Chemical Analysis Report

NW-DIST-2023-12-19-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Reference Stream SCI**
Request ID: **RQ-2023-12-18-10**
Customer: **NW-DIST**
Project ID: **SCIREF**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
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Certified by: Colin Wright, Program Administrator

Date Certified: 16-JAN-2024 12:03

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: MITCHELL CREEK HWY. 29 ESCAMBIA CO. **Collection Date/Time: 12/18/2023 11:30**

Field ID: 33020140 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457783	DEP SOP: NU-094-1	Color (true)	22		PCU	P439199	
	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P439226	
	EPA 300.0 Rev. 2.1	Chloride	3.5		mg Cl/L	P439407	
		Sulfate	1.4		mg SO4/L	P439410	
	SM 2320 B-2011	Total Alkalinity	1.2	I	mg CaCO3/L	P439372	
	SM 2540 C-2015	TDS	15	I	mg/L	P439634	
	SM 2540 D-2015	TSS	2	I	mg/L	P439571	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P439374	
2457784	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P439344	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.090	I	mg N/L	P439242	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P439300	
	EPA 365.1 Rev. 2.0	Total-P	0.003	I	mg P/L	P439255	
	SM 5310 B-2014	Organic Carbon	2.2		mg C/L	P439526	
2457785	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P439210	
2457794	EPA 8321B	Acesulfame K	0.10	U	ug/L	P439184	
		2,4-D	0.0020	U	ug/L	P439250	
		2,4,5-T	0.0040	U	ug/L	P439250	
		AMPA	0.10	UJ	ug/L	P439184	MS
		Acetaminophen	0.0080	U	ug/L	P439250	
		Endothall	0.25	U	ug/L	P439184	
		Acetamiprid	0.0020	U	ug/L	P439250	
		Glufosinate	0.10	U	ug/L	P439184	
		Glyphosate	0.10	U	ug/L	P439184	
		Afidopyropen	0.0020	U	ug/L	P439250	
		Sucralose	0.013	I	ug/L	P439184	
		Bentazon	8.0E-04	U	ug/L	P439250	
		Benzovindiflupyr	0.0020	U	ug/L	P439250	
		Carbamazepine	8.0E-04	U	ug/L	P439250	
		Clothianidin	0.0020	U	ug/L	P439250	
		Dinotefuran	0.0020	U	ug/L	P439250	
		Diuron	0.0020	U	ug/L	P439250	
		Fenuron	0.032	U	ug/L	P439250	
		Fluridone	8.0E-04	U	ug/L	P439250	
		Imazapyr	0.0040	U	ug/L	P439250	
		Hydrocodone	0.0020	U	ug/L	P439250	
		Ibuprofen	0.080	U	ug/L	P439250	
		Imidacloprid	0.0020	U	ug/L	P439250	
		Linuron	0.0040	U	ug/L	P439250	
		Mandestrobin	0.0020	U	ug/L	P439250	
		MCPP	0.0020	U	ug/L	P439250	
		Naproxen	0.0080	U	ug/L	P439250	
		Primidone	0.0040	U	ug/L	P439250	
		Pyraclostrobin	0.0020	U	ug/L	P439250	

Field ID: 33020140 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457794	EPA 8321B	Silvex	0.0040	U	ug/L	P439250	
		Thiamethoxam	0.0020	U	ug/L	P439250	
		Tolfenpyrad	0.0020	U	ug/L	P439250	
		Triclopyr	0.0040	U	ug/L	P439250	
2457797	EPA 200.7 Rev. 4.4	Calcium	0.57		mg/L	P439262	
		Iron	410		ug/L	P439262	
		Magnesium	0.62		mg/L	P439262	
		Potassium	0.30	U	mg/L	P439262	
		Sodium	2.0		mg/L	P439262	
		Strontium	9.1		ug/L	P439262	
		Tin	3.0	U	ug/L	P439262	
		Titanium	1.2	I	ug/L	P439262	
		Vanadium	2.0	U	ug/L	P439262	
		Zinc	5.0	U	ug/L	P439262	
	EPA 200.8 Rev. 5.4	Aluminum	97		ug/L	P439262	
		Antimony	0.050	U	ug/L	P439262	
		Arsenic	0.15	I	ug/L	P439262	
		Barium	17.0		ug/L	P439262	
		Beryllium	0.090		ug/L	P439262	
		Boron	6.9	I	ug/L	P439262	
		Cadmium	0.020	U	ug/L	P439262	
		Chromium	0.40	U	ug/L	P439262	
		Cobalt	0.758		ug/L	P439262	
		Copper	0.40	U	ug/L	P439262	
		Lead	0.20	U	ug/L	P439262	
		Manganese	17.8		ug/L	P439262	
		Molybdenum	0.15	U	ug/L	P439262	
		Nickel	0.67	I	ug/L	P439262	
		Selenium	0.20	U	ug/L	P439262	
		Silver	0.010	U	ug/L	P439262	
		Thallium	0.10	U	ug/L	P439262	
	SM 2340 B-2011	Hardness	4.0		mg/L	P439262	
2457798	EPA 8270E	Oxybenzone**	11	U	ng/L	P439466	
		Acetochlor	0.21	U	ng/L	P439466	
		Octinoxate**	160	U	ng/L	P439466	
		Alachlor	0.42	U	ng/L	P439466	
		Avobenzone**	110	U	ng/L	P439466	
		Ametryn	1.2	U	ng/L	P439466	
		Atrazine	0.21	U	ng/L	P439466	
		PBDE-47**	4.2	U	ng/L	P439466	
		Atrazine Desethyl	1.4	U	ng/L	P439466	
		PBDE-99**	5.3	U	ng/L	P439466	
		Azinphos Methyl	3.2	U	ng/L	P439466	
		Tri-o-cresyl Phosphate**	6.4	U	ng/L	P439466	
		Azoxystrobin	0.42	U	ng/L	P439466	

Field ID: 33020140 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457798	EPA 8270E	Bromacil	0.64	U	ng/L	P439466	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P439466	
		Butylate	0.48	U	ng/L	P439466	
		Dechlorane Plus**	32	U	ng/L	P439466	
		Caffeine**	8.0	U	ng/L	P439466	
		Dechlorane 602**	5.3	U	ng/L	P439466	
		Carbophenothion	0.53	UJ	ng/L	P439466	LCS, MS
		Dechlorane 603**	4.2	U	ng/L	P439466	
		Carfentrazone Ethyl	0.16	U	ng/L	P439466	
		Hexabromobenzene**	6.4	U	ng/L	P439466	
		Chlorfenapyr	0.32	U	ng/L	P439466	
		PBB-153**	6.4	U	ng/L	P439466	
		Chlorpyrifos Ethyl	0.32	U	ng/L	P439466	
		Pentabromotoluene**	3.2	U	ng/L	P439466	
		Chlorpyrifos Methyl	0.11	U	ng/L	P439466	
		Tris(2-chloroethyl) phosphate (TCEP)**	58	U	ng/L	P439466	
		Coumaphos	1.1	U	ng/L	P439466	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	27	U	ng/L	P439466	
		Cyanazine	5.3	U	ng/L	P439466	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.7	U	ng/L	P439466	
		Cyprodinil	0.21	U	ng/L	P439466	
		Tetradecachloro-m-terphenyl**	8.0	U	ng/L	P439466	
		Demeton	3.7	U	ng/L	P439466	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	64	U	ng/L	P439466	
		Diazinon	0.13	U	ng/L	P439466	
		Difenoconazole	0.64	U	ng/L	P439466	
		Dimethenamid	0.11	U	ng/L	P439466	
		Dimethomorph	0.32	U	ng/L	P439466	
		Disulfoton	0.64	U	ng/L	P439466	
		Dithiopyr	1.1	U	ng/L	P439466	
		EPTC	0.53	U	ng/L	P439466	
		Ethion	0.32	U	ng/L	P439466	
		Ethoprop	0.13	U	ng/L	P439466	
		Etridiazole	0.11	U	ng/L	P439466	
		Fenamiphos	0.48	U	ng/L	P439466	
		Fenbuconazole	0.53	U	ng/L	P439466	
		Fipronil	0.21	U	ng/L	P439466	
		Fipronil Desulfinyl**	0.11	U	ng/L	P439466	
		Fipronil Sulfide	0.11	UJ	ng/L	P439466	MS
		Fipronil Sulfone	0.11	U	ng/L	P439466	
		Fluazifop-P-butyl	0.11	UJ	ng/L	P439466	MS
		Fludioxonil	0.11	U	ng/L	P439466	
		Flumioxazin	3.2	U	ng/L	P439466	

Field ID: 33020140 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457798	EPA 8270E	Flutolanil	0.11	UJ	ng/L	P439466	MS
		Fluxapyroxad	0.27	U	ng/L	P439466	
		Fonofos	0.16	U	ng/L	P439466	
		Hexazinone	0.53	U	ng/L	P439466	
		Imazalil	0.69	U	ng/L	P439466	
		Iprodione	0.53	U	ng/L	P439466	
		Loratadine**	0.32	U	ng/L	P439466	
		Malathion	0.37	U	ng/L	P439466	
		Metalaxyl	0.53	U	ng/L	P439466	
		Metolachlor	0.80	U	ng/L	P439466	
		Metribuzin	0.42	U	ng/L	P439466	
		Mevinphos	1.1	U	ng/L	P439466	
		Molinate	0.27	U	ng/L	P439466	
		Myclobutanil	0.37	U	ng/L	P439466	
		Naled	2.7	U	ng/L	P439466	
		Napropamide	0.74	U	ng/L	P439466	
		Norflurazon	1.1	U	ng/L	P439466	
		Oxadiazon	0.37	U	ng/L	P439466	
		Oxyfluorfen	0.21	UJ	ng/L	P439466	LCS
		Parathion Ethyl	0.16	U	ng/L	P439466	
		Parathion Methyl	0.21	U	ng/L	P439466	
		Pendimethalin	1.8	U	ng/L	P439466	
		Phenytoin**	5.6	U	ng/L	P439466	
		Phorate	0.27	U	ng/L	P439466	
		Prodiamine	0.21	U	ng/L	P439466	
		Prometon	3.2	U	ng/L	P439466	
		Prometryn	0.37	U	ng/L	P439466	
		Pronamide	0.11	U	ng/L	P439466	
		Propanil	0.11	U	ng/L	P439466	
		Propargite	0.85	U	ng/L	P439466	
		Propiconazole	0.64	U	ng/L	P439466	
		Pyraflufen Ethyl	0.32	U	ng/L	P439466	
		Pyridaben	1.5	UJ	ng/L	P439466	CCV
		Pyriproxyfen	0.27	U	ng/L	P439466	
		Simazine	0.27	U	ng/L	P439466	
		Stirophos	0.42	U	ng/L	P439466	
		Sulfentrazone	1.5	U	ng/L	P439466	
		Tebuconazole	1.5	U	ng/L	P439466	
		Terbufos	0.21	U	ng/L	P439466	
		Terbuthylazine	0.21	U	ng/L	P439466	
		Thiobencarb	0.53	U	ng/L	P439466	
		Triadimefon	0.16	U	ng/L	P439466	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: FB **Collection Date/Time: 12/18/2023 13:10**

