

Chemical Analysis Report

CEN-DIST-2022-01-26-01

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

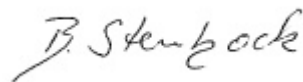
Event Description: **Run 15**
Request ID: **RQ-2022-01-24-18**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 18-FEB-2022 14:59



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: Lake Florida @ Center of Lake

Collection Date/Time: 01/25/2022 09:48

Field ID: G2CE0150

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301601	DEP SOP: NU-094-1	Color (true)**	69		PCU	P409003	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P409007	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P409287	
		Sulfate	5.0		mg SO4/L	P409290	
	SM 2320 B-2011	Total Alkalinity	51		mg CaCO3/L	P409140	
	SM 2540 C-2011	TDS	125	A	mg/L	P409501	
	SM 2540 D-2011	TSS	3	IA	mg/L	P409493	
	SM 4500 F-C-2011	Fluoride	0.070	I	mg F/L	P409145	
2301602	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P409405	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P409375	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P409096	
	EPA 365.1 Rev. 2.0	Total-P	0.038		mg P/L	P409034	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P409962	
2301603	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P409000	

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: Lake Ann @ Center

Collection Date/Time: 01/25/2022 09:00

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301598	DEP SOP: NU-094-1	Color (true)**	22		PCU	P409003	
	EPA 180.1 Rev. 2.0	Turbidity	3.0		NTU	P409007	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P409287	
		Sulfate	13		mg SO4/L	P409290	
	SM 2320 B-2011	Total Alkalinity	28		mg CaCO3/L	P409140	
	SM 2540 C-2011	TDS	95		mg/L	P409501	
	SM 2540 D-2011	TSS	3	I	mg/L	P409493	
	SM 4500 F-C-2011	Fluoride	0.042	I	mg F/L	P409145	
2301599	EPA 350.1 Rev. 2.0	Ammonia-N	0.047		mg N/L	P409405	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P409137	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P409096	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P409032	
	SM 5310 B-2011	Organic Carbon	7.0		mg C/L	P409765	
2301600	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P409000	
2301624	EPA 8321B	Aldicarb	0.020	U	ug/L	P409047	
		Aldicarb Sulfone	0.0020	U	ug/L	P409047	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P409047	
		Carbaryl	0.0020	U	ug/L	P409047	
		Carbofuran	0.0020	U	ug/L	P409047	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P409047	
		Methiocarb	0.0020	U	ug/L	P409047	
		Methomyl	0.0020	U	ug/L	P409047	
		Oxamyl	0.0020	U	ug/L	P409047	
		Propoxur	0.0020	U	ug/L	P409047	
2301625		2,4-D	0.0028	I	ug/L	P408990	
		Acesulfame K	0.15	I	ug/L	P408915	
		2,4,5-T	0.0040	U	ug/L	P408990	
		AMPA	0.10	U	ug/L	P408915	
		Acetaminophen	0.0080	U	ug/L	P408990	
		Acetamiprid	0.0020	U	ug/L	P408990	
		Endothall	0.25	U	ug/L	P408915	
		Glufosinate	0.10	U	ug/L	P408915	
		Glyphosate	0.10	U	ug/L	P408915	
		Afidopyrophen	0.0033	I	ug/L	P408990	
		Bentazon	0.075		ug/L	P408990	
		Sucralose	1.3		ug/L	P408915	
		Benzovindiflupyr	0.0020	U	ug/L	P408990	
		Carbamazepine	8.0E-04	U	ug/L	P408990	
		Clothianidin	0.0020	U	ug/L	P408990	
		Dinotefuran	0.0064	I	ug/L	P408990	
		Diuron	0.0021	I	ug/L	P408990	
		Fenuron	0.023	I	ug/L	P408990	
		Fluridone	0.0031	I	ug/L	P408990	

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301625	EPA 8321B	Imazapyr	0.15		ug/L	P408990	
		Hydrocodone	0.0020	U	ug/L	P408990	
		Ibuprofen	0.020	U	ug/L	P408990	
		Imidacloprid	0.0086		ug/L	P408990	MS
		Linuron	0.0040	U	ug/L	P408990	
		Mandestrobin	0.0020	U	ug/L	P408990	
		MCP	0.0020	U	ug/L	P408990	
		Naproxen	0.0080	U	ug/L	P408990	
		Primidone	0.015	I	ug/L	P408990	
		Pyraclostrobin	0.0020	U	ug/L	P408990	
		Silvex	0.0040	U	ug/L	P408990	
		Thiamethoxam	0.0020	U	ug/L	P408990	MS
		Tolfenpyrad	0.0020	U	ug/L	P408990	
		Triclopyr	0.0040	U	ug/L	P408990	
2301626	EPA 8270E	Aldrin	0.68	U	ng/L	P408985	RPD
		Alpha-BHC	0.10	U	ng/L	P408985	MS, RPD
		Alpha-Chlordane	0.21	U	ng/L	P408985	MS, RPD
		Beta-BHC	0.10	U	ng/L	P408985	
		Beta-Cyfluthrin**	1.3	U	ng/L	P408985	RPD
		Bifenthrin**	0.52	U	ng/L	P408985	RPD
		Chlorothalonil	1.3	U	ng/L	P408985	RPD
		Cis-Nonachlor**	0.21	U	ng/L	P408985	
		Cypermethrin	1.6	U	ng/L	P408985	RPD
		Dacthal**	0.16	U	ng/L	P408985	MS, RPD
		DDD-p,p'	0.26	U	ng/L	P408985	RPD
		DDE-p,p'	0.21	U	ng/L	P408985	RPD
		DDT-p,p'	0.26	U	ng/L	P408985	MS, RPD
		Delta-BHC	0.42	U	ng/L	P408985	RPD
		Deltamethrin**	1.3	U	ng/L	P408985	
		Dichlobenil**	0.26	U	ng/L	P408985	RPD
		Dicofol	1.3	U	ng/L	P408985	RPD
		Dieldrin	0.42	U	ng/L	P408985	RPD
		Endosulfan I	0.42	U	ng/L	P408985	MS, RPD
		Endosulfan II	0.42	U	ng/L	P408985	RPD
		Endosulfan Sulfate	0.31	U	ng/L	P408985	
		Endrin	0.42	U	ng/L	P408985	
		Endrin Aldehyde	0.78	U	ng/L	P408985	
		Endrin Ketone	0.42	U	ng/L	P408985	RPD
		Esfenvalerate**	0.78	U	ng/L	P408985	
		Ethalfuralin**	0.16	U	ng/L	P408985	MS, RPD
		Fenpropathrin**	0.26	U	ng/L	P408985	RPD
		Gamma-BHC	0.13	U	ng/L	P408985	RPD
		Gamma-Chlordane	0.21	U	ng/L	P408985	MS, RPD
		Heptachlor	0.21	U	ng/L	P408985	MS, RPD
		Heptachlor Epoxide	0.26	U	ng/L	P408985	RPD

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301626	EPA 8270E	Hexachlorobenzene	1.0	U	ng/L	P408985	MS, RPD
		Kepone**	5.2	U	ng/L	P408985	
		Lambda-Cyhalothrin**	0.78	U	ng/L	P408985	
		Methoprene**	0.78	U	ng/L	P408985	RPD
		Methoxychlor	0.31	U	ng/L	P408985	
		MGK-264**	0.21	U	ng/L	P408985	
		Mirex	0.73	U	ng/L	P408985	RPD
		Oxychlordane**	0.31	U	ng/L	P408985	RPD
		Permethrin	1.7	U	ng/L	P408985	RPD
		Phenothrin**	0.94	U	ng/L	P408985	RPD
		Piperonyl Butoxide**	0.16	U	ng/L	P408985	
		Prallethrin**	2.1	U	ng/L	P408985	RPD
		Tau-Fluvalinate**	0.26	U	ng/L	P408985	RPD
		Tetramethrin**	0.78	U	ng/L	P408985	RPD
		Trans-Nonachlor**	0.21	U	ng/L	P408985	MS, RPD
		Triclosan Methyl**	0.16	U	ng/L	P408985	MS, RPD
		Trifluralin	0.21	U	ng/L	P408985	MS, RPD
	EPA 8276	Chlordane	2.6	U	ng/L	P408985	
		Toxaphene	16	U	ng/L	P408985	
2301627	EPA 8270E	Acetochlor	0.24	U	ng/L	P409108	
		Alachlor	0.24	U	ng/L	P409108	
		Ametryn	0.57	U	ng/L	P409108	
		Atrazine	9.0		ng/L	P409108	
		Atrazine Desethyl	8.0		ng/L	P409108	
		Azinphos Methyl	1.9	U	ng/L	P409108	
		Azoxystrobin**	0.47	U	ng/L	P409108	
		Bromacil	0.47	U	ng/L	P409108	
		Butylate	0.38	U	ng/L	P409108	
		Caffeine**	11	I	ng/L	P409108	
		Carbophenothion	0.19	U	ng/L	P409108	
		Carfentrazone Ethyl**	0.095	U	ng/L	P409108	
		Chlorfenapyr**	0.17	U	ng/L	P409108	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P409108	
		Chlorpyrifos Methyl	0.047	U	ng/L	P409108	
		Coumaphos**	0.47	U	ng/L	P409108	
		Cyanazine	3.1	U	ng/L	P409108	
		Cyprodinil**	0.095	U	ng/L	P409108	
		Demeton	1.4	U	ng/L	P409108	
		Diazinon	0.12	U	ng/L	P409108	
		Difenoconazole**	0.57	U	ng/L	P409108	
		Dimethenamid**	0.095	U	ng/L	P409108	
		Dimethomorph**	0.17	U	ng/L	P409108	
		Disulfoton	0.47	U	ng/L	P409108	
		Dithiopyr**	0.19	I	ng/L	P409108	
		EPTC	1.2	U	ng/L	P409108	

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301627	EPA 8270E	Ethion	0.14	U	ng/L	P409108	
		Ethoprop	0.095	U	ng/L	P409108	
		Etridiazole**	0.14	U	ng/L	P409108	
		Fenamiphos	0.47	U	ng/L	P409108	
		Fenbuconazole**	0.12	U	ng/L	P409108	
		Fipronil	0.24	I	ng/L	P409108	
		Fipronil DesulfinyI**	0.92		ng/L	P409108	
		Fipronil Sulfide	0.65		ng/L	P409108	
		Fipronil Sulfone	2.3		ng/L	P409108	
		Fluazifop-P-butyl**	0.095	U	ng/L	P409108	
		Fludioxonil**	0.12	U	ng/L	P409108	
		Flumioxazin**	1.7	U	ng/L	P409108	
		Flutolanil**	0.095	U	ng/L	P409108	
		Fluxapyroxad**	0.095	U	ng/L	P409108	
		Fonofos	0.19	U	ng/L	P409108	
		Hexazinone	0.47	U	ng/L	P409108	
		Imazalil**	0.71	U	ng/L	P409108	
		Iprodione**	0.57	U	ng/L	P409108	
		Loratadine**	0.095	U	ng/L	P409108	
		Malathion	0.33	U	ng/L	P409108	
		Metalaxyl	0.71	U	ng/L	P409108	
		Metolachlor	0.42	I	ng/L	P409108	
		Metribuzin	2.4	U	ng/L	P409108	
		Mevinphos	0.99	U	ng/L	P409108	
		Molinate	0.28	U	ng/L	P409108	
		Myclobutanil**	0.81	I	ng/L	P409108	
		Naled**	1.4	UJ	ng/L	P409108	LCS, MS
		Napropamide**	0.38	U	ng/L	P409108	
		Norflurazon	0.47	U	ng/L	P409108	
		Oxadiazon	0.53	I	ng/L	P409108	
		Oxyfluorfen**	0.14	U	ng/L	P409108	
		Parathion Ethyl	0.24	U	ng/L	P409108	
		Parathion Methyl	0.52	U	ng/L	P409108	
		Pendimethalin	0.95	U	ng/L	P409108	
		Phenytol**	3.3	U	ng/L	P409108	
		Phorate	0.50	U	ng/L	P409108	
		Prodiamine**	0.17	U	ng/L	P409108	
		Prometon	0.85	U	ng/L	P409108	RPD
		Prometryn	0.19	U	ng/L	P409108	
		Pronamide**	0.14	U	ng/L	P409108	
		Propanil**	0.12	U	ng/L	P409108	
		Propargite**	1.4	U	ng/L	P409108	
		Propiconazole**	1.3	I	ng/L	P409108	
		Pyraflufen Ethyl**	0.24	U	ng/L	P409108	
		Pyridaben**	26		ng/L	P409108	

