

Chemical Analysis Report

NW-DIST-2023-08-02-01

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

Event Description: **Reference Stream SCI**
Request ID: **RQ-2023-07-31-24**
Customer: **NW-DIST**
Project ID: **SCIREF**

Send Reports to:
FL Dept. of Environmental Protection
160 W Government Street
Suite 208
Pensacola, FL 32502-5794
Attn: Frank Butera

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 23-AUG-2023 09:59

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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: BOILING CREEK AT BOAT LAUNCH

Collection Date/Time: 08/01/2023 10:30

Field ID: G4NW0385

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2428089	DEP SOP: NU-094-1	Color (true)	16		PCU	P433333	
	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P433341	
	EPA 300.0 Rev. 2.1	Chloride	2.7		mg Cl/L	P433480	
		Sulfate	0.58		mg SO4/L	P433482	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P433491	
	SM 2540 C-2015	TDS	15	I	mg/L	P433808	
	SM 2540 D-2015	TSS	3	I	mg/L	P433689	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P433493	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P433558	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.12	I	mg N/L	P433381	
2428090	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P433450	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P433365	
	SM 5310 B-2011	Organic Carbon	1.8		mg C/L	P433530	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P433344	
	dissolved						
2428105	EPA 8321B	2,4-D	0.0020	U	ug/L	P433321	
		Acesulfame K	0.10	U	ug/L	P433416	
		2,4,5-T	0.0040	U	ug/L	P433321	
		AMPA	0.10	U	ug/L	P433416	
		Acetaminophen	0.0080	U	ug/L	P433321	
		Acetamiprid	0.0020	U	ug/L	P433321	
		Endothall	0.25	U	ug/L	P433416	
		Glufosinate	0.10	U	ug/L	P433416	
		Glyphosate	0.10	U	ug/L	P433416	
		Afidopyropen	0.0020	U	ug/L	P433321	
		Sucralose	0.010	U	ug/L	P433416	
		Bentazon	8.0E-04	U	ug/L	P433321	MS
		Benzovindiflupyr	0.0020	U	ug/L	P433321	
		Carbamazepine	8.0E-04	U	ug/L	P433321	
		Clothianidin	0.0020	U	ug/L	P433321	
		Dinotefuran	0.0020	U	ug/L	P433321	
		Diuron	0.0020	U	ug/L	P433321	MS, RPD
		Fenuron	0.032	U	ug/L	P433321	
		Fluridone	8.0E-04	U	ug/L	P433321	
		Imazapyr	0.0040	U	ug/L	P433321	
		Hydrocodone	0.0020	U	ug/L	P433321	
		Ibuprofen	0.080	U	ug/L	P433321	
		Imidacloprid	0.0020	U	ug/L	P433321	
		Linuron	0.0040	U	ug/L	P433321	
		Mandestrobin	0.0020	U	ug/L	P433321	
		MCPP	0.0020	U	ug/L	P433321	
		Naproxen	0.0080	U	ug/L	P433321	
		Primidone	0.0040	U	ug/L	P433321	
		Pyraclostrobin	0.0020	U	ug/L	P433321	

Field ID: G4NW0385

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2428105	EPA 8321B	Silvex	0.0040	U	ug/L	P433321	
		Thiamethoxam	0.0020	U	ug/L	P433321	
		Tolfenpyrad	0.0020	U	ug/L	P433321	
		Triclopyr	0.0040	U	ug/L	P433321	
2428106	EPA 200.7 Rev. 4.4	Calcium	0.22	I	mg/L	P433394	
		Iron	59	I	ug/L	P433394	
		Magnesium	0.31		mg/L	P433394	
		Potassium	0.30	U	mg/L	P433394	
		Sodium	1.7	I	mg/L	P433394	
		Strontium	2.2	I	ug/L	P433394	
		Tin	3.0	U	ug/L	P433394	
		Titanium	0.75	U	ug/L	P433394	
		Vanadium	2.0	U	ug/L	P433394	
		Zinc	5.0	U	ug/L	P433394	
	EPA 200.8 Rev. 5.4	Aluminum	42		ug/L	P433394	
		Antimony	0.050	U	ug/L	P433394	
		Arsenic	0.050	U	ug/L	P433394	
		Barium	6.23		ug/L	P433394	
		Beryllium	0.010	U	ug/L	P433394	
		Boron	7.1	I	ug/L	P433394	
		Cadmium	0.020	U	ug/L	P433394	
		Chromium	0.40	U	ug/L	P433394	
		Cobalt	0.071	I	ug/L	P433394	
		Copper	0.40	U	ug/L	P433394	
		Lead	0.20	U	ug/L	P433394	
		Manganese	3.13		ug/L	P433394	
2428107	SM 2340 B-2011	Molybdenum	0.15	U	ug/L	P433394	
		Nickel	0.50	U	ug/L	P433394	
		Selenium	0.20	U	ug/L	P433394	
		Silver	0.010	U	ug/L	P433553	
		Thallium	0.10	U	ug/L	P433394	
		Hardness	1.8		mg/L	P433394	
	EPA 8270E	Oxybenzone**	11	U	ng/L	P433326	
		Acetochlor	0.22	U	ng/L	P433326	
		Octinoxate**	170	U	ng/L	P433326	
		Alachlor	0.44	U	ng/L	P433326	
		Avobenzone**	110	U	ng/L	P433326	
		Ametryn	1.2	U	ng/L	P433326	
		Atrazine	0.22	U	ng/L	P433326	
		PBDE-47**	4.4	U	ng/L	P433326	
		Atrazine Desethyl	1.4	U	ng/L	P433326	
		PBDE-99**	5.6	U	ng/L	P433326	
		Azinphos Methyl	3.3	U	ng/L	P433326	
		Tri-o-cresyl Phosphate**	6.7	U	ng/L	P433326	
		Azoxystrobin	0.44	U	ng/L	P433326	