Field ID: FB_12182023 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457786	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P439199	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P439226	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P439407	
		Sulfate	0.20	U	mg SO4/L	P439410	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P439372	
	SM 2540 C-2015	TDS	15	U	mg/L	P439634	
	SM 2540 D-2015	TSS	2	U	mg/L	P439571	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P439374	
2457787	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P439344	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P439242	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P439300	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P439255	
	SM 5310 B-2014	Organic Carbon	0.50	U	mg C/L	P439526	
2457788	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P439210	
2457795	EPA 8321B	Aldicarb	0.020	U	ug/L	P438952	
		Aldicarb Sulfone	0.0020	U	ug/L	P438952	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P438952	
		Carbaryl	0.0020	U	ug/L	P438952	
		Carbofuran	0.0020	U	ug/L	P438952	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P438952	
		Methiocarb	0.0020	U	ug/L	P438952	
		Methomyl	0.0020	U	ug/L	P438952	
		Oxamyl	0.0020	U	ug/L	P438952	
		Propoxur	0.0020	U	ug/L	P438952	
2457796		2,4-D	0.0020	U	ug/L	P439250	
		Acesulfame K	0.10	U	ug/L	P439184	
		2,4,5-T	0.0040	U	ug/L	P439250	
		AMPA	0.10	U	ug/L	P439184	MS
		Acetaminophen	0.0080	U	ug/L	P439250	
		Acetamiprid	0.0020	U	ug/L	P439250	
		Endothall	0.25	U	ug/L	P439184	
		Glufosinate	0.10	U	ug/L	P439184	
		Glyphosate	0.10	U	ug/L	P439184	
		Afidopyropen	0.0020	U	ug/L	P439250	
		Bentazon	8.0E-04	U	ug/L	P439250	
		Sucralose	0.010	U	ug/L	P439184	
		Benzovindiflupyr	0.0020	U	ug/L	P439250	
		Carbamazepine	8.0E-04	U	ug/L	P439250	
		Clothianidin	0.0020	U	ug/L	P439250	
		Dinotefuran	0.0020	U	ug/L	P439250	
		Diuron	0.0020	U	ug/L	P439250	
		Fenuron	0.032	U	ug/L	P439250	
		Fluridone	8.0E-04	U	ug/L	P439250	

Field ID: FB_12182023 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457796	EPA 8321B	Imazapyr	0.0040	U	ug/L	P439250	
		Hydrocodone	0.0020	U	ug/L	P439250	
		Ibuprofen	0.080	U	ug/L	P439250	
		Imidacloprid	0.0020	U	ug/L	P439250	
		Linuron	0.0040	U	ug/L	P439250	
		Mandestrobin	0.0020	U	ug/L	P439250	
		MCPP	0.0020	U	ug/L	P439250	
		Naproxen	0.0080	U	ug/L	P439250	
		Primidone	0.0040	U	ug/L	P439250	
		Pyraclostrobin	0.0020	U	ug/L	P439250	
		Silvex	0.0040	U	ug/L	P439250	
		Thiamethoxam	0.0020	U	ug/L	P439250	
		Tolfenpyrad	0.0020	U	ug/L	P439250	
		Triclopyr	0.0040	U	ug/L	P439250	
2457799	EPA 8270E	Oxybenzone**	13	I	ng/L	P439466	
		Acetochlor	0.22	U	ng/L	P439466	
		Octinoxate**	160	U	ng/L	P439466	
		Alachlor	0.44	U	ng/L	P439466	
		Avobenzone**	110	U	ng/L	P439466	
		Ametryn	1.2	U	ng/L	P439466	
		Atrazine	0.22	U	ng/L	P439466	
		PBDE-47**	4.4	U	ng/L	P439466	
		Atrazine Desethyl	1.4	U	ng/L	P439466	
		PBDE-99**	5.5	U	ng/L	P439466	
		Azinphos Methyl	3.3	U	ng/L	P439466	
		Tri-o-cresyl Phosphate**	6.6	U	ng/L	P439466	
		Azoxystrobin	0.44	U	ng/L	P439466	
		Bromacil	0.66	U	ng/L	P439466	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	13	U	ng/L	P439466	
		Butylate	0.49	U	ng/L	P439466	
		Dechlorane Plus**	33	U	ng/L	P439466	
		Caffeine**	8.2	U	ng/L	P439466	
		Dechlorane 602**	5.5	U	ng/L	P439466	
		Carbophenothion	0.55	UJ	ng/L	P439466	LCS, MS
		Dechlorane 603**	4.4	U	ng/L	P439466	
		Carfentrazone Ethyl	0.16	U	ng/L	P439466	
		Hexabromobenzene**	6.6	U	ng/L	P439466	
		Chlorfenapyr	0.33	U	ng/L	P439466	
		PBB-153**	6.6	U	ng/L	P439466	
		Chlorpyrifos Ethyl	0.33	U	ng/L	P439466	
		Pentabromotoluene**	3.3	U	ng/L	P439466	
		Chlorpyrifos Methyl	0.11	U	ng/L	P439466	
		Tris(2-chloroethyl) phosphate (TCEP)**	60	U	ng/L	P439466	
		Coumaphos	1.2	U	ng/L	P439466	

Field ID: FB_12182023 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457799	EPA 8270E	Tris(1-chloro-2-propyl) phosphate (TCPP)**	27	U	ng/L	P439466	
		Cyanazine	5.5	U	ng/L	P439466	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.7	U	ng/L	P439466	
		Cyprodinil	0.22	U	ng/L	P439466	
		Tetradecachloro-m-terphenyl**	8.2	U	ng/L	P439466	
		Demeton	3.8	U	ng/L	P439466	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	66	U	ng/L	P439466	
		Diazinon	0.14	U	ng/L	P439466	
		Difenoconazole	0.66	U	ng/L	P439466	
		Dimethenamid	0.11	U	ng/L	P439466	
		Dimethomorph	0.33	U	ng/L	P439466	
		Disulfoton	0.66	U	ng/L	P439466	
		Dithiopyr	1.1	U	ng/L	P439466	
		EPTC	0.55	U	ng/L	P439466	
		Ethion	0.33	U	ng/L	P439466	
		Ethoprop	0.14	U	ng/L	P439466	
		Etridiazole	0.11	U	ng/L	P439466	
		Fenamiphos	0.49	U	ng/L	P439466	
		Fenbuconazole	0.55	U	ng/L	P439466	
		Fipronil	0.22	U	ng/L	P439466	
		Fipronil Desulfinyl**	0.11	U	ng/L	P439466	
		Fipronil Sulfide	0.11	U	ng/L	P439466	MS
		Fipronil Sulfone	0.11	U	ng/L	P439466	
		Fluazifop-P-butyl	0.11	U	ng/L	P439466	MS
		Fludioxonil	0.11	U	ng/L	P439466	
		Flumioxazin	3.3	U	ng/L	P439466	
		Flutolanil	0.11	U	ng/L	P439466	MS
		Fluxapyroxad	0.27	U	ng/L	P439466	
		Fonofos	0.16	U	ng/L	P439466	
		Hexazinone	0.55	U	ng/L	P439466	
		Imazalil	0.71	U	ng/L	P439466	
		Iprodione	0.55	U	ng/L	P439466	
		Loratadine**	0.33	U	ng/L	P439466	
		Malathion	0.38	U	ng/L	P439466	
		Metalaxyl	0.55	U	ng/L	P439466	
		Metolachlor	0.82	U	ng/L	P439466	
		Metribuzin	0.44	U	ng/L	P439466	
		Mevinphos	1.1	U	ng/L	P439466	
		Molinate	0.27	U	ng/L	P439466	
		Myclobutanil	0.38	U	ng/L	P439466	
		Naled	2.7	U	ng/L	P439466	
		Napropamide	0.77	U	ng/L	P439466	
		Norflurazon	1.1	U	ng/L	P439466	
		Oxadiazon	0.38	U	ng/L	P439466	

Field ID: FB_12182023 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2457799	EPA 8270E	Oxyfluorfen	0.22	UJ	ng/L	P439466	LCS
		Parathion Ethyl	0.16	U	ng/L	P439466	
		Parathion Methyl	0.22	U	ng/L	P439466	
		Pendimethalin	1.9	U	ng/L	P439466	
		Phenytoin**	5.8	U	ng/L	P439466	
		Phorate	0.27	U	ng/L	P439466	
		Prodiamine	0.22	U	ng/L	P439466	
		Prometon	3.3	U	ng/L	P439466	
		Prometryn	0.38	U	ng/L	P439466	
		Pronamide	0.11	U	ng/L	P439466	
		Propanil	0.11	U	ng/L	P439466	
		Propargite	0.88	U	ng/L	P439466	
		Propiconazole	0.66	U	ng/L	P439466	
		Pyraflufen Ethyl	0.33	U	ng/L	P439466	
		Pyridaben	1.5	UJ	ng/L	P439466	CCV
		Pyriproxyfen	0.27	U	ng/L	P439466	
		Simazine	0.27	U	ng/L	P439466	
		Stirophos	0.44	U	ng/L	P439466	
		Sulfentrazone	1.5	U	ng/L	P439466	
		Tebuconazole	1.5	U	ng/L	P439466	
		Terbufos	0.22	U	ng/L	P439466	
		Terbuthylazine	0.22	U	ng/L	P439466	
		Thiobencarb	0.55	U	ng/L	P439466	
		Triadimefon	0.16	U	ng/L	P439466	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: The result in extract was confirmed.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P439199

