde	102		P	80 - 120
Endrin Ketone	108		P	80 - 120
Ethalfluralin	113		P	80 - 120
Gamma-BHC	95.2		P	80 - 120
Gamma-Chlordane	107		P	80 - 120
Heptachlor	107		P	80 - 120
Heptachlor Epoxide	105		P	80 - 120
Hexachlorobenzene	118		P	80 - 120
Methoxychlor	108		P	80 - 120
Mirex	108		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A94507
Included Lab Sample IDs: 2119145

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Permethrin	101		P	80 - 120
Trans-Nonachlor	107		P	80 - 120
Trifluralin	113		P	80 - 120

Reference Method: EPA 8270E
Run ID: A94523
Included Lab Sample IDs: 2119146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	106		P	80 - 120
Ametryn	113		P	80 - 120
Atrazine	101		P	80 - 120
Atrazine Desethyl	95.5		P	80 - 120
Azinphos Methyl	94.7		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	92.6		P	80 - 120
Chlorpyrifos Ethyl	96.0		P	80 - 120
Chlorpyrifos Methyl	97.8		P	80 - 120
Cyanazine	85.7		P	80 - 120
Demeton	93.3		P	80 - 120
Diazinon	102		P	80 - 120
Dimethenamid	106		P	80 - 120
Disulfoton	96.3		P	80 - 120
Dithiopyr	105		P	80 - 120
EPTC	100		P	80 - 120
Ethion	94.1		P	80 - 120
Ethoprop	99.0		P	80 - 120
Fenamiphos	99.5		P	80 - 120
Fipronil	103		P	80 - 120
Fipronil Desulfinyl	107		P	80 - 120
Fipronil Sulfide	98.8		P	80 - 120
Fipronil Sulfone	98.5		P	80 - 120
Fonofos	95.8		P	80 - 120
Hexazinone	99.7		P	80 - 120
Malathion	97.3		P	80 - 120
Metalaxyl	107		P	80 - 120
Metolachlor	109		P	80 - 120
Metribuzin	84.1		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	94.4		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	110		P	80 - 120
Parathion Ethyl	98.6		P	80 - 120
Parathion Methyl	98.3		P	80 - 120
Pendimethalin	98.3		P	80 - 120
Phorate	93.3		P	80 - 120
Prodiamine	97.2		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	104		P	80 - 120
Simazine	102		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A94523
Included Lab Sample IDs: 2119146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Terbufos	93.1		P	80 - 120
Terbuthylazine	97.8		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A94545
Included Lab Sample IDs: 2119149

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	93.6	92.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A94547
Included Lab Sample IDs: 2119146

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tebuconazole	100		P	80 - 120

Reference Method: SM 4500 F-C-97
Run ID: A94575
Included Lab Sample IDs: 2119124

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A94597
Included Lab Sample IDs: 2119125, 2119129, 2119130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	99.0	P/P	90 - 110