Field ID: G4NW0385

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2428107	EPA 8270E	Bromacil	0.67	U	ng/L	P433326	
		2-Ethylhexyl	13	U	ng/L	P433326	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.22	U	ng/L	P433326	
		Dechlorane Plus**	33	U	ng/L	P433326	
		Caffeine**	8.3	U	ng/L	P433326	
		Dechlorane 602**	5.6	UJ	ng/L	P433326	LCS
		Carbophenothion	0.56	U	ng/L	P433326	
		Dechlorane 603**	4.4	U	ng/L	P433326	
		Carfentrazone Ethyl	0.17	U	ng/L	P433326	
		Hexabromobenzene**	6.7	U	ng/L	P433326	
		Chlorfenapyr	0.33	UJ	ng/L	P433326	CCV
		PBB-153**	8.9	U	ng/L	P433326	
		Chlorpyrifos Ethyl	0.33	U	ng/L	P433326	
		Pentabromotoluene**	3.3	U	ng/L	P433326	
		Chlorpyrifos Methyl	0.11	U	ng/L	P433326	
		Tris(2-chloroethyl) phosphate (TCEP)**	78	U	ng/L	P433326	
		Coumaphos	1.2	U	ng/L	P433326	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	17	U	ng/L	P433326	
		Cyanazine	5.6	U	ng/L	P433326	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.8	U	ng/L	P433326	
		Cyprodinil	0.22	U	ng/L	P433326	
		Tetradecachloro-m-terphenyl**	8.3	U	ng/L	P433326	
		Demeton	3.9	U	ng/L	P433326	
		Diazinon	0.14	U	ng/L	P433326	
		Difenoconazole	0.67	U	ng/L	P433326	
		Dimethenamid	0.11	U	ng/L	P433326	
		Dimethomorph	0.33	U	ng/L	P433326	
		Disulfoton	0.67	U	ng/L	P433326	
		Dithiopyr	1.1	U	ng/L	P433326	
		EPTC	0.56	U	ng/L	P433326	
		Ethion	0.33	U	ng/L	P433326	
		Ethoprop	0.14	U	ng/L	P433326	
		Etridiazole	0.11	U	ng/L	P433326	
		Fenamiphos	0.50	U	ng/L	P433326	
		Fenbuconazole	0.56	UJ	ng/L	P433326	LCS
		Fipronil	0.22	U	ng/L	P433326	
		Fipronil Desulfinyl**	0.11	U	ng/L	P433326	
		Fipronil Sulfide	0.11	U	ng/L	P433326	
		Fipronil Sulfone	0.11	U	ng/L	P433326	
		Fluazifop-P-butyl	0.11	U	ng/L	P433326	
		Fludioxonil	0.11	U	ng/L	P433326	
		Flumioxazin	3.3	U	ng/L	P433326	
		Flutolanil	0.11	U	ng/L	P433326	
		Fluxapyroxad	0.28	U	ng/L	P433326	

Field ID: G4NW0385

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2428107	EPA 8270E	Fonofos	0.17	U	ng/L	P433326	
		Hexazinone	78		ng/L	P433326	
		Imazalil	0.72	U	ng/L	P433326	
		Iprodione	0.56	U	ng/L	P433326	
		Loratadine**	0.33	U	ng/L	P433326	
		Malathion	0.39	U	ng/L	P433326	
		Metalaxyl	0.56	U	ng/L	P433326	
		Metolachlor	0.83	U	ng/L	P433326	
		Metribuzin	0.44	U	ng/L	P433326	
		Mevinphos	1.1	U	ng/L	P433326	
		Molinate	0.28	U	ng/L	P433326	
		Myclobutanil	0.39	U	ng/L	P433326	
		Naled	2.8	U	ng/L	P433326	
		Napropamide	0.78	U	ng/L	P433326	
		Norflurazon	1.1	U	ng/L	P433326	
		Oxadiazon	0.39	U	ng/L	P433326	
		Oxyfluorfen	0.22	U	ng/L	P433326	
		Parathion Ethyl	0.17	U	ng/L	P433326	
		Parathion Methyl	0.22	U	ng/L	P433326	
		Pendimethalin	0.83	U	ng/L	P433326	
		Phenytol**	5.9	U	ng/L	P433326	
		Phorate	0.28	U	ng/L	P433326	
		Prodiamine	0.22	U	ng/L	P433326	
		Prometon	3.3	U	ng/L	P433326	
		Prometryn	0.39	U	ng/L	P433326	
		Pronamide	0.11	U	ng/L	P433326	
		Propanil	0.11	U	ng/L	P433326	
		Propargite	0.89	U	ng/L	P433326	
		Propiconazole	0.67	U	ng/L	P433326	
		Pyraflufen Ethyl	0.33	U	ng/L	P433326	
		Pyridaben	1.6	U	ng/L	P433326	
		Pyriproxyfen	0.28	U	ng/L	P433326	
		Simazine	0.28	U	ng/L	P433326	
		Stirophos	0.44	U	ng/L	P433326	
		Sulfentrazone	1.6	U	ng/L	P433326	
		Tebuconazole	1.6	U	ng/L	P433326	
		Terbufos	0.22	U	ng/L	P433326	
		Terbuthylazine	0.22	U	ng/L	P433326	
		Thiobencarb	0.56	U	ng/L	P433326	
		Triadimefon	0.17	U	ng/L	P433326	

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: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433333

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433341

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433394

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: P433394

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
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Component	Result	Code	Units
Silver	0.010	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433480

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433482

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433558

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433381

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433450

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433365

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433344

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

Reference Method: EPA 8270E
Batch ID: P433326

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433326

Component	Result	Code	Units
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.20	U	ng/L
Butylate	0.20	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 602	5.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433326

Component	Result	Code	Units
Ethion	0.30	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433326

Component	Result	Code	Units
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytoin	5.3	U	ng/L
Phenytoin	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P433326

Component	Result	Code	Units
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbufos	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Terbuthylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	15	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	70	U	ng/L

Reference Method: EPA 8321B

Batch ID: P433321

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P433321

Component	Result	Code	Units
MCPPP	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: P433416

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: SM 2320 B-2011

Batch ID: P433491

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

Reference Method: SM 2540 C-2015

Batch ID: P433808

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P433689

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P433493

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P433530

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: P433333

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	97.5		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433341

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	107		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	102		P	85 - 115
Sodium	104		P	85 - 115
Strontium	100		P	85 - 115
Tin	104		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.3		P	85 - 115
Antimony	96.8		P	85 - 115
Arsenic	98.6		P	85 - 115
Barium	97.7		P	85 - 115
Beryllium	90.0		P	85 - 115
Boron	106		P	85 - 115
Cadmium	98.9		P	85 - 115
Chromium	95.0		P	85 - 115
Cobalt	104		P	85 - 115
Copper	101		P	85 - 115
Lead	96.6		P	85 - 115
Manganese	96.1		P	85 - 115
Molybdenum	98.9		P	85 - 115
Nickel	103		P	85 - 115
Selenium	94.1		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Silver	112		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433480

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433482

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433558

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433381

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433450

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433365

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433344

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

Reference Method: EPA 8270E
Batch ID: P433326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	77.5		P	42 - 162
Acetochlor	81.7		P	69 - 123
Alachlor	79.2		P	65 - 118
Ametryn	74.5		P	58 - 141
Atrazine	80.2		P	73 - 118
Atrazine Desethyl	71.5		P	32 - 125
Avobenzone	96.6		P	40 - 203
Azinphos Methyl	77.4		P	36 - 197
Azoxystrobin	60.1		P	58 - 226
Bromacil	78.3		P	48 - 120

