Chemical Analysis Report

NW-DIST-2021-05-28-01

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-2021-05-24-36**
Customer: **NW-DIST**
Project ID: **SMP**

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

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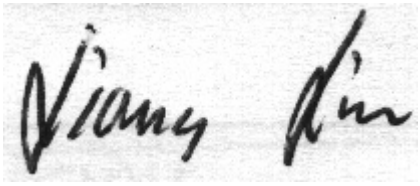
Certified by: Liang Lin, Environmental Administrator

Date Certified: 21-JUN-2021 14:41



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: Tom King Creek **Collection Date/Time: 05/27/2021 11:00**

Field ID: G4NW0193 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250953	EPA 8321B	2,4-D	0.0020	U	ug/L	P399014	
		Acesulfame K	0.27	I	ug/L	P399017	
		2,4,5-T	0.0040	U	ug/L	P399014	
		AMPA	0.10	U	ug/L	P399017	
		Sucralose	4.6		ug/L	P399017	MS
		Acetaminophen	0.0080	U	ug/L	P399014	
		Acetamiprid	0.0020	U	ug/L	P399014	
		Endothall	0.25	U	ug/L	P399017	
		Glufosinate	0.10	U	ug/L	P399017	
		Glyphosate	0.10	U	ug/L	P399017	
		Afidopyropen	0.0020	U	ug/L	P399014	
		Bentazon	0.0022	I	ug/L	P399014	
		Benzovindiflupyr	0.0020	U	ug/L	P399014	
		Carbamazepine	0.0012	I	ug/L	P399014	
		Clothianidin	0.041		ug/L	P399014	
		Dinotefuran	0.0032	I	ug/L	P399014	
		Diuron	0.0020	U	ug/L	P399014	
		Fenuron	0.016	U	ug/L	P399014	
		Fluridone	8.0E-04	U	ug/L	P399014	
		Imazapyr	0.0043	I	ug/L	P399014	
		Hydrocodone	0.0020	U	ug/L	P399014	
		Ibuprofen	0.020	U	ug/L	P399014	
		Imidacloprid	0.069		ug/L	P399014	
		Linuron	0.0040	U	ug/L	P399014	
		Mandestrobin	0.0020	U	ug/L	P399014	
		MCPP	0.0030	I	ug/L	P399014	
		Naproxen	0.0080	U	ug/L	P399014	
		Primidone	0.0087	I	ug/L	P399014	
		Pyraclostrobin	0.0020	U	ug/L	P399014	
		Thiamethoxam	0.0020	U	ug/L	P399014	
		Tolfenpyrad	0.0020	U	ug/L	P399014	
		Triclopyr	0.0040	U	ug/L	P399014	

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.

Sample Location: Discharge From Tiger Point Golf Course at Maplewood Drive **Collection Date/Time: 05/27/2021 11:30**

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250943	EPA 180.1 Rev. 2.0	Turbidity	2.0	A	NTU	P399206	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P399476	
		Sulfate	6.6		mg SO4/L	P399479	
	SM 2120 B-2011	Color (true)	91		PCU	P399012	
	SM 2320 B-2011	Total Alkalinity	25		mg CaCO3/L	P399063	
	SM 2540 C-2011	TDS	91		mg/L	P399519	
	SM 2540 D-2011	TSS	4	I	mg/L	P399105	
	SM 4500 F-C-2011	Fluoride	0.038	I	mg F/L	P399064	
2250944	EPA 350.1 Rev. 2.0	Ammonia-N	0.20		mg N/L	P399372	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P399039	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P399030	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P399034	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P399096	
2250945	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.078		mg P/L	P398989	
2250951	EPA 8321B	Aldicarb	0.020	UJ	ug/L	P399077	RPD
		Aldicarb Sulfone	0.0020	U	ug/L	P399077	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P399077	
		Carbaryl	0.0020	U	ug/L	P399077	
		Carbofuran	0.0020	U	ug/L	P399077	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P399077	
		Methiocarb	0.0020	U	ug/L	P399077	
		Methomyl	0.0020	U	ug/L	P399077	
		Oxamyl	0.0020	U	ug/L	P399077	
		Propoxur	0.0020	U	ug/L	P399077	
2250952		2,4-D	0.0023	I	ug/L	P399014	
		Acesulfame K	0.10	U	ug/L	P399017	
		2,4,5-T	0.0040	U	ug/L	P399014	
		AMPA	0.31	I	ug/L	P399017	
		Sucralose	4.7		ug/L	P399017	MS
		Acetaminophen	0.0080	U	ug/L	P399014	
		Acetamiprid	0.0020	U	ug/L	P399014	
		Endothall	0.25	U	ug/L	P399017	
		Glufosinate	0.10	U	ug/L	P399017	
		Glyphosate	0.42		ug/L	P399017	
		Afidopyropen	0.0020	U	ug/L	P399014	
		Bentazon	0.0065		ug/L	P399014	
		Benzovindiflupyr	0.0020	U	ug/L	P399014	
		Carbamazepine	0.0045		ug/L	P399014	
		Clothianidin	0.0020	U	ug/L	P399014	
		Dinotefuran	0.0020	U	ug/L	P399014	
		Diuron	0.0020	U	ug/L	P399014	
		Fenuron	0.016	U	ug/L	P399014	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250952	EPA 8321B	Fluridone	8.0E-04	U	ug/L	P399014	
		Imazapyr	0.0064	I	ug/L	P399014	
		Hydrocodone	0.0020	U	ug/L	P399014	
		Ibuprofen	0.020	U	ug/L	P399014	
		Imidacloprid	0.0025	I	ug/L	P399014	
		Linuron	0.0040	U	ug/L	P399014	
		Mandestrobin	0.0020	U	ug/L	P399014	
		MCPP	0.0091		ug/L	P399014	
		Naproxen	0.0080	U	ug/L	P399014	
		Primidone	0.016		ug/L	P399014	
		Pyraclostrobin	0.0020	U	ug/L	P399014	
		Thiamethoxam	0.0020	U	ug/L	P399014	
		Tolfenpyrad	0.0020	U	ug/L	P399014	
		Triclopyr	0.0040	U	ug/L	P399014	
2250954	EPA 8270E	Aldrin	0.73	UJ	ng/L	P399190	RPD
		Alpha-BHC	0.11	U	ng/L	P399190	
		Alpha-Chlordane	0.23	I	ng/L	P399190	
		Beta-BHC	0.11	U	ng/L	P399190	
		Beta-Cyfluthrin**	1.4	U	ng/L	P399190	RPD
		Bifenthrin**	0.56	U	ng/L	P399190	
		Chlorothalonil	1.5	I	ng/L	P399190	MS, RPD
		Cis-Nonachlor**	0.23	U	ng/L	P399190	
		Cypermethrin	1.7	U	ng/L	P399190	
		Dacthal**	0.17	U	ng/L	P399190	
		DDD-p,p'	0.28	U	ng/L	P399190	
		DDE-p,p'	0.23	U	ng/L	P399190	
		DDT-p,p'	0.28	U	ng/L	P399190	
		Delta-BHC	0.45	U	ng/L	P399190	
		Deltamethrin**	1.4	UJ	ng/L	P399190	LCS, MS
		Dichlobenil**	0.11	U	ng/L	P399190	RPD
		Dicofol	1.4	U	ng/L	P399190	
		Dieldrin	0.53	I	ng/L	P399190	
		Endosulfan I	0.45	U	ng/L	P399190	
		Endosulfan II	0.45	U	ng/L	P399190	
		Endosulfan Sulfate	0.34	U	ng/L	P399190	
		Endrin	0.45	U	ng/L	P399190	
		Endrin Aldehyde	0.84	U	ng/L	P399190	
		Endrin Ketone	0.45	U	ng/L	P399190	
		Esfenvalerate**	0.84	U	ng/L	P399190	RPD
		Ethalfluralin**	0.19	I	ng/L	P399190	
		Fenpropathrin**	0.28	U	ng/L	P399190	
		Gamma-BHC	0.14	U	ng/L	P399190	
		Gamma-Chlordane	0.29	I	ng/L	P399190	
		Heptachlor	0.23	U	ng/L	P399190	MS
		Heptachlor Epoxide	0.28	U	ng/L	P399190	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250954	EPA 8270E	Hexachlorobenzene	1.1	U	ng/L	P399190	
		Kepone**	5.6	U	ng/L	P399190	RPD
		Lambda-Cyhalothrin**	0.84	U	ng/L	P399190	
		Methoxychlor	0.34	U	ng/L	P399190	
		MGK-264**	0.23	U	ng/L	P399190	
		Mirex	0.34	U	ng/L	P399190	
		Permethrin	1.8	U	ng/L	P399190	
		Phenothrin**	1.0	U	ng/L	P399190	
		Piperonyl Butoxide**	0.17	U	ng/L	P399190	
		Prallethrin**	2.3	U	ng/L	P399190	
		Tau-Fluvalinate**	0.28	U	ng/L	P399190	
		Tetramethrin**	0.84	U	ng/L	P399190	
		Trans-Nonachlor**	0.23	U	ng/L	P399190	MS
		Triclosan Methyl**	0.17	U	ng/L	P399190	
		Trifluralin	0.23	U	ng/L	P399190	
	EPA 8276	Chlordane	5.6	U	ng/L	P399190	
		Toxaphene	34	U	ng/L	P399190	
2250955	EPA 8270E	Acetochlor	0.25	U	ng/L	P398911	
		Alachlor	0.25	U	ng/L	P398911	
		Ametryn	0.61	U	ng/L	P398911	
		Atrazine	0.82	I	ng/L	P398911	
		Atrazine Desethyl	1.8	I	ng/L	P398911	RPD
		Azinphos Methyl	2.0	U	ng/L	P398911	MS, RPD
		Azoxystrobin**	0.50	U	ng/L	P398911	
		Bromacil	0.50	U	ng/L	P398911	
		Butylate	0.40	U	ng/L	P398911	
		Caffeine**	7.6	U	ng/L	P398911	
		Carbophenothion	0.50	U	ng/L	P398911	
		Carfentrazone Ethyl**	0.10	U	ng/L	P398911	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P398911	
		Chlorpyrifos Methyl	0.050	U	ng/L	P398911	
		Cyanazine	3.3	U	ng/L	P398911	
		Demeton	1.5	U	ng/L	P398911	
		Diazinon	0.13	U	ng/L	P398911	
		Difenoconazole**	0.61	U	ng/L	P398911	
		Dimethenamid**	0.10	U	ng/L	P398911	
		Disulfoton	0.50	U	ng/L	P398911	
		Dithiopyr**	0.29	I	ng/L	P398911	
		EPTC	1.3	U	ng/L	P398911	
		Ethion	0.15	U	ng/L	P398911	
		Ethoprop	0.10	U	ng/L	P398911	
		Fenamiphos	0.50	U	ng/L	P398911	
		Fenbuconazole**	0.13	U	ng/L	P398911	
		Fipronil	5.0		ng/L	P398911	
		Fipronil Desulfinyl**	1.2		ng/L	P398911	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250955	EPA 8270E	Fipronil Sulfide	23		ng/L	P398911	
		Fipronil Sulfone	22		ng/L	P398911	
		Fluazifop-P-butyl**	0.10	U	ng/L	P398911	
		Fludioxonil**	0.13	U	ng/L	P398911	
		Flumioxazin**	1.8	U	ng/L	P398911	
		Flutolanil**	0.10	U	ng/L	P398911	
		Fluxapyroxad**	0.10	U	ng/L	P398911	
		Fonofos	0.20	U	ng/L	P398911	
		Hexazinone	0.50	U	ng/L	P398911	
		Imazalil**	0.76	U	ng/L	P398911	
		Iprodione**	0.61	U	ng/L	P398911	
		Malathion	0.35	U	ng/L	P398911	
		Metalaxyl	0.76	U	ng/L	P398911	
		Metolachlor	0.35	U	ng/L	P398911	
		Metribuzin	3.3	U	ng/L	P398911	
		Mevinphos	1.1	U	ng/L	P398911	
		Molinate	0.30	U	ng/L	P398911	
		Myclobutanil**	0.25	U	ng/L	P398911	
		Naled**	1.5	UJ	ng/L	P398911	LCS
		Norflurazon	0.50	U	ng/L	P398911	
		Oxadiazon	6.9		ng/L	P398911	
		Oxyfluorfen**	0.15	U	ng/L	P398911	
		Parathion Ethyl	0.25	U	ng/L	P398911	
		Parathion Methyl	0.55	U	ng/L	P398911	
		Pendimethalin	1.0	U	ng/L	P398911	
		Phorate	0.53	U	ng/L	P398911	
		Prodiamine**	0.18	U	ng/L	P398911	
		Prometon	0.91	U	ng/L	P398911	
		Prometryn	0.20	U	ng/L	P398911	
		Pronamide**	0.15	U	ng/L	P398911	
		Propiconazole**	0.50	U	ng/L	P398911	
		Pyriproxyfen**	0.13	U	ng/L	P398911	RPD
		Simazine	0.50	U	ng/L	P398911	
		Sulfentrazone**	24		ng/L	P398911	
		Tebuconazole**	0.50	U	ng/L	P398911	
		Terbufos	0.10	U	ng/L	P398911	
		Terbuthylazine	0.43	U	ng/L	P398911	
2250956	EPA 200.7 Rev. 4.4	Barium	6.8		ug/L	P399302	
		Calcium	9.52		mg/L	P399302	
		Iron	630		ug/L	P399302	
		Magnesium	2.27		mg/L	P399302	
		Manganese	13.9		ug/L	P399302	
		Potassium	2.5		mg/L	P399302	
		Sodium	12.2		mg/L	P399302	
		Zinc	5.0	U	ug/L	P399302	

