Chemical Analysis Report

NW-DIST-2021-07-15-01

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

Event Description: **Santa Rosa Run**
Request ID: **RQ-2021-07-05-45**
Customer: **NW-DIST**
Project ID: **SMP**

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

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Certified by: Colin Wright, Program Administrator

Date Certified: 12-AUG-2021 10:22

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: Discharge from Tiger Point Golf Course at Maplewood Drive **Collection Date/Time: 07/14/2021 09:30**

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262350	EPA 180.1 Rev. 2.0	Turbidity	2.2	A	NTU	P401043	
	EPA 300.0 Rev. 2.1	Chloride	18	A	mg Cl/L	P401361	
		Sulfate	7.0	A	mg SO4/L	P401364	
	SM 2120 B-2011	Color (true)	100	A	PCU	P401039	
	SM 2320 B-2011	Total Alkalinity	30		mg CaCO3/L	P401143	
	SM 2540 C-2011	TDS	88		mg/L	P401423	
	SM 2540 D-2011	TSS	2	I	mg/L	P401229	
	SM 4500 F-C-2011	Fluoride	0.046	I	mg F/L	P401146	
2262351	EPA 350.1 Rev. 2.0	Ammonia-N	0.32		mg N/L	P401540	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.96		mg N/L	P402132	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P401150	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P401397	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P401489	
2262352	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P401030	
2262363	EPA 8321B	Aldicarb	0.020	U	ug/L	P401194	
		Aldicarb Sulfone	0.0020	U	ug/L	P401194	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P401194	
		Carbaryl	0.0020	U	ug/L	P401194	
		Carbofuran	0.0020	U	ug/L	P401194	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P401194	
		Methiocarb	0.0020	U	ug/L	P401194	
		Methomyl	0.0020	U	ug/L	P401194	
		Oxamyl	0.0020	U	ug/L	P401194	
		Propoxur	0.0020	U	ug/L	P401194	
2262364		2,4-D	0.0026	I	ug/L	P401065	
		Acesulfame K	0.10	U	ug/L	P400997	
		2,4,5-T	0.0040	U	ug/L	P401065	
		AMPA	0.63		ug/L	P400997	
		Acetaminophen	0.0080	U	ug/L	P401065	
		Acetamiprid	0.0020	U	ug/L	P401065	
		Endothall	0.25	U	ug/L	P400997	
		Glufosinate	0.10	U	ug/L	P400997	
		Glyphosate	1.1		ug/L	P400997	
		Afidopyropen	0.0020	U	ug/L	P401065	
		Bentazon	0.0050		ug/L	P401065	
		Sucralose	6.6		ug/L	P400997	
		Benzovindiflupyr	0.0020	U	ug/L	P401065	
		Carbamazepine	0.010		ug/L	P401065	
		Clothianidin	0.0020	U	ug/L	P401065	
		Dinotefuran	0.0020	U	ug/L	P401065	
		Diuron	0.0020	U	ug/L	P401065	
		Fenuron	0.016	U	ug/L	P401065	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262364	EPA 8321B	Fluridone	8.0E-04	U	ug/L	P401065	
		Imazapyr	0.014	I	ug/L	P401065	
		Hydrocodone	0.0020	U	ug/L	P401065	
		Ibuprofen	0.020	U	ug/L	P401065	
		Imidacloprid	0.0045	I	ug/L	P401065	
		Linuron	0.0040	U	ug/L	P401065	
		Mandestrobin	0.0020	U	ug/L	P401065	
		MCPP	0.0077	I	ug/L	P401065	
		Naproxen	0.0080	U	ug/L	P401065	
		Primidone	0.023		ug/L	P401065	
		Pyraclostrobin	0.0020	U	ug/L	P401065	
		Thiamethoxam	0.0020	U	ug/L	P401065	
		Tolfenpyrad	0.0020	U	ug/L	P401065	
		Triclopyr	0.0040	U	ug/L	P401065	
2262369	EPA 8270E	Aldrin	0.79	U	ng/L	P401115	
		Alpha-BHC	0.12	U	ng/L	P401115	
		Alpha-Chlordane	0.46	I	ng/L	P401115	
		Beta-BHC	0.12	U	ng/L	P401115	
		Beta-Cyfluthrin**	1.5	U	ng/L	P401115	
		Bifenthrin**	0.61	U	ng/L	P401115	
		Chlorothalonil	0.61	U	ng/L	P401115	
		Cis-Nonachlor**	0.24	U	ng/L	P401115	
		Cypermethrin	1.8	U	ng/L	P401115	
		Dacthal**	0.18	U	ng/L	P401115	
		DDD-p,p'	0.30	U	ng/L	P401115	
		DDE-p,p'	0.24	U	ng/L	P401115	
		DDT-p,p'	0.30	U	ng/L	P401115	RPD
		Delta-BHC	0.49	U	ng/L	P401115	
		Deltamethrin**	1.5	U	ng/L	P401115	
		Dichlobenil**	0.12	U	ng/L	P401115	
		Dicofol	1.5	U	ng/L	P401115	
		Dieldrin	1.5	I	ng/L	P401115	
		Endosulfan I	0.49	U	ng/L	P401115	
		Endosulfan II	0.49	U	ng/L	P401115	
		Endosulfan Sulfate	0.37	U	ng/L	P401115	RPD
		Endrin	0.49	U	ng/L	P401115	
		Endrin Aldehyde	0.91	U	ng/L	P401115	
		Endrin Ketone	0.49	U	ng/L	P401115	
		Esfenvalerate**	0.91	U	ng/L	P401115	
		Ethalfluralin**	0.18	U	ng/L	P401115	
		Fenpropathrin**	0.30	U	ng/L	P401115	
		Gamma-BHC	0.15	U	ng/L	P401115	
		Gamma-Chlordane	0.68	I	ng/L	P401115	
		Heptachlor	0.24	U	ng/L	P401115	
		Heptachlor Epoxide	0.46	I	ng/L	P401115	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262369	EPA 8270E	Hexachlorobenzene	1.2	U	ng/L	P401115	
		Kepone**	6.1	U	ng/L	P401115	
		Lambda-Cyhalothrin**	1.1	I	ng/L	P401115	
		Methoxychlor	0.37	U	ng/L	P401115	
		MGK-264**	0.24	U	ng/L	P401115	
		Mirex	0.37	U	ng/L	P401115	
		Permethrin	2.1	I	ng/L	P401115	
		Phenothrin**	3.0	I	ng/L	P401115	
		Piperonyl Butoxide**	0.42	I J	ng/L	P401115	CCV, RPD
		Prallethrin**	2.4	U	ng/L	P401115	
		Tau-Fluvalinate**	0.30	U	ng/L	P401115	
		Tetramethrin**	0.91	U	ng/L	P401115	
		Trans-Nonachlor**	0.30	I	ng/L	P401115	
		Triclosan Methyl**	0.18	U	ng/L	P401115	
		Trifluralin	0.24	U	ng/L	P401115	
	EPA 8276	Chlordane	7.0	I	ng/L	P401115	
		Toxaphene	37	U	ng/L	P401115	
2262370	EPA 8270E	Acetochlor	0.30	U	ng/L	P400966	
		Alachlor	0.30	U	ng/L	P400966	
		Ametryn	0.71	U	ng/L	P400966	
		Atrazine	2.6		ng/L	P400966	
		Atrazine Desethyl	3.2	I	ng/L	P400966	
		Azinphos Methyl	2.4	UJ	ng/L	P400966	CCV
		Azoxystrobin**	0.60	U	ng/L	P400966	
		Bromacil	0.60	U	ng/L	P400966	
		Butylate	0.48	U	ng/L	P400966	
		Caffeine**	40		ng/L	P400966	MS, RPD
		Carbophenothion	0.60	U	ng/L	P400966	
		Carfentrazone Ethyl**	0.12	U	ng/L	P400966	
		Chlorpyrifos Ethyl	0.30	U	ng/L	P400966	
		Chlorpyrifos Methyl	0.060	U	ng/L	P400966	
		Cyanazine	3.9	U	ng/L	P400966	
		Demeton	1.8	U	ng/L	P400966	
		Diazinon	0.15	U	ng/L	P400966	
		Difenoconazole**	0.71	U	ng/L	P400966	
		Dimethenamid**	0.12	U	ng/L	P400966	
		Disulfoton	0.60	U	ng/L	P400966	
		Dithiopyr**	1.9		ng/L	P400966	
		EPTC	1.5	U	ng/L	P400966	
		Ethion	0.18	U	ng/L	P400966	
		Ethoprop	0.12	U	ng/L	P400966	
		Fenamiphos	1.3	I	ng/L	P400966	
		Fenbuconazole**	0.15	U	ng/L	P400966	
		Fipronil	8.4		ng/L	P400966	
		Fipronil Desulfinyl**	2.4		ng/L	P400966	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262370	EPA 8270E	Fipronil Sulfide	31		ng/L	P400966	
		Fipronil Sulfone	24		ng/L	P400966	
		Fluazifop-P-butyl**	0.12	U	ng/L	P400966	
		Fludioxonil**	0.15	U	ng/L	P400966	
		Flumioxazin**	2.1	UJ	ng/L	P400966	CCV
		Flutolanil**	0.76		ng/L	P400966	
		Fluxapyroxad**	0.12	UJ	ng/L	P400966	CCV
		Fonofos	0.24	U	ng/L	P400966	
		Hexazinone	0.60	U	ng/L	P400966	
		Imazalil**	0.89	U	ng/L	P400966	
		Iprodione**	0.71	U	ng/L	P400966	
		Malathion	0.42	U	ng/L	P400966	
		Metalaxyl	0.89	U	ng/L	P400966	
		Metolachlor	0.42	U	ng/L	P400966	
		Metribuzin	10	I	ng/L	P400966	
		Mevinphos	1.2	U	ng/L	P400966	
		Molinate	0.36	U	ng/L	P400966	
		Myclobutanil**	0.30	U	ng/L	P400966	
		Naled**	1.8	U	ng/L	P400966	
		Norflurazon	0.60	U	ng/L	P400966	
		Oxadiazon	5.8		ng/L	P400966	
		Oxyfluorfen**	0.18	U	ng/L	P400966	
		Parathion Ethyl	0.30	U	ng/L	P400966	
		Parathion Methyl	0.65	U	ng/L	P400966	
		Pendimethalin	1.2	U	ng/L	P400966	
		Phorate	0.62	U	ng/L	P400966	
		Prodiamine**	0.21	U	ng/L	P400966	
		Prometon	1.1	U	ng/L	P400966	
		Prometryn	0.24	U	ng/L	P400966	
		Pronamide**	0.18	U	ng/L	P400966	
		Propiconazole**	0.94	I	ng/L	P400966	
		Pyriproxyfen**	0.15	U	ng/L	P400966	
		Simazine	0.60	U	ng/L	P400966	
		Sulfentrazone**	34		ng/L	P400966	
		Tebuconazole**	0.60	U	ng/L	P400966	
		Terbufos	0.12	U	ng/L	P400966	
		Terbuthylazine	0.51	U	ng/L	P400966	
2262373	EPA 200.7 Rev. 4.4	Barium	6.0		ug/L	P401018	
		Calcium	10.3		mg/L	P401018	
		Iron	480		ug/L	P401018	
		Magnesium	2.95		mg/L	P401018	
		Manganese	16.7		ug/L	P401018	
		Potassium	2.8		mg/L	P401018	
		Sodium	14.0		mg/L	P401018	
		Zinc	5.0	U	ug/L	P401018	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262373	EPA 200.8 Rev. 5.4	Aluminum	237		ug/L	P401411	
		Antimony	0.081	I	ug/L	P401411	
		Arsenic	5.31		ug/L	P401411	
		Beryllium	0.010	U	ug/L	P401411	
		Boron**	55.6		ug/L	P401411	
		Cadmium	0.020	U	ug/L	P401411	
		Chromium	0.99	I	ug/L	P401411	
		Copper	7.71		ug/L	P401411	
		Lead	0.20	U	ug/L	P401411	
		Nickel	1.1	I	ug/L	P401411	
		Selenium	0.21	I	ug/L	P401411	
		Silver	0.010	U	ug/L	P401634	
		Thallium	0.10	U	ug/L	P401411	
	SM 2340B	Hardness	37.9		mg/L	P401018	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for Sulfentrazone not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 200.8 Rev. 5.4: The copper result was confirmed in the undigested sample on 07/26/2021.