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P433326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Butylate	62.0		P	27 - 85.0
Caffeine	90.6		P	40 - 137
Carbophenothion	72.5		P	54 - 132
Carfentrazone Ethyl	81.0		P	60 - 142
Chlorfenapyr	61.3		P	53 - 117
Chlorpyrifos Ethyl	107		P	59 - 116
Chlorpyrifos Methyl	86.2		P	66 - 119
Coumaphos	49.0		P	11 - 234
Cyanazine	96.8		P	61 - 248
Cyprodinil	57.6		P	50 - 147
Dechlorane 602	40.9		F	50 - 150
Dechlorane 603	74.8		P	50 - 150
Dechlorane Plus	64.1		P	47 - 182
Demeton	78.0		P	30 - 138
Diazinon	89.7		P	67 - 126
Difenoconazole	53.6		P	38 - 205
Dimethenamid	70.7		P	57 - 111
Dimethomorph	131		P	16 - 212
Disulfoton	94.5		P	46 - 126
Dithiopyr	73.5		P	62 - 115
EPTC	59.5		P	28 - 80.0
Ethion	34.1		P	24 - 122
Ethoprop	96.4		P	62 - 113
Etridiazole	64.2		P	28 - 92.0
Fenamiphos	67.6		P	57 - 128
Fenbuconazole	35.7		F	52 - 155
Fipronil	125		P	63 - 130
Fipronil Desulfinyl	74.9		P	61 - 130
Fipronil Sulfide	116		P	56 - 117
Fipronil Sulfone	62.0		P	52 - 118
Fluazifop-P-butyl	67.0		P	61 - 128
Fludioxonil	75.5		P	59 - 129
Flumioxazin	68.6		P	30 - 250
Flutolanil	65.2		P	53 - 127
Fluxapyroxad	52.6		P	42 - 132
Fonofos	80.9		P	61 - 110
Hexabromobenzene	104		P	50 - 150
Hexazinone	83.3		P	46 - 139
Imazalil	81.2		P	40 - 139
Iprodione	51.1		P	40 - 146
Loratadine	96.8		P	10 - 224
Malathion	87.5		P	61 - 135
Metalaxyl	84.4		P	58 - 121
Metolachlor	101		P	64 - 118
Metribuzin	93.5		P	45 - 245
Mevinphos	97.2		P	49 - 118
Molinate	64.1		P	42 - 92.0
Myclobutanil	72.6		P	55 - 127
Naled	61.7		P	10 - 114
Napropamide	62.7		P	39 - 121
Norflurazon	71.0		P	55 - 129
Octinoxate	104		P	26 - 166

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P433326

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Oxadiazon	62.0		P	54 - 115
Oxybenzone	105		P	49 - 135
Oxyfluorfen	85.4		P	64 - 139
Parathion Ethyl	97.1		P	70 - 111
Parathion Methyl	85.6		P	76 - 136
PBB-153	64.9		P	50 - 150
PBDE-47	75.4		P	41 - 148
PBDE-99	48.6		P	38 - 147
Pendimethalin	67.6		P	52 - 118
Pentabromotoluene	96.5		P	50 - 150
Phenytoin	36.1		P	10 - 162
Phorate	91.2		P	40 - 122
Prodiamine	57.2		P	26 - 141
Prometon	98.9		P	54 - 122
Prometryn	70.8		P	61 - 128
Pronamide	96.3		P	72 - 121
Propanil	81.7		P	45 - 144
Propargite	39.1		P	10 - 199
Propiconazole	127		P	56 - 127
Pyraflufen Ethyl	56.3		P	56 - 140
Pyridaben	58.2		P	26 - 211
Pyriproxyfen	42.8		P	33 - 194
Simazine	82.3		P	67 - 121
Stiophos	40.4		P	20 - 142
Sulfentrazone	33.8		P	21 - 144
Tebuconazole	36.4		P	10 - 122
Terbufos	102		P	60 - 129
Terbutylazine	76.0		P	69 - 113
Tetradecachloro-m-terphenyl	115		P	70 - 200
Thiobencarb	78.3		P	51 - 120
Tri-o-cresyl Phosphate	94.5		P	49 - 150
Triadimefon	71.4		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	112		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	86.0		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	102		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P433321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.3		P	40 - 150
2,4,5-T	80.8		P	40 - 150
Acetaminophen	87.3		P	30 - 150
Acetamiprid	93.4		P	40 - 150
Afidopyropen	78.9		P	30 - 150
Bentazon	137		P	30 - 150
Benzovindiflupyr	88.3		P	40 - 150
Carbamazepine	66.2		P	40 - 150
Clothianidin	95.4		P	40 - 150
Dinotefuran	114		P	40 - 150
Diuron	63.2		P	40 - 150
Fenuron	94.7		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P433321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	102		P	40 - 150
Hydrocodone	97.6		P	40 - 150
Ibuprofen	72.2		P	40 - 150
Imazapyr	77.6		P	40 - 150
Imidacloprid	86.8		P	40 - 150
Linuron	73.7		P	40 - 150
Mandestrobin	95.5		P	40 - 150
MCPP	90.8		P	40 - 150
Naproxen	76.1		P	40 - 150
Primidone	79.2		P	40 - 150
Pyraclostrobin	71.5		P	40 - 150
Silvex	89.4		P	40 - 150
Thiamethoxam	99.0		P	40 - 150
Tolfenpyrad	44.3		P	30 - 150
Triclopyr	82.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P433416

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	93.2		P	40 - 150
AMPA	74.6		P	40 - 150
Endothall	93.3		P	40 - 150
Glufosinate	86.6		P	40 - 150
Glyphosate	97.1		P	40 - 150
Sucralose	85.4		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P433491

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P433808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.8		P	90 - 110

Reference Method: SM 2540 D-2015

Batch ID: P433689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	89.7		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P433493

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P433530

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P433394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427825	Calcium	102	104	P/P	80 - 120
2427825	Iron	105	106	P/P	80 - 120
2427825	Magnesium	104	105	P/P	80 - 120
2427825	Potassium	101	102	P/P	80 - 120
2427825	Sodium	102	104	P/P	80 - 120
2427825	Strontium	101	101	P/P	80 - 120
2427825	Tin	102	105	P/P	80 - 120
2427825	Titanium	101	102	P/P	80 - 120
2427825	Vanadium	102	103	P/P	80 - 120
2427825	Zinc	100	101	P/P	80 - 120
2428063	Calcium	103		P	80 - 120
2428063	Iron	107		P	80 - 120
2428063	Magnesium	105		P	80 - 120
2428063	Potassium	103		P	80 - 120
2428063	Sodium	102		P	80 - 120
2428063	Strontium	101		P	80 - 120
2428063	Tin	106		P	80 - 120
2428063	Titanium	103		P	80 - 120
2428063	Vanadium	103		P	80 - 120
2428063	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P433394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427825	Aluminum	95.8	97.5	P/P	80 - 120
2427825	Antimony	96.6	98.1	P/P	80 - 120
2427825	Arsenic	97.5	98.0	P/P	80 - 120
2427825	Barium	96.3	99.9	P/P	80 - 120
2427825	Beryllium	87.9	89.1	P/P	80 - 120
2427825	Boron	103	105	P/P	80 - 120
2427825	Cadmium	98.7	99.9	P/P	80 - 120
2427825	Chromium	95.3	97.5	P/P	80 - 120
2427825	Cobalt	99.9	102	P/P	80 - 120
2427825	Copper	105	102	P/P	80 - 120
2427825	Lead	96.5	98.8	P/P	80 - 120
2427825	Manganese	96.1	98.3	P/P	80 - 120
2427825	Molybdenum	99.3	100	P/P	80 - 120
2427825	Nickel	98.8	101	P/P	80 - 120
2427825	Selenium	91.0	93.5	P/P	80 - 120
2427825	Thallium	103	105	P/P	80 - 120
2428063	Aluminum	95.0		P	80 - 120
2428063	Antimony	99.7		P	80 - 120
2428063	Arsenic	98.2		P	80 - 120
2428063	Barium	98.5		P	80 - 120
2428063	Beryllium	91.4		P	80 - 120
2428063	Boron	104		P	80 - 120
2428063	Cadmium	102		P	80 - 120
2428063	Chromium	94.9		P	80 - 120
2428063	Cobalt	99.5		P	80 - 120
2428063	Copper	97.9		P	80 - 120
2428063	Lead	98.1		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428063	Manganese	95.1		P	80 - 120
2428063	Molybdenum	101		P	80 - 120
2428063	Nickel	97.7		P	80 - 120
2428063	Selenium	91.0		P	80 - 120
2428063	Thallium	106		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428843	Silver	108	110	P/P	80 - 120
2428959	Silver	112		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433480