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439226

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P439262

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: P439262

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: P439407

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: P439410

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439344

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439242

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439300

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439255

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439210

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

Reference Method: EPA 8270E
Batch ID: P439466

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P439466

Component	Result	Code	Units
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8270E
Batch ID: P439466

Component	Result	Code	Units
PBB-153	6.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.7	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	13	I	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	25	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	55	U	ng/L

Reference Method: EPA 8321B
Batch ID: P438952

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

Reference Method: EPA 8321B
Batch ID: P439184

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P439184

Component	Result	Code	Units
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: P439250

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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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: SM 2320 B-2011
Batch ID: P439372

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

Reference Method: SM 2540 C-2015
Batch ID: P439634

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 D-2015
Batch ID: P439571

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P439374

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P439526

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: P439199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.9		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439226

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P439262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	111		P	85 - 115
Iron	106		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	99.5		P	85 - 115
Sodium	103		P	85 - 115
Strontium	99.8		P	85 - 115
Tin	102		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P439262

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.9		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.8		P	85 - 115
Barium	100		P	85 - 115
Beryllium	95.1		P	85 - 115
Boron	99.7		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	98.5		P	85 - 115
Copper	97.7		P	85 - 115
Lead	94.9		P	85 - 115
Manganese	99.9		P	85 - 115
Molybdenum	98.4		P	85 - 115
Nickel	99.2		P	85 - 115
Selenium	99.3		P	85 - 115
Silver	96.1		P	85 - 115
Thallium	98.5		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439407

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439410

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439344

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439242

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439300

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439255

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439210

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: EPA 8270E
Batch ID: P439466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	65.1		P	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	103		P	37 - 154
Acetochlor	91.3		P	64 - 124
Alachlor	93.3		P	61 - 118
Ametryn	97.1		P	47 - 158
Atrazine	79.3		P	68 - 121
Atrazine Desethyl	65.2		P	30 - 119
Avobenzone	122		P	48 - 193
Azinphos Methyl	114		P	30 - 194
Azoxystrobin	81.8		P	58 - 154
Bromacil	83.9		P	47 - 126
Butylate	53.2		P	31 - 83.0
Caffeine	82.9		P	10 - 180
Carbophenothion	136		F	59 - 133
Carfentrazone Ethyl	140		P	59 - 147
Chlorfenapyr	91.0		P	52 - 118

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P439466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Ethyl	101		P	59 - 119
Chlorpyrifos Methyl	108		P	65 - 123
Coumaphos	32.6		P	11 - 223
Cyanazine	122		P	63 - 250
Cyprodinil	133		P	52 - 143
Dechlorane 602	95.9		P	23 - 142
Dechlorane 603	111		P	51 - 171
Dechlorane Plus	110		P	46 - 161
Demeton	55.4		P	42 - 119
Diazinon	102		P	67 - 132
Difenoconazole	126		P	12 - 204
Dimethenamid	90.5		P	53 - 113
Dimethomorph	181		P	13 - 238
Disulfoton	100		P	56 - 126
Dithiopyr	112		P	58 - 127
EPTC	44.3		P	31 - 78.0
Ethion	110		P	24 - 127
Ethoprop	75.9		P	60 - 118
Etridiazole	55.6		P	32 - 91.0
Fenamiphos	116		P	54 - 129
Fenbuconazole	82.4		P	31 - 162
Fipronil	102		P	56 - 131
Fipronil Desulfinyl	96.0		P	58 - 132
Fipronil Sulfide	116		P	51 - 123
Fipronil Sulfone	101		P	50 - 125
Fluazifop-P-butyl	129		P	52 - 132
Fludioxonil	101		P	52 - 129
Flumioxazin	152		P	34 - 250
Flutolanil	127		P	45 - 128
Fluxapyroxad	121		P	31 - 150
Fonofos	95.3		P	60 - 116
Hexabromobenzene	99.7		P	52 - 165
Hexazinone	83.7		P	59 - 120
Imazalil	97.7		P	39 - 134
Iprodione	125		P	39 - 243
Loratadine	153		P	10 - 240
Malathion	110		P	53 - 145
Metalaxyl	85.6		P	59 - 120
Metolachlor	102		P	64 - 122
Metribuzin	102		P	33 - 128
Mevinphos	64.8		P	48 - 119
Molinate	46.9		P	42 - 89.0
Myclobutanil	91.8		P	54 - 129
Naled	32.9		P	10 - 138
Napropamide	112		P	40 - 122
Norflurazon	102		P	49 - 132
Octinoxate	108		P	29 - 176
Oxadiazon	98.0		P	50 - 115
Oxybenzone	111		P	45 - 145
Oxyfluorfen	150		F	62 - 149
Parathion Ethyl	88.5		P	68 - 119
Parathion Methyl	131		P	68 - 147

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P439466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBB-153	98.0		P	42 - 179
PBDE-47	106		P	44 - 141
PBDE-99	96.7		P	36 - 141
Pendimethalin	140		P	59 - 158
Pentabromotoluene	97.5		P	58 - 148
Phenytoin	65.6		P	10 - 151
Phorate	76.4		P	44 - 124
Prodiamine	81.6		P	10 - 136
Prometon	92.8		P	45 - 131
Prometryn	111		P	52 - 140
Pronamide	99.4		P	70 - 129
Propanil	136		P	54 - 144
Propargite	119		P	10 - 191
Propiconazole	95.7		P	49 - 128
Pyraflufen Ethyl	120		P	46 - 141
Pyridaben	85.1		P	29 - 198
Pyriproxyfen	106		P	33 - 221
Simazine	96.0		P	62 - 119
Stirophos	119		P	13 - 144
Sulfentrazone	92.0		P	12 - 152
Tebuconazole	99.4		P	10 - 135
Terbufos	87.8		P	67 - 136
Terbuthylazine	92.4		P	66 - 113
Tetradecachloro-m-terphenyl	111		P	30 - 235
Thiobencarb	99.5		P	51 - 125
Tri-o-cresyl Phosphate	114		P	50 - 150
Triadimefon	101		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	112		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	126		P	59 - 166

Reference Method: EPA 8321B
Batch ID: P438952

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	62.1		P	40 - 150
Aldicarb	60.9		P	30 - 150
Aldicarb Sulfone	88.5		P	40 - 150
Aldicarb Sulfoxide	103		P	40 - 150
Carbaryl	62.5		P	40 - 150
Carbofuran	65.7		P	40 - 150
Methiocarb	51.5		P	40 - 150
Methomyl	78.9		P	40 - 150
Oxamyl	81.3		P	40 - 150
Propoxur	63.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P439184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	128		P	40 - 150
AMPA	89.1		P	40 - 150

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P439184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endothall	92.7		P	40 - 150
Glufosinate	93.8		P	40 - 150
Glyphosate	91.2		P	40 - 150
Sucralose	80.7		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P439250

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	109		P	40 - 150
2,4,5-T	93.2		P	40 - 150
Acetaminophen	56.1		P	30 - 150
Acetamiprid	88.2		P	40 - 150
Afidopyropen	73.9		P	30 - 150
Bentazon	68.7		P	30 - 150
Benzovindiflupyr	80.2		P	40 - 150
Carbamazepine	68.4		P	40 - 150
Clothianidin	84.2		P	40 - 150
Dinotefuran	96.2		P	40 - 150
Diuron	68.7		P	40 - 150
Fenuron	94.2		P	40 - 150
Fluridone	83.4		P	40 - 150
Hydrocodone	81.6		P	40 - 150
Ibuprofen	60.6		P	40 - 150
Imazapyr	81.5		P	40 - 150
Imidacloprid	86.1		P	40 - 150
Linuron	67.2		P	40 - 150
Mandestrobin	84.8		P	40 - 150
MCPP	97.1		P	40 - 150
Naproxen	63.3		P	40 - 150
Primidone	83.3		P	40 - 150
Pyraclostrobin	73.7		P	40 - 150
Silvex	86.9		P	40 - 150
Thiamethoxam	86.0		P	40 - 150
Tolfenpyrad	45.6		P	30 - 150
Triclopyr	107		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P439372

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.8		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P439634

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	92.4		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P439571

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	92.0		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P439374