Sample Location: Williams Creek upstream of Hwy 98 **Collection Date/Time: 07/14/2021 10:25**

Field ID: G4NW0531 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262353	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P401043	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P401361	
		Sulfate	3.3		mg SO4/L	P401364	
	SM 2120 B-2011	Color (true)	270		PCU	P401040	
	SM 2320 B-2011	Total Alkalinity	3.9		mg CaCO3/L	P401349	
	SM 2540 C-2011	TDS	73		mg/L	P401423	
	SM 2540 D-2011	TSS	2	I	mg/L	P401229	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P401146	
2262354	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P401594	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P402132	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P401150	
	EPA 365.1 Rev. 2.0	Total-P	0.064		mg P/L	P401397	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P401489	
2262355	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P401030	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Tom King Creek **Collection Date/Time: 07/14/2021 11:32**

Field ID: G4NW0193 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2262365	EPA 8321B	2,4-D	0.0050	I	ug/L	P401065	
		Acesulfame K	0.32	I	ug/L	P400997	
		2,4,5-T	0.0040	U	ug/L	P401065	
		AMPA	0.10	U	ug/L	P400997	
		Acetaminophen	0.062		ug/L	P401065	
		Acetamiprid	0.0020	U	ug/L	P401065	
		Endothall	0.25	U	ug/L	P400997	
		Glufosinate	0.10	U	ug/L	P400997	
		Glyphosate	0.10	U	ug/L	P400997	
		Afidopyropen	0.0020	U	ug/L	P401065	
		Bentazon	8.0E-04	U	ug/L	P401065	
		Sucralose	2.2		ug/L	P400997	
		Benzovindiflupyr	0.0020	U	ug/L	P401065	
		Carbamazepine	8.0E-04	U	ug/L	P401065	
		Clothianidin	0.012		ug/L	P401065	
		Dinotefuran	0.0020	U	ug/L	P401065	
		Diuron	0.0020	U	ug/L	P401065	
		Fenuron	0.016	U	ug/L	P401065	
		Fluridone	8.0E-04	U	ug/L	P401065	
		Imazapyr	0.0040	U	ug/L	P401065	
		Hydrocodone	0.0020	U	ug/L	P401065	
		Ibuprofen	0.020	U	ug/L	P401065	
		Imidacloprid	0.039		ug/L	P401065	
		Linuron	0.0040	U	ug/L	P401065	
		Mandestrobin	0.0020	U	ug/L	P401065	
		MCPP	0.0023	I	ug/L	P401065	
		Naproxen	0.0080	U	ug/L	P401065	
		Primidone	0.0040	U	ug/L	P401065	
		Pyraclostrobin	0.0020	U	ug/L	P401065	
		Thiamethoxam	0.0020	U	ug/L	P401065	
		Tolfenpyrad	0.0020	U	ug/L	P401065	
		Triclopyr	0.0040	U	ug/L	P401065	

Ref. Method and Comment:
EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401043

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401018

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401411

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401634

Component	Result	Code	Units
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401361

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401364

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401540

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401594

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402132

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401150

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401397

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401030

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

Reference Method: EPA 8270E
Batch ID: P400966

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400966

Component	Result	Code	Units
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400966

Component	Result	Code	Units
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P400966

Component	Result	Code	Units
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8270E
Batch ID: P401115

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401115

Component	Result	Code	Units
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfluralin	0.15	U	ng/L
Ethalfluralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P401115

Component	Result	Code	Units
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276
Batch ID: P401115

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

Reference Method: EPA 8321B
Batch ID: P400997

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: P401065

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P401065

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

Reference Method: EPA 8321B
Batch ID: P401194

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-2011
Batch ID: P401039

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B-2011
Batch ID: P401040

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P401143

Component	Result	Code	Units
Total Alkalinity	1.2	I	mg CaCO3/L

Reference Method: SM 2320 B-2011
Batch ID: P401349

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

Reference Method: SM 2540 C-2011
Batch ID: P401423

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P401229

Component	Result	Code	Units

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2011
Batch ID: P401229

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P401146

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P401489

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: P401018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	107		P	85 - 115
Iron	106		P	85 - 115
Magnesium	109		P	85 - 115
Manganese	102		P	85 - 115
Potassium	101		P	85 - 115
Sodium	106		P	85 - 115
Zinc	99.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401411

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	105		P	85 - 115
Antimony	108		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	106		P	85 - 115
Boron	105		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	101		P	85 - 115
Copper	99.0		P	85 - 115
Lead	102		P	85 - 115
Nickel	102		P	85 - 115
Selenium	102		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401634

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	113		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401361

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401364

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401540

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401594

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402132

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401150

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401397

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401030

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

Reference Method: EPA 8270E
Batch ID: P400966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	93.7	98.9	P/P	70 - 121
Alachlor	81.4	87.0	P/P	70 - 119
Ametryn	94.5	103	P/P	61 - 135
Atrazine	86.1	88.1	P/P	76 - 123
Atrazine Desethyl	65.1	58.8	P/P	35 - 140
Azinphos Methyl	91.1	104	P/P	57 - 163
Azoxystrobin	127	120	P/P	43 - 231
Bromacil	75.9	74.8	P/P	42 - 123
Butylate	55.6	48.0	P/P	34 - 92.0
Caffeine	89.8	118	P/P	70 - 130
Carbophenothion	103	101	P/P	61 - 121
Carfentrazone Ethyl	103	111	P/P	62 - 139
Chlorpyrifos Ethyl	88.8	84.9	P/P	67 - 121
Chlorpyrifos Methyl	91.1	88.7	P/P	67 - 120
Cyanazine	123	124	P/P	20 - 226
Demeton	84.8	78.7	P/P	35 - 125
Diazinon	116	107	P/P	70 - 122
Difenoconazole	142	177	P/P	56 - 186
Dimethenamid	70.0	78.0	P/P	67 - 119
Disulfoton	94.2	86.1	P/P	47 - 120
Dithiopyr	85.3	85.4	P/P	67 - 118
EPTC	48.3	51.0	P/P	33 - 90.0

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P400966

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ethion	87.8	94.6	P/P	40 - 133
Ethoprop	95.3	86.6	P/P	61 - 121
Fenamiphos	91.7	85.2	P/P	31 - 139
Fenbuconazole	111	123	P/P	66 - 141
Fipronil	95.7	101	P/P	62 - 129
Fipronil Desulfinyl	97.0	94.9	P/P	59 - 126
Fipronil Sulfide	79.7	77.1	P/P	63 - 117
Fipronil Sulfone	66.7	66.9	P/P	57 - 117
Fluazifop-P-butyl	91.4	96.6	P/P	63 - 124
Fludioxonil	80.5	90.1	P/P	63 - 123
Flumioxazin	174	193	P/P	34 - 245
Flutolanil	84.7	90.7	P/P	56 - 131
Fluxapyroxad	60.0	69.0	P/P	57 - 117
Fonofos	90.4	76.0	P/P	61 - 116
Hexazinone	86.2	86.3	P/P	55 - 138
Imazalil	93.8	86.0	P/P	33 - 143
Iprodione	98.5	100	P/P	59 - 118
Malathion	107	105	P/P	62 - 138
Metalaxyl	80.9	82.1	P/P	24 - 147
Metolachlor	84.3	85.0	P/P	68 - 118
Metribuzin	103	104	P/P	20 - 239
Mevinphos	96.5	81.6	P/P	46 - 124
Molinate	69.3	62.5	P/P	46 - 100
Myclobutanil	81.9	88.6	P/P	32 - 149
Naled	38.8	43.1	P/P	32 - 95.0
Norflurazon	81.0	83.0	P/P	57 - 127
Oxadiazon	78.4	88.0	P/P	63 - 118
Oxyfluorfen	75.6	83.0	P/P	69 - 137
Parathion Ethyl	86.4	91.7	P/P	70 - 113
Parathion Methyl	103	121	P/P	71 - 130
Pendimethalin	68.9	87.3	P/P	55 - 118
Phorate	93.4	79.3	P/P	46 - 125
Prodiamine	49.1	37.5	P/P	20 - 141
Prometon	91.1	87.0	P/P	54 - 122
Prometryn	93.2	95.4	P/P	66 - 124
Pronamide	88.8	96.4	P/P	79 - 122
Propiconazole	82.7	86.1	P/P	61 - 126
Pyriproxyfen	73.1	85.3	P/P	52 - 131
Simazine	83.0	80.7	P/P	75 - 128
Sulfentrazone	64.8	70.0	P/P	20 - 132
Tebuconazole	35.7	37.8	P/P	20 - 116
Terbufos	113	103	P/P	61 - 117
Terbuthylazine	86.3	88.9	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P401115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	54.2	54.9	P/P	20 - 150
Alpha-BHC	99.7	97.0	P/P	50 - 150
Alpha-Chlordane	92.3	86.6	P/P	50 - 150
Beta-BHC	104	85.1	P/P	50 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P401115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Beta-Cyfluthrin	95.9	97.5	P/P	50 - 150
Bifenthrin	60.3	62.7	P/P	40 - 150
Chlorothalonil	101	103	P/P	20 - 150
Cis-Nonachlor	87.1	96.2	P/P	50 - 150
Cypermethrin	92.2	97.2	P/P	50 - 150
Dacthal	101	98.7	P/P	50 - 150
DDD-p,p'	89.2	98.4	P/P	50 - 150
DDE-p,p'	82.4	84.4	P/P	50 - 150
DDT-p,p'	87.9	91.1	P/P	50 - 150
Delta-BHC	115	106	P/P	50 - 150
Deltamethrin	93.6	96.0	P/P	50 - 150
Dichlobenil	88.9	79.2	P/P	40 - 150
Dicofol	78.5	75.0	P/P	50 - 150
Dieldrin	90.5	90.2	P/P	50 - 150
Endosulfan I	86.7	90.3	P/P	50 - 150
Endosulfan II	95.0	110	P/P	50 - 150
Endosulfan Sulfate	101	101	P/P	50 - 150
Endrin	89.3	102	P/P	50 - 150
Endrin Aldehyde	91.3	99.3	P/P	50 - 150
Endrin Ketone	89.7	82.6	P/P	50 - 150
Esfenvalerate	87.0	92.1	P/P	50 - 180
Ethalfluralin	74.1	74.6	P/P	50 - 150
Fenpropathrin	79.1	80.2	P/P	50 - 150
Gamma-BHC	97.8	93.5	P/P	50 - 150
Gamma-Chlordane	81.1	81.3	P/P	50 - 150
Heptachlor	71.9	70.9	P/P	50 - 150
Heptachlor Epoxide	84.1	84.3	P/P	50 - 150
Hexachlorobenzene	72.2	71.2	P/P	50 - 150
Kepone	87.9	92.9	P/P	30 - 180
Lambda-Cyhalothrin	79.2	78.6	P/P	50 - 200
Methoxychlor	79.2	67.8	P/P	50 - 150
MGK-264	90.3	85.1	P/P	30 - 150
Mirex	68.6	75.4	P/P	50 - 180
Permethrin	92.7	98.0	P/P	50 - 150
Phenothrin	59.1	60.5	P/P	20 - 150
Piperonyl Butoxide	119	75.1	P/P	50 - 150
Prallethrin	77.7	76.6	P/P	30 - 150
Tau-Fluvalinate	81.0	82.3	P/P	40 - 150
Tetramethrin	70.0	69.9	P/P	30 - 150
Trans-Nonachlor	79.7	83.8	P/P	50 - 150
Triclosan Methyl	90.3	90.5	P/P	50 - 150
Trifluralin	74.4	75.0	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P401115