Field ID: G4NW0211 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2250956	EPA 200.8 Rev. 5.4	Aluminum	255		ug/L	P399302	
		Antimony	0.050	U	ug/L	P399302	
		Arsenic	2.97		ug/L	P399302	
		Beryllium	0.010	U	ug/L	P399302	
		Boron**	43.0		ug/L	P399302	
		Cadmium	0.020	U	ug/L	P399302	
		Chromium	0.75	I	ug/L	P399302	
		Copper	4.65		ug/L	P399302	
		Lead	0.20	I	ug/L	P399302	
		Nickel	0.51	I	ug/L	P399302	
		Selenium	0.23	I	ug/L	P399302	
		Silver	0.010	U	ug/L	P399302	
		Thallium	0.10	U	ug/L	P399302	
	SM 2340B	Hardness	33.1		mg/L	P399302	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
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 some parameters not assessed due to high content of these parameters 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 06/13/2021.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399206

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P399302

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: P399302

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
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399372

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: P399039

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399030

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399034

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398989

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

Reference Method: EPA 8270E
Batch ID: P398911

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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P398911

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P398911

Component	Result	Code	Units
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
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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P399190

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Bifenthrin	0.50	U	ng/L
Chlorothalonil	0.50	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.25	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.10	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.40	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfluralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	5.0	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.30	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L

Reference Method: EPA 8276
Batch ID: P399190

Component	Result	Code	Units
Chlordane	5.0	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8276
Batch ID: P399190

Component	Result	Code	Units
Toxaphene	30	U	ng/L

Reference Method: EPA 8321B
Batch ID: P399014

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
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P399017

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: P399077

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P399077

Component	Result	Code	Units
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: P399012

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P399063

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

Reference Method: SM 2540 C-2011
Batch ID: P399519

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P399105

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P399064

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P399096

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: P399302

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	98.0		P	85 - 115
Calcium	108		P	85 - 115
Iron	106		P	85 - 115
Magnesium	105		P	85 - 115
Manganese	99.7		P	85 - 115
Potassium	101		P	85 - 115
Sodium	104		P	85 - 115
Zinc	93.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P399302

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.4		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	102		P	85 - 115
Beryllium	92.4		P	85 - 115
Boron	107		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	99.7		P	85 - 115
Copper	100		P	85 - 115
Lead	110		P	85 - 115
Nickel	99.6		P	85 - 115
Selenium	103		P	85 - 115
Silver	101		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399372

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399039

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399030

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: P399034

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398989

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

Reference Method: EPA 8270E
Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	74.6	77.1	P/P	70 - 121
Alachlor	71.4	73.0	P/P	70 - 119
Ametryn	98.4	89.2	P/P	61 - 135
Atrazine	80.7	86.5	P/P	76 - 123
Atrazine Desethyl	78.6	84.4	P/P	35 - 140
Azinphos Methyl	99.7	89.8	P/P	57 - 163
Azoxystrobin	118	118	P/P	43 - 231
Bromacil	66.6	67.4	P/P	42 - 123
Butylate	45.4	52.0	P/P	34 - 92.0
Caffeine	101	113	P/P	70 - 130
Carbophenothion	70.3	65.8	P/P	61 - 121
Carfentrazone Ethyl	84.6	76.3	P/P	62 - 139
Chlorpyrifos Ethyl	69.3	67.4	P/P	67 - 121
Chlorpyrifos Methyl	72.1	73.1	P/P	67 - 120
Cyanazine	151	154	P/P	20 - 226
Demeton	62.2	80.3	P/P	35 - 125
Diazinon	82.7	85.5	P/P	70 - 122
Difenoconazole	110	100	P/P	56 - 186
Dimethenamid	76.1	78.1	P/P	67 - 119
Disulfoton	61.0	77.9	P/P	47 - 120
Dithiopyr	71.7	72.9	P/P	67 - 118
EPTC	44.3	53.5	P/P	33 - 90.0
Ethion	51.8	58.4	P/P	40 - 133
Ethoprop	83.4	101	P/P	61 - 121
Fenamiphos	86.6	81.3	P/P	31 - 139
Fenbuconazole	90.1	76.9	P/P	66 - 141
Fipronil	83.3	77.3	P/P	62 - 129
Fipronil Desulfinyl	76.9	76.1	P/P	59 - 126
Fipronil Sulfide	80.1	76.6	P/P	63 - 117
Fipronil Sulfone	68.8	68.5	P/P	57 - 117
Fluazifop-P-butyl	81.8	73.5	P/P	63 - 124
Fludioxonil	86.1	77.4	P/P	63 - 123
Flumioxazin	107	106	P/P	34 - 245
Flutolanil	85.8	80.4	P/P	56 - 131

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P398911

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluxapyroxad	77.1	68.9	P/P	57 - 117
Fonofos	76.7	90.9	P/P	61 - 116
Hexazinone	80.9	90.1	P/P	55 - 138
Imazalil	84.2	78.0	P/P	33 - 143
Iprodione	78.6	70.5	P/P	59 - 118
Malathion	75.0	77.9	P/P	62 - 138
Metalaxyl	80.6	81.9	P/P	24 - 147
Metolachlor	75.7	74.2	P/P	68 - 118
Metribuzin	88.6	91.0	P/P	20 - 239
Mevinphos	74.1	78.0	P/P	46 - 124
Molinate	57.6	76.7	P/P	46 - 100
Myclobutanil	83.0	74.7	P/P	32 - 149
Naled	30.4	30.7	F/F	32 - 95.0
Norflurazon	77.4	68.9	P/P	57 - 127
Oxadiazon	78.7	75.8	P/P	63 - 118
Oxyfluorfen	77.2	73.5	P/P	69 - 137
Parathion Ethyl	77.7	85.5	P/P	70 - 113
Parathion Methyl	91.6	102	P/P	71 - 130
Pendimethalin	71.0	79.9	P/P	55 - 118
Phorate	74.8	78.3	P/P	46 - 125
Prodiamine	33.6	34.7	P/P	20 - 141
Prometon	80.1	87.5	P/P	54 - 122
Prometryn	85.3	85.5	P/P	66 - 124
Pronamide	84.2	88.5	P/P	79 - 122
Propiconazole	82.5	72.3	P/P	61 - 126
Pyriproxyfen	69.0	65.7	P/P	52 - 131
Simazine	80.4	89.6	P/P	75 - 128
Sulfentrazone	63.8	57.2	P/P	20 - 132
Tebuconazole	57.1	58.6	P/P	20 - 116
Terbufos	72.5	80.9	P/P	61 - 117
Terbuthylazine	79.7	83.1	P/P	74 - 116