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

Reference Method: SM 5310 B-2014
Batch ID: P439526

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P439262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457797	Calcium	107	107	P/P	80 - 120
2457797	Iron	103	104	P/P	80 - 120
2457797	Magnesium	107	107	P/P	80 - 120
2457797	Potassium	103	103	P/P	80 - 120
2457797	Sodium	100	98.0	P/P	80 - 120
2457797	Strontium	99.4	98.4	P/P	80 - 120
2457797	Tin	98.4	98.9	P/P	80 - 120
2457797	Titanium	100	100	P/P	80 - 120
2457797	Vanadium	100	99.8	P/P	80 - 120
2457797	Zinc	99.7	99.9	P/P	80 - 120
2458059	Calcium	105		P	80 - 120
2458059	Iron	104		P	80 - 120
2458059	Magnesium	105		P	80 - 120
2458059	Potassium	100		P	80 - 120
2458059	Sodium	101		P	80 - 120
2458059	Strontium	98.8		P	80 - 120
2458059	Tin	97.2		P	80 - 120
2458059	Titanium	101		P	80 - 120
2458059	Vanadium	101		P	80 - 120
2458059	Zinc	99.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P439262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457797	Aluminum	99.0	100	P/P	80 - 120
2457797	Antimony	101	102	P/P	80 - 120
2457797	Arsenic	101	102	P/P	80 - 120
2457797	Barium	102	103	P/P	80 - 120
2457797	Beryllium	94.7	94.8	P/P	80 - 120
2457797	Boron	100	101	P/P	80 - 120
2457797	Cadmium	101	101	P/P	80 - 120
2457797	Chromium	103	103	P/P	80 - 120
2457797	Cobalt	100	101	P/P	80 - 120
2457797	Copper	102	102	P/P	80 - 120
2457797	Lead	96.3	96.6	P/P	80 - 120
2457797	Manganese	99.4	102	P/P	80 - 120
2457797	Molybdenum	99.1	99.5	P/P	80 - 120
2457797	Nickel	101	102	P/P	80 - 120
2457797	Selenium	100	103	P/P	80 - 120
2457797	Silver	95.9	96.4	P/P	80 - 120
2457797	Thallium	102	103	P/P	80 - 120
2458059	Aluminum	99.7		P	80 - 120
2458059	Antimony	104		P	80 - 120
2458059	Arsenic	99.7		P	80 - 120
2458059	Barium	101		P	80 - 120
2458059	Beryllium	94.3		P	80 - 120
2458059	Boron	106		P	80 - 120
2458059	Cadmium	103		P	80 - 120
2458059	Chromium	99.9		P	80 - 120
2458059	Cobalt	99.5		P	80 - 120
2458059	Copper	97.0		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P439262

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2458059	Lead	96.2		P	80 - 120
2458059	Manganese	102		P	80 - 120
2458059	Molybdenum	101		P	80 - 120
2458059	Nickel	100		P	80 - 120
2458059	Selenium	99.5		P	80 - 120
2458059	Silver	96.7		P	80 - 120
2458059	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439407

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457811	Chloride	103		P	90 - 110
2457813	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439410

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457811	Sulfate	101		P	90 - 110
2457813	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457755	Ammonia-N	95.4	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439242

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457704	Kjeldahl Nitrogen	101	98.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439300

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457352	NO2NO3-N	98.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457756	Total-P	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457785	O-Phosphate-P	100	100	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P439466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457798	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	85.5	79.6	P/P	50 - 150
2457798	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	103	95.9	P/P	29 - 155
2457798	Acetochlor	84.8	84.0	P/P	60 - 124
2457798	Alachlor	79.2	80.8	P/P	54 - 122
2457798	Ametryn	91.4	98.8	P/P	51 - 208
2457798	Atrazine	83.5	79.3	P/P	57 - 131
2457798	Atrazine Desethyl	83.2	96.2	P/P	13 - 124
2457798	Avobenzone	111	106	P/P	35 - 187
2457798	Azinphos Methyl	135	129	P/P	43 - 276
2457798	Azoxystrobin	90.2	96.1	P/P	52 - 300
2457798	Bromacil	87.0	94.1	P/P	44 - 134
2457798	Butylate	52.4	35.8	P/P	23 - 82.0
2457798	Caffeine	89.4	89.5	P/P	10 - 277
2457798	Carbophenothion	123	142	P/F	47 - 135
2457798	Carfentrazone Ethyl	123	136	P/P	46 - 147
2457798	Chlorfenapyr	100	96.0	P/P	43 - 114
2457798	Chlorpyrifos Ethyl	108	94.6	P/P	47 - 124
2457798	Chlorpyrifos Methyl	110	106	P/P	60 - 135
2457798	Coumaphos	85.3	65.0	P/P	10 - 222
2457798	Cyanazine	144	126	P/P	10 - 257
2457798	Cyprodinil	129	114	P/P	42 - 148
2457798	Dechlorane 602	92.4	83.0	P/P	14 - 133
2457798	Dechlorane 603	100	97.2	P/P	18 - 191
2457798	Dechlorane Plus	106	103	P/P	23 - 154
2457798	Demeton	56.4	62.2	P/P	41 - 137
2457798	Diazinon	107	109	P/P	64 - 139
2457798	Difenoconazole	197	195	P/P	46 - 254
2457798	Dimethenamid	95.9	94.0	P/P	47 - 117
2457798	Dimethomorph	210	220	P/P	14 - 255
2457798	Disulfoton	88.0	96.5	P/P	52 - 130
2457798	Dithiopyr	107	109	P/P	40 - 121
2457798	EPTC	39.9	28.9	P/P	19 - 78.0
2457798	Ethion	91.5	100	P/P	12 - 124
2457798	Ethoprop	80.2	80.2	P/P	68 - 144
2457798	Etridiazole	46.1	44.4	P/P	26 - 96.0
2457798	Fenamiphos	129	113	P/P	41 - 129
2457798	Fenbuconazole	102	99.9	P/P	26 - 169
2457798	Fipronil	114	105	P/P	46 - 145
2457798	Fipronil Desulfinyl	92.3	130	P/P	47 - 136
2457798	Fipronil Sulfide	128	109	F/P	41 - 127
2457798	Fipronil Sulfone	103	120	P/P	35 - 133
2457798	Fluazifop-P-butyl	140	146	F/F	46 - 131
2457798	Fludioxonil	104	97.7	P/P	51 - 124
2457798	Flumioxazin	200	212	P/P	10 - 289
2457798	Flutolanil	144	128	F/P	34 - 130
2457798	Fluxapyroxad	111	133	P/P	10 - 197
2457798	Fonofos	96.0	92.8	P/P	42 - 131
2457798	Hexabromobenzene	122	87.9	P/P	47 - 178
2457798	Hexazinone	96.8	96.4	P/P	64 - 125
2457798	Imazalil	108	112	P/P	37 - 252
2457798	Iprodione	102	110	P/P	34 - 265
2457798	Loratadine	198	210	P/P	20 - 231

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P439466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457798	Malathion	120	107	P/P	34 - 164
2457798	Metalaxyl	73.3	92.8	P/P	49 - 125
2457798	Metolachlor	103	97.8	P/P	54 - 125
2457798	Metribuzin	101	107	P/P	51 - 139
2457798	Mevinphos	72.3	81.9	P/P	46 - 130
2457798	Molinate	48.4	41.1	P/P	39 - 93.0
2457798	Myclobutanil	90.3	90.4	P/P	50 - 130
2457798	Naled	33.4	31.7	P/P	10 - 150
2457798	Napropamide	102	105	P/P	10 - 109
2457798	Norflurazon	93.1	106	P/P	36 - 134
2457798	Octinoxate	96.3	86.7	P/P	18 - 170
2457798	Oxadiazon	98.1	96.8	P/P	43 - 112
2457798	Oxybenzone	95.7	87.8	P/P	33 - 154
2457798	Oxyfluorfen	136	132	P/P	62 - 154
2457798	Parathion Ethyl	97.2	86.5	P/P	65 - 120
2457798	Parathion Methyl	127	139	P/P	77 - 185
2457798	PBB-153	96.9	91.6	P/P	23 - 193
2457798	PBDE-47	95.1	87.3	P/P	31 - 139
2457798	PBDE-99	91.2	85.9	P/P	24 - 138
2457798	Pendimethalin	145	120	P/P	50 - 146
2457798	Pentabromotoluene	88.4	79.7	P/P	54 - 152
2457798	Phenytoin	70.4	61.1	P/P	10 - 157
2457798	Phorate	78.5	72.0	P/P	54 - 161
2457798	Prodiamine	91.8	80.6	P/P	29 - 160
2457798	Prometon	90.8	90.7	P/P	38 - 145
2457798	Prometryn	110	112	P/P	32 - 151
2457798	Pronamide	96.3	94.1	P/P	61 - 140
2457798	Propanil	119	133	P/P	50 - 147
2457798	Propargite	103	110	P/P	10 - 190
2457798	Propiconazole	98.7	99.0	P/P	30 - 146
2457798	Pyraflufen Ethyl	114	134	P/P	30 - 147
2457798	Pyridaben	102	114	P/P	15 - 195
2457798	Pyriproxyfen	116	110	P/P	31 - 218
2457798	Simazine	93.3	92.4	P/P	45 - 139
2457798	Stirophos	83.9	95.5	P/P	10 - 134
2457798	Sulfentrazone	107	115	P/P	53 - 186
2457798	Tebuconazole	87.6	94.4	P/P	10 - 133
2457798	Terbufos	87.5	90.3	P/P	65 - 151
2457798	Terbuthylazine	88.8	89.5	P/P	62 - 117
2457798	Tetradecachloro-m-terphenyl	98.1	95.1	P/P	10 - 260
2457798	Thiobencarb	92.4	93.0	P/P	48 - 122
2457798	Tri-o-cresyl Phosphate	101	93.4	P/P	32 - 151
2457798	Triadimefon	95.6	100	P/P	46 - 124
2457798	Tris(1-chloro-2-propyl) phosphate (TCPP)	107	95.3	P/P	51 - 154
2457798	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	92.9	89.1	P/P	59 - 147
2457798	Tris(2-chloroethyl) phosphate (TCEP)	120	107	P/P	65 - 156

Reference Method: EPA 8321B
Batch ID: P438952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456407	3-Hydroxycarbofuran	84.2	71.9	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P438952

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2456407	Aldicarb	57.4	63.4	P/P	30 - 150
2456407	Aldicarb Sulfone	83.8	90.8	P/P	40 - 150
2456407	Aldicarb Sulfoxide	40.7	43.9	P/P	40 - 150
2456407	Carbaryl	59.1	62.5	P/P	40 - 150
2456407	Carbofuran	62.0	63.0	P/P	40 - 150
2456407	Methiocarb	61.8	61.3	P/P	40 - 150
2456407	Methomyl	75.2	75.4	P/P	40 - 150
2456407	Oxamyl	70.9	73.6	P/P	40 - 150
2456407	Propoxur	58.4	62.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P439184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457794	Acesulfame K	133	133	P/P	40 - 150
2457794	AMPA	167	169	F/F	40 - 150
2457794	Endothall	96.9	93.6	P/P	40 - 150
2457794	Glufosinate	104	103	P/P	40 - 150
2457794	Glyphosate	71.1	77.5	P/P	40 - 150
2457794	Sucralose	82.0	77.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P439250