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	84.6	86.9	P/P	56 - 117
Toxaphene	72.1	70.5	P/P	45 - 116

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P400997

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
AMPA	98.8		P	40 - 150
Endothall	90.2		P	40 - 150
Glufosinate	98.8		P	40 - 150
Glyphosate	102		P	40 - 150
Sucralose	96.9		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401065

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	125		P	30 - 160
2,4,5-T	117		P	30 - 160
Acetaminophen	91.8		P	30 - 160
Acetamiprid	90.4		P	30 - 160
Afidopyropen	76.1		P	30 - 160
Bentazon	105		P	30 - 160
Benzovindiflupyr	93.8		P	30 - 160
Carbamazepine	98.6		P	30 - 160
Clothianidin	98.7		P	30 - 160
Dinotefuran	100		P	30 - 160
Diuron	88.3		P	30 - 160
Fenuron	102		P	30 - 160
Fluridone	95.7		P	30 - 160
Hydrocodone	99.7		P	30 - 160
Ibuprofen	93.1		P	30 - 160
Imazapyr	107		P	30 - 160
Imidacloprid	99.9		P	30 - 160
Linuron	82.8		P	30 - 160
Mandestrobin	99.8		P	30 - 160
MCPP	119		P	30 - 160
Naproxen	80.9		P	30 - 160
Primidone	95.3		P	30 - 160
Pyraclostrobin	90.5		P	30 - 160
Thiamethoxam	102		P	30 - 160
Tolfenpyrad	52.5		P	30 - 160
Triclopyr	119		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P401194

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	90.7		P	30 - 160
Aldicarb	74.0		P	30 - 160
Aldicarb Sulfone	103		P	30 - 160
Aldicarb Sulfoxide	102		P	30 - 160
Carbaryl	93.5		P	30 - 160
Carbofuran	96.4		P	30 - 160
Methiocarb	95.3		P	30 - 160
Methomyl	106		P	30 - 160
Oxamyl	96.0		P	30 - 160
Propoxur	96.9		P	30 - 160

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P401039

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.8		P	85 - 115

Reference Method: SM 2120 B-2011
Batch ID: P401040

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

Reference Method: SM 2320 B-2011
Batch ID: P401143

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P401349

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P401146

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P401489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262059	Barium	106		P	80 - 120
2262059	Calcium	114		P	80 - 120
2262059	Iron	111		P	80 - 120
2262059	Magnesium	115		P	80 - 120
2262059	Manganese	105		P	80 - 120
2262059	Potassium	103		P	80 - 120
2262059	Sodium	108		P	80 - 120
2262059	Zinc	108		P	80 - 120
2262373	Barium	104	108	P/P	80 - 120
2262373	Calcium	109		P	80 - 120
2262373	Iron	108	112	P/P	80 - 120
2262373	Magnesium	107	114	P/P	80 - 120
2262373	Manganese	103	107	P/P	80 - 120
2262373	Potassium	98.9	104	P/P	80 - 120
2262373	Sodium	104		P	80 - 120
2262373	Zinc	107	111	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401411

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262058	Aluminum	106		P	80 - 120
2262058	Antimony	113		P	80 - 120
2262058	Arsenic	98.8		P	80 - 120
2262058	Beryllium	107		P	80 - 120
2262058	Boron	109		P	80 - 120
2262058	Cadmium	104		P	80 - 120
2262058	Chromium	102		P	80 - 120
2262058	Copper	95.6		P	80 - 120
2262058	Lead	103		P	80 - 120
2262058	Nickel	96.2		P	80 - 120
2262058	Selenium	101		P	80 - 120
2262058	Thallium	104		P	80 - 120
2262294	Aluminum	102	103	P/P	80 - 120
2262294	Antimony	107	108	P/P	80 - 120
2262294	Arsenic	100	99.4	P/P	80 - 120
2262294	Beryllium	104	106	P/P	80 - 120
2262294	Boron	104	107	P/P	80 - 120
2262294	Cadmium	102	103	P/P	80 - 120
2262294	Chromium	100	101	P/P	80 - 120
2262294	Copper	97.1	94.4	P/P	80 - 120
2262294	Lead	98.0	98.0	P/P	80 - 120
2262294	Nickel	93.0	91.5	P/P	80 - 120
2262294	Selenium	99.5	99.6	P/P	80 - 120
2262294	Thallium	105	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262058	Silver	111	107	P/P	80 - 120
2262400	Silver	111		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262274	Chloride	98.8		P	90 - 110
2262350	Chloride	98.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262274	Sulfate	98.9		P	90 - 110
2262350	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262034	Ammonia-N	99.4	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262354	Ammonia-N	99.0	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262303	Kjeldahl Nitrogen	110	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401150

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262320	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262351	Total-P	102	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401030

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262304	O-Phosphate-P	97.8	98.2	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P400966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262015	Acetochlor	117	114	P/P	66 - 122
2262015	Alachlor	105	95.1	P/P	65 - 122

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262015	Ametryn	113	106	P/P	45 - 173
2262015	Atrazine	105	100	P/P	70 - 134
2262015	Atrazine Desethyl	70.3	68.2	P/P	25 - 150
2262015	Azinphos Methyl	109	94.0	P/P	44 - 174
2262015	Azoxystrobin	146	137	P/P	10 - 268
2262015	Bromacil	91.9	90.5	P/P	31 - 145
2262015	Butylate	45.7	56.9	P/P	15 - 97.0
2262015	Caffeine	143	102	F/P	70 - 130
2262015	Carbophenothion	116	106	P/P	42 - 129
2262015	Carfentrazone Ethyl	135	122	P/P	62 - 145
2262015	Chlorpyrifos Ethyl	100	93.2	P/P	60 - 124
2262015	Chlorpyrifos Methyl	105	107	P/P	66 - 119
2262015	Cyanazine	160	145	P/P	17 - 225
2262015	Demeton	95.2	93.6	P/P	36 - 142
2262015	Diazinon	128	119	P/P	70 - 128
2262015	Difenoconazole	185	181	P/P	33 - 222
2262015	Dimethenamid	86.1	75.1	P/P	54 - 125
2262015	Disulfoton	102	95.6	P/P	49 - 133
2262015	Dithiopyr	109	102	P/P	55 - 123
2262015	EPTC	46.4	56.6	P/P	19 - 91.0
2262015	Ethion	55.6	49.1	P/P	13 - 143
2262015	Ethoprop	109	103	P/P	49 - 144
2262015	Fenamiphos	105	93.5	P/P	32 - 136
2262015	Fenbuconazole	134	117	P/P	73 - 148
2262015	Fipronil	129	112	P/P	57 - 129
2262015	Fipronil Desulfinyl	127	122	P/P	49 - 127
2262015	Fipronil Sulfide	102	97.1	P/P	44 - 127
2262015	Fipronil Sulfone	84.2	80.9	P/P	35 - 126
2262015	Fluazifop-P-butyl	122	113	P/P	67 - 129
2262015	Fludioxonil	105	97.5	P/P	61 - 126
2262015	Flumioxazin	209	220	P/P	38 - 279
2262015	Flutolanil	107	98.3	P/P	55 - 136
2262015	Fluxapyroxad	77.5	72.8	P/P	33 - 140
2262015	Fonofos	92.1	93.1	P/P	58 - 125
2262015	Hexazinone	106	101	P/P	57 - 148
2262015	Imazalil	175	157	P/P	10 - 221
2262015	Iprodione	107	102	P/P	32 - 140
2262015	Malathion	117	115	P/P	52 - 138
2262015	Metalaxyl	99.6	89.1	P/P	46 - 134
2262015	Metolachlor	103	93.9	P/P	58 - 122
2262015	Metribuzin	113	123	P/P	16 - 272
2262015	Mevinphos	106	102	P/P	45 - 140
2262015	Molinate	66.5	70.0	P/P	41 - 103
2262015	Myclobutanil	104	90.1	P/P	60 - 134
2262015	Naled	27.3	31.0	P/P	20 - 113
2262015	Norflurazon	98.6	89.9	P/P	51 - 123
2262015	Oxadiazon	99.0	90.9	P/P	44 - 125
2262015	Oxyfluorfen	113	99.9	P/P	66 - 176
2262015	Parathion Ethyl	87.7	87.3	P/P	57 - 132
2262015	Parathion Methyl	111	105	P/P	59 - 156
2262015	Pendimethalin	83.1	71.3	P/P	59 - 129
2262015	Phorate	92.2	84.5	P/P	47 - 136