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428113	Chloride	98.9		P	90 - 110
2428377	Chloride	99.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428113	Sulfate	99.7		P	90 - 110
2428377	Sulfate	98.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433558

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428033	Ammonia-N	97.4	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428114	Kjeldahl Nitrogen	99.2	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428090	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428033	Total-P	104	97.6	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428060	O-Phosphate-P	99.6	100	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P433326

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428120	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	96.4	93.2	P/P	26 - 165
2428120	Acetochlor	94.0	88.4	P/P	67 - 124
2428120	Alachlor	89.6	84.4	P/P	60 - 120
2428120	Ametryn	120	130	P/P	54 - 216
2428120	Atrazine	97.4	86.3	P/P	66 - 128
2428120	Atrazine Desethyl	85.6	77.9	P/P	15 - 122
2428120	Avobenzene	125	124	P/P	37 - 178
2428120	Azinphos Methyl	146	126	P/P	40 - 292
2428120	Azoxystrobin	107	101	P/P	35 - 220
2428120	Butylate	61.8	53.7	P/P	20 - 83.0
2428120	Caffeine	98.7	94.0	P/P	10 - 194
2428120	Carbophenothion	98.7	96.0	P/P	57 - 127
2428120	Carfentrazone Ethyl	113	108	P/P	51 - 141
2428120	Chlorfenapyr	88.4	80.4	P/P	46 - 111
2428120	Chlorpyrifos Ethyl	81.1	82.3	P/P	52 - 120
2428120	Chlorpyrifos Methyl	94.2	90.0	P/P	63 - 119
2428120	Coumaphos	147	148	P/P	10 - 228
2428120	Cyanazine	123	115	P/P	59 - 241
2428120	Cyprodinil	78.7	86.9	P/P	47 - 146
2428120	Dechlorane 602	69.0	70.6	P/P	50 - 150
2428120	Dechlorane 603	115	105	P/P	50 - 150
2428120	Dechlorane Plus	87.4	79.0	P/P	50 - 150
2428120	Demeton	91.4	85.5	P/P	40 - 136
2428120	Diazinon	105	98.4	P/P	69 - 132
2428120	Difenoconazole	155	151	P/P	57 - 258
2428120	Dimethenamid	82.8	76.0	P/P	54 - 110
2428120	Dimethomorph	174	177	P/P	28 - 210
2428120	Disulfoton	105	102	P/P	43 - 133
2428120	Dithiopyr	85.9	81.2	P/P	39 - 116
2428120	EPTC	32.2	38.9	P/P	20 - 78.0
2428120	Ethion	74.1	73.0	P/P	17 - 119
2428120	Ethoprop	106	96.0	P/P	66 - 120
2428120	Etridiazole	67.6	57.8	P/P	28 - 96.0
2428120	Fenamiphos	80.0	112	P/P	41 - 126
2428120	Fenbuconazole	106	96.8	P/P	42 - 169
2428120	Fipronil	93.5	93.2	P/P	61 - 132
2428120	Fipronil Desulfinyl	91.3	86.2	P/P	56 - 132
2428120	Fipronil Sulfide	92.4	87.5	P/P	48 - 119
2428120	Fipronil Sulfone	89.6	86.2	P/P	42 - 131
2428120	Fluazifop-P-butyl	92.8	85.2	P/P	53 - 131
2428120	Fludioxonil	73.9	64.9	P/P	56 - 127
2428120	Flumioxazin	182	162	P/P	19 - 300
2428120	Flutolanil	66.4	57.1	P/P	41 - 127
2428120	Fluxapyroxad	91.2	89.6	P/P	42 - 172
2428120	Fonofos	94.9	86.4	P/P	59 - 113
2428120	Hexabromobenzene	116	113	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P433326

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428120	Hexazinone	96.0	86.9	P/P	66 - 122
2428120	Imazalil	105	97.0	P/P	21 - 283
2428120	Iprodione	87.4	80.3	P/P	43 - 150
2428120	Loratadine	142	137	P/P	23 - 201
2428120	Malathion	124	117	P/P	58 - 136
2428120	Metolachlor	99.3	93.3	P/P	57 - 121
2428120	Metribuzin	99.8	83.9	P/P	58 - 294
2428120	Mevinphos	112	103	P/P	50 - 126
2428120	Molinate	62.7	54.2	P/P	42 - 93.0
2428120	Myclobutanil	91.7	86.2	P/P	55 - 125
2428120	Naled	59.1	61.2	P/P	18 - 200
2428120	Napropamide	82.7	81.1	P/P	39 - 110
2428120	Octinoxate	113	109	P/P	21 - 159
2428120	Oxadiazon	69.6	66.3	P/P	43 - 112
2428120	Oxybenzone	119	107	P/P	41 - 142
2428120	Oxyfluorfen	109	105	P/P	64 - 153
2428120	Parathion Ethyl	98.7	89.8	P/P	69 - 114
2428120	Parathion Methyl	102	95.1	P/P	79 - 139
2428120	PBB-153	111	103	P/P	50 - 150
2428120	PBDE-47	99.8	98.2	P/P	27 - 144
2428120	PBDE-99	87.9	82.5	P/P	18 - 150
2428120	Pendimethalin	95.2	87.6	P/P	50 - 139
2428120	Pentabromotoluene	102	100	P/P	50 - 150
2428120	Phenytoin	57.2	58.2	P/P	10 - 146
2428120	Phorate	112	105	P/P	54 - 161
2428120	Prodiamine	37.1	36.3	P/P	30 - 161
2428120	Prometon	85.3	79.1	P/P	45 - 134
2428120	Prometryn	95.0	90.1	P/P	45 - 137
2428120	Pronamide	105	111	P/P	65 - 133
2428120	Propanil	126	124	P/P	49 - 142
2428120	Propargite	66.9	82.5	P/P	10 - 203
2428120	Propiconazole	89.6	86.3	P/P	38 - 146
2428120	Pyraflufen Ethyl	97.4	96.6	P/P	34 - 153
2428120	Pyriproxyfen	87.4	93.1	P/P	33 - 180
2428120	Simazine	85.3	58.9	P/P	51 - 157
2428120	Stirophos	50.2	35.9	P/P	10 - 128
2428120	Sulfentrazone	80.8	75.2	P/P	53 - 186
2428120	Tebuconazole	58.1	67.0	P/P	10 - 133
2428120	Terbufos	115	107	P/P	65 - 139
2428120	Terbutylazine	83.9	78.2	P/P	66 - 117
2428120	Tetradecachloro-m-terphenyl	81.8	80.8	P/P	70 - 200
2428120	Thiobencarb	79.1	82.3	P/P	51 - 119
2428120	Tri-o-cresyl Phosphate	116	111	P/P	31 - 144
2428120	Triadimefon	85.9	80.0	P/P	48 - 119
2428120	Tris(1-chloro-2-propyl) phosphate (TCPP)	126	115	P/P	50 - 150
2428120	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	106	99.6	P/P	50 - 150
2428120	Tris(2-chloroethyl) phosphate (TCEP)	122	113	P/P	70 - 180