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457794	2,4-D	133	110	P/P	40 - 150
2457794	2,4,5-T	103	85.5	P/P	40 - 150
2457794	Acetaminophen	68.8	56.1	P/P	30 - 150
2457794	Acetamiprid	101	87.0	P/P	40 - 150
2457794	Afidopyropen	83.4	67.5	P/P	30 - 150
2457794	Bentazon	61.7	53.3	P/P	30 - 150
2457794	Benzovindiflupyr	96.5	76.5	P/P	40 - 150
2457794	Carbamazepine	78.7	65.4	P/P	40 - 150
2457794	Clothianidin	101	82.6	P/P	40 - 150
2457794	Dinotefuran	124	100	P/P	40 - 150
2457794	Diuron	81.2	65.1	P/P	40 - 150
2457794	Fenuron	123	119	P/P	40 - 150
2457794	Fluridone	92.9	75.2	P/P	40 - 150
2457794	Hydrocodone	101	83.3	P/P	40 - 150
2457794	Ibuprofen	76.1	62.3	P/P	40 - 150
2457794	Imazapyr	106	83.8	P/P	40 - 150
2457794	Imidacloprid	118	92.7	P/P	40 - 150
2457794	Linuron	72.3	60.7	P/P	40 - 150
2457794	Mandestrobin	101	80.7	P/P	40 - 150
2457794	MCPP	119	89.7	P/P	40 - 150
2457794	Naproxen	66.1	60.9	P/P	40 - 150
2457794	Primidone	102	80.1	P/P	40 - 150
2457794	Pyraclostrobin	87.9	71.5	P/P	40 - 150
2457794	Silvex	102	78.2	P/P	40 - 150
2457794	Thiamethoxam	96.1	78.5	P/P	40 - 150
2457794	Tolfenpyrad	61.1	46.0	P/P	30 - 150
2457794	Triclopyr	125	96.5	P/P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P439374

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457904	Fluoride	103	103	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P439526

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2457784	Organic Carbon	100	99.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P439199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457749	Color (true)	6.48	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P439226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457748	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P439262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457797	Calcium	0.676	Spike	P	0 - 20
2457797	Iron	0.705	Spike	P	0 - 20
2457797	Magnesium	0.407	Spike	P	0 - 20
2457797	Potassium	0.590	Spike	P	0 - 20
2457797	Sodium	1.39	Spike	P	0 - 20
2457797	Strontium	1.05	Spike	P	0 - 20
2457797	Tin	0.506	Spike	P	0 - 20
2457797	Titanium	0.00329	Spike	P	0 - 20
2457797	Vanadium	0.316	Spike	P	0 - 20
2457797	Zinc	0.220	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P439262

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457797	Aluminum	1.21	Spike	P	0 - 20
2457797	Antimony	0.946	Spike	P	0 - 20
2457797	Arsenic	0.476	Spike	P	0 - 20
2457797	Barium	1.27	Spike	P	0 - 20
2457797	Beryllium	0.105	Spike	P	0 - 20
2457797	Boron	0.710	Spike	P	0 - 20
2457797	Cadmium	0.0812	Spike	P	0 - 20
2457797	Chromium	0.130	Spike	P	0 - 20
2457797	Cobalt	1.21	Spike	P	0 - 20
2457797	Copper	0.588	Spike	P	0 - 20
2457797	Lead	0.329	Spike	P	0 - 20
2457797	Manganese	1.57	Spike	P	0 - 20
2457797	Molybdenum	0.428	Spike	P	0 - 20
2457797	Nickel	0.635	Spike	P	0 - 20
2457797	Selenium	2.98	Spike	P	0 - 20
2457797	Silver	0.546	Spike	P	0 - 20
2457797	Thallium	0.506	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439407

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457811	Chloride	0.207	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439410

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457811	Sulfate	0.166	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P439344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457755	Ammonia-N	3.99	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P439242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457704	Kjeldahl Nitrogen	1.81	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P439300

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457352	NO2NO3-N	2.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P439255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457756	Total-P	0.279	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P439210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457785	O-Phosphate-P	0.399	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P439466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457798	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	7.16	Spike	P	0 - 30
2457798	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	7.33	Spike	P	0 - 35

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P439466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457798	Acetochlor	0.959	Spike	P	0 - 28
2457798	Alachlor	2.01	Spike	P	0 - 30
2457798	Ametryn	7.77	Spike	P	0 - 32
2457798	Atrazine	5.10	Spike	P	0 - 33
2457798	Atrazine Desethyl	14.4	Spike	P	0 - 36
2457798	Avobenzone	4.26	Spike	P	0 - 35
2457798	Azinphos Methyl	4.34	Spike	P	0 - 62
2457798	Azoxystrobin	6.36	Spike	P	0 - 39
2457798	Bromacil	7.80	Spike	P	0 - 33
2457798	Butylate	37.6	Spike	P	0 - 51
2457798	Caffeine	0.131	Spike	P	0 - 100
2457798	Carbophenothion	13.7	Spike	P	0 - 34
2457798	Carfentrazone Ethyl	9.65	Spike	P	0 - 33
2457798	Chlorfenapyr	4.57	Spike	P	0 - 28
2457798	Chlorpyrifos Ethyl	12.9	Spike	P	0 - 31
2457798	Chlorpyrifos Methyl	3.81	Spike	P	0 - 27
2457798	Coumaphos	27.0	Spike	P	0 - 62
2457798	Cyanazine	13.3	Spike	P	0 - 48
2457798	Cyprodinil	12.1	Spike	P	0 - 29
2457798	Dechlorane 602	10.8	Spike	P	0 - 60
2457798	Dechlorane 603	3.29	Spike	P	0 - 40
2457798	Dechlorane Plus	3.61	Spike	P	0 - 38
2457798	Demeton	9.86	Spike	P	0 - 33
2457798	Diazinon	1.92	Spike	P	0 - 32
2457798	Difenoconazole	1.09	Spike	P	0 - 71
2457798	Dimethenamid	2.03	Spike	P	0 - 60
2457798	Dimethomorph	5.03	Spike	P	0 - 61
2457798	Disulfoton	9.23	Spike	P	0 - 30
2457798	Dithiopyr	1.95	Spike	P	0 - 28
2457798	EPTC	31.9	Spike	P	0 - 56
2457798	Ethion	9.11	Spike	P	0 - 79
2457798	Ethoprop	0.0701	Spike	P	0 - 31
2457798	Etridiazole	3.69	Spike	P	0 - 43
2457798	Fenamiphos	13.1	Spike	P	0 - 43
2457798	Fenbuconazole	2.05	Spike	P	0 - 79
2457798	Fipronil	8.43	Spike	P	0 - 46
2457798	Fipronil Desulfinyl	34.1	Spike	P	0 - 36
2457798	Fipronil Sulfide	15.8	Spike	P	0 - 34
2457798	Fipronil Sulfone	15.4	Spike	P	0 - 47
2457798	Fluazifop-P-butyl	3.88	Spike	P	0 - 38
2457798	Fludioxonil	6.08	Spike	P	0 - 29
2457798	Flumioxazin	6.08	Spike	P	0 - 63
2457798	Flutolanil	12.2	Spike	P	0 - 36
2457798	Fluxapyroxad	18.1	Spike	P	0 - 65
2457798	Fonofos	3.38	Spike	P	0 - 35
2457798	Hexabromobenzene	32.6	Spike	P	0 - 41
2457798	Hexazinone	0.407	Spike	P	0 - 31
2457798	Imazalil	3.43	Spike	P	0 - 52
2457798	Iprodione	7.99	Spike	P	0 - 49
2457798	Loratadine	5.47	Spike	P	0 - 59
2457798	Malathion	11.0	Spike	P	0 - 77

Quality Assurance Report
Precision

Reference Method: EPA 8270E
Batch ID: P439466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457798	Metalaxyl	23.4	Spike	P	0 - 76
2457798	Metolachlor	5.16	Spike	P	0 - 29
2457798	Metribuzin	5.72	Spike	P	0 - 51
2457798	Mevinphos	12.4	Spike	P	0 - 31
2457798	Molinate	16.3	Spike	P	0 - 39
2457798	Myclobutanil	0.123	Spike	P	0 - 34
2457798	Naled	5.21	Spike	P	0 - 37
2457798	Napropamide	2.94	Spike	P	0 - 100
2457798	Norflurazon	12.7	Spike	P	0 - 54
2457798	Octinoxate	10.5	Spike	P	0 - 35
2457798	Oxadiazon	1.35	Spike	P	0 - 34
2457798	Oxybenzone	8.68	Spike	P	0 - 35
2457798	Oxyfluorfen	2.90	Spike	P	0 - 28
2457798	Parathion Ethyl	11.7	Spike	P	0 - 31
2457798	Parathion Methyl	8.66	Spike	P	0 - 29
2457798	PBB-153	5.62	Spike	P	0 - 49
2457798	PBDE-47	8.47	Spike	P	0 - 36
2457798	PBDE-99	5.96	Spike	P	0 - 46
2457798	Pendimethalin	19.1	Spike	P	0 - 31
2457798	Pentabromotoluene	10.3	Spike	P	0 - 16
2457798	Phenytoin	14.1	Spike	P	0 - 100
2457798	Phorate	8.73	Spike	P	0 - 36
2457798	Prodiamine	12.9	Spike	P	0 - 68
2457798	Prometon	0.0852	Spike	P	0 - 35
2457798	Prometryn	1.94	Spike	P	0 - 33
2457798	Pronamide	2.36	Spike	P	0 - 24
2457798	Propanil	11.1	Spike	P	0 - 28
2457798	Propargite	6.19	Spike	P	0 - 53
2457798	Propiconazole	0.316	Spike	P	0 - 44
2457798	Pyraflufen Ethyl	16.2	Spike	P	0 - 61
2457798	Pyridaben	11.1	Spike	P	0 - 43
2457798	Pyriproxyfen	5.54	Spike	P	0 - 82
2457798	Simazine	1.06	Spike	P	0 - 29
2457798	Stirophos	12.9	Spike	P	0 - 100
2457798	Sulfentrazone	6.99	Spike	P	0 - 64
2457798	Tebuconazole	7.49	Spike	P	0 - 76
2457798	Terbufos	3.17	Spike	P	0 - 29
2457798	Terbuthylazine	0.713	Spike	P	0 - 28
2457798	Tetradecachloro-m-terphenyl	3.04	Spike	P	0 - 42
2457798	Thiobencarb	0.648	Spike	P	0 - 26
2457798	Tri-o-cresyl Phosphate	8.22	Spike	P	0 - 24
2457798	Triadimefon	4.71	Spike	P	0 - 40
2457798	Tris(1-chloro-2-propyl) phosphate (TCPP)	11.7	Spike	P	0 - 30
2457798	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	4.24	Spike	P	0 - 22
2457798	Tris(2-chloroethyl) phosphate (TCEP)	12.1	Spike	P	0 - 15