Reference Method: EPA 8270E
Batch ID: P399190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	24.5	35.8	P/P	20 - 150
Alpha-BHC	87.9	95.1	P/P	50 - 150
Alpha-Chlordane	70.8	87.3	P/P	50 - 150
Beta-BHC	87.9	113	P/P	50 - 150
Beta-Cyfluthrin	132	128	P/P	50 - 150
Bifenthrin	71.5	77.2	P/P	40 - 150
Chlorothalonil	125	140	P/P	20 - 150
Cis-Nonachlor	77.4	84.2	P/P	50 - 150
Cypermethrin	125	124	P/P	50 - 150
Dacthal	85.3	95.2	P/P	50 - 150
DDD-p,p'	73.3	80.6	P/P	50 - 150
DDE-p,p'	67.2	79.6	P/P	50 - 150
DDT-p,p'	72.0	79.7	P/P	50 - 150
Delta-BHC	103	122	P/P	50 - 150
Deltamethrin	154	136	F/P	50 - 150
Dichlobenil	63.2	64.2	P/P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P399190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dicofol	85.3	89.4	P/P	50 - 150
Dieldrin	76.5	89.6	P/P	50 - 150
Endosulfan I	76.8	86.5	P/P	50 - 150
Endosulfan II	86.5	94.5	P/P	50 - 150
Endosulfan Sulfate	81.1	88.4	P/P	50 - 150
Endrin	79.4	88.1	P/P	50 - 150
Endrin Aldehyde	85.0	93.9	P/P	50 - 150
Endrin Ketone	93.8	98.9	P/P	50 - 150
Esfenvalerate	134	126	P/P	50 - 180
Ethalfluralin	73.2	81.2	P/P	50 - 150
Fenpropathrin	85.0	89.3	P/P	50 - 150
Gamma-BHC	90.3	102	P/P	50 - 150
Gamma-Chlordane	71.2	82.8	P/P	50 - 150
Heptachlor	64.2	70.5	P/P	50 - 150
Heptachlor Epoxide	78.1	87.8	P/P	50 - 150
Hexachlorobenzene	55.3	65.3	P/P	50 - 150
Kepone	85.9	115	P/P	30 - 180
Lambda-Cyhalothrin	134	135	P/P	50 - 200
Methoxychlor	88.7	94.5	P/P	50 - 150
MGK-264	56.9	65.0	P/P	30 - 150
Mirex	112	134	P/P	50 - 180
Permethrin	113	111	P/P	50 - 150
Phenothrin	39.6	47.2	P/P	20 - 150
Piperonyl Butoxide	97.9	96.7	P/P	50 - 150
Prallethrin	50.6	62.3	P/P	30 - 150
Tau-Fluvalinate	94.6	97.6	P/P	40 - 150
Tetramethrin	68.2	64.4	P/P	30 - 150
Trans-Nonachlor	71.1	81.2	P/P	50 - 150
Triclosan Methyl	75.9	87.4	P/P	50 - 150
Trifluralin	70.6	78.3	P/P	50 - 150

Reference Method: EPA 8276
Batch ID: P399190

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	91.5	100	P/P	56 - 117
Toxaphene	86.4	100	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P399014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	40 - 150
2,4,5-T	111		P	40 - 150
Acetaminophen	92.4		P	30 - 150
Acetamiprid	84.1		P	40 - 150
Afidopyropen	75.4		P	40 - 150
Bentazon	96.7		P	30 - 150
Benzovindiflupyr	97.0		P	40 - 150
Carbamazepine	91.2		P	40 - 150
Clothianidin	86.9		P	40 - 150
Dinotefuran	94.2		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P399014

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	78.3		P	40 - 150
Fenuron	111		P	40 - 150
Fluridone	82.3		P	40 - 150
Hydrocodone	86.6		P	40 - 150
Ibuprofen	77.1		P	40 - 150
Imazapyr	96.0		P	40 - 150
Imidacloprid	85.8		P	40 - 150
Linuron	75.1		P	40 - 150
Mandestrobin	109		P	40 - 150
MCPP	116		P	40 - 150
Naproxen	60.5		P	40 - 150
Primidone	92.0		P	40 - 150
Pyraclostrobin	72.8		P	40 - 150
Thiamethoxam	85.6		P	40 - 150
Tolfenpyrad	61.4		P	30 - 150
Triclopyr	108		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P399017

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	94.1		P	40 - 150
AMPA	89.9		P	40 - 150
Endothall	88.2		P	40 - 150
Glufosinate	104		P	40 - 150
Glyphosate	104		P	40 - 150
Sucralose	113		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P399077

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	83.1		P	30 - 160
Aldicarb	103		P	30 - 160
Aldicarb Sulfone	88.8		P	30 - 160
Aldicarb Sulfoxide	77.5		P	30 - 160
Carbaryl	63.4		P	30 - 160
Carbofuran	60.4		P	30 - 160
Methiocarb	75.1		P	30 - 160
Methomyl	72.1		P	30 - 160
Oxamyl	88.6		P	30 - 160
Propoxur	65.9		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P399012

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.0		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P399063

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.8		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P399064

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P399096

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.6		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P399302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251062	Barium	99.4		P	80 - 120
2251062	Calcium	105		P	80 - 120
2251062	Iron	106		P	80 - 120
2251062	Magnesium	102		P	80 - 120
2251062	Manganese	101		P	80 - 120
2251062	Potassium	98.3		P	80 - 120
2251062	Sodium	103		P	80 - 120
2251062	Zinc	98.0		P	80 - 120
2251291	Barium	102	100	P/P	80 - 120
2251291	Calcium	113	108	P/P	80 - 120
2251291	Iron	110	107	P/P	80 - 120
2251291	Magnesium	109	106	P/P	80 - 120
2251291	Manganese	103	101	P/P	80 - 120
2251291	Potassium	105	102	P/P	80 - 120
2251291	Sodium	110	106	P/P	80 - 120
2251291	Zinc	99.0	97.7	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P399302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251062	Aluminum	98.1		P	80 - 120
2251062	Antimony	104		P	80 - 120
2251062	Arsenic	103		P	80 - 120
2251062	Beryllium	95.5		P	80 - 120
2251062	Boron	101		P	80 - 120
2251062	Cadmium	104		P	80 - 120
2251062	Chromium	101		P	80 - 120
2251062	Copper	102		P	80 - 120
2251062	Lead	111		P	80 - 120
2251062	Nickel	101		P	80 - 120
2251062	Selenium	103		P	80 - 120
2251062	Silver	101		P	80 - 120
2251062	Thallium	107		P	80 - 120
2251291	Aluminum	93.7	96.8	P/P	80 - 120
2251291	Antimony	99.7	101	P/P	80 - 120
2251291	Arsenic	99.5	102	P/P	80 - 120
2251291	Beryllium	89.3	94.0	P/P	80 - 120
2251291	Boron	97.3	98.0	P/P	80 - 120
2251291	Cadmium	102	103	P/P	80 - 120
2251291	Chromium	97.6	98.5	P/P	80 - 120
2251291	Copper	98.9	99.5	P/P	80 - 120
2251291	Lead	108	110	P/P	80 - 120
2251291	Nickel	97.3	97.7	P/P	80 - 120
2251291	Selenium	98.2	99.4	P/P	80 - 120
2251291	Silver	103	102	P/P	80 - 120
2251291	Thallium	102	104	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Chloride	92.8		P	90 - 110
2250718	Chloride	97.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250461	Sulfate	91.8		P	90 - 110
2250718	Sulfate	94.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399372

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250908	Ammonia-N	99.2	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399030

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250581	NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250875	Total-P	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250945	O-Phosphate-P	97.1	96.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Acetochlor	77.6	90.1	P/P	66 - 122
2250788	Alachlor	74.8	82.8	P/P	65 - 122
2250788	Azinphos Methyl	105	200	P/F	44 - 174
2250788	Azoxystrobin	125	138	P/P	10 - 268
2250788	Bromacil	68.0	90.3	P/P	31 - 145
2250788	Butylate	43.1	42.4	P/P	15 - 97.0
2250788	Caffeine	102	115	P/P	70 - 130
2250788	Carbophenothion	70.2	68.9	P/P	42 - 129
2250788	Carfentrazone Ethyl	83.8	88.7	P/P	62 - 145
2250788	Chlorpyrifos Ethyl	80.4	77.7	P/P	60 - 124
2250788	Chlorpyrifos Methyl	71.7	75.4	P/P	66 - 119
2250788	Cyanazine	146	175	P/P	17 - 225
2250788	Demeton	83.9	89.4	P/P	36 - 142
2250788	Diazinon	88.2	97.3	P/P	70 - 128

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P398911

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250788	Difenoconazole	120	130	P/P	33 - 222
2250788	Dimethenamid	80.3	87.5	P/P	54 - 125
2250788	Disulfoton	75.1	72.7	P/P	49 - 133
2250788	Dithiopyr	78.2	83.3	P/P	55 - 123
2250788	EPTC	43.0	37.4	P/P	19 - 91.0
2250788	Ethion	58.7	66.2	P/P	13 - 143
2250788	Ethoprop	100	104	P/P	49 - 144
2250788	Fenamiphos	81.6	74.7	P/P	32 - 136
2250788	Fenbuconazole	96.3	104	P/P	73 - 148
2250788	Fipronil	85.4	92.2	P/P	57 - 129
2250788	Fipronil Desulfinyl	79.1	84.7	P/P	49 - 127
2250788	Fipronil Sulfide	79.0	78.5	P/P	44 - 127
2250788	Fipronil Sulfone	66.5	67.4	P/P	35 - 126
2250788	Fluazifop-P-butyl	86.2	87.7	P/P	67 - 129
2250788	Fludioxonil	81.1	90.6	P/P	61 - 126
2250788	Flumioxazin	144	164	P/P	38 - 279
2250788	Flutolanil	86.5	88.3	P/P	55 - 136
2250788	Fluxapyroxad	35.3	44.6	P/P	33 - 140
2250788	Fonofos	86.0	90.5	P/P	58 - 125
2250788	Imazalil	162	165	P/P	10 - 221
2250788	Iprodione	79.7	82.7	P/P	32 - 140
2250788	Malathion	81.7	82.8	P/P	52 - 138
2250788	Metalaxyl	83.4	88.1	P/P	46 - 134
2250788	Metolachlor	73.2	83.5	P/P	58 - 122
2250788	Metribuzin	102	109	P/P	16 - 272
2250788	Mevinphos	77.6	89.2	P/P	45 - 140
2250788	Molinate	68.1	67.9	P/P	41 - 103
2250788	Myclobutanil	83.0	90.0	P/P	60 - 134
2250788	Naled	30.1	28.6	P/P	20 - 113
2250788	Norflurazon	75.0	74.3	P/P	51 - 123
2250788	Oxadiazon	69.2	74.6	P/P	44 - 125
2250788	Oxyfluorfen	84.9	101	P/P	66 - 176
2250788	Parathion Ethyl	82.6	91.7	P/P	57 - 132
2250788	Parathion Methyl	94.3	99.5	P/P	59 - 156
2250788	Pendimethalin	85.2	93.3	P/P	59 - 129
2250788	Phorate	99.5	106	P/P	47 - 136
2250788	Prodiamine	46.9	50.2	P/P	10 - 159
2250788	Prometon	88.1	91.7	P/P	59 - 127
2250788	Prometryn	113	126	P/P	59 - 129
2250788	Pronamide	97.6	109	P/P	65 - 145
2250788	Propiconazole	77.2	65.7	P/P	28 - 165
2250788	Pyriproxyfen	70.3	162	P/P	21 - 180
2250788	Simazine	135	138	P/P	63 - 147
2250788	Sulfentrazone	65.3	73.8	P/P	32 - 136
2250788	Tebuconazole	60.6	68.2	P/P	10 - 117
2250788	Terbufos	84.6	91.2	P/P	61 - 131
2250788	Terbuthylazine	87.6	96.2	P/P	62 - 126