Field ID: G2CE0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301627	EPA 8270E	Pyriproxyfen**	0.12	U	ng/L	P409108	
		Simazine	3.5		ng/L	P409108	
		Stirophos**	0.12	U	ng/L	P409108	
		Sulfentrazone**	3.7		ng/L	P409108	
		Tebuconazole**	1.1	I	ng/L	P409108	
		Terbufos	0.095	U	ng/L	P409108	
		Terbutylazine	0.40	U	ng/L	P409108	
		Thiobencarb**	0.57	U	ng/L	P409108	
		Triadimefon**	0.36	I	ng/L	P409108	

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 imazapyr could not be assessed due to a high concentration of parameter in the spiked sample.

EPA 8270E: MS accuracy for Flutolanil 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.

Sample Location: Lake Ellen @ Center

Collection Date/Time: 01/25/2022 10:29

Field ID: G2CE0060

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301595	DEP SOP: NU-094-1	Color (true)**	20	A	PCU	P409003	
	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P409007	
	EPA 300.0 Rev. 2.1	Chloride	14		mg Cl/L	P409287	
		Sulfate	12		mg SO4/L	P409290	
	SM 2320 B-2011	Total Alkalinity	7.1		mg CaCO3/L	P409140	
	SM 2540 C-2011	TDS	62		mg/L	P409501	
	SM 2540 D-2011	TSS	4	I	mg/L	P409493	
	SM 4500 F-C-2011	Fluoride	0.052	I	mg F/L	P409145	
2301596	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P409405	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P409375	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P409096	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P409032	
	SM 5310 B-2011	Organic Carbon	7.3		mg C/L	P409962	
2301597	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P409000	
2301628	EPA 200.7 Rev. 4.4	Calcium	4.36		mg/L	P409121	
		Iron	30	U	ug/L	P409121	
		Magnesium	2.41		mg/L	P409121	
		Potassium	3.1		mg/L	P409121	
		Sodium	9.3		mg/L	P409121	
		Strontium	22.1		ug/L	P409121	
		Tin	3.0	U	ug/L	P409121	
		Titanium	0.75	U	ug/L	P409121	
		Vanadium	2.0	U	ug/L	P409121	
		Zinc	5.0	U	ug/L	P409121	
	EPA 200.8 Rev. 5.4	Aluminum	22		ug/L	P409121	
		Antimony	0.11	I	ug/L	P409121	
		Arsenic	1.66		ug/L	P409121	
		Barium	12.1		ug/L	P409121	
		Beryllium	0.010	U	ug/L	P409121	
		Boron**	44.4		ug/L	P409121	
		Cadmium	0.020	U	ug/L	P409121	
		Chromium	0.40	U	ug/L	P409121	
		Cobalt	0.025	I	ug/L	P409121	
		Copper	0.52	I	ug/L	P409121	
		Lead	0.20	U	ug/L	P409121	
		Manganese	6.55		ug/L	P409121	
		Molybdenum	0.15	U	ug/L	P409121	
		Nickel	0.50	U	ug/L	P409121	
		Selenium	0.20	U	ug/L	P409121	
		Silver	0.010	U	ug/L	P409121	
		Thallium	0.10	U	ug/L	P409121	
	SM 2340B	Hardness	20.8		mg/L	P409121	

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: Lake Asher @ Center of Lake

Collection Date/Time: 01/25/2022 12:17

Field ID: G2CE0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301604	DEP SOP: NU-094-1	Color (true)**	41		PCU	P409003	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P409007	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P409287	
		Sulfate	8.5		mg SO4/L	P409290	
	SM 2320 B-2011	Total Alkalinity	26		mg CaCO3/L	P409140	
	SM 2540 C-2011	TDS	105		mg/L	P409501	
	SM 2540 D-2011	TSS	4	I	mg/L	P409493	
2301605	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P409145	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P409405	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.79		mg N/L	P409231	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P409096	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P409034	
2301606	SM 5310 B-2011	Organic Carbon	11		mg C/L	P409962	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P409000	

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.

Sample Location: Lake Alma NW of Center

Collection Date/Time: 01/25/2022 11:33

Field ID: G2CE0237

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2301607	DEP SOP: NU-094-1	Color (true)**	170		PCU	P409003	
	EPA 180.1 Rev. 2.0	Turbidity	0.50		NTU	P409007	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P409287	
		Sulfate	0.33	I	mg SO4/L	P409290	
	SM 2320 B-2011	Total Alkalinity	17		mg CaCO3/L	P409140	
	SM 2540 C-2011	TDS	104		mg/L	P409501	
	SM 2540 D-2011	TSS	2	I	mg/L	P409493	
	SM 4500 F-C-2011	Fluoride	0.037	I	mg F/L	P409145	
2301608	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P409405	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P409191	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P409097	
	EPA 365.1 Rev. 2.0	Total-P	0.043		mg P/L	P409034	
	SM 5310 B-2011	Organic Carbon	26		mg C/L	P409520	
2301609	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P409000	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P409003

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409007

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409121

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409121

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	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
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	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: P409287

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409290

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409405

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409137

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409191

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409231

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409375

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409096

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409097

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409032

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P409034

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P409000

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

Reference Method: EPA 8270E

Batch ID: P408985

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	1.2	U	ng/L
Chlorothalonil	1.2	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	0.25	U	ng/L
Dichlobenil	0.25	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
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L
Endosulfan II	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408985

Component	Result	Code	Units
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
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	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
Methoprene	0.75	U	ng/L
Methoprene	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	0.70	U	ng/L
Mirex	0.70	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P408985

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

Reference Method: EPA 8270E

Batch ID: P409108

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	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	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
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P409108

Component	Result	Code	Units
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	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
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	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
Loratadine	0.10	U	ng/L
Loratadine	0.10	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P409108

Component	Result	Code	Units
Metolachlor	0.35	U	ng/L
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	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
Napropamide	0.40	U	ng/L
Napropamide	0.40	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
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	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
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	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
Stirophos	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P409108

Component	Result	Code	Units
Stirophos	0.12	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
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8276

Batch ID: P408985

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Chlordane	2.5	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P408915

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: P408990

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P408990

Component	Result	Code	Units
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
Silvex	0.0040	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: P409047

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 2320 B-2011

Batch ID: P409140

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

Reference Method: SM 2540 C-2011

Batch ID: P409501

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011

Batch ID: P409493

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011

Batch ID: P409145

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2011
Batch ID: P409520

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P409765

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P409962

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P409003

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.4		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409121

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	107		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	97.5		P	85 - 115
Sodium	97.7		P	85 - 115
Strontium	98.7		P	85 - 115
Tin	104		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409121

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.7		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	101		P	85 - 115
Barium	103		P	85 - 115
Beryllium	100		P	85 - 115
Boron	98.7		P	85 - 115
Cadmium	98.8		P	85 - 115
Chromium	99.0		P	85 - 115
Cobalt	100		P	85 - 115
Copper	101		P	85 - 115
Lead	100		P	85 - 115
Manganese	97.6		P	85 - 115
Molybdenum	100		P	85 - 115
Nickel	100		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	102		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409287

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409290

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409405

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409137

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409191

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409231

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409375

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.7		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409096

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409097

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: P409032

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409034

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409000

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

Reference Method: EPA 8270E
Batch ID: P408985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	66.0		P	10 - 93.0
Alpha-BHC	96.5		P	75 - 106
Alpha-Chlordane	90.4		P	50 - 109
Beta-BHC	109		P	65 - 135
Beta-Cyfluthrin	112		P	23 - 167
Bifenthrin	92.6		P	11 - 123
Chlorothalonil	113		P	26 - 182
Cis-Nonachlor	90.6		P	40 - 111
Cypermethrin	86.7		P	25 - 155
Dacthal	95.8		P	73 - 112
DDD-p,p'	90.3		P	47 - 108
DDE-p,p'	89.0		P	48 - 107
DDT-p,p'	88.4		P	49 - 111
Delta-BHC	112		P	68 - 143
Deltamethrin	132		P	16 - 176
Dichlobenil	85.9		P	32 - 113
Dicofol	83.4		P	50 - 108
Dieldrin	91.3		P	56 - 110
Endosulfan I	90.6		P	60 - 105
Endosulfan II	88.1		P	50 - 120
Endosulfan Sulfate	91.6		P	55 - 121
Endrin	89.2		P	35 - 117
Endrin Aldehyde	91.3		P	36 - 116
Endrin Ketone	101		P	56 - 130
Esfenvalerate	109		P	10 - 179
Ethalfuralin	87.6		P	49 - 99.0
Fenpropathrin	101		P	35 - 119
Gamma-BHC	87.0		P	72 - 115
Gamma-Chlordane	85.9		P	45 - 107
Heptachlor	80.1		P	41 - 100
Heptachlor Epoxide	90.7		P	58 - 106
Hexachlorobenzene	86.5		P	39 - 100
Kepone	156		P	10 - 191
Lambda-Cyhalothrin	111		P	10 - 186
Methoprene	76.6		P	10 - 129
Methoxychlor	103		P	61 - 111
MGK-264	86.9		P	20 - 123
Mirex	74.4		P	10 - 182
Oxychlordane	87.6		P	39 - 110
Permethrin	112		P	26 - 152
Phenothrin	87.5		P	10 - 109
Piperonyl Butoxide	103		P	27 - 142
Prallethrin	71.1		P	14 - 109
Tau-Fluvalinate	101		P	16 - 134
Tetramethrin	80.3		P	10 - 125
Trans-Nonachlor	85.2		P	45 - 107

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P408985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Triclosan Methyl	92.0		P	60 - 110
Trifluralin	85.4		P	49 - 98.0