* 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							4.27	
EPA 200.7 Rev. 4.4	Iron	101		95.8	95.7				0.0664
	Manganese	100		93.9	94.6				0.602
	Zinc	99.0		101	102				0.355
EPA 200.8 Rev. 5.4	Aluminum	105		112	113				0.634
	Antimony	98.0		101	103				1.68
	Arsenic	101		108	109				1.20
	Cadmium	97.2		99.1	98.4				0.716
	Chromium	91.3		93.7	91.4				2.50
	Copper	98.6		97.4	98.9				1.42
	Lead	98.4		103	102				1.16
	Nickel	98.1		95.0	96.3				1.36
	Selenium	101		102	104				1.65
	Silver	98.6		94.3	94.9				0.607
	Thallium	102		105	106				1.26
EPA 300.0	Bromide	98.2		95.7	96.1	95.2			0.450
EPA 300.0 Rev. 2.1	Chloride	99.2		102				0.168	
	Sulfate	100		104	100			0.0030	
EPA 350.1 Rev. 2.0	Ammonia-N	99.9		104	105				0.358
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.8		98.7	99.8				0.924
EPA 353.2 Rev. 2.0	NO2NO3-N	102		104	102				1.44
EPA 365.1 Rev. 2.0	Total-P	98.7		92.6	96.3				3.83
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		97.6	98.3				0.640
EPA 8270E	Acetochlor	97.8	105	108	113		6.99		4.58
	Alachlor	97.0	103	101	108		5.74		6.72
	Aldrin	17.4	32.2	44.4	39.6		59.9		11.3
	Alpha-BHC	67.2	89.7	101	101		28.8		0.315
	Alpha-Chlordane	70.5	91.0	73.9	72.3		25.3		2.24
	Ametryn	99.1	102	139	144		3.41		3.53
	Atrazine	102	101				1.30		9.33
	Atrazine Desethyl	67.4	74.1	116	112		9.49		2.48
	Azinphos Methyl	98.9	100	99.0	126		1.57		23.7
	Beta-BHC	92.4	124	105	110		29.2		5.39
	Bifenthrin	53.6	74.3	93.5	90.8		32.5		2.95
	Bromacil	92.4	86.4	92.9	113		6.71		19.1
	Butylate	57.2	60.2	61.9	65.3		5.08		5.29
	Carbophenothion	57.8	67.4	94.0	98.2		15.3		4.39
	Chlorothalonil	52.7	68.6	42.3	40.3		26.3		4.69
	Chlorpyrifos Ethyl	92.2	95.5	88.1	87.4		3.46		0.761
	Chlorpyrifos Methyl	75.0	79.1	99.7	100		5.34		0.506
	Cis-Nonachlor	69.4	91.4	77.1	76.4		27.3		0.871
	Cyanazine	72.6	91.9	128	139		23.4		8.33
	Cypermethrin	43.7	66.5	101	105		41.5		3.85
	DDD-p,p'	80.1	105	85.5	85.2		26.4		0.372
	DDE-p,p'	64.1	86.3	73.8	71.5		29.5		3.15
	DDT-p,p'	64.0	90.6	79.5	75.3		34.4		5.40
	Delta-BHC	96.9	124	104	110		24.5		5.45
	Demeton	64.9	62.5	97.5	102		3.80		4.98
	Diazinon	90.5	97.8	115	123		7.79		6.68
	Dicofol	75.3	87.9	67.6	76.2		15.4		12.0
	Dieldrin	84.8	111	86.7	95.5		26.7		9.58
	Dimethenamid	101	105	106	110		3.54		3.88
	Disulfoton	68.0	68.3	103	101		0.356		1.58
	Dithiopyr	94.7	100	105	108		5.66		2.51