Reference Method: EPA 8321B

Batch ID: P433321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P433321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2427704	2,4-D	88.2	95.9	P/P	40 - 150
2427704	2,4,5-T	90.9	102	P/P	40 - 150
2427704	Acetaminophen	104	98.3	P/P	30 - 150
2427704	Acetamiprid	71.7	70.5	P/P	40 - 150
2427704	Afidopyropen	75.4	75.7	P/P	30 - 150
2427704	Bentazon	159	153	F/F	30 - 150
2427704	Benzovindiflupyr	77.9	77.7	P/P	40 - 150
2427704	Carbamazepine	56.9	54.2	P/P	40 - 150
2427704	Clothianidin	115	102	P/P	40 - 150
2427704	Dinotefuran	104	86.7	P/P	40 - 150
2427704	Diuron	26.8	47.0	F/P	40 - 150
2427704	Fenuron	75.5	70.4	P/P	40 - 150
2427704	Fluridone	91.6	86.4	P/P	40 - 150
2427704	Hydrocodone	77.7	74.9	P/P	40 - 150
2427704	Ibuprofen	76.1	77.3	P/P	40 - 150
2427704	Imazapyr	83.6	85.1	P/P	40 - 150
2427704	Imidacloprid	124	120	P/P	40 - 150
2427704	Linuron	55.4	58.9	P/P	40 - 150
2427704	Mandestrobin	85.1	86.8	P/P	40 - 150
2427704	MCCP	97.6	103	P/P	40 - 150
2427704	Naproxen	62.7	70.6	P/P	40 - 150
2427704	Primidone	88.6	87.4	P/P	40 - 150
2427704	Pyraclostrobin	75.0	78.3	P/P	40 - 150
2427704	Silvex	108	101	P/P	40 - 150
2427704	Thiamethoxam	104	96.6	P/P	40 - 150
2427704	Tolfenpyrad	51.0	54.3	P/P	30 - 150
2427704	Triclopyr	91.4	94.2	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P433416

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428009	Acesulfame K	113	121	P/P	40 - 150
2428009	AMPA	64.2	62.1	P/P	40 - 150
2428009	Endothall	102	97.4	P/P	40 - 150
2428009	Glufosinate	92.7	78.5	P/P	40 - 150
2428009	Glyphosate	90.6	96.6	P/P	40 - 150
2428009	Sucralose	84.5	87.1	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P433493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428377	Fluoride	99.0	97.9	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P433530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2428059	Organic Carbon	96.3	97.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433333

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428058	Color (true)	5.56	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428113	Turbidity	8.75	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P433394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427825	Calcium	0.944	Spike	P	0 - 20
2427825	Iron	1.23	Spike	P	0 - 20
2427825	Magnesium	1.12	Spike	P	0 - 20
2427825	Potassium	0.954	Spike	P	0 - 20
2427825	Sodium	1.21	Spike	P	0 - 20
2427825	Strontium	0.850	Spike	P	0 - 20
2427825	Tin	2.71	Spike	P	0 - 20
2427825	Titanium	1.18	Spike	P	0 - 20
2427825	Vanadium	0.664	Spike	P	0 - 20
2427825	Zinc	0.838	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427825	Aluminum	1.49	Spike	P	0 - 20
2427825	Antimony	1.55	Spike	P	0 - 20
2427825	Arsenic	0.455	Spike	P	0 - 20
2427825	Barium	2.97	Spike	P	0 - 20
2427825	Beryllium	1.22	Spike	P	0 - 20
2427825	Boron	1.88	Spike	P	0 - 20
2427825	Cadmium	1.19	Spike	P	0 - 20
2427825	Chromium	2.24	Spike	P	0 - 20
2427825	Cobalt	2.49	Spike	P	0 - 20
2427825	Copper	2.73	Spike	P	0 - 20
2427825	Lead	2.41	Spike	P	0 - 20
2427825	Manganese	1.61	Spike	P	0 - 20
2427825	Molybdenum	0.926	Spike	P	0 - 20
2427825	Nickel	2.31	Spike	P	0 - 20
2427825	Selenium	2.71	Spike	P	0 - 20
2427825	Thallium	1.75	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P433553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428843	Silver	1.43	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433480

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428113	Chloride	0.116	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P433482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428113	Sulfate	0.338	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P433558

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428033	Ammonia-N	1.84	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428114	Kjeldahl Nitrogen	3.90	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P433450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428090	NO2NO3-N	0.393	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428033	Total-P	3.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428060	O-Phosphate-P	0.601	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P433326