Reference Method: EPA 8321B
Batch ID: P438952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P438952

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2456407	3-Hydroxycarbofuran	15.8	Spike	P	0 - 30
2456407	Aldicarb	9.98	Spike	P	0 - 30
2456407	Aldicarb Sulfone	7.92	Spike	P	0 - 30
2456407	Aldicarb Sulfoxide	7.62	Spike	P	0 - 30
2456407	Carbaryl	5.56	Spike	P	0 - 30
2456407	Carbofuran	1.70	Spike	P	0 - 30
2456407	Methiocarb	0.819	Spike	P	0 - 30
2456407	Methomyl	0.285	Spike	P	0 - 30
2456407	Oxamyl	3.81	Spike	P	0 - 30
2456407	Propoxur	6.70	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P439184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457794	Acesulfame K	0.143	Spike	P	0 - 30
2457794	AMPA	1.21	Spike	P	0 - 30
2457794	Endothall	3.48	Spike	P	0 - 30
2457794	Glufosinate	1.53	Spike	P	0 - 30
2457794	Glyphosate	8.66	Spike	P	0 - 30
2457794	Sucralose	5.52	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P439250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457794	2,4-D	18.5	Spike	P	0 - 30
2457794	2,4,5-T	18.8	Spike	P	0 - 30
2457794	Acetaminophen	20.3	Spike	P	0 - 30
2457794	Acetamiprid	14.4	Spike	P	0 - 30
2457794	Afidopyropen	21.1	Spike	P	0 - 30
2457794	Bentazon	14.6	Spike	P	0 - 30
2457794	Benzovindiflupyr	23.1	Spike	P	0 - 30
2457794	Carbamazepine	18.4	Spike	P	0 - 30
2457794	Clothianidin	20.4	Spike	P	0 - 30
2457794	Dinotefuran	21.3	Spike	P	0 - 30
2457794	Diuron	22.1	Spike	P	0 - 30
2457794	Fenuron	3.26	Spike	P	0 - 30
2457794	Fluridone	21.1	Spike	P	0 - 30
2457794	Hydrocodone	19.5	Spike	P	0 - 30
2457794	Ibuprofen	20.0	Spike	P	0 - 30
2457794	Imazapyr	23.7	Spike	P	0 - 30
2457794	Imidacloprid	24.2	Spike	P	0 - 30
2457794	Linuron	17.5	Spike	P	0 - 30
2457794	Mandestrobin	22.0	Spike	P	0 - 30
2457794	MCPP	27.9	Spike	P	0 - 30
2457794	Naproxen	8.19	Spike	P	0 - 30
2457794	Primidone	23.8	Spike	P	0 - 30
2457794	Pyraclostrobin	20.6	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P439250

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457794	Silvex	26.7	Spike	P	0 - 30
2457794	Thiamethoxam	20.2	Spike	P	0 - 30
2457794	Tolfenpyrad	28.2	Spike	P	0 - 30
2457794	Triclopyr	25.4	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P439372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457904	Total Alkalinity	0.162	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P439634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457811	TDS	2.87	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P439374

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457904	Fluoride	0.513	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P439526

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2457784	Organic Carbon	0.759	Spike	P	0 - 15

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

Quality Assurance Report
Surrogates

Lab Sample ID: 2457794
Field Sample ID: 33020140

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.8	P	30 - 160
EPA 8321B	Diuron-d6	67.7	P	30 - 160
EPA 8321B	Endothall-d6	155	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	57.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	65.2	P	30 - 160
EPA 8321B	Primidone-d5	80.2	P	30 - 160
EPA 8321B	Sucralose-d6	83.4	P	30 - 160

Lab Sample ID: 2457795
Field Sample ID: FB_12182023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	75.0	P	30 - 160

Lab Sample ID: 2457796
Field Sample ID: FB_12182023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.8	P	30 - 160
EPA 8321B	Diuron-d6	81.6	P	30 - 160
EPA 8321B	Endothall-d6	157	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.4	P	30 - 160
EPA 8321B	Primidone-d5	82.0	P	30 - 160
EPA 8321B	Sucralose-d6	79.7	P	30 - 160

Lab Sample ID: 2457798
Field Sample ID: 33020140

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	75.3	P	20 - 200
EPA 8270E	Simazine-d10	91.9	P	58 - 137
EPA 8270E	Terbufos-d10	73.6	P	50 - 134
EPA 8270E	Terphenyl-d14	111	P	44 - 134

Lab Sample ID: 2457799
Field Sample ID: FB_12182023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	53.7	P	20 - 200
EPA 8270E	Simazine-d10	81.2	P	58 - 137
EPA 8270E	Terbufos-d10	63.6	P	50 - 134
EPA 8270E	Terphenyl-d14	109	P	44 - 134

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A123320
Included Lab Sample IDs: 2457783, 2457786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A123322
Included Lab Sample IDs: 2457785, 2457788

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.3	99.5	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A123330
Included Lab Sample IDs: 2457783, 2457786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A123338
Included Lab Sample IDs: 2457783, 2457786

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A123355
Included Lab Sample IDs: 2457784, 2457787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A123369
Included Lab Sample IDs: 2457784, 2457787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.8	98.0	P/P	90 - 110
Total-P	98.2	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A123372
Included Lab Sample IDs: 2457784, 2457787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.4	98.6	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A123386
Included Lab Sample IDs: 2457783, 2457786

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A123386
Included Lab Sample IDs: 2457783, 2457786

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.2	101	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A123386
Included Lab Sample IDs: 2457783, 2457786

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A123391
Included Lab Sample IDs: 2457797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.6	98.7	P/P	90 - 110
Antimony	99.8	98.9	P/P	90 - 110
Arsenic	99.1	98.5	P/P	90 - 110
Barium	98.8	98.2	P/P	90 - 110
Beryllium	98.4	97.1	P/P	90 - 110
Boron	95.9	94.6	P/P	90 - 110
Cadmium	97.0	95.8	P/P	90 - 110
Chromium	95.9	94.8	P/P	90 - 110
Cobalt	95.0	96.1	P/P	90 - 110
Copper	95.6	97.3	P/P	90 - 110
Lead	94.6	93.8	P/P	90 - 110
Manganese	95.3	95.1	P/P	90 - 110
Molybdenum	99.4	98.3	P/P	90 - 110
Nickel	95.2	96.9	P/P	90 - 110
Selenium	99.5	97.3	P/P	90 - 110
Silver	98.1	97.1	P/P	90 - 110
Thallium	99.4	98.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A123399
Included Lab Sample IDs: 2457797

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	105	104	P/P	90 - 110
Iron	103	101	P/P	90 - 110
Magnesium	102	101	P/P	90 - 110
Potassium	98.5	97.9	P/P	90 - 110
Sodium	100	99.3	P/P	90 - 110
Strontium	99.3	99.8	P/P	90 - 110
Tin	98.7	100	P/P	90 - 110
Titanium	99.6	101	P/P	90 - 110
Vanadium	99.0	101	P/P	90 - 110
Zinc	101	102	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A123411
Included Lab Sample IDs: 2457794, 2457796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	127	140	P/P	60 - 160
Sucralose	75.9	81.6	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A123419
Included Lab Sample IDs: 2457794, 2457796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	90.9	92.5	P/P	60 - 160
Endothall	90.8	93.6	P/P	60 - 160
Glufosinate	112	98.6	P/P	60 - 160
Glyphosate	83.8	106	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A123422
Included Lab Sample IDs: 2457795

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
3-Hydroxycarbofuran	107	108	P/P	60 - 150
Aldicarb	93.2	105	P/P	60 - 150
Aldicarb Sulfone	112	110	P/P	50 - 150
Aldicarb Sulfoxide	116	113	P/P	50 - 150
Carbaryl	114	110	P/P	60 - 150
Carbofuran	109	114	P/P	50 - 150
Methiocarb	103	98.1	P/P	50 - 150
Methomyl	111	108	P/P	50 - 150
Oxamyl	107	104	P/P	50 - 150
Propoxur	115	114	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A123424
Included Lab Sample IDs: 2457784, 2457787

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

Reference Method: EPA 8321B
Run ID: A123436
Included Lab Sample IDs: 2457794, 2457796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	111	108	P/P	50 - 150
2,4,5-T	99.2	94.2	P/P	50 - 150
Acetaminophen	114	110	P/P	60 - 160
Acetamiprid	111	111	P/P	50 - 150
Afidopyropen	104	98.3	P/P	50 - 150
Bentazon	109	100	P/P	50 - 160
Benzovindiflupyr	108	107	P/P	50 - 150
Carbamazepine	113	106	P/P	60 - 150
Clothianidin	110	108	P/P	60 - 150
Dinotefuran	112	113	P/P	50 - 150

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A123436
Included Lab Sample IDs: 2457794, 2457796