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Endosulfan I	82.8	107	85.8	89.7	25.6		4.47
	Endosulfan II	92.4	113	99.4	102	19.8		2.62
	Endosulfan Sulfate	105	132	120	140	23.2		14.8
	Endrin	89.2	107	94.2	97.9	18.0		3.79
	Endrin Aldehyde	86.8	112	51.8	50.7	25.7		2.08
	Endrin Ketone	92.6	117	113	122	23.1		7.57
	EPTC	63.7	66.4	66.1	70.9	4.23		6.98
	Ethalfluralin	74.5	95.7	77.0	75.9	24.8		1.54
	Ethion	96.9	94.9	60.3	55.3	2.11		8.68
	Ethoprop	82.9	93.1	104	107	11.6		2.49
	Fenamiphos	96.1	83.5	103	95.9	14.0		6.83
	Fipronil	111	107	113	114	2.98		0.693
	Fipronil Desulfinyl	97.0	96.5	97.1	99.7	0.565		2.66
	Fipronil Sulfide	91.5	85.9	108	92.6	6.33		15.2
	Fipronil Sulfone	97.6	95.6	81.8	84.0	2.05		2.36
	Fonofos	65.9	70.2	104	109	6.33		5.10
	Gamma-BHC	88.1	111	95.6	87.1	23.0		9.33
	Gamma-Chlordane	60.3	79.4	67.0	64.9	27.4		3.09
	Heptachlor	58.1	74.3	58.9	58.9	24.5		0.0682
	Heptachlor Epoxide	77.3	97.8	80.8	83.3	23.4		3.14
	Hexachlorobenzene	65.7	85.3	58.6	58.4	26.0		0.320
	Hexazinone	111	119	126	123	7.24		2.19
	Malathion	98.1	100	102	95.4	2.06		6.94
	Metalaxyl	78.6	83.2	98.7	102	5.65		3.26
	Methoxychlor	64.5	88.6	66.6	75.8	31.4		12.9
	Metolachlor	99.9	102	100	104	1.92		3.92
	Metribuzin	77.3	85.5	206	203	10.1		1.27
	Mevinphos	80.6	90.1	99.5	105	11.2		5.30
	Mirex	39.7	52.2	55.6	48.1	27.3		14.5
	Molinate	69.7	77.8	86.6	95.0	11.1		9.31
	Norflurazon	110	108	103	105	1.72		1.68
	Oxadiazon	98.8	96.6	96.1	97.0	2.30		0.928
	Parathion Ethyl	85.5	88.3	97.5	101	3.23		3.78
	Parathion Methyl	81.3	84.6	109	114	3.97		4.15
	Pendimethalin	84.8	84.9	98.3	102	0.115		4.03
	Permethrin	58.4	79.0	70.5	71.8	30.0		1.78
	Phorate	74.4	75.3	108	114	1.33		5.17
	Prodiamine	104	93.4	53.1	53.2	10.9		0.241
	Prometon	100	98.0	108	108	2.19		0.0086
	Prometryn	96.1	98.2	111	119	2.22		7.14
	Simazine	100	96.5	111	109	3.89		1.47
	Tebuconazole	97.4	97.5	57.4	50.1	0.184		12.1
	Terbufos	69.4	73.9	114	118	6.27		3.35
	Terbuthylazine	97.5	98.5	101	102	1.06		1.00
	Trans-Nonachlor	60.9	78.9	61.4	61.2	25.7		0.183
	Trifluralin	73.1	94.3	74.2	72.4	25.4		2.40
EPA 8276	Chlordane	75.5	74.8	68.1	67.5	0.904		0.778
	Toxaphene	55.4	66.1	61.9	66.1	17.7		6.54
EPA 8321B	2,4-D	148		141	141			0.219
	3-Hydroxycarbofuran	90.9		94.4	95.0			0.708
	Acesulfame K	63.8		55.2	56.2			1.78
	Acetaminophen	76.0		88.5	86.5			2.37
	Acetamiprid	95.9		110	100			8.84
	Afidopyropen	101		109	93.4			15.0