Reference Method: EPA 8270E
 Batch ID: P409108

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	114		P	70 - 121
Alachlor	103		P	68 - 119
Ametryn	112		P	64 - 139
Atrazine	106		P	76 - 120
Atrazine Desethyl	86.6		P	44 - 126
Azinphos Methyl	72.2		P	43 - 192
Azoxystrobin	109		P	36 - 224
Bromacil	109		P	52 - 121
Butylate	66.8		P	28 - 91.0
Caffeine	85.8		P	50 - 134
Carbophenothion	111		P	56 - 129
Carfentrazone Ethyl	125		P	60 - 141
Chlorfenapyr	103		P	56 - 115
Chlorpyrifos Ethyl	113		P	60 - 118
Chlorpyrifos Methyl	110		P	68 - 119
Coumaphos	171		P	18 - 250
Cyanazine	133		P	61 - 250
Cyprodinil	140		P	55 - 145
Demeton	96.8		P	30 - 159
Diazinon	106		P	70 - 123
Difenoconazole	108		P	49 - 204
Dimethenamid	91.0		P	64 - 115
Dimethomorph	111		P	12 - 219
Disulfoton	89.0		P	44 - 125
Dithiopyr	104		P	64 - 115
EPTC	61.1		P	28 - 86.0
Ethion	103		P	33 - 125
Ethoprop	85.4		P	64 - 116
Etridiazole	69.1		P	34 - 91.0
Fenamiphos	126		P	12 - 127
Fenbuconazole	145		P	59 - 151
Fipronil	110		P	67 - 129
Fipronil Desulfinyl	111		P	65 - 127
Fipronil Sulfide	95.7		P	61 - 116
Fipronil Sulfone	105		P	55 - 117
Fluazifop-P-butyl	97.3		P	62 - 127
Fludioxonil	111		P	62 - 128
Flumioxazin	248		P	33 - 250
Flutolanil	104		P	56 - 127
Fluxapyroxad	127		P	45 - 128
Fonofos	85.7		P	62 - 111
Hexazinone	114		P	46 - 139
Imazalil	88.8		P	38 - 142
Iprodione	70.6		P	47 - 135
Loratadine	87.4		P	10 - 244

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P409108

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Malathion	128		P	61 - 139
Metalaxyl	99.7		P	10 - 119
Metolachlor	111		P	65 - 118
Metribuzin	111		P	51 - 250
Mevinphos	89.0		P	53 - 121
Molinate	76.1		P	42 - 96.0
Myclobutanil	109		P	55 - 128
Naled	119		F	10 - 98.0
Napropamide	103		P	49 - 121
Norflurazon	119		P	61 - 126
Oxadiazon	92.9		P	59 - 116
Oxyfluorfen	117		P	64 - 137
Parathion Ethyl	106		P	70 - 112
Parathion Methyl	120		P	76 - 133
Pendimethalin	79.5		P	52 - 117
Phenytoin	113		P	10 - 199
Phorate	98.5		P	48 - 121
Prodiamine	98.2		P	26 - 142
Prometon	105		P	43 - 123
Prometryn	94.7		P	66 - 127
Pronamide	121		P	75 - 121
Propanil	118		P	45 - 150
Propargite	163		P	42 - 208
Propiconazole	99.8		P	60 - 125
Pyraflufen Ethyl	124		P	70 - 138
Pyridaben	159		P	35 - 245
Pyriproxyfen	61.7		P	30 - 149
Simazine	123		P	72 - 125
Stirophos	84.7		P	29 - 164
Sulfentrazone	136		P	21 - 139
Tebuconazole	78.7		P	10 - 115
Terbufos	102		P	60 - 123
Terbutylazine	101		P	72 - 115
Thiobencarb	112		P	31 - 139
Triadimefon	98.3		P	65 - 116

Reference Method: EPA 8276

Batch ID: P408985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	81.7		P	61 - 118
Toxaphene	76.4		P	51 - 122

Reference Method: EPA 8321B

Batch ID: P408915

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	88.1		P	40 - 150
AMPA	95.1		P	40 - 150
Endothall	106		P	40 - 150
Glufosinate	95.1		P	40 - 150
Glyphosate	93.4		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P408915

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.9		P	30 - 160
2,4,5-T	74.3		P	30 - 160
Acetaminophen	68.0		P	30 - 160
Acetamiprid	98.0		P	30 - 160
Afidopyropen	78.4		P	30 - 160
Bentazon	86.8		P	30 - 160
Benzovindiflupyr	92.5		P	30 - 160
Carbamazepine	93.9		P	30 - 160
Clothianidin	106		P	30 - 160
Dinotefuran	102		P	30 - 160
Diuron	97.4		P	30 - 160
Fenuron	103		P	30 - 160
Fluridone	108		P	30 - 160
Hydrocodone	92.6		P	30 - 160
Ibuprofen	81.6		P	30 - 160
Imazapyr	104		P	30 - 160
Imidacloprid	92.8		P	30 - 160
Linuron	81.2		P	30 - 160
Mandestrobin	103		P	30 - 160
MCPP	111		P	30 - 160
Naproxen	94.5		P	30 - 160
Primidone	90.5		P	30 - 160
Pyraclostrobin	97.3		P	30 - 160
Silvex	60.0		P	30 - 160
Thiamethoxam	92.9		P	30 - 160
Tolfenpyrad	61.1		P	30 - 160
Triclopyr	76.1		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P409047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	79.7		P	30 - 160
Aldicarb	45.1		P	30 - 160
Aldicarb Sulfone	93.7		P	30 - 160
Aldicarb Sulfoxide	90.8		P	30 - 160
Carbaryl	81.3		P	30 - 160
Carbofuran	86.3		P	30 - 160
Methiocarb	70.4		P	30 - 160
Methomyl	88.6		P	30 - 160
Oxamyl	95.6		P	30 - 160
Propoxur	78.6		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P409140

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.0		P	94 - 106

Reference Method: SM 4500 F-C-2011
Batch ID: P409145

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P409520

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P409765

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P409962

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P409121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301666	Calcium	102		P	80 - 120
2301666	Iron	110	107	P/P	80 - 120
2301666	Magnesium	104		P	80 - 120
2301666	Potassium	96.9		P	80 - 120
2301666	Sodium	97.4		P	80 - 120
2301666	Strontium	99.8	97.9	P/P	80 - 120
2301666	Tin	103	101	P/P	80 - 120
2301666	Titanium	104	101	P/P	80 - 120
2301666	Vanadium	105	102	P/P	80 - 120
2301666	Zinc	104	101	P/P	80 - 120
2301780	Calcium	106		P	80 - 120
2301780	Iron	110		P	80 - 120
2301780	Magnesium	110		P	80 - 120
2301780	Potassium	101		P	80 - 120
2301780	Sodium	103		P	80 - 120
2301780	Strontium	101		P	80 - 120
2301780	Tin	108		P	80 - 120
2301780	Titanium	103		P	80 - 120
2301780	Vanadium	104		P	80 - 120
2301780	Zinc	105		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P409121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301666	Aluminum	97.8	99.8	P/P	80 - 120
2301666	Antimony	99.7	101	P/P	80 - 120
2301666	Arsenic	102	101	P/P	80 - 120
2301666	Barium	102	104	P/P	80 - 120
2301666	Beryllium	101	100	P/P	80 - 120
2301666	Boron	96.0	101	P/P	80 - 120
2301666	Cadmium	98.5	100	P/P	80 - 120
2301666	Chromium	100	102	P/P	80 - 120
2301666	Cobalt	100	101	P/P	80 - 120
2301666	Copper	101	102	P/P	80 - 120
2301666	Lead	101	102	P/P	80 - 120
2301666	Manganese	98.6	99.5	P/P	80 - 120
2301666	Molybdenum	102	103	P/P	80 - 120
2301666	Nickel	100	101	P/P	80 - 120
2301666	Selenium	98.7	99.3	P/P	80 - 120
2301666	Silver	102	103	P/P	80 - 120
2301666	Thallium	109	111	P/P	80 - 120
2301780	Aluminum	101		P	80 - 120
2301780	Antimony	100		P	80 - 120
2301780	Arsenic	99.6		P	80 - 120
2301780	Barium	104		P	80 - 120
2301780	Beryllium	101		P	80 - 120
2301780	Boron	104		P	80 - 120
2301780	Cadmium	101		P	80 - 120
2301780	Chromium	101		P	80 - 120
2301780	Cobalt	99.2		P	80 - 120
2301780	Copper	102		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301780	Lead	103		P	80 - 120
2301780	Manganese	100		P	80 - 120
2301780	Molybdenum	100		P	80 - 120
2301780	Nickel	101		P	80 - 120
2301780	Selenium	96.3		P	80 - 120
2301780	Silver	103		P	80 - 120
2301780	Thallium	111		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301449	Chloride	96.9		P	90 - 110
2301575	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409290

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301449	Sulfate	95.2		P	90 - 110
2301575	Sulfate	98.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301562	Ammonia-N	95.6	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409137

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301258	Kjeldahl Nitrogen	106	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409191

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301639	Kjeldahl Nitrogen	102	111	P/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409375

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301510	Kjeldahl Nitrogen	101	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301561	NO2NO3-N	100	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409097

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301656	NO2NO3-N	99.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301586	Total-P	105	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409034

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301608	Total-P	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409000

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301600	O-Phosphate-P	92.9	94.5	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P408985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301521	Aldrin	23.6	40.1	P/P	10 - 89.0
2301521	Alpha-BHC	60.7	81.9	F/P	71 - 105
2301521	Alpha-Chlordane	37.7	56.7	F/P	43 - 107
2301521	Beta-BHC	70.0	95.6	P/P	57 - 152
2301521	Beta-Cyfluthrin	48.5	75.1	P/P	29 - 186
2301521	Bifenthrin	36.7	62.5	P/P	19 - 119
2301521	Chlorothalonil	91.9	169	P/P	10 - 245
2301521	Cis-Nonachlor	44.2	54.7	P/P	36 - 110
2301521	Cypermethrin	47.1	70.5	P/P	24 - 169
2301521	Dacthal	53.6	73.7	F/P	62 - 115
2301521	DDD-p,p'	36.3	54.1	P/P	36 - 109
2301521	DDE-p,p'	32.7	48.2	P/P	30 - 114
2301521	DDT-p,p'	40.2	60.6	F/P	42 - 108
2301521	Delta-BHC	77.8	113	P/P	60 - 164
2301521	Deltamethrin	60.7	87.2	P/P	10 - 210
2301521	Dichlobenil	34.8	52.9	P/P	23 - 108
2301521	Dicofol	45.9	64.1	P/P	44 - 109
2301521	Dieldrin	40.2	58.7	P/P	37 - 119
2301521	Endosulfan I	43.1	62.4	F/P	52 - 105
2301521	Endosulfan II	38.8	54.6	P/P	35 - 127
2301521	Endosulfan Sulfate	52.6	69.3	P/P	39 - 130
2301521	Endrin	38.0	56.4	P/P	30 - 116
2301521	Endrin Aldehyde	32.2	50.5	P/P	20 - 110
2301521	Endrin Ketone	52.9	75.7	P/P	48 - 134
2301521	Esfenvalerate	53.3	77.5	P/P	10 - 199
2301521	Ethalfuralin	38.3	57.3	F/P	48 - 95.0
2301521	Fenpropathrin	39.6	54.6	P/P	37 - 121
2301521	Gamma-BHC	72.7	96.3	P/P	61 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P408985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301521	Gamma-Chlordane	36.8	55.4	F/P	39 - 105
2301521	Heptachlor	31.3	50.7	F/P	38 - 96.0
2301521	Heptachlor Epoxide	46.1	64.1	P/P	42 - 114
2301521	Hexachlorobenzene	33.2	54.5	F/P	39 - 93.0
2301521	Kepone	81.8	103	P/P	10 - 215
2301521	Lambda-Cyhalothrin	53.5	90.1	P/P	10 - 204
2301521	Methoprene	29.0	51.3	P/P	17 - 108
2301521	Methoxychlor	58.6	78.4	P/P	56 - 115
2301521	MGK-264	48.4	69.3	P/P	35 - 120
2301521	Mirex	25.8	41.0	P/P	10 - 178
2301521	Oxychlordane	52.4	86.7	P/P	47 - 91.0
2301521	Permethrin	53.0	79.0	P/P	27 - 170
2301521	Phenothrin	38.7	68.7	P/P	10 - 133
2301521	Piperonyl Butoxide	57.4	87.3	P/P	23 - 150
2301521	Prallethrin	36.8	60.2	P/P	21 - 113
2301521	Tau-Fluvalinate	41.1	69.0	P/P	16 - 158
2301521	Tetramethrin	42.1	70.6	P/P	22 - 132
2301521	Trans-Nonachlor	37.0	54.6	F/P	43 - 102
2301521	Triclosan Methyl	37.8	51.5	F/P	49 - 109
2301521	Trifluralin	39.8	56.9	F/P	48 - 93.0