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diuron	121	115	P/P	60 - 160
Fenuron	108	108	P/P	60 - 150
Fluridone	113	111	P/P	60 - 160
Hydrocodone	115	114	P/P	60 - 150
Ibuprofen	83.8	89.8	P/P	50 - 160
Imazapyr	97.1	97.5	P/P	50 - 150
Imidacloprid	99.4	99.6	P/P	60 - 150
Linuron	109	106	P/P	60 - 150
Mandestrobin	110	113	P/P	50 - 150
MCPP	119	114	P/P	50 - 150
Naproxen	95.7	101	P/P	50 - 160
Primidone	106	105	P/P	60 - 150
Pyraclostrobin	109	109	P/P	60 - 150
Silvex	111	108	P/P	50 - 150
Thiamethoxam	114	116	P/P	50 - 150
Tolfenpyrad	101	98.7	P/P	60 - 150
Triclopyr	113	109	P/P	50 - 150

Reference Method: SM 5310 B-2014
Run ID: A123465
Included Lab Sample IDs: 2457784, 2457787

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	100	P/P	85 - 115

Reference Method: EPA 8270E
Run ID: A123599
Included Lab Sample IDs: 2457798, 2457799

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	85.2		P	80 - 120
Alachlor	95.0		P	80 - 120
Ametryn	98.5		P	80 - 120
Atrazine	87.9		P	80 - 120
Atrazine Desethyl	87.5		P	80 - 120
Azinphos Methyl	93.6		P	80 - 120
Azoxystrobin	96.8		P	80 - 120
Bromacil	108		P	80 - 120
Butylate	105		P	80 - 120
Caffeine	87.0		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	99.9		P	80 - 120
Chlorfenapyr	83.7		P	80 - 120
Chlorpyrifos Ethyl	89.4		P	80 - 120
Chlorpyrifos Methyl	98.8		P	80 - 120
Coumaphos	116		P	80 - 120
Cyanazine	98.3		P	80 - 120
Cyprodinil	96.1		P	80 - 120
Demeton	97.9		P	80 - 120
Diazinon	94.7		P	80 - 120
Difenoconazole	117		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A123599
Included Lab Sample IDs: 2457798, 2457799

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dimethenamid	97.3		P	80 - 120
Dimethomorph	94.1		P	80 - 120
Disulfoton	100		P	80 - 120
Dithiopyr	104		P	80 - 120
EPTC	100		P	80 - 120
Ethion	87.0		P	80 - 120
Ethoprop	101		P	80 - 120
Etridiazole	96.3		P	80 - 120
Fenamiphos	94.4		P	80 - 120
Fenbuconazole	91.6		P	80 - 120
Fipronil	94.6		P	80 - 120
Fipronil Desulfinyl	118		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	103		P	80 - 120
Fluazifop-P-butyl	110		P	80 - 120
Fludioxonil	88.5		P	80 - 120
Flumioxazin	99.3		P	80 - 120
Flutolanil	119		P	80 - 120
Fluxapyroxad	100		P	80 - 120
Fonofos	96.6		P	80 - 120
Hexazinone	98.4		P	80 - 120
Imazalil	107		P	80 - 120
Iprodione	93.4		P	80 - 120
Loratadine	87.5		P	80 - 120
Malathion	95.7		P	80 - 120
Metalaxyl	87.1		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	97.9		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	87.0		P	80 - 120
Myclobutanil	88.2		P	80 - 120
Naled	109		P	80 - 120
Napropamide	113		P	80 - 120
Norflurazon	95.7		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	108		P	80 - 120
Parathion Ethyl	99.0		P	80 - 120
Parathion Methyl	101		P	80 - 120
Pendimethalin	101		P	80 - 120
Phenytoin	103		P	80 - 120
Phorate	96.1		P	80 - 120
Prodiamine	105		P	80 - 120
Prometon	91.4		P	80 - 120
Prometryn	93.7		P	80 - 120
Pronamide	104		P	80 - 120
Propanil	105		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	85.3		P	80 - 120
Pyraflufen Ethyl	118		P	80 - 120
Pyridaben	129*		F	80 - 120
Pyriproxyfen	93.8		P	80 - 120

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8270E
Run ID: A123599
Included Lab Sample IDs: 2457798, 2457799

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Simazine	96.7		P	80 - 120
Stirophos	100		P	80 - 120
Sulfentrazone	104		P	80 - 120
Tebuconazole	104		P	80 - 120
Terbufos	92.4		P	80 - 120
Terbuthylazine	84.7		P	80 - 120
Thiobencarb	99.7		P	80 - 120
Triadimefon	96.8		P	80 - 120

Reference Method: EPA 8270E
Run ID: A123601
Included Lab Sample IDs: 2457798, 2457799

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	91.1		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.9		P	80 - 120
Avobenzone	96.3		P	80 - 120
Dechlorane 602	104		P	80 - 120
Dechlorane 603	95.4		P	80 - 120
Dechlorane Plus	92.8		P	80 - 120
Hexabromobenzene	117		P	80 - 120
Octinoxate	107		P	80 - 120
Oxybenzone	101		P	80 - 120
PBB-153	89.2		P	80 - 120
PBDE-47	103		P	80 - 120
PBDE-99	96.7		P	80 - 120
Pentabromotoluene	103		P	80 - 120
Tetradecachloro-m-terphenyl	87.6		P	80 - 120
Tri-o-cresyl Phosphate	101		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	96.3		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	92.6		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	90.2		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	99.9					6.48	
EPA 180.1 Rev. 2.0	Turbidity	103					0.0	
EPA 200.7 Rev. 4.4	Calcium	111	107	107	105			0.676
	Iron	106	103	104	104			0.705
	Magnesium	109	107	107	105			0.407
	Potassium	99.5	103	103	100			0.590
	Sodium	103	100	98.0	101			1.39
	Strontium	99.8	99.4	98.4	98.8			1.05
	Tin	102	98.4	98.9	97.2			0.506
	Titanium	102	100	100	101			0.0032
	Vanadium	101	100	99.8	101			0.316
	Zinc	102	99.7	99.9	99.0			0.220
EPA 200.8 Rev. 5.4	Aluminum	97.9	99.0	100	99.7			1.21
	Antimony	101	101	102	104			0.946
	Arsenic	99.8	101	102	99.7			0.476
	Barium	100	102	103	101			1.27
	Beryllium	95.1	94.7	94.8	94.3			0.105
	Boron	99.7	100	101	106			0.710
	Cadmium	100	103	101	101			0.0812
	Chromium	101	103	103	99.9			0.130
	Cobalt	98.5	100	101	99.5			1.21
	Copper	97.7	102	102	97.0			0.588
	Lead	94.9	96.3	96.6	96.2			0.329
	Manganese	99.9	99.4	102	102			1.57
	Molybdenum	98.4	99.1	99.5	101			0.428
	Nickel	99.2	101	102	100			0.635
	Selenium	99.3	100	103	99.5			2.98
	Silver	96.1	95.9	96.4	96.7			0.546
	Thallium	98.5	102	103	103			0.506
EPA 300.0 Rev. 2.1	Chloride	105	103	102			0.207	
	Sulfate	105	101	101			0.166	
EPA 350.1 Rev. 2.0	Ammonia-N	95.0	95.4	99.8				3.99
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	101	98.3				1.81
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	98.2					2.53
EPA 365.1 Rev. 2.0	Total-P	109	108	108				0.279
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4	100	100				0.399
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	65.1	85.5	79.6				7.16
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	103	103	95.9				7.33
	Acetochlor	91.3	84.8	84.0				0.959
	Alachlor	93.3	79.2	80.8				2.01
	Ametryn	97.1	91.4	98.8				7.77
	Atrazine	79.3	83.5	79.3				5.10
	Atrazine Desethyl	65.2	83.2	96.2				14.4
	Avobenzone	122	111	106				4.26
	Azinphos Methyl	114	135	129				4.34
	Azoxystrobin	81.8	90.2	96.1				6.36
	Bromacil	83.9	87.0	94.1				7.80
	Butylate	53.2	52.4	35.8				37.6
	Caffeine	82.9	89.4	89.5				0.131
	Carbophenothion	136	123	142				13.7
	Carfentrazone Ethyl	140	123	136				9.65

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	Chlorfenapyr	91.0	100	96.0			4.57
	Chlorpyrifos Ethyl	101	108	94.6			12.9
	Chlorpyrifos Methyl	108	110	106			3.81
	Coumaphos	32.6	85.3	65.0			27.0
	Cyanazine	122	144	126			13.3
	Cyprodinil	133	114	129			12.1
	Dechlorane 602	95.9	92.4	83.0			10.8
	Dechlorane 603	111	100	97.2			3.29
	Dechlorane Plus	110	106	103			3.61
	Demeton	55.4	62.2	56.4			9.86
	Diazinon	102	109	107			1.92
	Difenoconazole	126	195	197			1.09
	Dimethenamid	90.5	94.0	95.9			2.03
	Dimethomorph	181	220	210			5.03
	Disulfoton	100	96.5	88.0			9.23
	Dithiopyr	112	109	107			1.95
	EPTC	44.3	28.9	39.9			31.9
	Ethion	110	100	91.5			9.11
	Ethoprop	75.9	80.2	80.2			0.0701
	Etridiazole	55.6	44.4	46.1			3.69
	Fenamiphos	116	113	129			13.1
	Fenbuconazole	82.4	99.9	102			2.05
	Fipronil	102	105	114			8.43
	Fipronil Desulfinyl	96.0	130	92.3			34.1
	Fipronil Sulfide	116	109	128			15.8
	Fipronil Sulfone	101	120	103			15.4
	Fluazifop-P-butyl	129	146	140			3.88
	Fludioxonil	101	97.7	104			6.08
	Flumioxazin	152	212	200			6.08
	Flutolanil	127	128	144			12.2
	Fluxapyroxad	121	133	111			18.1
	Fonofos	95.3	92.8	96.0			3.38
	Hexabromobenzene	99.7	122	87.9			32.6
	Hexazinone	83.7	96.4	96.8			0.407
	Imazalil	97.7	112	108			3.43
	Iprodione	125	110	102			7.99
	Loratadine	153	210	198			5.47
	Malathion	110	107	120			11.0
	Metalaxyl	85.6	92.8	73.3			23.4
	Metolachlor	102	97.8	103			5.16
	Metribuzin	102	107	101			5.72
	Mevinphos	64.8	81.9	72.3			12.4
	Molinate	46.9	41.1	48.4			16.3
	Myclobutanil	91.8	90.4	90.3			0.123
	Naled	32.9	31.7	33.4			5.21
	Napropamide	112	105	102			2.94
	Norflurazon	102	106	93.1			12.7
	Octinoxate	108	96.3	86.7			10.5
	Oxadiazon	98.0	96.8	98.1			1.35
	Oxybenzone	111	95.7	87.8			8.68
	Oxyfluorfen	150	132	136			2.90
	Parathion Ethyl	88.5	86.5	97.2			11.7
	Parathion Methyl	131	139	127			8.66
	PBB-153	98.0	96.9	91.6			5.62