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Aldicarb	82.6	96.9	84.5			13.6
	Aldicarb Sulfone	94.5	102	98.4			4.04
	Aldicarb Sulfoxide	83.6	45.8	47.6			3.91
	AMPA	107	49.9	46.3			5.11
	Bentazon	125	109	101			7.30
	Benzovindiflupyr	94.1	96.0	93.5			2.61
	Carbamazepine	103	108	102			5.56
	Carbaryl	78.5	77.9	76.0			2.47
	Carbofuran	85.4	83.3	81.4			2.25
	Clothianidin	90.9	102	97.1			5.27
	Dinotefuran	88.3	103	101			2.02
	Diuron	107	106	103			2.37
	Endothall	107	83.8	84.7			0.988
	Fenuron	101	100	98.4			1.65
	Fluridone	97.3	94.4	92.7			1.79
	Glufosinate	132	94.5	97.7			3.34
	Glyphosate	132	113	113			0.485
	Hydrocodone	93.1	103	95.6			7.85
	Ibuprofen	96.4	92.9	93.2			0.280
	Imazapyr	93.2	112	103			8.42
	Imidacloprid	99.5	124	136			6.52
	Linuron	84.6	82.3	81.0			1.66
	Mandestrobin	92.2	95.2	95.3			0.115
	MCPP	146	151	147			2.13
	Methiocarb	71.9	72.6	73.8			1.58
	Methomyl	83.7	85.5	87.6			2.47
	Naproxen	96.9	97.8	95.8			2.00
	Oxamyl	93.2	98.5	93.0			5.75
	Primidone	93.5	86.4	88.8			2.79
	Propoxur	86.7	86.8	83.5			3.86
	Pyraclostrobin	91.9	91.3	92.0			0.692
	Sucralose	65.1	53.9	52.0			3.40
	Thiamethoxam	90.7	118	115			2.87
	Tolfenpyrad	73.2	71.1	73.6			3.55
	Triclopyr	120	111	122			9.27
SM 2120 B	Color (true)	100				6.60	
	Color (true)	101				2.33	
SM 2320 B-97	Total Alkalinity	103				0.706	
	Total Alkalinity	104				0.228	
SM 2540 C-97	TDS					6.22	
SM 4500 F-C-97	Fluoride	96.6	93.6	96.2			1.95
	Fluoride	96.1	95.1	95.1			0.0
SM 5310 B-00	Organic Carbon	94.6	94.4	96.8			1.89

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2119124, 2119127, 2119128
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2119149
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2119149

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 300.0 / E31780	Bromide in aqueous matrices	2119124, 2119127, 2119128
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2119127, 2119128
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2119127, 2119128
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2119125, 2119129, 2119130
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2119125, 2119129, 2119130
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2119125, 2119129, 2119130
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2119125, 2119129, 2119130
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2119126, 2119131, 2119132
EPA 8270E / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2119145
EPA 8270E / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2119146
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2119145
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2119141
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2119142, 2119143, 2119144
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2119142, 2119143, 2119144
SM 2120 B / E31780	True Color measured at 450 nm	2119127, 2119128
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2119124, 2119127, 2119128
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2119127, 2119128
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2119124, 2119127, 2119128
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2119124, 2119127, 2119128
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2119125, 2119129, 2119130