Reference Method: EPA 8270E

Batch ID: P409108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301326	Acetochlor	106	107	P/P	65 - 124
2301326	Alachlor	96.4	98.2	P/P	61 - 121
2301326	Ametryn	152	138	P/P	52 - 216
2301326	Atrazine	102	99.3	P/P	68 - 133
2301326	Atrazine Desethyl	58.1	62.5	P/P	15 - 160
2301326	Azinphos Methyl	72.1	78.8	P/P	40 - 292
2301326	Azoxystrobin	98.6	105	P/P	12 - 242
2301326	Bromacil	101	99.7	P/P	54 - 167
2301326	Butylate	39.5	47.7	P/P	14 - 94.0
2301326	Caffeine	115	126	P/P	10 - 226
2301326	Carbophenothion	101	106	P/P	49 - 122
2301326	Carfentrazone Ethyl	121	118	P/P	53 - 138
2301326	Chlorfenapyr	85.7	91.5	P/P	50 - 150
2301326	Chlorpyrifos Ethyl	105	109	P/P	52 - 122
2301326	Chlorpyrifos Methyl	106	109	P/P	66 - 117
2301326	Coumaphos	185	200	P/P	50 - 220
2301326	Cyanazine	120	128	P/P	43 - 245
2301326	Cyprodinil	121	128	P/P	50 - 150
2301326	Demeton	86.5	97.8	P/P	43 - 188
2301326	Diazinon	104	103	P/P	69 - 131
2301326	Difenoconazole	84.6	86.6	P/P	34 - 231
2301326	Dimethenamid	99.1	98.2	P/P	55 - 118
2301326	Dimethomorph	102	102	P/P	50 - 150
2301326	Disulfoton	93.8	104	P/P	38 - 141
2301326	Dithiopyr	101	96.5	P/P	42 - 116
2301326	EPTC	31.3	37.2	P/P	18 - 85.0
2301326	Ethion	93.8	85.9	P/P	10 - 131

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P409108

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301326	Ethoprop	100	104	P/P	65 - 129
2301326	Etridiazole	52.0	56.1	P/P	50 - 150
2301326	Fenamiphos	89.1	80.6	P/P	31 - 137
2301326	Fenbuconazole	147	144	P/P	57 - 160
2301326	Fipronil	109	109	P/P	62 - 132
2301326	Fipronil Desulfinyl	106	101	P/P	57 - 131
2301326	Fipronil Sulfide	98.3	96.3	P/P	15 - 138
2301326	Fipronil Sulfone	101	100	P/P	21 - 134
2301326	Fluazifop-P-butyl	97.6	96.4	P/P	54 - 133
2301326	Fludioxonil	93.0	95.1	P/P	58 - 127
2301326	Flumioxazin	269	295	P/P	33 - 300
2301326	Fluxapyroxad	99.3	70.5	P/P	23 - 141
2301326	Fonofos	87.1	95.9	P/P	58 - 119
2301326	Hexazinone	106	106	P/P	68 - 172
2301326	Imazalil	104	89.3	P/P	48 - 283
2301326	Iprodione	61.7	60.6	P/P	38 - 140
2301326	Loratadine	75.7	76.6	P/P	50 - 150
2301326	Malathion	115	116	P/P	40 - 137
2301326	Metalaxyl	97.8	90.6	P/P	21 - 129
2301326	Metolachlor	102	98.6	P/P	55 - 122
2301326	Metribuzin	113	107	P/P	38 - 187
2301326	Mevinphos	99.9	108	P/P	54 - 134
2301326	Molinate	69.9	79.7	P/P	41 - 97.0
2301326	Myclobutanil	103	102	P/P	56 - 125
2301326	Naled	105	110	P/F	10 - 108
2301326	Napropamide	95.0	93.1	P/P	50 - 150
2301326	Norflurazon	122	116	P/P	32 - 122
2301326	Oxadiazon	83.8	80.1	P/P	40 - 119
2301326	Oxyfluorfen	126	121	P/P	61 - 153
2301326	Parathion Ethyl	92.2	97.1	P/P	59 - 130
2301326	Parathion Methyl	109	118	P/P	65 - 155
2301326	Pendimethalin	86.2	87.3	P/P	49 - 138
2301326	Phenytoin	114	108	P/P	50 - 200
2301326	Phorate	116	107	P/P	54 - 161
2301326	Prodiamine	129	126	P/P	33 - 161
2301326	Prometon	104	72.1	P/P	48 - 140
2301326	Prometryn	93.8	85.0	P/P	55 - 134
2301326	Pronamide	116	110	P/P	66 - 137
2301326	Propanil	112	115	P/P	50 - 150
2301326	Propargite	151	144	P/P	50 - 200
2301326	Propiconazole	131	128	P/P	36 - 150
2301326	Pyraflufen Ethyl	132	118	P/P	50 - 150
2301326	Pyridaben	174	194	P/P	50 - 200
2301326	Pyriproxyfen	55.1	47.2	P/P	10 - 165
2301326	Simazine	105	111	P/P	57 - 145
2301326	Stirophos	98.3	98.9	P/P	50 - 150
2301326	Sulfentrazone	103	89.4	P/P	34 - 140
2301326	Tebuconazole	75.1	46.2	P/P	10 - 127
2301326	Terbufos	118	121	P/P	59 - 138
2301326	Terbutylazine	99.0	94.1	P/P	68 - 119
2301326	Thiobencarb	102	105	P/P	50 - 150
2301326	Triadimefon	80.7	78.1	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8276

Batch ID: P408985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2302073	Chlordane	64.4	56.9	P/P	55 - 128
2302073	Toxaphene	83.5	69.7	P/P	57 - 211

Reference Method: EPA 8321B

Batch ID: P408915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301274	Acesulfame K	86.4	91.4	P/P	40 - 150
2301274	AMPA	103	98.2	P/P	40 - 150
2301274	Endothall	130	129	P/P	40 - 150
2301274	Glufosinate	97.0	102	P/P	40 - 150
2301274	Glyphosate	92.5	91.4	P/P	40 - 150
2301274	Sucralose	77.1	84.4	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P408990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301386	2,4-D	118	135	P/P	30 - 160
2301386	2,4,5-T	80.1	103	P/P	30 - 160
2301386	Acetaminophen	103	104	P/P	30 - 160
2301386	Acetamiprid	109	128	P/P	30 - 160
2301386	Afidopyropen	70.9	83.7	P/P	30 - 160
2301386	Bentazon	38.0	66.4	P/P	30 - 160
2301386	Benzovindiflupyr	87.9	98.6	P/P	30 - 160
2301386	Carbamazepine	98.9	114	P/P	30 - 160
2301386	Clothianidin	132	158	P/P	30 - 160
2301386	Dinotefuran	123	136	P/P	30 - 160
2301386	Diuron	82.7	95.2	P/P	30 - 160
2301386	Fenuron	88.4	102	P/P	30 - 160
2301386	Fluridone	90.8	104	P/P	30 - 160
2301386	Hydrocodone	102	116	P/P	30 - 160
2301386	Ibuprofen	68.8	85.8	P/P	30 - 160
2301386	Imidacloprid	166	195	F/F	30 - 160
2301386	Linuron	67.3	75.3	P/P	30 - 160
2301386	Mandestrobin	90.5	106	P/P	30 - 160
2301386	MCPP	120	136	P/P	30 - 160
2301386	Naproxen	87.9	112	P/P	30 - 160
2301386	Primidone	105	114	P/P	30 - 160
2301386	Pyraclostrobin	86.1	104	P/P	30 - 160
2301386	Silvex	80.8	89.3	P/P	30 - 160
2301386	Thiamethoxam	150	175	P/F	30 - 160
2301386	Tolfenpyrad	54.0	62.5	P/P	30 - 160
2301386	Triclopyr	86.3	104	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P409047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301321	3-Hydroxycarbofuran	106	86.7	P/P	30 - 160
2301321	Aldicarb	82.8	80.8	P/P	30 - 160
2301321	Aldicarb Sulfone	116	119	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P409047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301321	Aldicarb Sulfoxide	46.1	60.2	P/P	30 - 160
2301321	Carbaryl	73.7	76.8	P/P	30 - 160
2301321	Carbofuran	81.2	87.0	P/P	30 - 160
2301321	Methiocarb	68.6	72.8	P/P	30 - 160
2301321	Methomyl	86.6	90.7	P/P	30 - 160
2301321	Oxamyl	94.1	108	P/P	30 - 160
2301321	Propoxur	81.9	91.9	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P409145

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301654	Fluoride	99.1	97.8	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P409520

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300871	Organic Carbon	97.2	99.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P409765

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2301745	Organic Carbon	93.0	92.2	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P409962

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2300930	Organic Carbon	99.5		P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P409003

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301595	Color (true)	0.680	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301653	Turbidity	8.86	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301666	Calcium	3.21	Spike	P	0 - 20
2301666	Iron	3.05	Spike	P	0 - 20
2301666	Magnesium	3.71	Spike	P	0 - 20
2301666	Potassium	3.24	Spike	P	0 - 20
2301666	Sodium	2.03	Spike	P	0 - 20
2301666	Strontium	1.86	Spike	P	0 - 20
2301666	Tin	1.87	Spike	P	0 - 20
2301666	Titanium	2.69	Spike	P	0 - 20
2301666	Vanadium	3.44	Spike	P	0 - 20
2301666	Zinc	3.04	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301666	Aluminum	1.99	Spike	P	0 - 20
2301666	Antimony	0.873	Spike	P	0 - 20
2301666	Arsenic	0.130	Spike	P	0 - 20
2301666	Barium	1.92	Spike	P	0 - 20
2301666	Beryllium	0.962	Spike	P	0 - 20
2301666	Boron	3.57	Spike	P	0 - 20
2301666	Cadmium	1.57	Spike	P	0 - 20
2301666	Chromium	1.72	Spike	P	0 - 20
2301666	Cobalt	0.913	Spike	P	0 - 20
2301666	Copper	0.838	Spike	P	0 - 20
2301666	Lead	1.05	Spike	P	0 - 20
2301666	Manganese	0.796	Spike	P	0 - 20
2301666	Molybdenum	0.319	Spike	P	0 - 20
2301666	Nickel	0.523	Spike	P	0 - 20
2301666	Selenium	0.656	Spike	P	0 - 20
2301666	Silver	0.969	Spike	P	0 - 20
2301666	Thallium	1.74	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301449	Chloride	0.102	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P409290