Reference Method: EPA 8270E
Batch ID: P399190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P399190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251157	Aldrin	37.4	43.2	P/P	20 - 170
2251157	Alpha-BHC	87.0	87.0	P/P	50 - 170
2251157	Alpha-Chlordane	58.1	65.6	P/P	50 - 170
2251157	Beta-BHC	101	115	P/P	50 - 170
2251157	Beta-Cyfluthrin	116	158	P/P	50 - 170
2251157	Bifenthrin	62.4	73.8	P/P	40 - 170
2251157	Chlorothalonil	100	174	P/F	20 - 170
2251157	Cis-Nonachlor	56.8	66.6	P/P	50 - 170
2251157	Cypermethrin	104	134	P/P	50 - 170
2251157	Dacthal	80.0	84.3	P/P	50 - 170
2251157	DDD-p,p'	69.2	83.2	P/P	50 - 170
2251157	DDE-p,p'	54.7	60.6	P/P	50 - 170
2251157	DDT-p,p'	63.4	64.7	P/P	50 - 170
2251157	Delta-BHC	118	134	P/P	50 - 170
2251157	Deltamethrin	135	179	P/F	50 - 170
2251157	Dichlobenil	61.1	41.0	P/P	40 - 170
2251157	Dicofol	78.1	88.4	P/P	50 - 170
2251157	Dieldrin	63.8	68.8	P/P	50 - 170
2251157	Endosulfan I	64.1	71.4	P/P	50 - 170
2251157	Endosulfan II	76.9	90.3	P/P	50 - 170
2251157	Endosulfan Sulfate	78.0	92.0	P/P	50 - 170
2251157	Endrin	66.4	74.7	P/P	50 - 170
2251157	Endrin Aldehyde	61.2	64.4	P/P	50 - 170
2251157	Endrin Ketone	82.5	106	P/P	50 - 170
2251157	Esfenvalerate	114	156	P/P	50 - 180
2251157	Ethalfluralin	63.2	63.1	P/P	50 - 170
2251157	Fenpropathrin	67.2	75.6	P/P	50 - 170
2251157	Gamma-BHC	103	102	P/P	50 - 170
2251157	Gamma-Chlordane	54.3	63.7	P/P	50 - 170
2251157	Heptachlor	48.1	55.6	F/P	50 - 170
2251157	Heptachlor Epoxide	65.0	71.4	P/P	50 - 170
2251157	Hexachlorobenzene	56.4	61.9	P/P	50 - 170
2251157	Kepone	51.1	95.2	P/P	30 - 180
2251157	Lambda-Cyhalothrin	140	187	P/P	50 - 200
2251157	Methoxychlor	80.9	80.7	P/P	50 - 170
2251157	MGK-264	68.6	83.4	P/P	30 - 170
2251157	Mirex	86.5	104	P/P	50 - 180
2251157	Permethrin	98.5	114	P/P	50 - 170
2251157	Phenothrin	49.2	50.9	P/P	20 - 170
2251157	Piperonyl Butoxide	102	119	P/P	50 - 170
2251157	Prallethrin	57.8	62.1	P/P	30 - 170
2251157	Tau-Fluvalinate	85.1	109	P/P	40 - 170
2251157	Tetramethrin	65.7	78.7	P/P	30 - 170
2251157	Trans-Nonachlor	48.1	59.5	F/P	50 - 170
2251157	Triclosan Methyl	67.3	72.9	P/P	50 - 170
2251157	Trifluralin	55.6	61.0	P/P	50 - 170

Reference Method: EPA 8276
Batch ID: P399190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250779	Chlordane	89.0	83.6	P/P	47 - 128

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8276
Batch ID: P399190

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250779	Toxaphene	86.9	94.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P399014

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250793	2,4-D	119	109	P/P	40 - 150
2250793	2,4,5-T	92.1	77.2	P/P	40 - 150
2250793	Acetaminophen	84.2	82.6	P/P	30 - 150
2250793	Acetamiprid	66.2	66.9	P/P	40 - 150
2250793	Afidopyropen	102	84.3	P/P	40 - 150
2250793	Benzovindiflupyr	95.7	91.9	P/P	40 - 150
2250793	Carbamazepine	72.2	68.9	P/P	40 - 150
2250793	Clothianidin	70.9	78.2	P/P	40 - 150
2250793	Dinotefuran	90.2	94.5	P/P	40 - 150
2250793	Diuron	52.4	51.7	P/P	40 - 150
2250793	Fenuron	75.6	77.9	P/P	40 - 150
2250793	Fluridone	75.7	77.2	P/P	40 - 150
2250793	Hydrocodone	70.7	69.7	P/P	40 - 150
2250793	Ibuprofen	79.6	76.3	P/P	40 - 150
2250793	Imidacloprid	133	125	P/P	40 - 150
2250793	Linuron	75.9	72.8	P/P	40 - 150
2250793	Mandestrobin	129	113	P/P	40 - 150
2250793	MCPP	102	104	P/P	40 - 150
2250793	Naproxen	65.5	65.1	P/P	40 - 150
2250793	Primidone	85.8	86.3	P/P	40 - 150
2250793	Pyraclostrobin	77.3	75.8	P/P	40 - 150
2250793	Thiamethoxam	89.5	87.3	P/P	40 - 150
2250793	Tolfenpyrad	57.1	54.5	P/P	30 - 150
2250793	Triclopyr	88.0	83.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P399017

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250902	Acesulfame K	84.9	81.4	P/P	40 - 150
2250902	AMPA	72.3	70.9	P/P	40 - 150
2250902	Endothall	93.1	103	P/P	40 - 150
2250902	Glufosinate	105	95.8	P/P	40 - 150
2250902	Glyphosate	99.6	90.0	P/P	40 - 150
2250902	Sucralose	38.7	52.0	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P399077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250951	3-Hydroxycarbofuran	97.8	91.3	P/P	30 - 160
2250951	Aldicarb	90.0	57.8	P/P	30 - 160
2250951	Aldicarb Sulfone	108	104	P/P	30 - 160
2250951	Aldicarb Sulfoxide	68.8	65.7	P/P	30 - 160
2250951	Carbaryl	49.0	46.4	P/P	30 - 160
2250951	Carbofuran	52.6	45.7	P/P	30 - 160

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P399077

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2250951	Methiocarb	68.5	69.3	P/P	30 - 160
2250951	Methomyl	68.6	69.0	P/P	30 - 160
2250951	Oxamyl	89.6	81.0	P/P	30 - 160
2250951	Propoxur	51.0	46.3	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P399064

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251100	Fluoride	99.1	98.4	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P399096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2251053	Organic Carbon	101	101	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P399206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250943	Turbidity	13.7	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P399302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251291	Barium	1.50	Spike	P	0 - 20
2251291	Calcium	2.81	Spike	P	0 - 20
2251291	Iron	2.15	Spike	P	0 - 20
2251291	Magnesium	2.21	Spike	P	0 - 20
2251291	Manganese	1.68	Spike	P	0 - 20
2251291	Potassium	2.85	Spike	P	0 - 20
2251291	Sodium	2.89	Spike	P	0 - 20
2251291	Zinc	1.32	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P399302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251291	Aluminum	3.19	Spike	P	0 - 20
2251291	Antimony	0.851	Spike	P	0 - 20
2251291	Arsenic	2.07	Spike	P	0 - 20
2251291	Beryllium	5.13	Spike	P	0 - 20
2251291	Boron	0.664	Spike	P	0 - 20
2251291	Cadmium	0.698	Spike	P	0 - 20
2251291	Chromium	0.968	Spike	P	0 - 20
2251291	Copper	0.543	Spike	P	0 - 20
2251291	Lead	2.05	Spike	P	0 - 20
2251291	Nickel	0.352	Spike	P	0 - 20
2251291	Selenium	1.20	Spike	P	0 - 20
2251291	Silver	1.13	Spike	P	0 - 20
2251291	Thallium	2.85	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Chloride	0.637	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P399479

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250461	Sulfate	1.61	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P399372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250908	Ammonia-N	1.77	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P399039

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250905	Kjeldahl Nitrogen	6.29	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P399030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250581	NO2NO3-N	0.506	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P399034