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	09/13/2019			09/13/2019 16:48	Samantha Davila	2119124, 2119127, 2119128
EPA 200.7 Rev. 4.4	09/13/2019	09/16/2019 14:50	Elliott D. Healy	09/18/2019 15:25	Betina Topolski	2119149
EPA 200.8 Rev. 5.4	09/13/2019	09/16/2019 14:50	Elliott D. Healy	09/20/2019 21:57	Justin Cutchin	2119149
	09/13/2019	09/16/2019 14:50	Elliott D. Healy	09/26/2019 16:19	Robert K Palmer	2119149
EPA 300.0	09/13/2019			09/20/2019 21:05	Jhamieka S. Greenwood	2119124
	09/13/2019			09/20/2019 21:56	Jhamieka S. Greenwood	2119127
	09/13/2019			09/20/2019 22:13	Jhamieka S. Greenwood	2119128
EPA 300.0 Rev. 2.1	09/13/2019			09/18/2019 21:12	Jhamieka S. Greenwood	2119127
	09/13/2019			09/18/2019 21:24	Jhamieka S. Greenwood	2119128
EPA 350.1 Rev. 2.0	09/13/2019			09/17/2019 11:57	Ping Hua	2119125
	09/13/2019			09/17/2019 11:59	Ping Hua	2119129
	09/13/2019			09/17/2019 12:00	Ping Hua	2119130
EPA 351.2 Rev. 2.0	09/13/2019	09/27/2019 12:10	Jhamieka S. Greenwood	09/30/2019 13:41	Virginia P. Brown	2119125
	09/13/2019	09/27/2019 12:10	Jhamieka S. Greenwood	09/30/2019 13:43	Virginia P. Brown	2119129
	09/13/2019	09/27/2019 12:10	Jhamieka S. Greenwood	09/30/2019 13:45	Virginia P. Brown	2119130
EPA 353.2 Rev. 2.0	09/13/2019			09/17/2019 11:17	Beverly Y. Sanders	2119125
	09/13/2019			09/17/2019 11:18	Beverly Y. Sanders	2119129
	09/13/2019			09/17/2019 11:19	Beverly Y. Sanders	2119130
EPA 365.1 Rev. 2.0	09/13/2019	09/17/2019 13:00	Lipi Saha	09/18/2019 13:05	Rosalyn Ballman	2119125
	09/13/2019	09/17/2019 13:00	Lipi Saha	09/18/2019 13:06	Rosalyn Ballman	2119129
	09/13/2019	09/17/2019 13:00	Lipi Saha	09/18/2019 13:07	Rosalyn Ballman	2119130
EPA 365.1 Rev. 2.0 dissolved	09/13/2019			09/13/2019 13:17	Jhamieka S. Greenwood	2119126
	09/13/2019			09/13/2019 13:18	Jhamieka S. Greenwood	2119131, 2119132
EPA 8270E	09/13/2019	09/17/2019 10:00	Fe-Val Siddell	09/25/2019 01:00	Arthur Maknenko	2119145
	09/13/2019	09/18/2019 08:15	Rasheda Ghaffari	09/24/2019 16:14	Vandana T. Nagar	2119146
	09/13/2019	09/18/2019 08:15	Rasheda Ghaffari	09/26/2019 19:21	Vandana T. Nagar	2119146
EPA 8276	09/13/2019	09/17/2019 10:00	Fe-Val Siddell	09/23/2019 23:18	Michael Poppell	2119145
EPA 8321B	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/17/2019 14:51	Rebecca Ware	2119142
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/17/2019 15:05	Rebecca Ware	2119143
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/17/2019 15:34	Rebecca Ware	2119144
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/17/2019 22:01	Rebecca Ware	2119142
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/17/2019 22:12	Rebecca Ware	2119143
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/17/2019 22:23	Rebecca Ware	2119144
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/18/2019 16:03	Rebecca Ware	2119142
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/18/2019 16:14	Rebecca Ware	2119143
	09/13/2019	09/16/2019 10:00	Rebecca Ware	09/18/2019 16:26	Rebecca Ware	2119144
	09/13/2019	09/18/2019 12:00	Hoor Shaik	09/19/2019 02:43	Juyoung Kim	2119142
	09/13/2019	09/18/2019 12:00	Hoor Shaik	09/19/2019 03:17	Juyoung Kim	2119143
	09/13/2019	09/18/2019 12:00	Hoor Shaik	09/19/2019 03:52	Juyoung Kim	2119144
	09/13/2019	09/19/2019 08:30	Hoor Shaik	09/20/2019 00:21	Juyoung Kim	2119141

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	09/13/2019			09/13/2019 17:18	Madeline Funaro	2119128
	09/13/2019			09/13/2019 17:29	Madeline Funaro	2119127
SM 2320 B-97	09/13/2019			09/19/2019 07:33	Dale L. Simmons	2119124
	09/13/2019			09/19/2019 15:52	Dale L. Simmons	2119127
	09/13/2019			09/19/2019 16:04	Dale L. Simmons	2119128
SM 2540 C-97	09/13/2019			09/17/2019 14:10	Yijie Li	2119127, 2119128
SM 2540 D-97	09/13/2019			09/17/2019 14:10	Yijie Li	2119124, 2119127, 2119128
SM 4500 F-C-97	09/13/2019			09/19/2019 10:30	Dale L. Simmons	2119127
	09/13/2019			09/19/2019 10:34	Dale L. Simmons	2119128
	09/13/2019			09/26/2019 23:51	Dale L. Simmons	2119124
SM 5310 B-00	09/13/2019			09/19/2019 07:03	Madeline Funaro	2119125
	09/13/2019			09/19/2019 07:15	Madeline Funaro	2119129
	09/13/2019			09/19/2019 07:29	Madeline Funaro	2119130