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301449	Sulfate	0.142	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301562	Ammonia-N	0.611	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409137

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301258	Kjeldahl Nitrogen	0.624	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301639	Kjeldahl Nitrogen	5.08	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409231

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301822	Kjeldahl Nitrogen	1.05	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409375

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301510	Kjeldahl Nitrogen	3.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P409096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301561	NO2NO3-N	1.39	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P409097

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301656	NO2NO3-N	0.466	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P409032

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301586	Total-P	3.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P409034

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301608	Total-P	0.540	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P409000

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301600	O-Phosphate-P	1.71	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P408985

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301521	Aldrin	51.7	Spike	F	0 - 37
2301521	Alpha-BHC	29.7	Spike	F	0 - 16
2301521	Alpha-Chlordane	40.3	Spike	F	0 - 28
2301521	Beta-BHC	30.9	Spike	P	0 - 32
2301521	Beta-Cyfluthrin	43.1	Spike	F	0 - 41
2301521	Bifenthrin	51.9	Spike	F	0 - 36
2301521	Chlorothalonil	59.2	Spike	F	0 - 54
2301521	Cis-Nonachlor	21.2	Spike	P	0 - 33
2301521	Cypermethrin	39.7	Spike	F	0 - 38
2301521	Dacthal	31.5	Spike	F	0 - 23
2301521	DDD-p,p'	39.3	Spike	F	0 - 35
2301521	DDE-p,p'	38.3	Spike	F	0 - 27
2301521	DDT-p,p'	40.4	Spike	F	0 - 31
2301521	Delta-BHC	37.1	Spike	F	0 - 30
2301521	Deltamethrin	35.9	Spike	P	0 - 76
2301521	Dichlobenil	41.1	Spike	F	0 - 33
2301521	Dicofol	33.0	Spike	F	0 - 24
2301521	Dieldrin	37.2	Spike	F	0 - 35
2301521	Endosulfan I	36.4	Spike	F	0 - 25
2301521	Endosulfan II	33.8	Spike	F	0 - 31
2301521	Endosulfan Sulfate	27.4	Spike	P	0 - 38
2301521	Endrin	39.0	Spike	P	0 - 53
2301521	Endrin Aldehyde	44.4	Spike	P	0 - 81

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P408985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301521	Endrin Ketone	35.4	Spike	F	0 - 33
2301521	Esfenvalerate	36.9	Spike	P	0 - 46
2301521	Ethalfuralin	39.8	Spike	F	0 - 22
2301521	Fenpropathrin	31.8	Spike	F	0 - 29
2301521	Gamma-BHC	27.9	Spike	F	0 - 17
2301521	Gamma-Chlordane	40.3	Spike	F	0 - 28
2301521	Heptachlor	47.3	Spike	F	0 - 28
2301521	Heptachlor Epoxide	32.7	Spike	F	0 - 23
2301521	Hexachlorobenzene	48.7	Spike	F	0 - 22
2301521	Kepone	23.3	Spike	P	0 - 61
2301521	Lambda-Cyhalothrin	51.0	Spike	P	0 - 52
2301521	Methoprene	55.6	Spike	F	0 - 38
2301521	Methoxychlor	28.9	Spike	P	0 - 29
2301521	MGK-264	35.4	Spike	P	0 - 41
2301521	Mirex	45.7	Spike	F	0 - 39
2301521	Oxychlordane	49.3	Spike	F	0 - 33
2301521	Permethrin	39.4	Spike	F	0 - 39
2301521	Phenothrin	55.8	Spike	F	0 - 52
2301521	Piperonyl Butoxide	41.3	Spike	P	0 - 91
2301521	Prallethrin	48.2	Spike	F	0 - 34
2301521	Tau-Fluvalinate	50.7	Spike	F	0 - 41
2301521	Tetramethrin	50.7	Spike	F	0 - 43
2301521	Trans-Nonachlor	38.6	Spike	F	0 - 31
2301521	Triclosan Methyl	30.8	Spike	F	0 - 24
2301521	Trifluralin	35.4	Spike	F	0 - 23

Reference Method: EPA 8270E

Batch ID: P409108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301326	Acetochlor	0.610	Spike	P	0 - 27
2301326	Alachlor	1.81	Spike	P	0 - 27
2301326	Ametryn	9.74	Spike	P	0 - 34
2301326	Atrazine	2.28	Spike	P	0 - 41
2301326	Atrazine Desethyl	7.37	Spike	P	0 - 38
2301326	Azinphos Methyl	8.81	Spike	P	0 - 62
2301326	Azoxystrobin	4.63	Spike	P	0 - 32
2301326	Bromacil	0.941	Spike	P	0 - 30
2301326	Butylate	18.8	Spike	P	0 - 59
2301326	Caffeine	9.40	Spike	P	0 - 60
2301326	Carbophenothion	5.19	Spike	P	0 - 25
2301326	Carfentrazone Ethyl	1.99	Spike	P	0 - 26
2301326	Chlorfenapyr	6.61	Spike	P	0 - 30
2301326	Chlorpyrifos Ethyl	3.36	Spike	P	0 - 27
2301326	Chlorpyrifos Methyl	2.68	Spike	P	0 - 26
2301326	Coumaphos	7.69	Spike	P	0 - 30
2301326	Cyanazine	6.37	Spike	P	0 - 58
2301326	Cyprodinil	4.93	Spike	P	0 - 30
2301326	Demeton	12.3	Spike	P	0 - 25
2301326	Diazinon	1.30	Spike	P	0 - 29

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P409108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301326	Difenoconazole	2.37	Spike	P	0 - 25
2301326	Dimethenamid	0.933	Spike	P	0 - 30
2301326	Dimethomorph	0.377	Spike	P	0 - 30
2301326	Disulfoton	10.2	Spike	P	0 - 33
2301326	Dithiopyr	4.75	Spike	P	0 - 22
2301326	EPTC	17.4	Spike	P	0 - 38
2301326	Ethion	8.77	Spike	P	0 - 79
2301326	Ethoprop	3.96	Spike	P	0 - 23
2301326	Etridiazole	7.49	Spike	P	0 - 30
2301326	Fenamiphos	10.0	Spike	P	0 - 58
2301326	Fenbuconazole	1.92	Spike	P	0 - 37
2301326	Fipronil	0.0491	Spike	P	0 - 33
2301326	Fipronil Desulfinyf	5.02	Spike	P	0 - 26
2301326	Fipronil Sulfide	2.00	Spike	P	0 - 37
2301326	Fipronil Sulfone	0.798	Spike	P	0 - 50
2301326	Fluazifop-P-butyl	1.19	Spike	P	0 - 24
2301326	Fludioxonil	2.29	Spike	P	0 - 26
2301326	Flumioxazin	9.19	Spike	P	0 - 37
2301326	Flutolanil	1.33	Spike	P	0 - 26
2301326	Fluxapyroxad	22.8	Spike	P	0 - 34
2301326	Fonofos	9.70	Spike	P	0 - 27
2301326	Hexazinone	0.171	Spike	P	0 - 36
2301326	Imazalil	15.4	Spike	P	0 - 65
2301326	Iprodione	1.75	Spike	P	0 - 33
2301326	Loratadine	1.15	Spike	P	0 - 30
2301326	Malathion	0.886	Spike	P	0 - 44
2301326	Metalaxyl	7.66	Spike	P	0 - 38
2301326	Metolachlor	2.58	Spike	P	0 - 36
2301326	Metribuzin	5.90	Spike	P	0 - 63
2301326	Mevinphos	8.21	Spike	P	0 - 26
2301326	Molinate	13.1	Spike	P	0 - 40
2301326	Myclobutanil	1.01	Spike	P	0 - 21
2301326	Naled	4.89	Spike	P	0 - 26
2301326	Napropamide	1.98	Spike	P	0 - 30
2301326	Norflurazon	4.46	Spike	P	0 - 24
2301326	Oxadiazon	4.62	Spike	P	0 - 27
2301326	Oxyfluorfen	4.15	Spike	P	0 - 24
2301326	Parathion Ethyl	5.16	Spike	P	0 - 28
2301326	Parathion Methyl	7.69	Spike	P	0 - 27
2301326	Pendimethalin	1.21	Spike	P	0 - 31
2301326	Phenytoin	5.16	Spike	P	0 - 30
2301326	Phorate	7.64	Spike	P	0 - 27
2301326	Prodiamine	2.78	Spike	P	0 - 52
2301326	Prometon	35.9	Spike	F	0 - 31
2301326	Prometryn	9.79	Spike	P	0 - 28
2301326	Pronamide	4.89	Spike	P	0 - 26
2301326	Propanil	2.58	Spike	P	0 - 30
2301326	Propargite	5.18	Spike	P	0 - 30
2301326	Propiconazole	2.40	Spike	P	0 - 31
2301326	Pyraflufen Ethyl	11.7	Spike	P	0 - 30
2301326	Pyridaben	11.3	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P409108

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301326	Pyriproxyfen	14.5	Spike	P	0 - 50
2301326	Simazine	5.21	Spike	P	0 - 29
2301326	Stirophos	0.613	Spike	P	0 - 30
2301326	Sulfentrazone	14.5	Spike	P	0 - 33
2301326	Tebuconazole	33.5	Spike	P	0 - 44
2301326	Terbufos	2.59	Spike	P	0 - 29
2301326	Terbutylazine	5.05	Spike	P	0 - 27
2301326	Thiobencarb	3.56	Spike	P	0 - 30
2301326	Triadimefon	3.26	Spike	P	0 - 30

Reference Method: EPA 8276
Batch ID: P408985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2302073	Chlordane	12.3	Spike	P	0 - 25
2302073	Toxaphene	18.0	Spike	P	0 - 24

Reference Method: EPA 8321B
Batch ID: P408915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301274	Acesulfame K	5.66	Spike	P	0 - 30
2301274	AMPA	4.68	Spike	P	0 - 30
2301274	Endothall	0.314	Spike	P	0 - 30
2301274	Glufosinate	4.76	Spike	P	0 - 30
2301274	Glyphosate	1.11	Spike	P	0 - 30
2301274	Sucralose	8.99	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P408990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301386	2,4-D	9.90	Spike	P	0 - 30
2301386	2,4,5-T	25.0	Spike	P	0 - 30
2301386	Acetaminophen	1.03	Spike	P	0 - 30
2301386	Acetamiprid	15.6	Spike	P	0 - 30
2301386	Afidopyropen	16.6	Spike	P	0 - 30
2301386	Bentazon	5.38	Spike	P	0 - 30
2301386	Benzovindiflupyr	11.5	Spike	P	0 - 30
2301386	Carbamazepine	13.8	Spike	P	0 - 30
2301386	Clothianidin	17.2	Spike	P	0 - 30
2301386	Dinotefuran	9.98	Spike	P	0 - 30
2301386	Diuron	14.0	Spike	P	0 - 30
2301386	Fenuron	14.1	Spike	P	0 - 30
2301386	Fluridone	13.3	Spike	P	0 - 30
2301386	Hydrocodone	12.3	Spike	P	0 - 30
2301386	Ibuprofen	21.9	Spike	P	0 - 30
2301386	Imazapyr	6.57	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P408990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301386	Imidacloprid	14.9	Spike	P	0 - 30
2301386	Linuron	11.3	Spike	P	0 - 30
2301386	Mandestrobin	15.4	Spike	P	0 - 30
2301386	MCP	11.6	Spike	P	0 - 30
2301386	Naproxen	24.0	Spike	P	0 - 30
2301386	Primidone	9.10	Spike	P	0 - 30
2301386	Pyraclostrobin	18.9	Spike	P	0 - 30
2301386	Silvex	10.0	Spike	P	0 - 30
2301386	Thiamethoxam	13.5	Spike	P	0 - 30
2301386	Tolfenpyrad	14.5	Spike	P	0 - 30
2301386	Triclopyr	18.4	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P409047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301321	3-Hydroxycarbofuran	20.0	Spike	P	0 - 30
2301321	Aldicarb	2.42	Spike	P	0 - 30
2301321	Aldicarb Sulfone	2.04	Spike	P	0 - 30
2301321	Aldicarb Sulfoxide	26.5	Spike	P	0 - 30
2301321	Carbaryl	4.15	Spike	P	0 - 30
2301321	Carbofuran	6.98	Spike	P	0 - 30
2301321	Methiocarb	5.84	Spike	P	0 - 30
2301321	Methomyl	4.63	Spike	P	0 - 30
2301321	Oxamyl	13.4	Spike	P	0 - 30
2301321	Propoxur	11.5	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P409140