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P400966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262015	Prodiamine	83.5	109	P/P	10 - 159
2262015	Prometon	108	103	P/P	59 - 127
2262015	Prometryn	116	108	P/P	59 - 129
2262015	Pronamide	110	99.9	P/P	65 - 145
2262015	Propiconazole	103	96.1	P/P	28 - 165
2262015	Pyriproxyfen	91.1	83.0	P/P	21 - 180
2262015	Simazine	103	98.5	P/P	63 - 147
2262015	Tebuconazole	40.0	35.6	P/P	-8.3 - 117
2262015	Terbufos	130	120	P/P	61 - 131
2262015	Terbuthylazine	108	96.4	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P401115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262487	Aldrin	71.4	73.4	P/P	20 - 170
2262487	Alpha-BHC	94.7	93.9	P/P	50 - 170
2262487	Alpha-Chlordane	89.9	89.8	P/P	50 - 170
2262487	Beta-BHC	85.6	70.2	P/P	50 - 170
2262487	Beta-Cyfluthrin	124	125	P/P	50 - 170
2262487	Bifenthrin	85.2	85.8	P/P	40 - 170
2262487	Chlorothalonil	114	93.1	P/P	20 - 170
2262487	Cis-Nonachlor	93.7	96.3	P/P	50 - 170
2262487	Cypermethrin	115	122	P/P	50 - 170
2262487	Dacthal	86.6	85.0	P/P	50 - 170
2262487	DDD-p,p'	88.8	93.8	P/P	50 - 170
2262487	DDE-p,p'	83.9	85.4	P/P	50 - 170
2262487	DDT-p,p'	91.0	60.8	P/P	50 - 170
2262487	Delta-BHC	103	91.3	P/P	50 - 170
2262487	Deltamethrin	112	124	P/P	50 - 170
2262487	Dichlobenil	50.9	52.7	P/P	40 - 170
2262487	Dicofol	80.5	71.2	P/P	50 - 170
2262487	Dieldrin	85.1	92.7	P/P	50 - 170
2262487	Endosulfan I	86.3	88.2	P/P	50 - 170
2262487	Endosulfan II	91.9	95.8	P/P	50 - 170
2262487	Endosulfan Sulfate	83.2	51.9	P/P	50 - 170
2262487	Endrin	92.5	96.2	P/P	50 - 170
2262487	Endrin Aldehyde	70.2	69.2	P/P	50 - 170
2262487	Endrin Ketone	71.3	63.4	P/P	50 - 170
2262487	Esfenvalerate	121	114	P/P	50 - 180
2262487	Ethalfluralin	77.0	74.9	P/P	50 - 170
2262487	Fenpropathrin	91.2	90.8	P/P	50 - 170
2262487	Gamma-BHC	92.9	85.6	P/P	50 - 170
2262487	Gamma-Chlordane	84.5	85.8	P/P	50 - 170
2262487	Heptachlor	81.8	78.0	P/P	50 - 170
2262487	Heptachlor Epoxide	80.0	80.8	P/P	50 - 170
2262487	Hexachlorobenzene	87.1	84.0	P/P	50 - 170
2262487	Kepone	40.3	31.3	P/P	30 - 180
2262487	Lambda-Cyhalothrin	128	128	P/P	50 - 200
2262487	Methoxychlor	78.6	105	P/P	50 - 170
2262487	MGK-264	90.6	87.9	P/P	30 - 170
2262487	Mirex	84.4	85.7	P/P	50 - 180

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P401115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262487	Permethrin	113	120	P/P	50 - 170
2262487	Phenothrin	122	117	P/P	20 - 170
2262487	Piperonyl Butoxide	74.6	69.9	P/P	50 - 170
2262487	Prallethrin	90.2	87.8	P/P	30 - 170
2262487	Tau-Fluvalinate	109	105	P/P	40 - 170
2262487	Tetramethrin	88.3	83.5	P/P	30 - 170
2262487	Trans-Nonachlor	83.0	83.0	P/P	50 - 170
2262487	Triclosan Methyl	87.2	90.6	P/P	50 - 170
2262487	Trifluralin	80.1	76.2	P/P	50 - 170

Reference Method: EPA 8276
Batch ID: P401115

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262014	Chlordane	96.6	97.7	P/P	47 - 128
2262014	Toxaphene	75.6	79.0	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P400997

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262210	Acesulfame K	128	131	P/P	40 - 150
2262210	AMPA	66.7	70.9	P/P	40 - 150
2262210	Endothall	111	115	P/P	40 - 150
2262210	Glufosinate	79.3	80.3	P/P	40 - 150
2262210	Glyphosate	68.4	67.3	P/P	40 - 150
2262210	Sucralose	104	100	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P401065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262208	2,4-D	111	118	P/P	30 - 160
2262208	2,4,5-T	99.6	102	P/P	30 - 160
2262208	Acetaminophen	102	107	P/P	30 - 160
2262208	Acetamiprid	84.0	92.5	P/P	30 - 160
2262208	Afidopyropen	61.9	70.1	P/P	30 - 160
2262208	Benzovindiflupyr	84.6	85.5	P/P	30 - 160
2262208	Carbamazepine	89.1	83.0	P/P	30 - 160
2262208	Clothianidin	107	112	P/P	30 - 160
2262208	Dinotefuran	124	128	P/P	30 - 160
2262208	Diuron	72.3	70.6	P/P	30 - 160
2262208	Fenuron	97.2	94.3	P/P	30 - 160
2262208	Fluridone	79.7	80.1	P/P	30 - 160
2262208	Hydrocodone	113	112	P/P	30 - 160
2262208	Ibuprofen	71.6	74.8	P/P	30 - 160
2262208	Imidacloprid	145	151	P/P	30 - 160
2262208	Linuron	68.0	68.0	P/P	30 - 160
2262208	Mandestrobin	88.2	87.7	P/P	30 - 160
2262208	MCPP	99.5	104	P/P	30 - 160
2262208	Naproxen	71.1	75.8	P/P	30 - 160
2262208	Primidone	104	103	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P401065

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262208	Pyraclostrobin	85.3	87.4	P/P	30 - 160
2262208	Thiamethoxam	141	147	P/P	30 - 160
2262208	Tolfenpyrad	52.0	52.0	P/P	30 - 160
2262208	Triclopyr	100	103	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P401194

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262363	3-Hydroxycarbofuran	104	103	P/P	30 - 160
2262363	Aldicarb	81.3	71.1	P/P	30 - 160
2262363	Aldicarb Sulfone	121	124	P/P	30 - 160
2262363	Aldicarb Sulfoxide	39.6	40.4	P/P	30 - 160
2262363	Carbaryl	84.1	82.1	P/P	30 - 160
2262363	Carbofuran	88.9	88.2	P/P	30 - 160
2262363	Methiocarb	88.0	95.2	P/P	30 - 160
2262363	Methomyl	101	102	P/P	30 - 160
2262363	Oxamyl	96.0	97.6	P/P	30 - 160
2262363	Propoxur	89.2	90.4	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P401146

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262470	Fluoride	99.2	99.2	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P401489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2262587	Organic Carbon	95.4	97.4	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P401043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262350	Turbidity	3.67	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P401018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262373	Barium	3.67	Spike	P	0 - 20
2262373	Calcium	3.46	Spike	P	0 - 20
2262373	Iron	3.43	Spike	P	0 - 20
2262373	Magnesium	3.82	Spike	P	0 - 20
2262373	Manganese	3.43	Spike	P	0 - 20
2262373	Potassium	2.71	Spike	P	0 - 20
2262373	Sodium	2.39	Spike	P	0 - 20
2262373	Zinc	3.49	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401411

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262294	Aluminum	1.13	Spike	P	0 - 20
2262294	Antimony	0.763	Spike	P	0 - 20
2262294	Arsenic	1.00	Spike	P	0 - 20
2262294	Beryllium	1.60	Spike	P	0 - 20
2262294	Boron	2.01	Spike	P	0 - 20
2262294	Cadmium	1.16	Spike	P	0 - 20
2262294	Chromium	0.783	Spike	P	0 - 20
2262294	Copper	2.68	Spike	P	0 - 20
2262294	Lead	0.00119	Spike	P	0 - 20
2262294	Nickel	1.45	Spike	P	0 - 20
2262294	Selenium	0.119	Spike	P	0 - 20
2262294	Thallium	0.280	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P401634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262058	Silver	4.16	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262350	Chloride	0.304	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P401364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262350	Sulfate	0.407	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262034	Ammonia-N	0.122	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P401594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262354	Ammonia-N	2.20	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262303	Kjeldahl Nitrogen	2.58	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P401150