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8270E	PBDE-47	106	95.1	87.3			8.47
	PBDE-99	96.7	91.2	85.9			5.96
	Pendimethalin	140	120	145			19.1
	Pentabromotoluene	97.5	88.4	79.7			10.3
	Phenytoin	65.6	61.1	70.4			14.1
	Phorate	76.4	72.0	78.5			8.73
	Prodiamine	81.6	80.6	91.8			12.9
	Prometon	92.8	90.7	90.8			0.0852
	Prometryn	111	112	110			1.94
	Pronamide	99.4	94.1	96.3			2.36
	Propanil	136	133	119			11.1
	Propargite	119	110	103			6.19
	Propiconazole	95.7	99.0	98.7			0.316
	Pyraflufen Ethyl	120	134	114			16.2
	Pyridaben	85.1	114	102			11.1
	Pyriproxyfen	106	110	116			5.54
	Simazine	96.0	92.4	93.3			1.06
	Stirophos	119	95.5	83.9			12.9
	Sulfentrazone	92.0	115	107			6.99
	Tebuconazole	99.4	94.4	87.6			7.49
	Terbufos	87.8	90.3	87.5			3.17
	Terbuthylazine	92.4	89.5	88.8			0.713
	Tetradecachloro-m-terphenyl	111	98.1	95.1			3.04
	Thiobencarb	99.5	93.0	92.4			0.648
	Tri-o-cresyl Phosphate	114	101	93.4			8.22
	Triadimefon	101	100	95.6			4.71
	Tris(1-chloro-2-propyl) phosphate (TCPP)	112	107	95.3			11.7
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111	92.9	89.1			4.24
	Tris(2-chloroethyl) phosphate (TCEP)	126	120	107			12.1
EPA 8321B	2,4-D	109	133	110			18.5
	2,4,5-T	93.2	103	85.5			18.8
	3-Hydroxycarbofuran	62.1	84.2	71.9			15.8
	Acesulfame K	128	133	133			0.143
	Acetaminophen	56.1	68.8	56.1			20.3
	Acetamiprid	88.2	101	87.0			14.4
	Afidopyropen	73.9	83.4	67.5			21.1
	Aldicarb	60.9	57.4	63.4			9.98
	Aldicarb Sulfone	88.5	83.8	90.8			7.92
	Aldicarb Sulfoxide	103	40.7	43.9			7.62
	AMPA	89.1	167	169			1.21
	Bentazon	68.7	61.7	53.3			14.6
	Benzovindiflupyr	80.2	96.5	76.5			23.1
	Carbamazepine	68.4	78.7	65.4			18.4
	Carbaryl	62.5	59.1	62.5			5.56
	Carbofuran	65.7	62.0	63.0			1.70
	Clothianidin	84.2	101	82.6			20.4
	Dinotefuran	96.2	124	100			21.3
	Diuron	68.7	81.2	65.1			22.1
	Endothall	92.7	96.9	93.6			3.48
	Fenuron	94.2	123	119			3.26
	Fluridone	83.4	92.9	75.2			21.1

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 8321B	Glufosinate	93.8	104	103			1.53
	Glyphosate	91.2	71.1	77.5			8.66
	Hydrocodone	81.6	101	83.3			19.5
	Ibuprofen	60.6	76.1	62.3			20.0
	Imazapyr	81.5	106	83.8			23.7
	Imidacloprid	86.1	118	92.7			24.2
	Linuron	67.2	72.3	60.7			17.5
	Mandestrobin	84.8	101	80.7			22.0
	MCPP	97.1	119	89.7			27.9
	Methiocarb	51.5	61.8	61.3			0.819
	Methomyl	78.9	75.2	75.4			0.285
	Naproxen	63.3	66.1	60.9			8.19
	Oxamyl	81.3	70.9	73.6			3.81
	Primidone	83.3	102	80.1			23.8
	Propoxur	63.8	58.4	62.5			6.70
	Pyraclostrobin	73.7	87.9	71.5			20.6
	Silvex	86.9	102	78.2			26.7
	Sucralose	80.7	82.0	77.6			5.52
	Thiamethoxam	86.0	96.1	78.5			20.2
	Tolfenpyrad	45.6	61.1	46.0			28.2
	Triclopyr	107	125	96.5			25.4
SM 2320 B-2011	Total Alkalinity	99.8				0.162	
SM 2540 C-2015	TDS	92.4				2.87	
SM 2540 D-2015	TSS	92.0					
SM 4500-F- C-2011	Fluoride	103	103	103			0.513
SM 5310 B-2014	Organic Carbon	100	100	99.6			0.759

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2457783, 2457786
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2457783, 2457786
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2457797
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2457797
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2457783, 2457786
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2457783, 2457786
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2457784, 2457787
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2457784, 2457787
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2457784, 2457787
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2457784, 2457787
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2457785, 2457788
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2457798, 2457799
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2457798, 2457799
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2457795
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2457794, 2457796
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2457783, 2457786
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2457797
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2457783, 2457786
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2457783, 2457786
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2457783, 2457786

Reference Method Descriptions

Method	Description	Associated Samples
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2457784, 2457787

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	12/19/2023			12/19/2023 14:17	Chandler E Cox	2457783, 2457786
EPA 180.1 Rev. 2.0	12/19/2023			12/19/2023 11:45	Anna M. Plaviak	2457783
	12/19/2023			12/19/2023 11:50	Anna M. Plaviak	2457786
EPA 200.7 Rev. 4.4	12/19/2023	12/20/2023 13:15	George D Taylor	12/21/2023 16:00	Samatha Luckman	2457797
EPA 200.8 Rev. 5.4	12/19/2023	12/20/2023 13:15	George D Taylor	12/21/2023 16:50	Emily M Philpot	2457797
EPA 300.0 Rev. 2.1	12/19/2023			12/22/2023 08:13	James L Waggerby	2457783
	12/19/2023			12/22/2023 08:28	James L Waggerby	2457786
EPA 350.1 Rev. 2.0	12/19/2023			12/20/2023 13:02	Khloe J Berg	2457784
	12/19/2023			12/20/2023 13:03	Khloe J Berg	2457787
EPA 351.2 Rev. 2.0	12/19/2023	12/20/2023 13:42	Simonne.V. Calhoun	12/27/2023 11:26	Samantha L Bates	2457784
	12/19/2023	12/20/2023 13:42	Simonne.V. Calhoun	12/27/2023 11:27	Samantha L Bates	2457787
EPA 353.2 Rev. 2.0	12/19/2023			12/20/2023 13:02	Fadila Guebre	2457784
	12/19/2023			12/20/2023 13:03	Fadila Guebre	2457787
EPA 365.1 Rev. 2.0	12/19/2023	12/20/2023 12:07	Adam P Silver	12/21/2023 10:11	Chandler E Cox	2457787
	12/19/2023	12/20/2023 12:07	Adam P Silver	12/21/2023 10:22	Chandler E Cox	2457784
EPA 365.1 Rev. 2.0 dissolved	12/19/2023			12/19/2023 14:52	Elise M. Gillis	2457785
	12/19/2023			12/19/2023 14:55	Elise M. Gillis	2457788
EPA 8270E	12/19/2023	12/22/2023 06:45	Lipi Saha	01/03/2024 17:32	Vandana T. Nagar	2457798
	12/19/2023	12/22/2023 06:45	Lipi Saha	01/03/2024 17:59	Vandana T. Nagar	2457799
	12/19/2023	12/22/2023 06:45	Lipi Saha	01/11/2024 18:51	Arthur Maknenko	2457798
	12/19/2023	12/22/2023 06:45	Lipi Saha	01/11/2024 19:17	Arthur Maknenko	2457799
EPA 8321B	12/19/2023	12/19/2023 12:00	Hoor Shaik	12/19/2023 22:09	Juyoung Kim	2457795
	12/19/2023	12/22/2023 09:00	Hoor Shaik	12/27/2023 16:31	Juyoung Kim	2457794
	12/19/2023	12/22/2023 09:00	Hoor Shaik	12/27/2023 16:49	Juyoung Kim	2457796
	12/19/2023	12/22/2023 10:50	Hana Lee	12/22/2023 11:56	Hana Lee	2457794
	12/19/2023	12/22/2023 10:50	Hana Lee	12/22/2023 12:10	Hana Lee	2457796
	12/19/2023	12/22/2023 10:50	Hana Lee	12/23/2023 19:58	Hana Lee	2457794
	12/19/2023	12/22/2023 10:50	Hana Lee	12/23/2023 20:11	Hana Lee	2457796
SM 2320 B-2011	12/19/2023			12/21/2023 00:50	Dale L. Simmons	2457783
	12/19/2023			12/21/2023 00:59	Dale L. Simmons	2457786
SM 2340 B-2011	12/19/2023			12/21/2023 16:00	Samatha Luckman	2457797
SM 2540 C-2015	12/19/2023			12/21/2023 15:04	Yijie Li	2457783, 2457786
SM 2540 D-2015	12/19/2023			12/21/2023 15:04	Yijie Li	2457783, 2457786
SM 4500-F- C-2011	12/19/2023			12/21/2023 00:50	Dale L. Simmons	2457783
	12/19/2023			12/21/2023 00:59	Dale L. Simmons	2457786
SM 5310 B-2014	12/19/2023			12/23/2023 02:05	Kenneth H Lee	2457784
	12/19/2023			12/23/2023 04:21	Kenneth H Lee	2457787