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301654	Total Alkalinity	0.494	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P409501

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301601	TDS	4.80	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P409145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301654	Fluoride	0.960	Spike	P	0 - 2.1

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P409520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300871	Organic Carbon	1.54	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P409765

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2301745	Organic Carbon	0.802	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P409962

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2300930	Organic Carbon	0.771	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2301624
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	82.7	P	30 - 160

Lab Sample ID: 2301625
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	81.3	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	86.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	83.5	P	30 - 160
EPA 8321B	Primidone-d5	118	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2301626
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	72.7	P	31 - 118
EPA 8270E	Tetrachloro-m-xylene	58.7	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	71.5	P	30 - 97.0
EPA 8276	PCNB	79.1	P	45 - 119

Lab Sample ID: 2301627
Field Sample ID: G2CE0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	77.5	P	20 - 200
EPA 8270E	Simazine-d10	130	P	71 - 140
EPA 8270E	Terbufos-d10	116	P	62 - 131

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A110055

Included Lab Sample IDs: 2301597, 2301600, 2301603, 2301606, 2301609

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.6	99.9	P/P	90 - 110
O-Phosphate-P	99.9	100	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A110056

Included Lab Sample IDs: 2301595, 2301598, 2301601, 2301604, 2301607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	85 - 115
Color (true)	99.2	102	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A110058

Included Lab Sample IDs: 2301595, 2301598, 2301601, 2301604, 2301607

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110085

Included Lab Sample IDs: 2301596, 2301599, 2301602, 2301605, 2301608

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

Reference Method: EPA 8321B

Run ID: A110090

Included Lab Sample IDs: 2301625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	114	110	P/P	60 - 160
Endothall	83.8	67.8	P/P	60 - 160
Sucralose	111	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A110095

Included Lab Sample IDs: 2301625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	103	106	P/P	60 - 160
Glufosinate	95.5	92.8	P/P	60 - 160
Glyphosate	93.0	91.2	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A110099

Included Lab Sample IDs: 2301595, 2301598, 2301601, 2301604, 2301607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.5	96.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500 F-C-2011

Run ID: A110099

Included Lab Sample IDs: 2301595, 2301598, 2301601, 2301604, 2301607

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A110120

Included Lab Sample IDs: 2301628

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.5	98.8	P/P	90 - 110
Antimony	99.3	101	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Barium	98.4	98.9	P/P	90 - 110
Beryllium	97.6	98.0	P/P	90 - 110
Boron	103	104	P/P	90 - 110
Cadmium	99.9	101	P/P	90 - 110
Chromium	98.5	99.1	P/P	90 - 110
Cobalt	97.5	98.2	P/P	90 - 110
Copper	97.9	98.4	P/P	90 - 110
Lead	96.8	98.3	P/P	90 - 110
Manganese	98.5	99.9	P/P	90 - 110
Molybdenum	99.3	99.3	P/P	90 - 110
Nickel	99.1	98.8	P/P	90 - 110
Selenium	100	98.4	P/P	90 - 110
Silver	101	102	P/P	90 - 110
Thallium	104	104	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A110135

Included Lab Sample IDs: 2301626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	96.8		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	98.4		P	80 - 120
Beta-BHC	104		P	80 - 120
Beta-Cyfluthrin	96.4		P	80 - 120
Bifenthrin	98.0		P	80 - 120
Chlorothalonil	102		P	80 - 120
Cis-Nonachlor	98.8		P	80 - 120
Cypermethrin	94.5		P	80 - 120
Dacthal	98.6		P	80 - 120
DDD-p,p'	100		P	80 - 120
DDE-p,p'	99.6		P	80 - 120
DDT-p,p'	101		P	80 - 120
Delta-BHC	100		P	80 - 120
Deltamethrin	90.6		P	80 - 120
Dichlobenil	98.5		P	80 - 120
Dicofol	99.0		P	80 - 120
Dieldrin	101		P	80 - 120
Endosulfan I	97.2		P	80 - 120
Endosulfan II	97.2		P	80 - 120
Endosulfan Sulfate	90.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A110135
Included Lab Sample IDs: 2301626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endrin	98.8		P	80 - 120
Endrin Aldehyde	95.9		P	80 - 120
Endrin Ketone	101		P	80 - 120
Esfenvalerate	94.1		P	80 - 120
Ethalfuralin	102		P	80 - 120
Fenpropathrin	96.8		P	80 - 120
Gamma-BHC	107		P	80 - 120
Gamma-Chlordane	98.4		P	80 - 120
Heptachlor	97.8		P	80 - 120
Heptachlor Epoxide	102		P	80 - 120
Hexachlorobenzene	101		P	80 - 120
Kepone	83.1		P	80 - 120
Lambda-Cyhalothrin	95.4		P	80 - 120
Methoprene	95.5		P	80 - 120
Methoxychlor	103		P	80 - 120
MGK-264	93.2		P	80 - 120
Mirex	95.4		P	80 - 120
Oxychlordane	96.2		P	80 - 120
Permethrin	98.4		P	80 - 120
Phenothrin	96.4		P	80 - 120
Piperonyl Butoxide	85.4		P	80 - 120
Prallethrin	94.0		P	80 - 120
Tau-Fluvalinate	95.9		P	80 - 120
Tetramethrin	86.9		P	80 - 120
Trans-Nonachlor	100		P	80 - 120
Triclosan Methyl	97.0		P	80 - 120
Trifluralin	98.3		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A110145
Included Lab Sample IDs: 2301628

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	102	P/P	90 - 110
Iron	103	104	P/P	90 - 110
Magnesium	102	104	P/P	90 - 110
Potassium	95.8	97.2	P/P	90 - 110
Sodium	96.9	97.9	P/P	90 - 110
Strontium	98.3	100	P/P	90 - 110
Tin	101	102	P/P	90 - 110
Titanium	98.5	100	P/P	90 - 110
Vanadium	98.7	101	P/P	90 - 110
Zinc	99.8	102	P/P	90 - 110

Reference Method: EPA 8276
Run ID: A110147
Included Lab Sample IDs: 2301626

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.0		P	80 - 120
Toxaphene	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A110148
Included Lab Sample IDs: 2301625

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	94.9	87.2	P/P	50 - 150
2,4,5-T	96.8	102	P/P	50 - 150
3-Hydroxycarbofuran	107	109	P/P	60 - 150
Acetaminophen	101	106	P/P	60 - 160
Acetamiprid	98.4	102	P/P	50 - 150
Afidopyropen	101	104	P/P	50 - 150
Aldicarb	67.1	134	P/P	60 - 150
Aldicarb Sulfone	100	109	P/P	50 - 150
Aldicarb Sulfoxide	107	106	P/P	50 - 150
Bentazon	114	95.8	P/P	50 - 160
Benzovindiflupyr	101	109	P/P	50 - 160
Carbamazepine	104	96.2	P/P	60 - 150
Carbaryl	108	103	P/P	60 - 150
Carbofuran	104	105	P/P	50 - 150
Clothianidin	112	98.4	P/P	60 - 150
Dinotefuran	102	112	P/P	50 - 150
Diuron	114	106	P/P	60 - 160
Fenuron	109	116	P/P	60 - 150
Fluridone	100	118	P/P	60 - 160
Hydrocodone	103	97.4	P/P	60 - 150
Ibuprofen	86.8	101	P/P	50 - 160
Imazapyr	151	123	P/P	50 - 160
Imidacloprid	94.5	96.2	P/P	60 - 150
Linuron	106	113	P/P	60 - 150
Mandestrobin	117	112	P/P	50 - 150
MCPP	96.9	102	P/P	50 - 150
Methiocarb	107	113	P/P	50 - 150
Methomyl	111	110	P/P	50 - 150
Naproxen	91.6	130	P/P	50 - 160
Oxamyl	99.7	103	P/P	50 - 150
Primidone	94.0	88.9	P/P	60 - 150
Propoxur	100	103	P/P	50 - 150
Pyraclostrobin	114	114	P/P	60 - 150
Silvex	79.9	89.8	P/P	50 - 150
Thiamethoxam	96.8	98.7	P/P	50 - 150
Tolfenpyrad	98.7	104	P/P	60 - 150
Triclopyr	113	99.5	P/P	50 - 150

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A110154
Included Lab Sample IDs: 2301595, 2301598, 2301601, 2301604, 2301607

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Sulfate	99.9	99.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A110173
Included Lab Sample IDs: 2301596, 2301599, 2301602, 2301605, 2301608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110173

Included Lab Sample IDs: 2301596, 2301599, 2301602, 2301605, 2301608

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110188

Included Lab Sample IDs: 2301608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.3	94.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110212

Included Lab Sample IDs: 2301596, 2301599, 2301602, 2301605, 2301608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110218

Included Lab Sample IDs: 2301605

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	94.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110228

Included Lab Sample IDs: 2301599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.0	98.4	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A110253

Included Lab Sample IDs: 2301627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	101		P	80 - 120
Atrazine Desethyl	111		P	80 - 120
Azinphos Methyl	108		P	80 - 120
Azoxystrobin	104		P	80 - 120
Bromacil	99.7		P	80 - 120
Butylate	107		P	80 - 120
Caffeine	90.6		P	80 - 120
Carbophenothion	81.1		P	80 - 120
Carfentrazone Ethyl	93.5		P	80 - 120
Chlorfenapyr	106		P	80 - 120
Chlorpyrifos Ethyl	104		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Coumaphos	94.9		P	80 - 120
Cyanazine	107		P	80 - 120