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262320	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P401397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262351	Total-P	2.68	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262304	O-Phosphate-P	0.322	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P400966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262015	Acetochlor	3.16	Spike	P	0 - 30
2262015	Alachlor	9.82	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262015	Ametryn	6.58	Spike	P	0 - 30
2262015	Atrazine	3.66	Spike	P	0 - 30
2262015	Atrazine Desethyl	2.44	Spike	P	0 - 30
2262015	Azinphos Methyl	14.9	Spike	P	0 - 30
2262015	Azoxystrobin	6.22	Spike	P	0 - 30
2262015	Bromacil	1.54	Spike	P	0 - 30
2262015	Butylate	21.8	Spike	P	0 - 30
2262015	Caffeine	33.3	Spike	F	0 - 30
2262015	Carbophenothion	8.95	Spike	P	0 - 30
2262015	Carfentrazone Ethyl	9.77	Spike	P	0 - 30
2262015	Chlorpyrifos Ethyl	7.04	Spike	P	0 - 30
2262015	Chlorpyrifos Methyl	1.73	Spike	P	0 - 30
2262015	Cyanazine	9.70	Spike	P	0 - 30
2262015	Demeton	1.71	Spike	P	0 - 30
2262015	Diazinon	7.04	Spike	P	0 - 30
2262015	Difenoconazole	2.24	Spike	P	0 - 30
2262015	Dimethenamid	13.6	Spike	P	0 - 30
2262015	Disulfoton	6.14	Spike	P	0 - 30
2262015	Dithiopyr	7.06	Spike	P	0 - 30
2262015	EPTC	19.7	Spike	P	0 - 30
2262015	Ethion	12.3	Spike	P	0 - 30
2262015	Ethoprop	5.50	Spike	P	0 - 30
2262015	Fenamiphos	11.7	Spike	P	0 - 30
2262015	Fenbuconazole	13.7	Spike	P	0 - 30
2262015	Fipronil	13.6	Spike	P	0 - 30
2262015	Fipronil Desulfinyl	3.82	Spike	P	0 - 30
2262015	Fipronil Sulfide	4.65	Spike	P	0 - 30
2262015	Fipronil Sulfone	3.04	Spike	P	0 - 30
2262015	Fluazifop-P-butyl	7.99	Spike	P	0 - 30
2262015	Fludioxonil	6.99	Spike	P	0 - 30
2262015	Flumioxazin	4.97	Spike	P	0 - 30
2262015	Flutolanil	8.69	Spike	P	0 - 30
2262015	Fluxapyroxad	6.27	Spike	P	0 - 30
2262015	Fonofos	1.05	Spike	P	0 - 30
2262015	Hexazinone	5.29	Spike	P	0 - 30
2262015	Imazalil	10.7	Spike	P	0 - 30
2262015	Iprodione	4.86	Spike	P	0 - 30
2262015	Malathion	1.65	Spike	P	0 - 30
2262015	Metalaxyl	11.1	Spike	P	0 - 30
2262015	Metolachlor	9.19	Spike	P	0 - 30
2262015	Metribuzin	8.54	Spike	P	0 - 30
2262015	Mevinphos	3.72	Spike	P	0 - 30
2262015	Molinate	5.20	Spike	P	0 - 30
2262015	Myclobutanil	14.3	Spike	P	0 - 30
2262015	Naled	12.9	Spike	P	0 - 30
2262015	Norflurazon	9.27	Spike	P	0 - 30
2262015	Oxadiazon	8.48	Spike	P	0 - 30
2262015	Oxyfluorfen	12.0	Spike	P	0 - 30
2262015	Parathion Ethyl	0.539	Spike	P	0 - 30
2262015	Parathion Methyl	5.04	Spike	P	0 - 30
2262015	Pendimethalin	15.2	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262015	Phorate	8.79	Spike	P	0 - 30
2262015	Prodiamine	26.6	Spike	P	0 - 30
2262015	Prometon	4.77	Spike	P	0 - 30
2262015	Prometryn	6.44	Spike	P	0 - 30
2262015	Pronamide	9.48	Spike	P	0 - 30
2262015	Propiconazole	7.38	Spike	P	0 - 30
2262015	Pyriproxyfen	9.24	Spike	P	0 - 30
2262015	Simazine	4.72	Spike	P	0 - 30
2262015	Sulfentrazone	5.95	Spike	P	0 - 30
2262015	Tebuconazole	11.7	Spike	P	0 - 30
2262015	Terbufos	7.67	Spike	P	0 - 30
2262015	Terbuthylazine	11.3	Spike	P	0 - 30
LFB	Acetochlor	5.40	LCS	P	0 - 30
LFB	Alachlor	6.63	LCS	P	0 - 30
LFB	Ametryn	8.41	LCS	P	0 - 30
LFB	Atrazine	2.30	LCS	P	0 - 30
LFB	Atrazine Desethyl	10.2	LCS	P	0 - 30
LFB	Azinphos Methyl	13.3	LCS	P	0 - 30
LFB	Azoxystrobin	5.70	LCS	P	0 - 30
LFB	Bromacil	1.34	LCS	P	0 - 30
LFB	Butylate	14.6	LCS	P	0 - 30
LFB	Caffeine	27.0	LCS	P	0 - 30
LFB	Carbophenothion	2.23	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	6.71	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.55	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	2.71	LCS	P	0 - 30
LFB	Cyanazine	0.653	LCS	P	0 - 30
LFB	Demeton	7.55	LCS	P	0 - 30
LFB	Diazinon	8.52	LCS	P	0 - 30
LFB	Difenoconazole	21.9	LCS	P	0 - 30
LFB	Dimethenamid	10.7	LCS	P	0 - 30
LFB	Disulfoton	8.91	LCS	P	0 - 30
LFB	Dithiopyr	0.108	LCS	P	0 - 30
LFB	EPTC	5.50	LCS	P	0 - 30
LFB	Ethion	7.46	LCS	P	0 - 30
LFB	Ethoprop	9.58	LCS	P	0 - 30
LFB	Fenamiphos	7.35	LCS	P	0 - 30
LFB	Fenbuconazole	10.1	LCS	P	0 - 30
LFB	Fipronil	5.35	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	2.24	LCS	P	0 - 30
LFB	Fipronil Sulfide	3.26	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.243	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	5.53	LCS	P	0 - 30
LFB	Fludioxonil	11.3	LCS	P	0 - 30
LFB	Flumioxazin	10.5	LCS	P	0 - 30
LFB	Flutolanil	6.91	LCS	P	0 - 30
LFB	Fluxapyroxad	13.9	LCS	P	0 - 30
LFB	Fonofos	17.4	LCS	P	0 - 30
LFB	Hexazinone	0.0974	LCS	P	0 - 30
LFB	Imazalil	8.62	LCS	P	0 - 30
LFB	Iprodione	1.65	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P400966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Malathion	2.36	LCS	P	0 - 30
LFB	Metalaxyl	1.52	LCS	P	0 - 30
LFB	Metolachlor	0.861	LCS	P	0 - 30
LFB	Metribuzin	0.808	LCS	P	0 - 30
LFB	Mevinphos	16.7	LCS	P	0 - 30
LFB	Molinate	10.4	LCS	P	0 - 30
LFB	Myclobutanil	7.85	LCS	P	0 - 30
LFB	Naled	10.6	LCS	P	0 - 30
LFB	Norflurazon	2.50	LCS	P	0 - 30
LFB	Oxadiazon	11.6	LCS	P	0 - 30
LFB	Oxyfluorfen	9.42	LCS	P	0 - 30
LFB	Parathion Ethyl	6.05	LCS	P	0 - 30
LFB	Parathion Methyl	16.3	LCS	P	0 - 30
LFB	Pendimethalin	23.6	LCS	P	0 - 30
LFB	Phorate	16.4	LCS	P	0 - 30
LFB	Prodiamine	26.6	LCS	P	0 - 30
LFB	Prometon	4.63	LCS	P	0 - 30
LFB	Prometryn	2.33	LCS	P	0 - 30
LFB	Pronamide	8.22	LCS	P	0 - 30
LFB	Propiconazole	3.96	LCS	P	0 - 30
LFB	Pyriproxyfen	15.4	LCS	P	0 - 30
LFB	Simazine	2.81	LCS	P	0 - 30
LFB	Sulfentrazone	7.78	LCS	P	0 - 30
LFB	Tebuconazole	5.76	LCS	P	0 - 30
LFB	Terbufos	8.91	LCS	P	0 - 30
LFB	Terbuthylazine	2.98	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P401115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262487	Aldrin	2.78	Spike	P	0 - 30
2262487	Alpha-BHC	0.805	Spike	P	0 - 30
2262487	Alpha-Chlordane	0.0383	Spike	P	0 - 30
2262487	Beta-BHC	19.7	Spike	P	0 - 30
2262487	Beta-Cyfluthrin	0.424	Spike	P	0 - 30
2262487	Bifenthrin	0.733	Spike	P	0 - 30
2262487	Chlorothalonil	20.0	Spike	P	0 - 50
2262487	Cis-Nonachlor	2.70	Spike	P	0 - 30
2262487	Cypermethrin	6.00	Spike	P	0 - 30
2262487	Dacthal	1.79	Spike	P	0 - 30
2262487	DDD-p,p'	5.57	Spike	P	0 - 30
2262487	DDE-p,p'	1.72	Spike	P	0 - 30
2262487	DDT-p,p'	39.7	Spike	F	0 - 30
2262487	Delta-BHC	11.6	Spike	P	0 - 30
2262487	Deltamethrin	10.3	Spike	P	0 - 30
2262487	Dichlobenil	3.50	Spike	P	0 - 30
2262487	Dicofol	12.2	Spike	P	0 - 30
2262487	Dieldrin	8.57	Spike	P	0 - 30
2262487	Endosulfan I	2.23	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262487	Endosulfan II	4.21	Spike	P	0 - 30
2262487	Endosulfan Sulfate	46.4	Spike	F	0 - 30
2262487	Endrin	3.92	Spike	P	0 - 30
2262487	Endrin Aldehyde	1.45	Spike	P	0 - 30
2262487	Endrin Ketone	11.7	Spike	P	0 - 30
2262487	Esfenvalerate	6.09	Spike	P	0 - 30
2262487	Ethalfluralin	2.74	Spike	P	0 - 30
2262487	Fenpropathrin	0.443	Spike	P	0 - 30
2262487	Gamma-BHC	8.17	Spike	P	0 - 30
2262487	Gamma-Chlordane	1.49	Spike	P	0 - 30
2262487	Heptachlor	4.72	Spike	P	0 - 30
2262487	Heptachlor Epoxide	1.01	Spike	P	0 - 30
2262487	Hexachlorobenzene	3.68	Spike	P	0 - 30
2262487	Kepone	25.0	Spike	P	0 - 30
2262487	Lambda-Cyhalothrin	0.250	Spike	P	0 - 30
2262487	Methoxychlor	28.7	Spike	P	0 - 30
2262487	MGK-264	2.93	Spike	P	0 - 30
2262487	Mirex	1.50	Spike	P	0 - 30
2262487	Permethrin	5.89	Spike	P	0 - 30
2262487	Phenothrin	3.86	Spike	P	0 - 30
2262487	Piperonyl Butoxide	6.52	Spike	P	0 - 30
2262487	Prallethrin	2.69	Spike	P	0 - 30
2262487	Tau-Fluvalinate	4.22	Spike	P	0 - 30
2262487	Tetramethrin	5.57	Spike	P	0 - 30
2262487	Trans-Nonachlor	0.0546	Spike	P	0 - 30
2262487	Triclosan Methyl	3.75	Spike	P	0 - 30
2262487	Trifluralin	4.99	Spike	P	0 - 30
LFB	Aldrin	1.18	LCS	P	0 - 30
LFB	Alpha-BHC	2.80	LCS	P	0 - 30
LFB	Alpha-Chlordane	6.30	LCS	P	0 - 30
LFB	Beta-BHC	20.2	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	1.66	LCS	P	0 - 30
LFB	Bifenthrin	3.98	LCS	P	0 - 30
LFB	Chlorothalonil	1.89	LCS	P	0 - 50
LFB	Cis-Nonachlor	9.85	LCS	P	0 - 30
LFB	Cypermethrin	5.29	LCS	P	0 - 30
LFB	Dacthal	2.16	LCS	P	0 - 30
LFB	DDD-p,p'	9.81	LCS	P	0 - 30
LFB	DDE-p,p'	2.41	LCS	P	0 - 30
LFB	DDT-p,p'	3.53	LCS	P	0 - 30
LFB	Delta-BHC	7.52	LCS	P	0 - 30
LFB	Deltamethrin	2.56	LCS	P	0 - 30
LFB	Dichlobenil	11.6	LCS	P	0 - 30
LFB	Dicofol	4.54	LCS	P	0 - 30
LFB	Dieldrin	0.375	LCS	P	0 - 30
LFB	Endosulfan I	4.10	LCS	P	0 - 30
LFB	Endosulfan II	15.1	LCS	P	0 - 30
LFB	Endosulfan Sulfate	0.135	LCS	P	0 - 30
LFB	Endrin	13.8	LCS	P	0 - 30
LFB	Endrin Aldehyde	8.43	LCS	P	0 - 30
LFB	Endrin Ketone	8.31	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P401115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Esfenvalerate	5.73	LCS	P	0 - 30
LFB	Ethalfluralin	0.591	LCS	P	0 - 30
LFB	Fenpropathrin	1.42	LCS	P	0 - 30
LFB	Gamma-BHC	4.54	LCS	P	0 - 30
LFB	Gamma-Chlordane	0.262	LCS	P	0 - 30
LFB	Heptachlor	1.44	LCS	P	0 - 30
LFB	Heptachlor Epoxide	0.302	LCS	P	0 - 30
LFB	Hexachlorobenzene	1.44	LCS	P	0 - 30
LFB	Kepone	5.61	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.794	LCS	P	0 - 30
LFB	Methoxychlor	15.6	LCS	P	0 - 30
LFB	MGK-264	5.91	LCS	P	0 - 30
LFB	Mirex	9.53	LCS	P	0 - 30
LFB	Permethrin	5.52	LCS	P	0 - 30
LFB	Phenothrin	2.44	LCS	P	0 - 30
LFB	Piperonyl Butoxide	45.3	LCS	F	0 - 30
LFB	Prallethrin	1.41	LCS	P	0 - 30
LFB	Tau-Fluvalinate	1.60	LCS	P	0 - 30
LFB	Tetramethrin	0.116	LCS	P	0 - 30
LFB	Trans-Nonachlor	5.01	LCS	P	0 - 30
LFB	Triclosan Methyl	0.242	LCS	P	0 - 30
LFB	Trifluralin	0.808	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P401115