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250875	Total-P	1.17	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P398989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250945	O-Phosphate-P	0.342	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Acetochlor	14.9	Spike	P	0 - 30
2250788	Alachlor	10.1	Spike	P	0 - 30
2250788	Ametryn	1.95	Spike	P	0 - 30
2250788	Atrazine	3.24	Spike	P	0 - 30
2250788	Atrazine Desethyl	34.8	Spike	F	0 - 30
2250788	Azinphos Methyl	61.9	Spike	F	0 - 30
2250788	Azoxystrobin	8.18	Spike	P	0 - 30
2250788	Bromacil	28.2	Spike	P	0 - 30
2250788	Butylate	1.75	Spike	P	0 - 30
2250788	Caffeine	12.1	Spike	P	0 - 30
2250788	Carbophenothion	1.91	Spike	P	0 - 30
2250788	Carfentrazone Ethyl	5.60	Spike	P	0 - 30
2250788	Chlorpyrifos Ethyl	3.39	Spike	P	0 - 30
2250788	Chlorpyrifos Methyl	5.14	Spike	P	0 - 30
2250788	Cyanazine	18.0	Spike	P	0 - 30
2250788	Demeton	6.33	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250788	Diazinon	9.83	Spike	P	0 - 30
2250788	Difenoconazole	7.56	Spike	P	0 - 30
2250788	Dimethenamid	8.54	Spike	P	0 - 30
2250788	Disulfoton	3.24	Spike	P	0 - 30
2250788	Dithiopyr	6.31	Spike	P	0 - 30
2250788	EPTC	14.0	Spike	P	0 - 30
2250788	Ethion	11.9	Spike	P	0 - 30
2250788	Ethoprop	4.10	Spike	P	0 - 30
2250788	Fenamiphos	8.82	Spike	P	0 - 30
2250788	Fenbuconazole	7.30	Spike	P	0 - 30
2250788	Fipronil	7.62	Spike	P	0 - 30
2250788	Fipronil Desulfinyl	6.81	Spike	P	0 - 30
2250788	Fipronil Sulfide	0.609	Spike	P	0 - 30
2250788	Fipronil Sulfone	1.28	Spike	P	0 - 30
2250788	Fluazifop-P-butyl	1.67	Spike	P	0 - 30
2250788	Fludioxonil	11.1	Spike	P	0 - 30
2250788	Flumioxazin	12.4	Spike	P	0 - 30
2250788	Flutolanil	2.06	Spike	P	0 - 30
2250788	Fluxapyroxad	4.85	Spike	P	0 - 30
2250788	Fonofos	5.13	Spike	P	0 - 30
2250788	Hexazinone	2.14	Spike	P	0 - 30
2250788	Imazalil	2.17	Spike	P	0 - 30
2250788	Iprodione	3.61	Spike	P	0 - 30
2250788	Malathion	1.31	Spike	P	0 - 30
2250788	Metalaxyl	5.50	Spike	P	0 - 30
2250788	Metolachlor	10.9	Spike	P	0 - 30
2250788	Metribuzin	2.66	Spike	P	0 - 30
2250788	Mevinphos	13.9	Spike	P	0 - 30
2250788	Molinate	0.230	Spike	P	0 - 30
2250788	Myclobutanil	8.08	Spike	P	0 - 30
2250788	Naled	5.20	Spike	P	0 - 30
2250788	Norflurazon	1.01	Spike	P	0 - 30
2250788	Oxadiazon	6.64	Spike	P	0 - 30
2250788	Oxyfluorfen	17.4	Spike	P	0 - 30
2250788	Parathion Ethyl	10.4	Spike	P	0 - 30
2250788	Parathion Methyl	5.35	Spike	P	0 - 30
2250788	Pendimethalin	9.07	Spike	P	0 - 30
2250788	Phorate	6.65	Spike	P	0 - 30
2250788	Prodiamine	6.70	Spike	P	0 - 30
2250788	Prometon	3.99	Spike	P	0 - 30
2250788	Prometryn	10.5	Spike	P	0 - 30
2250788	Pronamide	11.4	Spike	P	0 - 30
2250788	Propiconazole	8.82	Spike	P	0 - 30
2250788	Pyriproxyfen	78.8	Spike	F	0 - 30
2250788	Simazine	2.32	Spike	P	0 - 30
2250788	Sulfentrazone	12.3	Spike	P	0 - 30
2250788	Tebuconazole	11.7	Spike	P	0 - 30
2250788	Terbufos	7.47	Spike	P	0 - 30
2250788	Terbuthylazine	9.30	Spike	P	0 - 30
LFB	Acetochlor	3.39	LCS	P	0 - 30
LFB	Alachlor	2.22	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Ametryn	9.80	LCS	P	0 - 30
LFB	Atrazine	7.01	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.13	LCS	P	0 - 30
LFB	Azinphos Methyl	10.4	LCS	P	0 - 30
LFB	Azoxystrobin	0.182	LCS	P	0 - 30
LFB	Bromacil	1.20	LCS	P	0 - 30
LFB	Butylate	13.6	LCS	P	0 - 30
LFB	Caffeine	10.7	LCS	P	0 - 30
LFB	Carbophenothion	6.59	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	10.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	2.83	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.41	LCS	P	0 - 30
LFB	Cyanazine	1.93	LCS	P	0 - 30
LFB	Demeton	25.4	LCS	P	0 - 30
LFB	Diazinon	3.33	LCS	P	0 - 30
LFB	Difenoconazole	8.88	LCS	P	0 - 30
LFB	Dimethenamid	2.69	LCS	P	0 - 30
LFB	Disulfoton	24.3	LCS	P	0 - 30
LFB	Dithiopyr	1.66	LCS	P	0 - 30
LFB	EPTC	18.8	LCS	P	0 - 30
LFB	Ethion	11.9	LCS	P	0 - 30
LFB	Ethoprop	19.4	LCS	P	0 - 30
LFB	Fenamiphos	6.35	LCS	P	0 - 30
LFB	Fenbuconazole	15.8	LCS	P	0 - 30
LFB	Fipronil	7.57	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	1.05	LCS	P	0 - 30
LFB	Fipronil Sulfide	4.38	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.426	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	10.6	LCS	P	0 - 30
LFB	Fludioxonil	10.6	LCS	P	0 - 30
LFB	Flumioxazin	0.325	LCS	P	0 - 30
LFB	Flutolanil	6.44	LCS	P	0 - 30
LFB	Fluxapyroxad	11.2	LCS	P	0 - 30
LFB	Fonofos	17.0	LCS	P	0 - 30
LFB	Hexazinone	10.8	LCS	P	0 - 30
LFB	Imazalil	7.62	LCS	P	0 - 30
LFB	Iprodione	10.8	LCS	P	0 - 30
LFB	Malathion	3.69	LCS	P	0 - 30
LFB	Metalaxyl	1.60	LCS	P	0 - 30
LFB	Metolachlor	1.99	LCS	P	0 - 30
LFB	Metribuzin	2.66	LCS	P	0 - 30
LFB	Mevinphos	5.08	LCS	P	0 - 30
LFB	Molinate	28.5	LCS	P	0 - 30
LFB	Myclobutanil	10.5	LCS	P	0 - 30
LFB	Naled	0.825	LCS	P	0 - 30
LFB	Norflurazon	11.6	LCS	P	0 - 30
LFB	Oxadiazon	3.69	LCS	P	0 - 30
LFB	Oxyfluorfen	4.86	LCS	P	0 - 30
LFB	Parathion Ethyl	9.58	LCS	P	0 - 30
LFB	Parathion Methyl	10.5	LCS	P	0 - 30
LFB	Pendimethalin	11.8	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P398911

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Phorate	4.58	LCS	P	0 - 30
LFB	Prodiamine	3.43	LCS	P	0 - 30
LFB	Prometon	8.86	LCS	P	0 - 30
LFB	Prometryn	0.288	LCS	P	0 - 30
LFB	Pronamide	5.05	LCS	P	0 - 30
LFB	Propiconazole	13.2	LCS	P	0 - 30
LFB	Pyriproxyfen	4.87	LCS	P	0 - 30
LFB	Simazine	10.8	LCS	P	0 - 30
LFB	Sulfentrazone	11.0	LCS	P	0 - 30
LFB	Tebuconazole	2.64	LCS	P	0 - 30
LFB	Terbufos	11.0	LCS	P	0 - 30
LFB	Terbuthylazine	4.18	LCS	P	0 - 30

Reference Method: EPA 8270E
Batch ID: P399190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251157	Aldrin	14.6	Spike	P	0 - 30
2251157	Alpha-BHC	0.0287	Spike	P	0 - 30
2251157	Alpha-Chlordane	12.3	Spike	P	0 - 30
2251157	Beta-BHC	13.3	Spike	P	0 - 30
2251157	Beta-Cyfluthrin	30.2	Spike	F	0 - 30
2251157	Bifenthrin	16.9	Spike	P	0 - 30
2251157	Chlorothalonil	51.5	Spike	F	0 - 50
2251157	Cis-Nonachlor	15.8	Spike	P	0 - 30
2251157	Cypermethrin	25.0	Spike	P	0 - 30
2251157	Dacthal	5.15	Spike	P	0 - 30
2251157	DDD-p,p'	18.4	Spike	P	0 - 30
2251157	DDE-p,p'	10.2	Spike	P	0 - 30
2251157	DDT-p,p'	2.01	Spike	P	0 - 30
2251157	Delta-BHC	12.7	Spike	P	0 - 30
2251157	Deltamethrin	27.6	Spike	P	0 - 30
2251157	Dichlobenil	39.5	Spike	F	0 - 30
2251157	Dicofol	12.4	Spike	P	0 - 30
2251157	Dieldrin	7.61	Spike	P	0 - 30
2251157	Endosulfan I	10.7	Spike	P	0 - 30
2251157	Endosulfan II	16.0	Spike	P	0 - 30
2251157	Endosulfan Sulfate	16.5	Spike	P	0 - 30
2251157	Endrin	11.7	Spike	P	0 - 30
2251157	Endrin Aldehyde	5.09	Spike	P	0 - 30
2251157	Endrin Ketone	25.1	Spike	P	0 - 30
2251157	Esfenvalerate	31.0	Spike	F	0 - 30
2251157	Ethalfluralin	0.145	Spike	P	0 - 30
2251157	Fenpropathrin	11.7	Spike	P	0 - 30
2251157	Gamma-BHC	0.169	Spike	P	0 - 30
2251157	Gamma-Chlordane	16.0	Spike	P	0 - 30
2251157	Heptachlor	14.5	Spike	P	0 - 30
2251157	Heptachlor Epoxide	9.42	Spike	P	0 - 30
2251157	Hexachlorobenzene	9.30	Spike	P	0 - 30
2251157	Kepone	60.2	Spike	F	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P399190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251157	Lambda-Cyhalothrin	28.8	Spike	P	0 - 30
2251157	Methoxychlor	0.221	Spike	P	0 - 30
2251157	MGK-264	19.5	Spike	P	0 - 30
2251157	Mirex	18.8	Spike	P	0 - 30
2251157	Permethrin	14.2	Spike	P	0 - 30
2251157	Phenothrin	3.36	Spike	P	0 - 30
2251157	Piperonyl Butoxide	15.1	Spike	P	0 - 30
2251157	Prallethrin	7.19	Spike	P	0 - 30
2251157	Tau-Fluvalinate	24.9	Spike	P	0 - 30
2251157	Tetramethrin	18.0	Spike	P	0 - 30
2251157	Trans-Nonachlor	21.2	Spike	P	0 - 30
2251157	Triclosan Methyl	8.10	Spike	P	0 - 30
2251157	Trifluralin	9.30	Spike	P	0 - 30
LFB	Aldrin	37.4	LCS	F	0 - 30
LFB	Alpha-BHC	7.88	LCS	P	0 - 30
LFB	Alpha-Chlordane	20.8	LCS	P	0 - 30
LFB	Beta-BHC	25.4	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	3.65	LCS	P	0 - 30
LFB	Bifenthrin	7.66	LCS	P	0 - 30
LFB	Chlorothalonil	11.3	LCS	P	0 - 50
LFB	Cis-Nonachlor	8.51	LCS	P	0 - 30
LFB	Cypermethrin	1.20	LCS	P	0 - 30
LFB	Dacthal	10.9	LCS	P	0 - 30
LFB	DDD-p,p'	9.41	LCS	P	0 - 30
LFB	DDE-p,p'	17.0	LCS	P	0 - 30
LFB	DDT-p,p'	10.2	LCS	P	0 - 30
LFB	Delta-BHC	17.3	LCS	P	0 - 30
LFB	Deltamethrin	12.3	LCS	P	0 - 30
LFB	Dichlobenil	1.50	LCS	P	0 - 30
LFB	Dicofol	4.76	LCS	P	0 - 30
LFB	Dieldrin	15.9	LCS	P	0 - 30
LFB	Endosulfan I	12.0	LCS	P	0 - 30
LFB	Endosulfan II	8.85	LCS	P	0 - 30
LFB	Endosulfan Sulfate	8.65	LCS	P	0 - 30
LFB	Endrin	10.4	LCS	P	0 - 30
LFB	Endrin Aldehyde	9.95	LCS	P	0 - 30
LFB	Endrin Ketone	5.21	LCS	P	0 - 30
LFB	Esfenvalerate	6.00	LCS	P	0 - 30
LFB	Ethalfluralin	10.4	LCS	P	0 - 30
LFB	Fenpropathrin	4.92	LCS	P	0 - 30
LFB	Gamma-BHC	11.8	LCS	P	0 - 30
LFB	Gamma-Chlordane	15.1	LCS	P	0 - 30
LFB	Heptachlor	9.37	LCS	P	0 - 30
LFB	Heptachlor Epoxide	11.6	LCS	P	0 - 30
LFB	Hexachlorobenzene	16.7	LCS	P	0 - 30
LFB	Kepone	28.8	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	0.646	LCS	P	0 - 30
LFB	Methoxychlor	6.26	LCS	P	0 - 30
LFB	MGK-264	13.3	LCS	P	0 - 30
LFB	Mirex	18.1	LCS	P	0 - 30
LFB	Permethrin	1.83	LCS	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P399190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Phenothrin	17.6	LCS	P	0 - 30
LFB	Piperonyl Butoxide	1.23	LCS	P	0 - 30
LFB	Prallethrin	20.8	LCS	P	0 - 30
LFB	Tau-Fluvalinate	3.07	LCS	P	0 - 30
LFB	Tetramethrin	5.77	LCS	P	0 - 30
LFB	Trans-Nonachlor	13.3	LCS	P	0 - 30
LFB	Triclosan Methyl	14.1	LCS	P	0 - 30
LFB	Trifluralin	10.3	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P399190