Quality Assurance Report

Calibration Verification

Reference Method: EPA 8270E
 Run ID: A110253
 Included Lab Sample IDs: 2301627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cyprodinil	102		P	80 - 120
Demeton	103		P	80 - 120
Diazinon	100		P	80 - 120
Difenoconazole	104		P	80 - 120
Dimethenamid	101		P	80 - 120
Dimethomorph	105		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	102		P	80 - 120
Ethion	101		P	80 - 120
Ethoprop	100		P	80 - 120
Etridiazole	99.6		P	80 - 120
Fenamiphos	100		P	80 - 120
Fenbuconazole	94.1		P	80 - 120
Fipronil	101		P	80 - 120
Fipronil Desulfinyl	97.4		P	80 - 120
Fipronil Sulfide	105		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	90.7		P	80 - 120
Flumioxazin	98.7		P	80 - 120
Flutolanil	98.5		P	80 - 120
Fluxapyroxad	95.7		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	102		P	80 - 120
Imazalil	95.3		P	80 - 120
Iprodione	101		P	80 - 120
Loratadine	113		P	80 - 120
Malathion	88.5		P	80 - 120
Metalaxyl	104		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	105		P	80 - 120
Molinate	102		P	80 - 120
Myclobutanil	102		P	80 - 120
Naled	106		P	80 - 120
Napropamide	103		P	80 - 120
Norflurazon	95.1		P	80 - 120
Oxadiazon	103		P	80 - 120
Oxyfluorfen	103		P	80 - 120
Parathion Ethyl	103		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	105		P	80 - 120
Phenytoin	96.6		P	80 - 120
Phorate	106		P	80 - 120
Prodiamine	106		P	80 - 120
Prometon	106		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	98.6		P	80 - 120
Propargite	99.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A110253
Included Lab Sample IDs: 2301627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Propiconazole	97.4		P	80 - 120
Pyraflufen Ethyl	96.9		P	80 - 120
Pyridaben	102		P	80 - 120
Pyriproxyfen	114		P	80 - 120
Simazine	104		P	80 - 120
Stirophos	89.0		P	80 - 120
Sulfentrazone	96.1		P	80 - 120
Tebuconazole	99.0		P	80 - 120
Terbufos	97.4		P	80 - 120
Terbuthylazine	103		P	80 - 120
Thiobencarb	104		P	80 - 120
Triadimefon	102		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A110267
Included Lab Sample IDs: 2301608

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	103	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A110275
Included Lab Sample IDs: 2301596, 2301602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.3	92.9	P/P	90 - 110
Kjeldahl Nitrogen	96.9	94.3	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A110298
Included Lab Sample IDs: 2301627

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ametryn	97.3		P	80 - 120
Atrazine	99.4		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A110374
Included Lab Sample IDs: 2301599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	100	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A110458
Included Lab Sample IDs: 2301596, 2301602, 2301605

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	96.0	P/P	90 - 110
Organic Carbon	96.4	96.2	P/P	90 - 110

Quality Assurance Report

Calibration Verification

* 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			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	97.4					0.680	
EPA 180.1 Rev. 2.0	Turbidity						8.86	
EPA 200.7 Rev. 4.4	Calcium	102	102	106				3.21
	Iron	107	110	107	110			3.05
	Magnesium	102	104	110				3.71
	Potassium	97.5	96.9	101				3.24
	Sodium	97.7	97.4	103				2.03
	Strontium	98.7	99.8	97.9	101			1.86
	Tin	104	103	101	108			1.87
	Titanium	102	104	101	103			2.69
	Vanadium	102	105	102	104			3.44
	Zinc	101	104	101	105			3.04
EPA 200.8 Rev. 5.4	Aluminum	99.7	97.8	99.8	101			1.99
	Antimony	97.7	99.7	101	100			0.873
	Arsenic	101	102	101	99.6			0.130
	Barium	103	102	104	104			1.92
	Beryllium	100	101	100	101			0.962
	Boron	98.7	96.0	101	104			3.57
	Cadmium	98.8	98.5	100	101			1.57
	Chromium	99.0	100	102	101			1.72
	Cobalt	100	100	101	99.2			0.913
	Copper	101	101	102	102			0.838
	Lead	100	101	102	103			1.05
	Manganese	97.6	98.6	99.5	100			0.796
	Molybdenum	100	102	103	100			0.319
	Nickel	100	100	101	101			0.523
	Selenium	99.8	98.7	99.3	96.3			0.656
	Silver	102	102	103	103			0.969
	Thallium	103	109	111	111			1.74
EPA 300.0 Rev. 2.1	Chloride	102	96.9	100			0.102	
	Sulfate	99.0	95.2	98.4			0.142	
EPA 350.1 Rev. 2.0	Ammonia-N	97.2	95.6	96.4				0.611
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	106	107				0.624
	Kjeldahl Nitrogen	99.5	102	111				5.08
	Kjeldahl Nitrogen	98.2						1.05
	Kjeldahl Nitrogen	99.7	101	96.2				3.59
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	102				1.39
	NO2NO3-N	100	99.8	100				0.466
EPA 365.1 Rev. 2.0	Total-P	103	105	100				3.23
	Total-P	106	105	105				0.540
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.3	92.9	94.5				1.71
EPA 8270E	Acetochlor	114	106	107				0.610
	Alachlor	103	96.4	98.2				1.81
	Aldrin	66.0	23.6	40.1				51.7
	Alpha-BHC	96.5	60.7	81.9				29.7
	Alpha-Chlordane	90.4	37.7	56.7				40.3
	Ametryn	112	152	138				9.74
	Atrazine	106	102	99.3				2.28
	Atrazine Desethyl	86.6	58.1	62.5				7.37
	Azinphos Methyl	72.2	72.1	78.8				8.81
	Azoxystrobin	109	98.6	105				4.63
	Beta-BHC	109	70.0	95.6				30.9
	Beta-Cyfluthrin	112	48.5	75.1				43.1
	Bifenthrin	92.6	36.7	62.5				51.9

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Bromacil	109	101	99.7			0.941
	Butylate	66.8	39.5	47.7			18.8
	Caffeine	85.8	115	126			9.40
	Carbophenothion	111	101	106			5.19
	Carfentrazone Ethyl	125	121	118			1.99
	Chlorfenapyr	103	85.7	91.5			6.61
	Chlorothalonil	113	91.9	169			59.2
	Chlorpyrifos Ethyl	113	105	109			3.36
	Chlorpyrifos Methyl	110	106	109			2.68
	Cis-Nonachlor	90.6	44.2	54.7			21.2
	Coumaphos	171	185	200			7.69
	Cyanazine	133	120	128			6.37
	Cypermethrin	86.7	47.1	70.5			39.7
	Cyprodinil	140	121	128			4.93
	Dacthal	95.8	53.6	73.7			31.5
	DDD-p,p'	90.3	36.3	54.1			39.3
	DDE-p,p'	89.0	32.7	48.2			38.3
	DDT-p,p'	88.4	40.2	60.6			40.4
	Delta-BHC	112	77.8	113			37.1
	Deltamethrin	132	60.7	87.2			35.9
	Demeton	96.8	86.5	97.8			12.3
	Diazinon	106	104	103			1.30
	Dichlobenil	85.9	34.8	52.9			41.1
	Dicofol	83.4	45.9	64.1			33.0
	Dieldrin	91.3	40.2	58.7			37.2
	Difenoconazole	108	84.6	86.6			2.37
	Dimethenamid	91.0	99.1	98.2			0.933
	Dimethomorph	111	102	102			0.377
	Disulfoton	89.0	93.8	104			10.2
	Dithiopyr	104	101	96.5			4.75
	Endosulfan I	90.6	43.1	62.4			36.4
	Endosulfan II	88.1	38.8	54.6			33.8
	Endosulfan Sulfate	91.6	52.6	69.3			27.4
	Endrin	89.2	38.0	56.4			39.0
	Endrin Aldehyde	91.3	32.2	50.5			44.4
	Endrin Ketone	101	52.9	75.7			35.4
	EPTC	61.1	31.3	37.2			17.4
	Esfenvalerate	109	53.3	77.5			36.9
	Ethalfuralin	87.6	38.3	57.3			39.8
	Ethion	103	93.8	85.9			8.77
	Ethoprop	85.4	100	104			3.96
	Etridiazole	69.1	52.0	56.1			7.49
	Fenamiphos	126	89.1	80.6			10.0
	Fenbuconazole	145	147	144			1.92
	Fenpropathrin	101	39.6	54.6			31.8
	Fipronil	110	109	109			0.0491
	Fipronil Desulfinyl	111	106	101			5.02
	Fipronil Sulfide	95.7	98.3	96.3			2.00
	Fipronil Sulfone	105	101	100			0.798
	Fluazifop-P-butyl	97.3	97.6	96.4			1.19
	Fludioxonil	111	93.0	95.1			2.29
	Flumioxazin	248	269	295			9.19
	Flutolanil	104					1.33
	Fluxapyroxad	127	99.3	70.5			22.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Fonofos	85.7	87.1	95.9			9.70
	Gamma-BHC	87.0	72.7	96.3			27.9
	Gamma-Chlordane	85.9	36.8	55.4			40.3
	Heptachlor	80.1	31.3	50.7			47.3
	Heptachlor Epoxide	90.7	46.1	64.1			32.7
	Hexachlorobenzene	86.5	33.2	54.5			48.7
	Hexazinone	114	106	106			0.171
	Imazalil	88.8	104	89.3			15.4
	Iprodione	70.6	61.7	60.6			1.75
	Kepone	156	81.8	103			23.3
	Lambda-Cyhalothrin	111	53.5	90.1			51.0
	Loratadine	87.4	75.7	76.6			1.15
	Malathion	128	115	116			0.886
	Metalaxyl	99.7	97.8	90.6			7.66
	Methoprene	76.6	29.0	51.3			55.6
	Methoxychlor	103	58.6	78.4			28.9
	Metolachlor	111	102	98.6			2.58
	Metribuzin	111	113	107			5.90
	Mevinphos	89.0	99.9	108			8.21
	MGK-264	86.9	48.4	69.3			35.4
	Mirex	74.4	25.8	41.0			45.7
	Molinate	76.1	69.9	79.7			13.1
	Myclobutanil	109	103	102			1.01
	Naled	119	105	110			4.89
	Napropamide	103	95.0	93.1			1.98
	Norflurazon	119	122	116			4.46
	Oxadiazon	92.9	83.8	80.1			4.62
	Oxychlordane	87.6	52.4	86.7			49.3
	Oxyfluorfen	117	126	121			4.15
	Parathion Ethyl	106	92.2	97.1			5.16
	Parathion Methyl	120	109	118			7.69
	Pendimethalin	79.5	86.2	87.3			1.21
	Permethrin	112	53.0	79.0			39.4
	Phenothrin	87.5	38.7	68.7			55.8
	Phenytol	113	114	108			5.16
	Phorate	98.5	116	107			7.64
	Piperonyl Butoxide	103	57.4	87.3			41.3
	Prallethrin	71.1	36.8	60.2			48.2
	Prodiamine	98.2	129	126			2.78
	Prometon	105	104	72.1			35.9
	Prometryn	94.7	93.8	85.0			9.79
	Pronamide	121	116	110			4.89
	Propanil	118	112	115			2.58
	Propargite	163	151	144			5.18
	Propiconazole	99.8	131	128			2.40
	Pyraflufen Ethyl	124	132	118			11.7
	Pyridaben	159	174	194			11.3
	Pyriproxyfen	61.7	55.1	47.2			14.5
	Simazine	123	105	111			5.21
	Stirophos	84.7	98.3	98.9			0.613
	Sulfentrazone	136	103	89.4			14.5
	Tau-Fluvalinate	101	41.1	69.0			50.7
	Tebuconazole	78.7	75.1	46.2			33.5
	Terbufos	102	118	121			2.59