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262014	Chlordane	1.12	Spike	P	0 - 30
2262014	Toxaphene	4.36	Spike	P	0 - 30
LFB	Chlordane	2.74	LCS	P	0 - 30
LFB	Toxaphene	2.18	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P400997

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262210	Acesulfame K	2.31	Spike	P	0 - 30
2262210	AMPA	2.15	Spike	P	0 - 30
2262210	Endothall	3.85	Spike	P	0 - 30
2262210	Glufosinate	1.28	Spike	P	0 - 30
2262210	Glyphosate	0.513	Spike	P	0 - 30
2262210	Sucralose	3.01	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262208	2,4-D	4.85	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P401065

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262208	2,4,5-T	2.58	Spike	P	0 - 30
2262208	Acetaminophen	4.50	Spike	P	0 - 30
2262208	Acetamiprid	9.67	Spike	P	0 - 30
2262208	Afidopyropen	12.5	Spike	P	0 - 30
2262208	Bentazon	12.0	Spike	P	0 - 30
2262208	Benzovindiflupyr	1.03	Spike	P	0 - 30
2262208	Carbamazepine	7.12	Spike	P	0 - 30
2262208	Clothianidin	4.16	Spike	P	0 - 30
2262208	Dinotefuran	3.03	Spike	P	0 - 30
2262208	Diuron	2.18	Spike	P	0 - 30
2262208	Fenuron	3.02	Spike	P	0 - 30
2262208	Fluridone	0.465	Spike	P	0 - 30
2262208	Hydrocodone	1.20	Spike	P	0 - 30
2262208	Ibuprofen	4.39	Spike	P	0 - 30
2262208	Imazapyr	12.7	Spike	P	0 - 30
2262208	Imidacloprid	3.93	Spike	P	0 - 30
2262208	Linuron	0.0942	Spike	P	0 - 30
2262208	Mandestrobin	0.527	Spike	P	0 - 30
2262208	MCPP	4.68	Spike	P	0 - 30
2262208	Naproxen	6.38	Spike	P	0 - 30
2262208	Primidone	1.08	Spike	P	0 - 30
2262208	Pyraclostrobin	2.47	Spike	P	0 - 30
2262208	Thiamethoxam	3.93	Spike	P	0 - 30
2262208	Tolfenpyrad	0.112	Spike	P	0 - 30
2262208	Triclopyr	3.12	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P401194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262363	3-Hydroxycarbofuran	0.724	Spike	P	0 - 30
2262363	Aldicarb	13.4	Spike	P	0 - 30
2262363	Aldicarb Sulfone	2.81	Spike	P	0 - 30
2262363	Aldicarb Sulfoxide	1.94	Spike	P	0 - 30
2262363	Carbaryl	2.40	Spike	P	0 - 30
2262363	Carbofuran	0.833	Spike	P	0 - 30
2262363	Methiocarb	7.86	Spike	P	0 - 30
2262363	Methomyl	1.04	Spike	P	0 - 30
2262363	Oxamyl	1.64	Spike	P	0 - 30
2262363	Propoxur	1.36	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P401039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262350	Color (true)	1.09	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B-2011
Batch ID: P401040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262394	Color (true)	5.16	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P401143

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262470	Total Alkalinity	0.117	Sample	P	0 - 5.2

Reference Method: SM 2320 B-2011
Batch ID: P401349

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262793	Total Alkalinity	0.0204	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P401423

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262221	TDS	5.14	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P401146

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262470	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P401489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2262587	Organic Carbon	1.42	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2262363
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	70.4	P	30 - 160

Lab Sample ID: 2262364
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.8	P	30 - 160
EPA 8321B	Diuron-d6	75.7	P	30 - 160
EPA 8321B	Endothall-d6	113	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	77.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.4	P	30 - 160
EPA 8321B	Primidone-d5	97.2	P	30 - 160
EPA 8321B	Sucralose-d6	98.2	P	30 - 160

Lab Sample ID: 2262365
Field Sample ID: G4NW0193

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.9	P	30 - 160
EPA 8321B	Diuron-d6	74.1	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	62.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.1	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Lab Sample ID: 2262369
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	105	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	78.6	P	30 - 110
EPA 8276	Decachlorobiphenyl	75.5	P	29 - 92.0
EPA 8276	PCNB	110	P	43 - 134

Lab Sample ID: 2262370
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	41.1	P	20 - 200
EPA 8270E	Simazine-d10	106	P	73 - 135
EPA 8270E	Terbufos-d10	109	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A106644
Included Lab Sample IDs: 2262352, 2262355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.5	P/P	90 - 110

Reference Method: SM 2120 B-2011
Run ID: A106646
Included Lab Sample IDs: 2262350, 2262353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115
Color (true)	99.3	99.8	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A106647
Included Lab Sample IDs: 2262350, 2262353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	102	P/P	95 - 105

Reference Method: EPA 8321B
Run ID: A106658
Included Lab Sample IDs: 2262364, 2262365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	103	P/P	60 - 160
Glufosinate	100	101	P/P	60 - 160
Glyphosate	104	102	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A106673
Included Lab Sample IDs: 2262364, 2262365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	96.8	108	P/P	60 - 160
Endothall	89.0	95.4	P/P	60 - 160
Sucralose	93.1	95.7	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A106679
Included Lab Sample IDs: 2262350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	98.0	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A106679
Included Lab Sample IDs: 2262350, 2262353

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

Quality Assurance Report
Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A106682
Included Lab Sample IDs: 2262351, 2262354

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

Reference Method: EPA 8321B
Run ID: A106699
Included Lab Sample IDs: 2262364, 2262365

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	102	P/P	50 - 150
2,4,5-T	101	108	P/P	50 - 150
Acetaminophen	105	102	P/P	60 - 160
Acetamiprid	104	102	P/P	50 - 150
Afidopyropen	106	109	P/P	50 - 150
Bentazon	117	115	P/P	50 - 160
Benzovindiflupyr	110	109	P/P	50 - 160
Carbamazepine	106	106	P/P	60 - 150
Clothianidin	104	104	P/P	60 - 150
Dinotefuran	106	106	P/P	50 - 150
Diuron	115	112	P/P	60 - 160
Fenuron	106	106	P/P	60 - 150
Fluridone	111	106	P/P	60 - 160
Hydrocodone	111	107	P/P	60 - 150
Ibuprofen	99.9	111	P/P	50 - 160
Imazapyr	101	103	P/P	50 - 160
Imidacloprid	101	101	P/P	60 - 150
Linuron	105	106	P/P	60 - 150
Mandestrobin	111	110	P/P	50 - 150
MCPP	105	105	P/P	50 - 150
Naproxen	96.7	98.4	P/P	50 - 160
Primidone	101	99.9	P/P	60 - 150
Pyraclostrobin	114	113	P/P	60 - 150
Thiamethoxam	106	108	P/P	50 - 150
Tolfenpyrad	105	104	P/P	60 - 150
Triclopyr	104	107	P/P	50 - 150

Reference Method: EPA 8276
Run ID: A106722
Included Lab Sample IDs: 2262369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.5		P	80 - 120
Toxaphene	89.6		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106738
Included Lab Sample IDs: 2262369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.7		P	80 - 120
Alpha-BHC	97.0		P	80 - 120
Alpha-Chlordane	110		P	80 - 120
Beta-BHC	94.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A106738
Included Lab Sample IDs: 2262369

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beta-Cyfluthrin	99.5		P	80 - 120
Bifenthrin	97.7		P	80 - 120
Chlorothalonil	85.2		P	80 - 120
Cis-Nonachlor	112		P	80 - 120
Cypermethrin	105		P	80 - 120
Dacthal	94.6		P	80 - 120
DDD-p,p'	116		P	80 - 120
DDE-p,p'	96.7		P	80 - 120
DDT-p,p'	98.2		P	80 - 120
Delta-BHC	96.3		P	80 - 120
Deltamethrin	92.1		P	80 - 120
Dichlobenil	97.1		P	80 - 120
Dicofol	94.8		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	95.4		P	80 - 120
Endosulfan II	105		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	110		P	80 - 120
Endrin Aldehyde	107		P	80 - 120
Endrin Ketone	93.4		P	80 - 120
Esfenvalerate	99.7		P	80 - 120
Ethalfluralin	93.4		P	80 - 120
Fenpropathrin	101		P	80 - 120
Gamma-BHC	96.9		P	80 - 120
Gamma-Chlordane	98.2		P	80 - 120
Heptachlor	99.1		P	80 - 120
Heptachlor Epoxide	94.4		P	80 - 120
Hexachlorobenzene	98.3		P	80 - 120
Kepone	89.9		P	80 - 120
Lambda-Cyhalothrin	102		P	80 - 120
Methoxychlor	89.7		P	80 - 120
MGK-264	97.9		P	80 - 120
Mirex	106		P	80 - 120
Permethrin	109		P	80 - 120
Phenothrin	98.3		P	80 - 120
Piperonyl Butoxide	121*		F	80 - 120
Prallethrin	96.6		P	80 - 120
Tau-Fluvalinate	101		P	80 - 120
Tetramethrin	95.2		P	80 - 120
Trans-Nonachlor	96.7		P	80 - 120
Triclosan Methyl	98.6		P	80 - 120
Trifluralin	94.9		P	80 - 120

Reference Method: SM 2320 B-2011
Run ID: A106753
Included Lab Sample IDs: 2262353

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A106762
Included Lab Sample IDs: 2262350, 2262353

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

Reference Method: EPA 8321B
Run ID: A106768
Included Lab Sample IDs: 2262363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	103	100	P/P	60 - 150
Aldicarb	114	104	P/P	60 - 150
Aldicarb Sulfone	108	109	P/P	50 - 150
Aldicarb Sulfoxide	108	107	P/P	50 - 150
Carbaryl	115	118	P/P	60 - 150
Carbofuran	109	109	P/P	50 - 150
Methiocarb	115	114	P/P	50 - 150
Methomyl	110	110	P/P	50 - 150
Oxamyl	105	103	P/P	50 - 150
Propoxur	111	114	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A106786
Included Lab Sample IDs: 2262351, 2262354