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250779	Chlordane	6.25	Spike	P	0 - 30
2250779	Toxaphene	8.10	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399014

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250793	2,4-D	8.58	Spike	P	0 - 30
2250793	2,4,5-T	17.5	Spike	P	0 - 30
2250793	Acetaminophen	1.98	Spike	P	0 - 30
2250793	Acetamiprid	0.967	Spike	P	0 - 30
2250793	Afidopyropen	18.7	Spike	P	0 - 30
2250793	Bentazon	6.97	Spike	P	0 - 30
2250793	Benzovindiflupyr	4.07	Spike	P	0 - 30
2250793	Carbamazepine	4.79	Spike	P	0 - 30
2250793	Clothianidin	9.73	Spike	P	0 - 30
2250793	Dinotefuran	4.61	Spike	P	0 - 30
2250793	Diuron	1.23	Spike	P	0 - 30
2250793	Fenuron	3.03	Spike	P	0 - 30
2250793	Fluridone	1.97	Spike	P	0 - 30
2250793	Hydrocodone	1.38	Spike	P	0 - 30
2250793	Ibuprofen	4.25	Spike	P	0 - 30
2250793	Imazapyr	4.99	Spike	P	0 - 30
2250793	Imidacloprid	6.13	Spike	P	0 - 30
2250793	Linuron	4.22	Spike	P	0 - 30
2250793	Mandestrobin	13.8	Spike	P	0 - 30
2250793	MCPP	1.87	Spike	P	0 - 30
2250793	Naproxen	0.658	Spike	P	0 - 30
2250793	Primidone	0.591	Spike	P	0 - 30
2250793	Pyraclostrobin	1.87	Spike	P	0 - 30
2250793	Thiamethoxam	2.45	Spike	P	0 - 30
2250793	Tolfenpyrad	4.69	Spike	P	0 - 30
2250793	Triclopyr	4.98	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P399017

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250902	Acesulfame K	3.94	Spike	P	0 - 30
2250902	AMPA	1.92	Spike	P	0 - 30
2250902	Endothall	10.5	Spike	P	0 - 30
2250902	Glufosinate	8.87	Spike	P	0 - 30
2250902	Glyphosate	8.49	Spike	P	0 - 30
2250902	Sucralose	27.3	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P399077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250951	3-Hydroxycarbofuran	6.87	Spike	P	0 - 30
2250951	Aldicarb	43.6	Spike	F	0 - 30
2250951	Aldicarb Sulfone	4.41	Spike	P	0 - 30
2250951	Aldicarb Sulfoxide	4.61	Spike	P	0 - 30
2250951	Carbaryl	5.43	Spike	P	0 - 30
2250951	Carbofuran	14.1	Spike	P	0 - 30
2250951	Methiocarb	1.13	Spike	P	0 - 30
2250951	Methomyl	0.568	Spike	P	0 - 30
2250951	Oxamyl	10.0	Spike	P	0 - 30
2250951	Propoxur	9.66	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P399012

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251099	Color (true)	1.44	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P399063

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251100	Total Alkalinity	0.360	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P399519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2250731	TDS	4.29	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P399064

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251100	Fluoride	0.506	Spike	P	0 - 2.1

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2011
Batch ID: P399096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2251053	Organic Carbon	0.461	Spike	P	0 - 20

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2250951
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	40.7	P	30 - 160

Lab Sample ID: 2250952
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160
EPA 8321B	Acetaminophen-d4	137	P	30 - 160
EPA 8321B	Carbamazepine-d10	93.4	P	30 - 160
EPA 8321B	Diuron-d6	65.2	P	30 - 160
EPA 8321B	Endothall-d6	95.5	P	30 - 160
EPA 8321B	Endothall-d6	95.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.7	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Lab Sample ID: 2250953
Field Sample ID: G4NW0193

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	96.6	P	30 - 160
EPA 8321B	Diuron-d6	70.9	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.9	P	30 - 160
EPA 8321B	Ibuprofen-d3	87.6	P	30 - 160
EPA 8321B	Primidone-d5	97.8	P	30 - 160
EPA 8321B	Sucralose-d6	94.1	P	30 - 160
EPA 8321B	Sucralose-d6	94.1	P	30 - 160

Lab Sample ID: 2250954
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	80.2	P	35 - 120
EPA 8270E	Tetrachloro-m-xylene	41.7	P	30 - 110
EPA 8276	Decachlorobiphenyl	72.3	P	29 - 92.0
EPA 8276	PCNB	69.6	P	43 - 134

Lab Sample ID: 2250955
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	53.3	P	20 - 200
EPA 8270E	Simazine-d10	88.4	P	73 - 135
EPA 8270E	Terbufos-d10	83.7	P	58 - 130

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A105764
Included Lab Sample IDs: 2250945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	97.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A105767
Included Lab Sample IDs: 2250943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105

Reference Method: SM 2120 B-2011
Run ID: A105768
Included Lab Sample IDs: 2250943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.1	98.7	P/P	90 - 115

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A105788
Included Lab Sample IDs: 2250944

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

Reference Method: SM 2320 B-2011
Run ID: A105797
Included Lab Sample IDs: 2250943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.5	100	P/P	90 - 110

Reference Method: SM 4500 F-C-2011
Run ID: A105797
Included Lab Sample IDs: 2250943

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A105810
Included Lab Sample IDs: 2250944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	103	P/P	85 - 115

Reference Method: SM 5310 B-2011
Run ID: A105818
Included Lab Sample IDs: 2250944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.0	98.7	P/P	90 - 110

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Calibration Verification

Reference Method: EPA 8321B
Run ID: A105827
Included Lab Sample IDs: 2250952, 2250953

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	92.5	95.8	P/P	60 - 160
Acesulfame K	95.8	113	P/P	60 - 160
Endothall	120	125	P/P	60 - 160
Endothall	87.0	120	P/P	60 - 160
Sucralose	125	94.1	P/P	60 - 160
Sucralose	94.1	116	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A105838
Included Lab Sample IDs: 2250952, 2250953

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	92.8	89.1	P/P	60 - 160
Glufosinate	96.5	97.4	P/P	60 - 160
Glyphosate	93.9	107	P/P	60 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A105840
Included Lab Sample IDs: 2250944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	98.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A105850
Included Lab Sample IDs: 2250952, 2250953

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	98.5	P/P	50 - 150
2,4,5-T	112	121	P/P	50 - 150
Acetaminophen	110	105	P/P	60 - 160
Acetamiprid	110	107	P/P	50 - 150
Afidopyropen	109	102	P/P	50 - 150
Bentazon	128	134	P/P	50 - 160
Benzovindiflupyr	120	119	P/P	50 - 150
Carbamazepine	106	105	P/P	60 - 150
Clothianidin	119	101	P/P	60 - 150
Dinotefuran	102	99.3	P/P	50 - 150
Diuron	103	103	P/P	60 - 160
Fenuron	99.8	95.7	P/P	60 - 150
Fluridone	106	107	P/P	60 - 160
Hydrocodone	103	98.0	P/P	60 - 150
Ibuprofen	121	122	P/P	50 - 160
Imazapyr	80.1	82.1	P/P	50 - 150
Imidacloprid	105	95.2	P/P	60 - 150
Linuron	103	94.1	P/P	60 - 150
Mandestrobin	143	132	P/P	50 - 150
MCPP	108	96.1	P/P	50 - 150
Naproxen	82.3	71.9	P/P	50 - 160
Primidone	103	97.3	P/P	60 - 150
Pyraclostrobin	105	109	P/P	60 - 150

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Reference Method: EPA 8321B
Run ID: A105850
Included Lab Sample IDs: 2250952, 2250953

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thiamethoxam	103	104	P/P	50 - 150
Tolfenpyrad	107	105	P/P	60 - 150
Triclopyr	109	105	P/P	50 - 150

Reference Method: EPA 8321B
Run ID: A105868
Included Lab Sample IDs: 2250951

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	95.1	88.9	P/P	60 - 150
Aldicarb	118	122	P/P	60 - 150
Aldicarb Sulfone	111	105	P/P	50 - 150
Aldicarb Sulfoxide	109	98.2	P/P	50 - 150
Carbaryl	104	100	P/P	60 - 150
Carbofuran	107	91.2	P/P	50 - 150
Methiocarb	112	102	P/P	50 - 150
Methomyl	103	114	P/P	50 - 150
Oxamyl	115	108	P/P	50 - 150
Propoxur	107	99.6	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A105942
Included Lab Sample IDs: 2250944

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	97.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A105953
Included Lab Sample IDs: 2250956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	99.4	104	P/P	90 - 110
Calcium	101	105	P/P	90 - 110
Iron	99.7	104	P/P	90 - 110
Magnesium	98.4	102	P/P	90 - 110
Manganese	101	104	P/P	90 - 110
Potassium	98.9	102	P/P	90 - 110
Sodium	99.4	103	P/P	90 - 110
Zinc	96.3	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A105956
Included Lab Sample IDs: 2250943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	99.9	P/P	90 - 110
Sulfate	99.4	99.7	P/P	90 - 110