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Terbutylazine	101	99.0	94.1			5.05
	Tetramethrin	80.3	42.1	70.6			50.7
	Thiobencarb	112	102	105			3.56
	Trans-Nonachlor	85.2	37.0	54.6			38.6
	Triadimefon	98.3	80.7	78.1			3.26
	Triclosan Methyl	92.0	37.8	51.5			30.8
EPA 8276	Trifluralin	85.4	39.8	56.9			35.4
	Chlordane	81.7	64.4	56.9			12.3
	Toxaphene	76.4	83.5	69.7			18.0
EPA 8321B	2,4-D	81.9	118	135			9.90
	2,4,5-T	74.3	80.1	103			25.0
	3-Hydroxycarbofuran	79.7	106	86.7			20.0
	Acesulfame K	88.1	86.4	91.4			5.66
	Acetaminophen	68.0	103	104			1.03
	Acetamiprid	98.0	109	128			15.6
	Afidopyropen	78.4	70.9	83.7			16.6
	Aldicarb	45.1	82.8	80.8			2.42
	Aldicarb Sulfone	93.7	116	119			2.04
	Aldicarb Sulfoxide	90.8	46.1	60.2			26.5
	AMPA	95.1	103	98.2			4.68
	Bentazon	86.8	38.0	66.4			5.38
	Benzovindiflupyr	92.5	87.9	98.6			11.5
	Carbamazepine	93.9	98.9	114			13.8
	Carbaryl	81.3	73.7	76.8			4.15
	Carbofuran	86.3	81.2	87.0			6.98
	Clothianidin	106	132	158			17.2
	Dinotefuran	102	123	136			9.98
	Diuron	97.4	82.7	95.2			14.0
	Endothall	106	130	129			0.314
	Fenuron	103	88.4	102			14.1
	Fluridone	108	90.8	104			13.3
	Glufosinate	95.1	97.0	102			4.76
	Glyphosate	93.4	92.5	91.4			1.11
	Hydrocodone	92.6	102	116			12.3
	Ibuprofen	81.6	68.8	85.8			21.9
	Imazapyr	104					6.57
	Imidacloprid	92.8	166	195			14.9
	Linuron	81.2	67.3	75.3			11.3
	Mandestrobin	103	90.5	106			15.4
	MCPP	111	120	136			11.6
	Methiocarb	70.4	68.6	72.8			5.84
	Methomyl	88.6	86.6	90.7			4.63
	Naproxen	94.5	87.9	112			24.0
	Oxamyl	95.6	94.1	108			13.4
	Primidone	90.5	105	114			9.10
	Propoxur	78.6	81.9	91.9			11.5
	Pyraclostrobin	97.3	86.1	104			18.9
	Silvex	60.0	80.8	89.3			10.0
	Sucralose	106	77.1	84.4			8.99
	Thiamethoxam	92.9	150	175			13.5
	Tolfenpyrad	61.1	54.0	62.5			14.5
	Triclopyr	76.1	86.3	104			18.4
SM 2320 B-2011	Total Alkalinity	99.0				0.494	
SM 2540 C-2011	TDS					4.80	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 4500 F-C-2011	Fluoride	97.5	99.1	97.8		0.960
SM 5310 B-2011	Organic Carbon	96.4	97.2	99.9		1.54
	Organic Carbon	95.0	93.0	92.2		0.802
	Organic Carbon	94.3	99.5			0.771

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2301595, 2301598, 2301601, 2301604, 2301607
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2301595, 2301598, 2301601, 2301604, 2301607
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2301628
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2301628
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2301595, 2301598, 2301601, 2301604, 2301607
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2301595, 2301598, 2301601, 2301604, 2301607
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2301596, 2301599, 2301602, 2301605, 2301608
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2301596, 2301599, 2301602, 2301605, 2301608
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2301596, 2301599, 2301602, 2301605, 2301608
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2301596, 2301599, 2301602, 2301605, 2301608
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2301597, 2301600, 2301603, 2301606, 2301609
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2301626
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2301627
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2301626
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2301624
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2301625
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2301595, 2301598, 2301601, 2301604, 2301607
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2301628
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2301595, 2301598, 2301601, 2301604, 2301607
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2301595, 2301598, 2301601, 2301604, 2301607
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2301595, 2301598, 2301601, 2301604, 2301607
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2301596, 2301599, 2301602, 2301605, 2301608

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	01/26/2022			01/26/2022 15:23	Samantha L Bates	2301595, 2301598
	01/26/2022			01/26/2022 15:24	Samantha L Bates	2301601
	01/26/2022			01/26/2022 15:25	Samantha L Bates	2301604
	01/26/2022			01/26/2022 15:54	Samantha L Bates	2301607
EPA 180.1 Rev. 2.0	01/26/2022			01/26/2022 14:59	Khloe J Berg	2301595, 2301598, 2301601, 2301604, 2301607
EPA 200.7 Rev. 4.4	01/26/2022	01/28/2022 10:45	Vijayalakshmi Reddy	01/31/2022 14:17	Josef B Mick	2301628
EPA 200.8 Rev. 5.4	01/26/2022	01/28/2022 10:45	Vijayalakshmi Reddy	01/28/2022 18:51	Emily M Philpot	2301628
EPA 300.0 Rev. 2.1	01/26/2022			02/02/2022 06:46	James L Waggeberby	2301595
	01/26/2022			02/02/2022 06:58	James L Waggeberby	2301598
	01/26/2022			02/02/2022 07:11	James L Waggeberby	2301601
	01/26/2022			02/02/2022 07:22	James L Waggeberby	2301604
EPA 350.1 Rev. 2.0	01/26/2022			02/02/2022 07:34	James L Waggeberby	2301607
	01/26/2022			02/03/2022 14:25	Ping Hua	2301596
	01/26/2022			02/03/2022 14:26	Ping Hua	2301599
	01/26/2022			02/03/2022 14:28	Ping Hua	2301602
EPA 351.2 Rev. 2.0	01/26/2022			02/03/2022 14:29	Ping Hua	2301605
	01/26/2022			02/03/2022 14:30	Ping Hua	2301608
	01/26/2022	01/31/2022 10:51	Samantha L Bates	02/03/2022 10:38	Alexandra J Mattheus	2301599
	01/26/2022	02/01/2022 09:14	Samantha L Bates	02/02/2022 14:32	Alexandra J Mattheus	2301608
EPA 353.2 Rev. 2.0	01/26/2022	02/02/2022 09:46	Samantha L Bates	02/03/2022 14:24	Alexandra J Mattheus	2301605
	01/26/2022	02/04/2022 09:26	Samantha L Bates	02/07/2022 14:10	Alexandra J Mattheus	2301596
	01/26/2022	02/04/2022 09:26	Samantha L Bates	02/07/2022 14:15	Alexandra J Mattheus	2301602
	01/26/2022			01/27/2022 14:08	Nathaniel J Jones	2301596
EPA 365.1 Rev. 2.0	01/26/2022			01/27/2022 14:09	Nathaniel J Jones	2301599
	01/26/2022			01/27/2022 14:10	Nathaniel J Jones	2301602
	01/26/2022			01/27/2022 14:12	Nathaniel J Jones	2301605
	01/26/2022			01/27/2022 14:26	Nathaniel J Jones	2301608
EPA 365.1 Rev. 2.0 dissolved	01/26/2022	01/27/2022 17:15	Simonne.V. Calhoun	01/31/2022 15:53	Sarah A Nixon	2301596
	01/26/2022	01/27/2022 17:15	Simonne.V. Calhoun	01/31/2022 15:54	Sarah A Nixon	2301599
	01/26/2022	01/27/2022 17:15	Simonne.V. Calhoun	01/31/2022 15:57	Sarah A Nixon	2301608
	01/26/2022	01/27/2022 17:15	Simonne.V. Calhoun	01/31/2022 16:04	Sarah A Nixon	2301602
EPA 8270E	01/26/2022	01/27/2022 17:15	Simonne.V. Calhoun	01/31/2022 16:05	Sarah A Nixon	2301605
	01/26/2022			01/26/2022 14:16	James L Waggeberby	2301600
	01/26/2022			01/26/2022 14:22	James L Waggeberby	2301597
	01/26/2022			01/26/2022 14:27	James L Waggeberby	2301603
EPA 8270E	01/26/2022	01/28/2022 08:00	Fe-Val Siddell	01/26/2022 14:28	James L Waggeberby	2301606
	01/26/2022	01/28/2022 08:00	Fe-Val Siddell	01/26/2022 14:29	James L Waggeberby	2301609
	01/26/2022	01/31/2022 08:00	Rasheda Ghaffari	01/31/2022 20:11	Vandana T. Nagar	2301626
	01/26/2022	01/31/2022 08:00	Rasheda Ghaffari	02/02/2022 19:44	Michael Poppell	2301627

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8270E	01/26/2022	01/31/2022 08:00	Rasheda Ghaffari	02/07/2022 19:23	Michael Poppell	2301627
	01/26/2022	01/31/2022 08:00	Rasheda Ghaffari	02/07/2022 19:48	Michael Poppell	2301627
EPA 8276	01/26/2022	01/28/2022 08:00	Fe-Val Siddell	02/01/2022 10:50	Arthur Maknenko	2301626
EPA 8321B	01/26/2022	01/26/2022 12:00	Manjita Shrestha	01/26/2022 14:26	Manjita Shrestha	2301625
	01/26/2022	01/26/2022 12:00	Manjita Shrestha	01/26/2022 18:57	Manjita Shrestha	2301625
	01/26/2022	01/27/2022 09:00	Hoor Shaik	01/30/2022 18:37	Juyoung Kim	2301625
	01/26/2022	01/28/2022 12:00	June Rhew	01/29/2022 09:08	Juyoung Kim	2301624
SM 2320 B-2011	01/26/2022			01/27/2022 19:18	Dale L. Simmons	2301595
	01/26/2022			01/27/2022 19:29	Dale L. Simmons	2301598
	01/26/2022			01/27/2022 19:40	Dale L. Simmons	2301601
	01/26/2022			01/27/2022 19:52	Dale L. Simmons	2301604
	01/26/2022			01/27/2022 20:04	Dale L. Simmons	2301607
SM 2340B	01/26/2022			01/31/2022 14:17	Josef B Mick	2301628
SM 2540 C-2011	01/26/2022			01/28/2022 14:02	Yijie Li	2301595, 2301598, 2301601, 2301604, 2301607
SM 2540 D-2011	01/26/2022			01/28/2022 14:02	Yijie Li	2301595, 2301598, 2301601, 2301604, 2301607
SM 4500 F-C-2011	01/26/2022			01/27/2022 19:18	Dale L. Simmons	2301595
	01/26/2022			01/27/2022 19:29	Dale L. Simmons	2301598
	01/26/2022			01/27/2022 19:40	Dale L. Simmons	2301601
	01/26/2022			01/27/2022 19:52	Dale L. Simmons	2301604
	01/26/2022			01/27/2022 20:04	Dale L. Simmons	2301607
SM 5310 B-2011	01/26/2022			02/05/2022 10:36	Nathaniel J Jones	2301608
	01/26/2022			02/12/2022 23:19	Touraj Touran	2301599
	01/26/2022			02/17/2022 05:34	Nathaniel J Jones	2301602
	01/26/2022			02/17/2022 06:04	Nathaniel J Jones	2301596
	01/26/2022			02/17/2022 06:45	Nathaniel J Jones	2301605