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428120	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	3.34	Spike	P	0 - 37
2428120	Acetochlor	6.07	Spike	P	0 - 28
2428120	Alachlor	5.95	Spike	P	0 - 30
2428120	Ametryn	7.79	Spike	P	0 - 32
2428120	Atrazine	7.03	Spike	P	0 - 41
2428120	Atrazine Desethyl	9.34	Spike	P	0 - 36
2428120	Avobenzone	0.718	Spike	P	0 - 36
2428120	Azinphos Methyl	14.7	Spike	P	0 - 75
2428120	Azoxystrobin	4.85	Spike	P	0 - 39
2428120	Bromacil	3.16	Spike	P	0 - 33
2428120	Butylate	14.1	Spike	P	0 - 44
2428120	Caffeine	4.85	Spike	P	0 - 74
2428120	Carbophenothion	2.83	Spike	P	0 - 25
2428120	Carfentrazone Ethyl	4.68	Spike	P	0 - 27
2428120	Chlorfenapyr	9.41	Spike	P	0 - 24
2428120	Chlorpyrifos Ethyl	1.46	Spike	P	0 - 26
2428120	Chlorpyrifos Methyl	4.55	Spike	P	0 - 26
2428120	Coumaphos	0.814	Spike	P	0 - 28
2428120	Cyanazine	6.79	Spike	P	0 - 48
2428120	Cyprodinil	9.96	Spike	P	0 - 29
2428120	Dechlorane 602	2.39	Spike	P	0 - 30
2428120	Dechlorane 603	8.40	Spike	P	0 - 30
2428120	Dechlorane Plus	10.1	Spike	P	0 - 30
2428120	Demeton	6.67	Spike	P	0 - 33
2428120	Diazinon	6.13	Spike	P	0 - 29
2428120	Difenoconazole	2.53	Spike	P	0 - 34
2428120	Dimethenamid	8.62	Spike	P	0 - 39
2428120	Dimethomorph	1.59	Spike	P	0 - 51
2428120	Disulfoton	3.21	Spike	P	0 - 30
2428120	Dithiopyr	5.59	Spike	P	0 - 26
2428120	EPTC	19.0	Spike	P	0 - 43
2428120	Ethion	1.49	Spike	P	0 - 79
2428120	Ethoprop	10.3	Spike	P	0 - 29
2428120	Etridiazole	15.7	Spike	P	0 - 33
2428120	Fenamiphos	33.2	Spike	P	0 - 40
2428120	Fenbuconazole	8.88	Spike	P	0 - 74
2428120	Fipronil	0.348	Spike	P	0 - 29
2428120	Fipronil Desulfinyl	5.72	Spike	P	0 - 32
2428120	Fipronil Sulfide	5.51	Spike	P	0 - 30
2428120	Fipronil Sulfone	3.89	Spike	P	0 - 33
2428120	Fluazifop-P-butyl	8.56	Spike	P	0 - 38
2428120	Fludioxonil	13.0	Spike	P	0 - 29
2428120	Flumioxazin	11.6	Spike	P	0 - 51
2428120	Flutolanil	15.1	Spike	P	0 - 25
2428120	Fluxapyroxad	1.76	Spike	P	0 - 45
2428120	Fonofos	9.47	Spike	P	0 - 27
2428120	Hexabromobenzene	1.88	Spike	P	0 - 30
2428120	Hexazinone	7.57	Spike	P	0 - 30
2428120	Imazalil	8.06	Spike	P	0 - 100
2428120	Iprodione	8.40	Spike	P	0 - 33
2428120	Loratadine	3.54	Spike	P	0 - 56

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P433326

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428120	Malathion	6.33	Spike	P	0 - 37
2428120	Metalaxyl	0.380	Spike	P	0 - 40
2428120	Metolachlor	6.23	Spike	P	0 - 29
2428120	Metribuzin	17.3	Spike	P	0 - 45
2428120	Mevinphos	8.16	Spike	P	0 - 29
2428120	Molinate	14.5	Spike	P	0 - 33
2428120	Myclobutanil	6.14	Spike	P	0 - 26
2428120	Naled	3.51	Spike	P	0 - 37
2428120	Napropamide	1.90	Spike	P	0 - 44
2428120	Norflurazon	3.69	Spike	P	0 - 30
2428120	Octinoxate	3.68	Spike	P	0 - 45
2428120	Oxadiazon	4.84	Spike	P	0 - 28
2428120	Oxybenzone	11.0	Spike	P	0 - 46
2428120	Oxyfluorfen	3.81	Spike	P	0 - 28
2428120	Parathion Ethyl	9.41	Spike	P	0 - 31
2428120	Parathion Methyl	7.05	Spike	P	0 - 29
2428120	PBB-153	7.12	Spike	P	0 - 30
2428120	PBDE-47	1.60	Spike	P	0 - 36
2428120	PBDE-99	6.27	Spike	P	0 - 40
2428120	Pendimethalin	8.33	Spike	P	0 - 33
2428120	Pentabromotoluene	1.60	Spike	P	0 - 30
2428120	Phenytol	1.76	Spike	P	0 - 100
2428120	Phorate	6.07	Spike	P	0 - 36
2428120	Prodiamine	2.02	Spike	P	0 - 71
2428120	Prometon	3.99	Spike	P	0 - 36
2428120	Prometryn	5.29	Spike	P	0 - 28
2428120	Pronamide	6.03	Spike	P	0 - 24
2428120	Propanil	1.42	Spike	P	0 - 28
2428120	Propargite	20.9	Spike	P	0 - 43
2428120	Propiconazole	3.79	Spike	P	0 - 33
2428120	Pyraflufen Ethyl	0.802	Spike	P	0 - 29
2428120	Pyridaben	12.1	Spike	P	0 - 30
2428120	Pyriproxyfen	6.34	Spike	P	0 - 79
2428120	Simazine	16.6	Spike	P	0 - 29
2428120	Stirophos	33.2	Spike	P	0 - 61
2428120	Sulfentrazone	7.27	Spike	P	0 - 33
2428120	Tebuconazole	14.2	Spike	P	0 - 69
2428120	Terbufos	7.13	Spike	P	0 - 29
2428120	Terbuthylazine	7.01	Spike	P	0 - 32
2428120	Tetradecachloro-m-terphenyl	1.24	Spike	P	0 - 30
2428120	Thiobencarb	4.01	Spike	P	0 - 26
2428120	Tri-o-cresyl Phosphate	4.56	Spike	P	0 - 33
2428120	Triadimefon	7.09	Spike	P	0 - 28
2428120	Tris(1-chloro-2-propyl) phosphate (TCPP)	8.63	Spike	P	0 - 30
2428120	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	5.87	Spike	P	0 - 30
2428120	Tris(2-chloroethyl) phosphate (TCEP)	6.85	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P433321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427704	2,4-D	8.37	Spike	P	0 - 30
2427704	2,4,5-T	11.7	Spike	P	0 - 30
2427704	Acetaminophen	5.21	Spike	P	0 - 30
2427704	Acetamiprid	1.59	Spike	P	0 - 30
2427704	Afidopyropen	0.494	Spike	P	0 - 30
2427704	Bentazon	3.94	Spike	P	0 - 30
2427704	Benzovindiflupyr	0.209	Spike	P	0 - 30
2427704	Carbamazepine	4.86	Spike	P	0 - 30
2427704	Clothianidin	12.0	Spike	P	0 - 30
2427704	Dinotefuran	17.7	Spike	P	0 - 30
2427704	Diuron	54.7	Spike	F	0 - 30
2427704	Fenuron	7.00	Spike	P	0 - 30
2427704	Fluridone	5.83	Spike	P	0 - 30
2427704	Hydrocodone	3.60	Spike	P	0 - 30
2427704	Ibuprofen	1.65	Spike	P	0 - 30
2427704	Imazapyr	1.53	Spike	P	0 - 30
2427704	Imidacloprid	3.22	Spike	P	0 - 30
2427704	Linuron	6.05	Spike	P	0 - 30
2427704	Mandestrobin	2.00	Spike	P	0 - 30
2427704	MCP	5.49	Spike	P	0 - 30
2427704	Naproxen	11.9	Spike	P	0 - 30
2427704	Primidone	1.33	Spike	P	0 - 30
2427704	Pyraclostrobin	4.30	Spike	P	0 - 30
2427704	Silvex	6.40	Spike	P	0 - 30
2427704	Thiamethoxam	7.56	Spike	P	0 - 30
2427704	Tolfenpyrad	6.16	Spike	P	0 - 30
2427704	Triclopyr	3.01	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P433416

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428009	Acesulfame K	6.32	Spike	P	0 - 30
2428009	AMPA	3.05	Spike	P	0 - 30
2428009	Endothall	4.58	Spike	P	0 - 30
2428009	Glufosinate	16.5	Spike	P	0 - 30
2428009	Glyphosate	5.25	Spike	P	0 - 30
2428009	Sucralose	3.04	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P433491