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

Reference Method: SM 5310 B-2011
Run ID: A106803
Included Lab Sample IDs: 2262351, 2262354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.1	99.1	P/P	90 - 110
Organic Carbon	99.1	97.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106806
Included Lab Sample IDs: 2262373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Arsenic	98.7	98.7	P/P	90 - 110
Beryllium	100	100	P/P	90 - 110
Boron	101	103	P/P	90 - 110
Cadmium	104	103	P/P	90 - 110
Chromium	102	99.7	P/P	90 - 110
Copper	94.8	93.9	P/P	90 - 110
Lead	99.9	99.6	P/P	90 - 110
Nickel	94.8	94.4	P/P	90 - 110
Selenium	102	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106806
Included Lab Sample IDs: 2262373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	98.4	97.1	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A106813
Included Lab Sample IDs: 2262370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.0		P	80 - 120
Alachlor	97.9		P	80 - 120
Ametryn	90.8		P	80 - 120
Atrazine	98.3		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	143*		F	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	95.4		P	80 - 120
Butylate	97.2		P	80 - 120
Caffeine	98.4		P	70 - 120
Carfentrazone Ethyl	84.8		P	80 - 120
Chlorpyrifos Ethyl	95.0		P	80 - 120
Chlorpyrifos Methyl	87.4		P	80 - 120
Cyanazine	86.6		P	80 - 120
Demeton	98.8		P	80 - 120
Diazinon	98.3		P	80 - 120
Difenoconazole	86.0		P	80 - 120
Dimethenamid	93.6		P	80 - 120
Disulfoton	98.6		P	80 - 120
Dithiopyr	94.8		P	80 - 120
EPTC	101		P	80 - 120
Ethion	90.9		P	80 - 120
Ethoprop	106		P	80 - 120
Fenamiphos	89.5		P	80 - 120
Fenbuconazole	94.7		P	80 - 120
Fipronil	89.7		P	80 - 120
Fipronil Desulfinyl	88.5		P	80 - 120
Fipronil Sulfone	84.5		P	80 - 120
Fluazifop-P-butyl	86.0		P	80 - 120
Fludioxonil	92.9		P	80 - 120
Flumioxazin	78.7*		F	80 - 120
Flutolanil	97.0		P	80 - 120
Fluxapyroxad	77.3*		F	80 - 120
Fonofos	95.5		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	89.0		P	80 - 120
Iprodione	83.8		P	80 - 120
Malathion	83.7		P	80 - 120
Metalaxyl	99.5		P	80 - 120
Metolachlor	99.7		P	80 - 120
Metribuzin	108		P	80 - 120
Mevinphos	115		P	80 - 120
Molinate	103		P	80 - 120
Myclobutanil	97.4		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A106813
Included Lab Sample IDs: 2262370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Naled	101		P	80 - 120
Norflurazon	92.3		P	80 - 120
Oxadiazon	98.4		P	80 - 120
Oxyfluorfen	80.2		P	80 - 120
Parathion Ethyl	105		P	80 - 120
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	110		P	80 - 120
Phorate	108		P	80 - 120
Prodiamine	94.4		P	80 - 120
Prometon	91.8		P	80 - 120
Prometryn	97.8		P	80 - 120
Pronamide	97.3		P	80 - 120
Propiconazole	90.5		P	80 - 120
Pyriproxyfen	118		P	80 - 120
Simazine	100		P	80 - 120
Sulfentrazone	80.6		P	80 - 120
Tebuconazole	98.2		P	80 - 120
Terbufos	97.4		P	80 - 120
Terbuthylazine	98.5		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A106828
Included Lab Sample IDs: 2262351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106829
Included Lab Sample IDs: 2262373

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

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A106839
Included Lab Sample IDs: 2262373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	103	102	P/P	90 - 110
Calcium	103	103	P/P	90 - 110
Iron	101	100	P/P	90 - 110
Magnesium	101	100	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Potassium	98.6	98.9	P/P	90 - 110
Sodium	99.8	99.6	P/P	90 - 110
Zinc	106	105	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A106850
Included Lab Sample IDs: 2262354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	98.0	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A106869
Included Lab Sample IDs: 2262370

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Carbophenothion	109		P	80 - 120
Fipronil Sulfide	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106941
Included Lab Sample IDs: 2262373

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	99.3	95.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A107147
Included Lab Sample IDs: 2262351, 2262354

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.5	96.9	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							3.67	
EPA 200.7 Rev. 4.4	Barium	102		106	104	108			3.67
	Calcium	107		114	109				3.46
	Iron	106		111	108	112			3.43
	Magnesium	109		115	107	114			3.82
	Manganese	102		105	103	107			3.43
	Potassium	101		103	98.9	104			2.71
	Sodium	106		108	104				2.39
	Zinc	99.6		108	107	111			3.49
EPA 200.8 Rev. 5.4	Aluminum	105		102	103	106			1.13
	Antimony	108		107	108	113			0.763
	Arsenic	102		98.8	100	99.4			1.00
	Beryllium	106		104	106	107			1.60
	Boron	105		104	107	109			2.01
	Cadmium	101		102	103	104			1.16
	Chromium	101		100	101	102			0.783
	Copper	99.0		97.1	94.4	95.6			2.68
	Lead	102		98.0	98.0	103			0.0011
	Nickel	102		93.0	91.5	96.2			1.45
	Selenium	102		99.5	99.6	101			0.119
	Silver	113		111	107	111			4.16
	Thallium	103		105	105	104			0.280
EPA 300.0 Rev. 2.1	Chloride	100		98.1	98.8			0.304	
	Sulfate	99.9		98.9	98.9			0.407	
EPA 350.1 Rev. 2.0	Ammonia-N	102		99.4	99.6				0.122
	Ammonia-N	101		99.0	96.0				2.20
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105		110	107				2.58
EPA 353.2 Rev. 2.0	NO2NO3-N	100		100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	105		102	106				2.68
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.5		97.8	98.2				0.322
EPA 8270E	Acetochlor	93.7	98.9	117	114		5.40		3.16
	Alachlor	81.4	87.0	105	95.1		6.63		9.82
	Aldrin	54.2	54.9	71.4	73.4		1.18		2.78
	Alpha-BHC	99.7	97.0	94.7	93.9		2.80		0.805
	Alpha-Chlordane	92.3	86.6	89.9	89.8		6.30		0.0383
	Ametryn	94.5	103	113	106		8.41		6.58
	Atrazine	86.1	88.1	105	100		2.30		3.66
	Atrazine Desethyl	65.1	58.8	70.3	68.2		10.2		2.44
	Azinphos Methyl	91.1	104	109	94.0		13.3		14.9
	Azoxystrobin	127	120	146	137		5.70		6.22
	Beta-BHC	104	85.1	85.6	70.2		20.2		19.7
	Beta-Cyfluthrin	95.9	97.5	124	125		1.66		0.424
	Bifenthrin	60.3	62.7	85.2	85.8		3.98		0.733
	Bromacil	75.9	74.8	91.9	90.5		1.34		1.54
	Butylate	55.6	48.0	45.7	56.9		14.6		21.8
	Caffeine	89.8	118	143	102		27.0		33.3
	Carbophenothion	103	101	116	106		2.23		8.95
	Carfentrazone Ethyl	103	111	135	122		6.71		9.77
	Chlorothalonil	101	103	114	93.1		1.89		20.0
	Chlorpyrifos Ethyl	88.8	84.9	100	93.2		4.55		7.04
	Chlorpyrifos Methyl	91.1	88.7	105	107		2.71		1.73
	Cis-Nonachlor	87.1	96.2	93.7	96.3		9.85		2.70
	Cyanazine	123	124	160	145		0.653		9.70
	Cypermethrin	92.2	97.2	115	122		5.29		6.00

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Dacthal	101	98.7	86.6	85.0	2.16		1.79
	DDD-p,p'	89.2	98.4	88.8	93.8	9.81		5.57
	DDE-p,p'	82.4	84.4	83.9	85.4	2.41		1.72
	DDT-p,p'	87.9	91.1	91.0	60.8	3.53		39.7
	Delta-BHC	115	106	103	91.3	7.52		11.6
	Deltamethrin	93.6	96.0	112	124	2.56		10.3
	Demeton	84.8	78.7	95.2	93.6	7.55		1.71
	Diazinon	116	107	128	119	8.52		7.04
	Dichlobenil	88.9	79.2	50.9	52.7	11.6		3.50
	Dicofol	78.5	75.0	80.5	71.2	4.54		12.2
	Dieldrin	90.5	90.2	85.1	92.7	0.375		8.57
	Difenoconazole	142	177	185	181	21.9		2.24
	Dimethenamid	70.0	78.0	86.1	75.1	10.7		13.6
	Disulfoton	94.2	86.1	102	95.6	8.91		6.14
	Dithiopyr	85.3	85.4	109	102	0.108		7.06
	Endosulfan I	86.7	90.3	86.3	88.2	4.10		2.23
	Endosulfan II	95.0	110	91.9	95.8	15.1		4.21
	Endosulfan Sulfate	101	101	83.2	51.9	0.135		46.4
	Endrin	89.3	102	92.5	96.2	13.8		3.92
	Endrin Aldehyde	91.3	99.3	70.2	69.2	8.43		1.45
	Endrin Ketone	89.7	82.6	71.3	63.4	8.31		11.7
	EPTC	48.3	51.0	46.4	56.6	5.50		19.7
	Esfenvalerate	87.0	92.1	121	114	5.73		6.09
	Ethalfluralin	74.1	74.6	77.0	74.9	0.591		2.74
	Ethion	87.8	94.6	55.6	49.1	7.46		12.3
	Ethoprop	95.3	86.6	109	103	9.58		5.50
	Fenamiphos	91.7	85.2	105	93.5	7.35		11.7
	Fenbuconazole	111	123	134	117	10.1		13.7
	Fenpropathrin	79.1	80.2	91.2	90.8	1.42		0.443
	Fipronil	95.7	101	129	112	5.35		13.6
	Fipronil Desulfinyl	97.0	94.9	127	122	2.24		3.82
	Fipronil Sulfide	79.7	77.1	102	97.1	3.26		4.65
	Fipronil Sulfone	66.7	66.9	84.2	80.9	0.243		3.04
	Fluazifop-P-butyl	91.4	96.6	122	113	5.53		7.99
	Fludioxonil	80.5	90.1	105	97.5	11.3		6.99
	Flumioxazin	174	193	209	220	10.5		4.97
	Flutolanil	84.7	90.7	107	98.3	6.91		8.69
	Fluxapyroxad	60.0	69.0	77.5	72.8	13.9		6.27
	Fonofos	90.4	76.0	92.1	93.1	17.4		1.05
	Gamma-BHC	97.8	93.5	92.9	85.6	4.54		8.17
	Gamma-Chlordane	81.1	81.3	84.5	85.8	0.262		1.49
	Heptachlor	71.9	70.9	81.8	78.0	1.44		4.72
	Heptachlor Epoxide	84.1	84.3	80.0	80.8	0.302		1.01
	Hexachlorobenzene	72.2	71.2	87.1	84.0	1.44		3.68
	Hexazinone	86.2	86.3	106	101	0.0974		5.29
	Imazalil	93.8	86.0	175	157	8.62		10.7
	Iprodione	98.5	100	107	102	1.65		4.86
	Kepone	87.9	92.9	40.3	31.3	5.61		25.0
	Lambda-Cyhalothrin	79.2	78.6	128	128	0.794		0.250
	Malathion	107	105	117	115	2.36		1.65
	Metalaxyl	80.9	82.1	99.6	89.1	1.52		11.1
	Methoxychlor	79.2	67.8	78.6	105	15.6		28.7
	Metolachlor	84.3	85.0	103	93.9	0.861		9.19
	Metribuzin	103	104	113	123	0.808		8.54