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Reference Method: EPA 8276
Run ID: A105980
Included Lab Sample IDs: 2250954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	98.9		P	80 - 120
Toxaphene	106		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106018
Included Lab Sample IDs: 2250954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.3		P	80 - 120
Alpha-BHC	97.8		P	80 - 120
Alpha-Chlordane	98.3		P	80 - 120
Beta-BHC	98.1		P	80 - 120
Beta-Cyfluthrin	98.8		P	80 - 120
Bifenthrin	95.9		P	80 - 120
Chlorothalonil	115		P	80 - 120
Cis-Nonachlor	94.9		P	80 - 120
Cypermethrin	98.2		P	80 - 120
Dacthal	98.2		P	80 - 120
DDD-p,p'	93.8		P	80 - 120
DDE-p,p'	97.5		P	80 - 120
DDT-p,p'	98.1		P	80 - 120
Delta-BHC	103		P	80 - 120
Deltamethrin	99.8		P	80 - 120
Dichlobenil	106		P	80 - 120
Dicofol	99.8		P	80 - 120
Dieldrin	99.3		P	80 - 120
Endosulfan I	97.1		P	80 - 120
Endosulfan II	99.4		P	80 - 120
Endosulfan Sulfate	92.2		P	80 - 120
Endrin	95.0		P	80 - 120
Endrin Aldehyde	91.2		P	80 - 120
Endrin Ketone	99.1		P	80 - 120
Esfenvalerate	92.2		P	80 - 120
Ethalfluralin	99.0		P	80 - 120
Fenpropathrin	91.4		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	98.7		P	80 - 120
Heptachlor	97.1		P	80 - 120
Heptachlor Epoxide	98.7		P	80 - 120
Hexachlorobenzene	104		P	80 - 120
Kepone	90.1		P	80 - 120
Lambda-Cyhalothrin	106		P	80 - 120
Methoxychlor	97.7		P	80 - 120
MGK-264	99.1		P	80 - 120
Mirex	96.2		P	80 - 120
Permethrin	95.4		P	80 - 120
Phenothrin	93.4		P	80 - 120
Piperonyl Butoxide	93.3		P	80 - 120
Prallethrin	97.1		P	80 - 120
Tau-Fluvalinate	99.6		P	80 - 120
Tetramethrin	94.7		P	80 - 120

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Calibration Verification

Reference Method: EPA 8270E
Run ID: A106018
Included Lab Sample IDs: 2250954

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Trans-Nonachlor	96.5		P	80 - 120
Triclosan Methyl	99.5		P	80 - 120
Trifluralin	97.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A106028
Included Lab Sample IDs: 2250956

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.7	97.2	P/P	90 - 110
Antimony	101	101	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Beryllium	96.6	96.2	P/P	90 - 110
Boron	99.8	97.6	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Chromium	96.6	97.3	P/P	90 - 110
Copper	97.6	97.6	P/P	90 - 110
Lead	109	109	P/P	90 - 110
Nickel	97.9	97.7	P/P	90 - 110
Selenium	101	102	P/P	90 - 110
Silver	98.1	98.9	P/P	90 - 110
Thallium	95.0	94.9	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A106055
Included Lab Sample IDs: 2250955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	94.5		P	80 - 120
Atrazine Desethyl	113		P	80 - 120
Azinphos Methyl	97.6		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	96.3		P	80 - 120
Caffeine	107		P	80 - 120
Carbophenothion	99.2		P	80 - 120
Carfentrazone Ethyl	99.6		P	80 - 120
Chlorpyrifos Ethyl	95.1		P	80 - 120
Chlorpyrifos Methyl	99.6		P	80 - 120
Cyanazine	107		P	80 - 120
Demeton	91.6		P	80 - 120
Diazinon	98.8		P	80 - 120
Difenoconazole	106		P	80 - 120
Dimethenamid	102		P	80 - 120
Disulfoton	94.6		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	101		P	80 - 120

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Reference Method: EPA 8270E
Run ID: A106055
Included Lab Sample IDs: 2250955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ethoprop	101		P	80 - 120
Fenamiphos	98.6		P	80 - 120
Fenbuconazole	102		P	80 - 120
Fipronil	99.9		P	80 - 120
Fipronil Desulfinyl	98.6		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	98.2		P	80 - 120
Flumioxazin	104		P	80 - 120
Flutolanil	97.4		P	80 - 120
Fluxapyroxad	98.8		P	80 - 120
Fonofos	94.2		P	80 - 120
Hexazinone	105		P	80 - 120
Imazalil	102		P	80 - 120
Iprodione	101		P	80 - 120
Malathion	98.6		P	80 - 120
Metalaxyl	102		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	97.8		P	80 - 120
Mevinphos	95.3		P	80 - 120
Molinate	101		P	80 - 120
Myclobutanil	97.0		P	80 - 120
Naled	98.7		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	100		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	97.1		P	80 - 120
Pendimethalin	96.9		P	80 - 120
Phorate	98.5		P	80 - 120
Prodiamine	102		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	98.5		P	80 - 120
Propiconazole	101		P	80 - 120
Pyriproxyfen	102		P	80 - 120
Simazine	105		P	80 - 120
Sulfentrazone	98.9		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	95.5		P	80 - 120
Terbuthylazine	97.4		P	80 - 120

Reference Method: EPA 8270E
Run ID: A106100
Included Lab Sample IDs: 2250955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fipronil Sulfide	105		P	80 - 120
Fipronil Sulfone	102		P	80 - 120

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* 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							13.7	
EPA 200.7 Rev. 4.4	Barium	98.0		99.4	102	100			1.50
	Calcium	108		105	113	108			2.81
	Iron	106		106	110	107			2.15
	Magnesium	105		102	109	106			2.21
	Manganese	99.7		101	103	101			1.68
	Potassium	101		98.3	105	102			2.85
	Sodium	104		103	110	106			2.89
	Zinc	93.4		98.0	99.0	97.7			1.32
EPA 200.8 Rev. 5.4	Aluminum	99.4		98.1	93.7	96.8			3.19
	Antimony	102		104	99.7	101			0.851
	Arsenic	102		103	99.5	102			2.07
	Beryllium	92.4		95.5	89.3	94.0			5.13
	Boron	107		101	97.3	98.0			0.664
	Cadmium	103		104	102	103			0.698
	Chromium	99.7		101	97.6	98.5			0.968
	Copper	100		102	98.9	99.5			0.543
	Lead	110		111	108	110			2.05
	Nickel	99.6		101	97.3	97.7			0.352
	Selenium	103		103	98.2	99.4			1.20
	Silver	101		101	103	102			1.13
	Thallium	104		107	102	104			2.85
EPA 300.0 Rev. 2.1	Chloride	97.3		92.8	97.2			0.637	
	Sulfate	96.2		91.8	94.9			1.61	
EPA 350.1 Rev. 2.0	Ammonia-N	99.6		99.2	101				1.77
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104							6.29
EPA 353.2 Rev. 2.0	NO2NO3-N	100		98.5	99.0				0.506
EPA 365.1 Rev. 2.0	Total-P	109		105	104				1.17
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.0		97.1	96.5				0.342
EPA 8270E	Acetochlor	74.6	77.1	77.6	90.1		3.39		14.9
	Alachlor	71.4	73.0	74.8	82.8		2.22		10.1
	Aldrin	24.5	35.8	37.4	43.2		37.4		14.6
	Alpha-BHC	87.9	95.1	87.0	87.0		7.88		0.0287
	Alpha-Chlordane	70.8	87.3	58.1	65.6		20.8		12.3
	Ametryn	98.4	89.2				9.80		1.95
	Atrazine	80.7	86.5				7.01		3.24
	Atrazine Desethyl	78.6	84.4				7.13		34.8
	Azinphos Methyl	99.7	89.8	105	200		10.4		61.9
	Azoxystrobin	118	118	125	138		0.182		8.18
	Beta-BHC	87.9	113	101	115		25.4		13.3
	Beta-Cyfluthrin	132	128	116	158		3.65		30.2
	Bifenthrin	71.5	77.2	62.4	73.8		7.66		16.9
	Bromacil	66.6	67.4	68.0	90.3		1.20		28.2
	Butylate	45.4	52.0	43.1	42.4		13.6		1.75
	Caffeine	101	113	102	115		10.7		12.1
	Carbophenothion	70.3	65.8	70.2	68.9		6.59		1.91
	Carfentrazone Ethyl	84.6	76.3	83.8	88.7		10.4		5.60
	Chlorothalonil	125	140	100	174		11.3		51.5
	Chlorpyrifos Ethyl	69.3	67.4	80.4	77.7		2.83		3.39
	Chlorpyrifos Methyl	72.1	73.1	71.7	75.4		1.41		5.14
	Cis-Nonachlor	77.4	84.2	56.8	66.6		8.51		15.8
	Cyanazine	151	154	146	175		1.93		18.0
	Cypermethrin	125	124	104	134		1.20		25.0
	Dacthal	85.3	95.2	80.0	84.3		10.9		5.15

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	DDD-p,p'	73.3	80.6	69.2	83.2	9.41		18.4
	DDE-p,p'	67.2	79.6	54.7	60.6	17.0		10.2
	DDT-p,p'	72.0	79.7	63.4	64.7	10.2		2.01
	Delta-BHC	103	122	118	134	17.3		12.7
	Deltamethrin	154	136	135	179	12.3		27.6
	Demeton	62.2	80.3	83.9	89.4	25.4		6.33
	Diazinon	82.7	85.5	88.2	97.3	3.33		9.83
	Dichlobenil	63.2	64.2	61.1	41.0	1.50		39.5
	Dicofol	85.3	89.4	78.1	88.4	4.76		12.4
	Dieldrin	76.5	89.6	63.8	68.8	15.9		7.61
	Difenoconazole	110	100	120	130	8.88		7.56
	Dimethenamid	76.1	78.1	80.3	87.5	2.69		8.54
	Disulfoton	61.0	77.9	75.1	72.7	24.3		3.24
	Dithiopyr	71.7	72.9	78.2	83.3	1.66		6.31
	Endosulfan I	76.8	86.5	64.1	71.4	12.0		10.7
	Endosulfan II	86.5	94.5	76.9	90.3	8.85		16.0
	Endosulfan Sulfate	81.1	88.4	78.0	92.0	8.65		16.5
	Endrin	79.4	88.1	66.4	74.7	10.4		11.7
	Endrin Aldehyde	85.0	93.9	61.2	64.4	9.95		5.09
	Endrin Ketone	93.8	98.9	82.5	106	5.21		25.1
	EPTC	44.3	53.5	43.0	37.4	18.8		14.0
	Esfenvalerate	134	126	114	156	6.00		31.0
	Ethalfluralin	73.2	81.2	63.2	63.1	10.4		0.145
	Ethion	51.8	58.4	58.7	66.2	11.9		11.9
	Ethoprop	83.4	101	100	104	19.4		4.10
	Fenamiphos	86.6	81.3	81.6	74.7	6.35		8.82
	Fenbuconazole	90.1	76.9	96.3	104	15.8		7.30
	Fenpropathrin	85.0	89.3	67.2	75.6	4.92		11.7
	Fipronil	83.3	77.3	85.4	92.2	7.57		7.62
	Fipronil Desulfinyl	76.9	76.1	79.1	84.7	1.05		6.81
	Fipronil Sulfide	80.1	76.6	79.0	78.5	4.38		0.609
	Fipronil Sulfone	68.8	68.5	66.5	67.4	0.426		1.28
	Fluazifop-P-butyl	81.8	73.5	86.2	87.7	10.6		1.67
	Fludioxonil	86.1	77.4	81.1	90.6	10.6		11.1
	Flumioxazin	107	106	144	164	0.325		12.4
	Flutolanil	85.8	80.4	86.5	88.3	6.44		2.06
	Fluxapyroxad	77.1	68.9	35.3	44.6	11.2		4.85
	Fonofos	76.7	90.9	86.0	90.5	17.0		5.13
	Gamma-BHC	90.3	102	103	102	11.8		0.169
	Gamma-Chlordane	71.2	82.8	54.3	63.7	15.1		16.0
	Heptachlor	64.2	70.5	48.1	55.6	9.37		14.5
	Heptachlor Epoxide	78.1	87.8	65.0	71.4	11.6		9.42
	Hexachlorobenzene	55.3	65.3	56.4	61.9	16.7		9.30
	Hexazinone	80.9	90.1			10.8		2.14
	Imazalil	84.2	78.0	162	165	7.62		2.17
	Iprodione	78.6	70.5	79.7	82.7	10.8		3.61
	Kepone	85.9	115	51.1	95.2	28.8		60.2
	Lambda-Cyhalothrin	134	135	140	187	0.646		28.8
	Malathion	75.0	77.9	81.7	82.8	3.69		1.31
	Metalaxyl	80.6	81.9	83.4	88.1	1.60		5.50
	Methoxychlor	88.7	94.5	80.9	80.7	6.26		0.221
	Metolachlor	75.7	74.2	73.2	83.5	1.99		10.9
	Metribuzin	88.6	91.0	102	109	2.66		2.66
	Mevinphos	74.1	78.0	77.6	89.2	5.08		13.9