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428377	Total Alkalinity	1.31	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P433808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2427726	TDS	7.36	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P433493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428377	Fluoride	0.984	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P433530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2428059	Organic Carbon	0.622	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2428105

Field Sample ID: G4NW0385

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.4	P	30 - 160
EPA 8321B	Diuron-d6	52.9	P	30 - 160
EPA 8321B	Endothall-d6	94.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	89.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	61.1	P	30 - 160
EPA 8321B	Primidone-d5	78.2	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2428107

Field Sample ID: G4NW0385

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	61.5	P	20 - 200
EPA 8270E	Simazine-d10	93.6	P	62 - 142
EPA 8270E	Terbufos-d10	95.1	P	58 - 132
EPA 8270E	Terphenyl-d14	75.0	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120763

Included Lab Sample IDs: 2428089

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

Reference Method: DEP SOP: NU-094-1

Run ID: A120796

Included Lab Sample IDs: 2428089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120799

Included Lab Sample IDs: 2428089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A120802

Included Lab Sample IDs: 2428091

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.8	99.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120849

Included Lab Sample IDs: 2428090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120855

Included Lab Sample IDs: 2428090

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120863

Included Lab Sample IDs: 2428106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	95.8	97.3	P/P	90 - 110
Antimony	96.2	97.1	P/P	90 - 110
Arsenic	97.7	98.1	P/P	90 - 110
Barium	94.4	95.8	P/P	90 - 110
Beryllium	92.2	92.2	P/P	90 - 110
Boron	98.4	100	P/P	90 - 110
Cadmium	98.2	99.3	P/P	90 - 110
Chromium	96.5	98.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120863

Included Lab Sample IDs: 2428106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cobalt	101	102	P/P	90 - 110
Copper	99.0	99.6	P/P	90 - 110
Lead	95.9	97.0	P/P	90 - 110
Manganese	97.4	100	P/P	90 - 110
Molybdenum	98.8	99.1	P/P	90 - 110
Nickel	99.1	99.9	P/P	90 - 110
Selenium	97.3	95.9	P/P	90 - 110
Thallium	102	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A120868

Included Lab Sample IDs: 2428089

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.8	93.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120868

Included Lab Sample IDs: 2428089

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120873

Included Lab Sample IDs: 2428106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	103	104	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	102	99.8	P/P	90 - 110
Strontium	99.6	101	P/P	90 - 110
Tin	101	103	P/P	90 - 110
Titanium	100	102	P/P	90 - 110
Vanadium	99.7	101	P/P	90 - 110
Zinc	100	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120879

Included Lab Sample IDs: 2428090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.4	95.3	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A120883

Included Lab Sample IDs: 2428090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A120883

Included Lab Sample IDs: 2428090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	96.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120886

Included Lab Sample IDs: 2428105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	98.6	99.8	P/P	60 - 160
Sucralose	92.3	81.8	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120887

Included Lab Sample IDs: 2428105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	79.9	111	P/P	60 - 160
Endothall	89.6	98.2	P/P	60 - 160
Glufosinate	92.1	82.2	P/P	60 - 160
Glyphosate	95.9	99.4	P/P	60 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120891

Included Lab Sample IDs: 2428090

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120922

Included Lab Sample IDs: 2428105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	86.5	79.4	P/P	50 - 150
2,4,5-T	82.1	93.1	P/P	50 - 150
Acetaminophen	104	103	P/P	60 - 160
Acetamiprid	108	108	P/P	50 - 150
Afidopyropen	91.5	111	P/P	50 - 150
Bentazon	103	103	P/P	50 - 160
Benzovindiflupyr	115	107	P/P	50 - 150
Carbamazepine	104	109	P/P	60 - 150
Clothianidin	99.9	108	P/P	60 - 150
Dinotefuran	117	105	P/P	50 - 150
Diuron	109	107	P/P	60 - 160
Fenuron	105	104	P/P	60 - 150
Fluridone	127	116	P/P	60 - 160
Hydrocodone	114	106	P/P	60 - 150
Ibuprofen	90.0	91.4	P/P	50 - 160
Imazapyr	88.6	92.8	P/P	50 - 150
Imidacloprid	97.4	96.6	P/P	60 - 150
Linuron	98.0	89.6	P/P	60 - 150
Mandestrobin	113	109	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A120922
Included Lab Sample IDs: 2428105

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPPE	91.1	93.9	P/P	50 - 150
Naproxen	78.4	83.9	P/P	50 - 160
Primidone	103	103	P/P	60 - 150
Pyraclostrobin	108	112	P/P	60 - 150
Silvex	96.8	101	P/P	50 - 150
Thiamethoxam	115	102	P/P	50 - 150
Tolfenpyrad	98.5	105	P/P	60 - 150
Triclopyr	104	90.7	P/P	50 - 150

Reference Method: EPA 8270E
Run ID: A120939
Included Lab Sample IDs: 2428107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	93.4		P	80 - 120
Alachlor	95.5		P	80 - 120
Ametryn	103		P	80 - 120
Atrazine	95.7		P	80 - 120
Atrazine Desethyl	109		P	80 - 120
Azinphos Methyl	102		P	80 - 120
Azoxystrobin	98.3		P	80 - 120
Bromacil	98.9		P	80 - 120
Butylate	92.3		P	80 - 120
Caffeine	92.5		P	80 - 120
Carbophenothion	101		P	80 - 120
Carfentrazone Ethyl	96.3		P	80 - 120
Chlorfenapyr	78.4*		F	80 - 120
Chlorpyrifos Ethyl	91.0		P	80 - 120
Chlorpyrifos Methyl	99.4		P	80 - 120
Coumaphos	91.9		P	80 - 120
Cyanazine	99.9		P	80 - 120
Cyprodinil	95.6		P	80 - 120
Demeton	96.1		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	105		P	80 - 120
Dimethenamid	94.8		P	80 - 120
Dimethomorph	109		P	80 - 120
Disulfoton	104		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	97.7		P	80 - 120
Ethion	93.2		P	80 - 120
Ethoprop	92.3		P	80 - 120
Etridiazole	103		P	80 - 120
Fenamiphos	85.9		P	80 - 120
Fenbuconazole	95.9		P	80 - 120
Fipronil	92.9		P	80 - 120
Fipronil Desulfinyl	99.4		P	80 - 120
Fipronil Sulfide	99.4		P	80 - 120
Fipronil Sulfone	96.2		P	80 - 120
Fluazifop-P-butyl	98.8		P	80 - 120
Fludioxonil	96.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120939
Included Lab Sample IDs: 2428107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Flumioxazin	96.9		P	80 - 120
Flutolanil	100		P	80 - 120
Fluxapyroxad	103		P	80 - 120
Fonofos	107		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	103		P	80 - 120
Iprodione	87.9		P	80 - 120
Loratadine	95.6		P	80 - 120
Malathion	87.8		P	80 - 120
Metalaxyl	86.7		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	96.6		P	80 - 120
Molinate	87.2		P	80 - 120
Myclobutanil	92.5		P	80 - 120
Naled	101		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	95.1		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	96.6		P	80 - 120
Parathion Ethyl	99.8		P	80 - 120
Parathion Methyl	89.5		P	80 - 120
Pendimethalin	97.4		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	98.3		P	80 - 120
Prodiamine	111		P	80 - 120
Prometon	99.2		P	80 - 120
Prometryn	92.8		P	80 - 120
Pronamide	104		P	80 - 120
Propanil	109		P	80 - 120
Propargite	106		P	80 - 120
Propiconazole	91.4		P	80 - 120
Pyraflufen Ethyl	92.4		P	80 - 120
Pyridaben	106		P	80 - 120
Pyriproxyfen	99.0		P	80 - 120
Simazine	104		P	80 - 120
Stirophos	89.5		P	80 - 120
Sulfentrazone	117		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	103		P	80 - 120
Terbutylazine	92.5		P	80 - 120
Thiobencarb	104		P	80 - 120
Triadimefon	99.7		P	80 - 120