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	Mevinphos	96.5	81.6	106	102	16.7		3.72
	MGK-264	90.3	85.1	90.6	87.9	5.91		2.93
	Mirex	68.6	75.4	84.4	85.7	9.53		1.50
	Molinate	69.3	62.5	66.5	70.0	10.4		5.20
	Myclobutanil	81.9	88.6	104	90.1	7.85		14.3
	Naled	38.8	43.1	27.3	31.0	10.6		12.9
	Norflurazon	81.0	83.0	98.6	89.9	2.50		9.27
	Oxadiazon	78.4	88.0	99.0	90.9	11.6		8.48
	Oxyfluorfen	75.6	83.0	113	99.9	9.42		12.0
	Parathion Ethyl	86.4	91.7	87.7	87.3	6.05		0.539
	Parathion Methyl	103	121	111	105	16.3		5.04
	Pendimethalin	68.9	87.3	83.1	71.3	23.6		15.2
	Permethrin	92.7	98.0	113	120	5.52		5.89
	Phenothrin	59.1	60.5	122	117	2.44		3.86
	Phorate	93.4	79.3	92.2	84.5	16.4		8.79
	Piperonyl Butoxide	119	75.1	74.6	69.9	45.3		6.52
	Prallethrin	77.7	76.6	90.2	87.8	1.41		2.69
	Prodiamine	49.1	37.5	83.5	109	26.6		26.6
	Prometon	91.1	87.0	108	103	4.63		4.77
	Prometryn	93.2	95.4	116	108	2.33		6.44
	Pronamide	88.8	96.4	110	99.9	8.22		9.48
	Propiconazole	82.7	86.1	103	96.1	3.96		7.38
	Pyriproxyfen	73.1	85.3	91.1	83.0	15.4		9.24
	Simazine	83.0	80.7	103	98.5	2.81		4.72
	Sulfentrazone	64.8	70.0			7.78		5.95
	Tau-Fluvalinate	81.0	82.3	109	105	1.60		4.22
	Tebuconazole	35.7	37.8	40.0	35.6	5.76		11.7
	Terbufos	113	103	130	120	8.91		7.67
	Terbuthylazine	86.3	88.9	108	96.4	2.98		11.3
	Tetramethrin	70.0	69.9	88.3	83.5	0.116		5.57
	Trans-Nonachlor	79.7	83.8	83.0	83.0	5.01		0.0546
	Triclosan Methyl	90.3	90.5	87.2	90.6	0.242		3.75
	Trifluralin	74.4	75.0	80.1	76.2	0.808		4.99
EPA 8276	Chlordane	84.6	86.9	96.6	97.7	2.74		1.12
	Toxaphene	72.1	70.5	75.6	79.0	2.18		4.36
EPA 8321B	2,4-D	125		111	118			4.85
	2,4,5-T	117		99.6	102			2.58
	3-Hydroxycarbofuran	90.7		104	103			0.724
	Acesulfame K	102		128	131			2.31
	Acetaminophen	91.8		102	107			4.50
	Acetamiprid	90.4		84.0	92.5			9.67
	Afidopyropen	76.1		61.9	70.1			12.5
	Aldicarb	74.0		81.3	71.1			13.4
	Aldicarb Sulfone	103		121	124			2.81
	Aldicarb Sulfoxide	102		39.6	40.4			1.94
	AMPA	98.8		66.7	70.9			2.15
	Bentazon	105						12.0
	Benzovindiflupyr	93.8		84.6	85.5			1.03
	Carbamazepine	98.6		89.1	83.0			7.12
	Carbaryl	93.5		84.1	82.1			2.40
	Carbofuran	96.4		88.9	88.2			0.833
	Clothianidin	98.7		107	112			4.16
	Dinotefuran	100		124	128			3.03
	Diuron	88.3		72.3	70.6			2.18

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Endothall	90.2	111	115			3.85
	Fenuron	102	97.2	94.3			3.02
	Fluridone	95.7	79.7	80.1			0.465
	Glufosinate	98.8	79.3	80.3			1.28
	Glyphosate	102	68.4	67.3			0.513
	Hydrocodone	99.7	113	112			1.20
	Ibuprofen	93.1	71.6	74.8			4.39
	Imazapyr	107					12.7
	Imidacloprid	99.9	145	151			3.93
	Linuron	82.8	68.0	68.0			0.0942
	Mandestrobin	99.8	88.2	87.7			0.527
	MCPP	119	99.5	104			4.68
	Methiocarb	95.3	88.0	95.2			7.86
	Methomyl	106	101	102			1.04
	Naproxen	80.9	71.1	75.8			6.38
	Oxamyl	96.0	96.0	97.6			1.64
	Primidone	95.3	104	103			1.08
	Propoxur	96.9	89.2	90.4			1.36
	Pyraclostrobin	90.5	85.3	87.4			2.47
	Sucralose	96.9	104	100			3.01
	Thiamethoxam	102	141	147			3.93
	Tolfenpyrad	52.5	52.0	52.0			0.112
	Triclopyr	119	100	103			3.12
SM 2120 B-2011	Color (true)	99.8				1.09	
	Color (true)	101				5.16	
SM 2320 B-2011	Total Alkalinity	104				0.117	
	Total Alkalinity	103				0.0204	
SM 2540 C-2011	TDS					5.14	
SM 4500 F-C-2011	Fluoride	100	99.2	99.2			0.0
SM 5310 B-2011	Organic Carbon	95.8	95.4	97.4			1.42

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2262350, 2262353
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2262373
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2262373
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2262350, 2262353
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2262350, 2262353
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2262351, 2262354
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2262351, 2262354
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2262351, 2262354
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2262351, 2262354
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2262352, 2262355
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2262369
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2262370
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2262369
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2262363
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2262364, 2262365
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2262350, 2262353

Reference Method Descriptions

Method	Description	Associated Samples
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2262350, 2262353
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2262373
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2262350, 2262353
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2262350, 2262353
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2262350, 2262353
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2262351, 2262354

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	07/15/2021			07/15/2021 15:38	Sarah A Nixon	2262350, 2262353
EPA 200.7 Rev. 4.4	07/15/2021	07/15/2021 14:55	Elliott D. Healy	07/26/2021 15:58	Josef B Mick	2262373
EPA 200.8 Rev. 5.4	07/15/2021	07/22/2021 15:25	Elliott D. Healy	07/23/2021 21:22	Alexander Thompson	2262373
	07/15/2021	07/22/2021 15:25	Elliott D. Healy	07/26/2021 15:49	Alexander Thompson	2262373
	07/15/2021	07/28/2021 12:45	Elliott D. Healy	07/29/2021 20:08	McKinley C Carter	2262373
EPA 300.0 Rev. 2.1	07/15/2021			07/21/2021 00:51	Lipi Saha	2262350
	07/15/2021			07/21/2021 04:17	Lipi Saha	2262353
EPA 350.1 Rev. 2.0	07/15/2021			07/26/2021 14:15	Roberta Tatti	2262351
	07/15/2021			07/27/2021 12:15	Roberta Tatti	2262354
EPA 351.2 Rev. 2.0	07/15/2021	08/06/2021 13:37	Benjamin T. Nordmann	08/10/2021 12:45	Virginia P. Brown	2262351
	07/15/2021	08/06/2021 13:37	Benjamin T. Nordmann	08/10/2021 12:47	Virginia P. Brown	2262354
EPA 353.2 Rev. 2.0	07/15/2021			07/19/2021 09:59	Beverly Y. Sanders	2262351
	07/15/2021			07/19/2021 10:01	Beverly Y. Sanders	2262354
EPA 365.1 Rev. 2.0	07/15/2021	07/22/2021 12:02	Shengyu Ding	07/23/2021 08:47	Shengyu Ding	2262351
	07/15/2021	07/22/2021 12:02	Shengyu Ding	07/23/2021 08:50	Shengyu Ding	2262354
EPA 365.1 Rev. 2.0 dissolved	07/15/2021			07/15/2021 15:19	Ping Hua	2262352
	07/15/2021			07/15/2021 15:20	Ping Hua	2262355
EPA 8270E	07/15/2021	07/18/2021 11:00	Rasheda Ghaffari	07/20/2021 22:46	Arthur Maknenko	2262369
	07/15/2021	07/19/2021 08:00	Fe-Val Siddell	07/22/2021 19:35	Michael Poppell	2262370
	07/15/2021	07/19/2021 08:00	Fe-Val Siddell	07/27/2021 18:49	Michael Poppell	2262370
	07/15/2021	07/19/2021 08:00	Fe-Val Siddell	07/27/2021 19:15	Michael Poppell	2262370
EPA 8276	07/15/2021	07/18/2021 11:00	Rasheda Ghaffari	07/21/2021 07:23	Julie Wi	2262369
EPA 8321B	07/15/2021	07/16/2021 10:00	Pramila Ghimire	07/16/2021 11:41	Juyoung Kim	2262364
	07/15/2021	07/16/2021 10:00	Pramila Ghimire	07/16/2021 11:51	Juyoung Kim	2262365
	07/15/2021	07/16/2021 10:00	Pramila Ghimire	07/17/2021 01:02	Pramila Ghimire	2262364
	07/15/2021	07/16/2021 10:00	Pramila Ghimire	07/17/2021 01:15	Pramila Ghimire	2262365
	07/15/2021	07/19/2021 09:00	Hoor Shaik	07/20/2021 09:28	Juyoung Kim	2262364
	07/15/2021	07/19/2021 09:00	Hoor Shaik	07/20/2021 10:02	Juyoung Kim	2262365
	07/15/2021	07/21/2021 08:30	Hoor Shaik	07/21/2021 20:12	Juyoung Kim	2262363
SM 2120 B-2011	07/15/2021			07/15/2021 16:15	Sarah A Nixon	2262350
	07/15/2021			07/15/2021 16:42	Sarah A Nixon	2262353
SM 2320 B-2011	07/15/2021			07/17/2021 02:26	Dale L. Simmons	2262350
	07/15/2021			07/21/2021 01:43	Dale L. Simmons	2262353
SM 2340B	07/15/2021			07/26/2021 15:58	Josef B Mick	2262373
SM 2540 C-2011	07/15/2021			07/16/2021 14:42	Yijie Li	2262350, 2262353
SM 2540 D-2011	07/15/2021			07/16/2021 14:42	Yijie Li	2262350, 2262353
SM 4500 F-C-2011	07/15/2021			07/17/2021 02:26	Dale L. Simmons	2262350
	07/15/2021			07/17/2021 02:36	Dale L. Simmons	2262353
SM 5310 B-2011	07/15/2021			07/22/2021 12:10	Madeline Gruver	2262351
	07/15/2021			07/22/2021 12:54	Madeline Gruver	2262354