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision		
						LCS	SMP	MS
EPA 8270E	MGK-264	56.9	65.0	68.6	83.4	13.3		19.5
	Mirex	112	134	86.5	104	18.1		18.8
	Molinate	57.6	76.7	68.1	67.9	28.5		0.230
	Myclobutanil	83.0	74.7	83.0	90.0	10.5		8.08
	Naled	30.4	30.7	30.1	28.6	0.825		5.20
	Norflurazon	77.4	68.9	75.0	74.3	11.6		1.01
	Oxadiazon	78.7	75.8	69.2	74.6	3.69		6.64
	Oxyfluorfen	77.2	73.5	84.9	101	4.86		17.4
	Parathion Ethyl	77.7	85.5	82.6	91.7	9.58		10.4
	Parathion Methyl	91.6	102	94.3	99.5	10.5		5.35
	Pendimethalin	71.0	79.9	85.2	93.3	11.8		9.07
	Permethrin	113	111	98.5	114	1.83		14.2
	Phenothrin	39.6	47.2	49.2	50.9	17.6		3.36
	Phorate	74.8	78.3	99.5	106	4.58		6.65
	Piperonyl Butoxide	97.9	96.7	102	119	1.23		15.1
	Prallethrin	50.6	62.3	57.8	62.1	20.8		7.19
	Prodiamine	33.6	34.7	46.9	50.2	3.43		6.70
	Prometon	80.1	87.5	88.1	91.7	8.86		3.99
	Prometryn	85.3	85.5	113	126	0.288		10.5
	Pronamide	84.2	88.5	97.6	109	5.05		11.4
	Propiconazole	82.5	72.3	77.2	65.7	13.2		8.82
	Pyriproxyfen	69.0	65.7	70.3	162	4.87		78.8
	Simazine	80.4	89.6	135	138	10.8		2.32
	Sulfentrazone	63.8	57.2	65.3	73.8	11.0		12.3
	Tau-Fluvalinate	94.6	97.6	85.1	109	3.07		24.9
	Tebuconazole	57.1	58.6	60.6	68.2	2.64		11.7
	Terbufos	72.5	80.9	84.6	91.2	11.0		7.47
	Terbuthylazine	79.7	83.1	87.6	96.2	4.18		9.30
	Tetramethrin	68.2	64.4	65.7	78.7	5.77		18.0
	Trans-Nonachlor	71.1	81.2	48.1	59.5	13.3		21.2
	Triclosan Methyl	75.9	87.4	67.3	72.9	14.1		8.10
	Trifluralin	70.6	78.3	55.6	61.0	10.3		9.30
EPA 8276	Chlordane	91.5	100	89.0	83.6			6.25
	Toxaphene	86.4	100	86.9	94.3			8.10
EPA 8321B	2,4-D	113		119	109			8.58
	2,4,5-T	111		92.1	77.2			17.5
	3-Hydroxycarbofuran	83.1		97.8	91.3			6.87
	Acesulfame K	94.1		84.9	81.4			3.94
	Acetaminophen	92.4		84.2	82.6			1.98
	Acetamiprid	84.1		66.2	66.9			0.967
	Afidopyropen	75.4		102	84.3			18.7
	Aldicarb	103		90.0	57.8			43.6
	Aldicarb Sulfone	88.8		108	104			4.41
	Aldicarb Sulfoxide	77.5		68.8	65.7			4.61
	AMPA	89.9		72.3	70.9			1.92
	Bentazon	96.7						6.97
	Benzovindiflupyr	97.0		95.7	91.9			4.07
	Carbamazepine	91.2		72.2	68.9			4.79
	Carbaryl	63.4		49.0	46.4			5.43
	Carbofuran	60.4		52.6	45.7			14.1
	Clothianidin	86.9		70.9	78.2			9.73
	Dinotefuran	94.2		90.2	94.5			4.61
	Diuron	78.3		52.4	51.7			1.23
	Endothall	88.2		93.1	103			10.5

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Fenuron	111	75.6	77.9			3.03
	Fluridone	82.3	75.7	77.2			1.97
	Glufosinate	104	105	95.8			8.87
	Glyphosate	104	99.6	90.0			8.49
	Hydrocodone	86.6	70.7	69.7			1.38
	Ibuprofen	77.1	79.6	76.3			4.25
	Imazapyr	96.0					4.99
	Imidacloprid	85.8	133	125			6.13
	Linuron	75.1	75.9	72.8			4.22
	Mandestrobin	109	129	113			13.8
	MCPP	116	102	104			1.87
	Methiocarb	75.1	68.5	69.3			1.13
	Methomyl	72.1	68.6	69.0			0.568
	Naproxen	60.5	65.5	65.1			0.658
	Oxamyl	88.6	89.6	81.0			10.0
	Primidone	92.0	85.8	86.3			0.591
	Propoxur	65.9	51.0	46.3			9.66
	Pyraclostrobin	72.8	77.3	75.8			1.87
	Sucralose	113	38.7	52.0			27.3
	Thiamethoxam	85.6	89.5	87.3			2.45
	Tolfenpyrad	61.4	57.1	54.5			4.69
	Triclopyr	108	88.0	83.7			4.98
SM 2120 B-2011	Color (true)	98.0				1.44	
SM 2320 B-2011	Total Alkalinity	99.8				0.360	
SM 2540 C-2011	TDS					4.29	
SM 4500 F-C-2011	Fluoride	99.5	99.1	98.4			0.506
SM 5310 B-2011	Organic Carbon	97.6	101	101			0.461

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2250943
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2250956
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2250956
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2250943
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2250943
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2250944
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2250944
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2250944
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2250944
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2250945
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2250954
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2250955
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2250954
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2250951
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2250952, 2250953
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2250952, 2250953
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2250943
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2250943
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2250956

Reference Method Descriptions

Method	Description	Associated Samples
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2250943
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2250943
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2250943
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2250944

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	05/28/2021			05/28/2021 16:00	Sarah A Nixon	2250943
EPA 200.7 Rev. 4.4	05/28/2021	06/07/2021 14:20	Elliott D. Healy	06/08/2021 14:56	Betina Topolski	2250956
EPA 200.8 Rev. 5.4	05/28/2021	06/07/2021 14:20	Elliott D. Healy	06/11/2021 17:15	Alexander Thompson	2250956
EPA 300.0 Rev. 2.1	05/28/2021			06/09/2021 15:31	Lipi Saha	2250943
EPA 350.1 Rev. 2.0	05/28/2021			06/08/2021 14:42	Roberta Tatti	2250944
EPA 351.2 Rev. 2.0	05/28/2021	06/01/2021 13:33	Benjamin T. Nordmann	06/02/2021 17:32	Virginia P. Brown	2250944
EPA 353.2 Rev. 2.0	05/28/2021			06/01/2021 11:49	Beverly Y. Sanders	2250944
EPA 365.1 Rev. 2.0	05/28/2021	06/01/2021 13:09	Yen Ta	06/02/2021 11:13	Shengyu Ding	2250944
EPA 365.1 Rev. 2.0 dissolved	05/28/2021			05/28/2021 13:37	Lipi Saha	2250945
EPA 8270E	05/28/2021	06/01/2021 08:00	Fe-Val Siddell	06/09/2021 21:19	Vandana T. Nagar	2250955
	05/28/2021	06/01/2021 08:00	Fe-Val Siddell	06/11/2021 19:50	Vandana T. Nagar	2250955
	05/28/2021	06/02/2021 08:00	Fe-Val Siddell	06/10/2021 21:09	Michael Poppell	2250954
EPA 8276	05/28/2021	06/02/2021 08:00	Fe-Val Siddell	06/09/2021 17:42	Chiran X. Ghimire	2250954
EPA 8321B	05/28/2021	06/01/2021 09:00	Hoor Shaik	06/02/2021 08:16	Juyoung Kim	2250952
	05/28/2021	06/01/2021 09:00	Hoor Shaik	06/02/2021 08:51	Juyoung Kim	2250953
	05/28/2021	06/02/2021 08:00	Juyoung Kim	06/02/2021 10:31	Juyoung Kim	2250952
	05/28/2021	06/02/2021 08:00	Juyoung Kim	06/02/2021 10:41	Juyoung Kim	2250953
	05/28/2021	06/02/2021 08:00	Juyoung Kim	06/02/2021 14:04	Pramila Ghimire	2250952
	05/28/2021	06/02/2021 08:00	Juyoung Kim	06/02/2021 14:31	Pramila Ghimire	2250953
	05/28/2021	06/03/2021 09:00	Hoor Shaik	06/04/2021 00:40	Juyoung Kim	2250951
SM 2120 B-2011	05/28/2021			05/28/2021 16:55	Madeline Gruver	2250943
SM 2320 B-2011	05/28/2021			06/01/2021 20:04	Dale L. Simmons	2250943
SM 2340B	05/28/2021			06/08/2021 14:56	Betina Topolski	2250956
SM 2540 C-2011	05/28/2021			06/01/2021 14:02	Yijie Li	2250943
SM 2540 D-2011	05/28/2021			06/01/2021 14:02	Yijie Li	2250943
SM 4500 F-C-2011	05/28/2021			06/01/2021 20:04	Dale L. Simmons	2250943
SM 5310 B-2011	05/28/2021			06/02/2021 05:40	Madeline Gruver	2250944