Reference Method: EPA 8270E
Run ID: A120942
Included Lab Sample IDs: 2428107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.2		P	80 - 120
Avobenzene	97.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120942
Included Lab Sample IDs: 2428107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dechlorane 602	97.1		P	80 - 120
Dechlorane 603	95.8		P	80 - 120
Dechlorane Plus	95.8		P	80 - 120
Hexabromobenzene	94.1		P	80 - 120
Octinoxate	92.7		P	80 - 120
Oxybenzone	93.4		P	80 - 120
PBB-153	93.3		P	80 - 120
PBDE-47	94.0		P	80 - 120
PBDE-99	94.0		P	80 - 120
Pentabromotoluene	93.9		P	80 - 120
Tetradecachloro-m-terphenyl	88.3		P	80 - 120
Tri-o-cresyl Phosphate	98.3		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	90.8		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	91.2		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	94.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A120955
Included Lab Sample IDs: 2428106

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	99.4	98.3	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	97.5				5.56	
EPA 180.1 Rev. 2.0	Turbidity	99.5				8.75	
EPA 200.7 Rev. 4.4	Calcium	104	102	104	103		0.944
	Iron	107	106	107	105		1.23
	Magnesium	106	104	105	105		1.12
	Potassium	102	101	102	103		0.954
	Sodium	104	102	104	102		1.21
	Strontium	100	101	101	101		0.850
	Tin	104	102	105	106		2.71
	Titanium	102	101	102	103		1.18
	Vanadium	101	102	103	103		0.664
	Zinc	100	100	101	102		0.838
EPA 200.8 Rev. 5.4	Aluminum	98.3	95.8	97.5	95.0		1.49
	Antimony	96.8	96.6	98.1	99.7		1.55
	Arsenic	98.6	97.5	98.0	98.2		0.455
	Barium	97.7	96.3	99.9	98.5		2.97
	Beryllium	90.0	87.9	89.1	91.4		1.22
	Boron	106	105	104	103		1.88
	Cadmium	98.9	98.7	99.9	102		1.19
	Chromium	95.0	95.3	97.5	94.9		2.24
	Cobalt	104	99.9	102	99.5		2.49
	Copper	101	105	102	97.9		2.73
	Lead	96.6	96.5	98.8	98.1		2.41
	Manganese	96.1	96.1	98.3	95.1		1.61
	Molybdenum	98.9	99.3	100	101		0.926
	Nickel	103	98.8	101	97.7		2.31
	Selenium	94.1	91.0	93.5	91.0		2.71
	Silver	112	108	110	112		1.43
	Thallium	102	103	105	106		1.75
EPA 300.0 Rev. 2.1	Chloride	99.9	98.9	99.2		0.116	
	Sulfate	99.7	99.7	98.0		0.338	
EPA 350.1 Rev. 2.0	Ammonia-N	94.8	97.4	101			1.84
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5	99.2	105			3.90
EPA 353.2 Rev. 2.0	NO2NO3-N	104	105	105			0.393
EPA 365.1 Rev. 2.0	Total-P	104	104	97.6			3.22
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	99.6	100			0.601
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	77.5	96.4	93.2			3.34
	Acetochlor	81.7	94.0	88.4			6.07
	Alachlor	79.2	89.6	84.4			5.95
	Ametryn	74.5	120	130			7.79
	Atrazine	80.2	97.4	86.3			7.03
	Atrazine Desethyl	71.5	85.6	77.9			9.34
	Avobenzone	96.6	125	124			0.718
	Azinphos Methyl	77.4	146	126			14.7
	Azoxystrobin	60.1	107	101			4.85
	Bromacil	78.3					3.16
	Butylate	62.0	61.8	53.7			14.1
	Caffeine	90.6	98.7	94.0			4.85
	Carbophenothion	72.5	98.7	96.0			2.83
	Carfentrazone Ethyl	81.0	113	108			4.68
	Chlorfenapyr	61.3	88.4	80.4			9.41
	Chlorpyrifos Ethyl	107	81.1	82.3			1.46

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	86.2	94.2	90.0		4.55
	Coumaphos	49.0	147	148		0.814
	Cyanazine	96.8	123	115		6.79
	Cyprodinil	57.6	78.7	86.9		9.96
	Dechlorane 602	40.9	69.0	70.6		2.39
	Dechlorane 603	74.8	115	105		8.40
	Dechlorane Plus	64.1	87.4	79.0		10.1
	Demeton	78.0	91.4	85.5		6.67
	Diazinon	89.7	105	98.4		6.13
	Difenoconazole	53.6	155	151		2.53
	Dimethenamid	70.7	82.8	76.0		8.62
	Dimethomorph	131	174	177		1.59
	Disulfoton	94.5	105	102		3.21
	Dithiopyr	73.5	85.9	81.2		5.59
	EPTC	59.5	32.2	38.9		19.0
	Ethion	34.1	74.1	73.0		1.49
	Ethoprop	96.4	106	96.0		10.3
	Etridiazole	64.2	67.6	57.8		15.7
	Fenamiphos	67.6	80.0	112		33.2
	Fenbuconazole	35.7	106	96.8		8.88
	Fipronil	125	93.5	93.2		0.348
	Fipronil Desulfinyl	74.9	91.3	86.2		5.72
	Fipronil Sulfide	116	92.4	87.5		5.51
	Fipronil Sulfone	62.0	89.6	86.2		3.89
	Fluazifop-P-butyl	67.0	92.8	85.2		8.56
	Fludioxonil	75.5	73.9	64.9		13.0
	Flumioxazin	68.6	182	162		11.6
	Flutolanil	65.2	66.4	57.1		15.1
	Fluxapyroxad	52.6	91.2	89.6		1.76
	Fonofos	80.9	94.9	86.4		9.47
	Hexabromobenzene	104	116	113		1.88
	Hexazinone	83.3	96.0	86.9		7.57
	Imazalil	81.2	105	97.0		8.06
	Iprodione	51.1	87.4	80.3		8.40
	Loratadine	96.8	142	137		3.54
	Malathion	87.5	124	117		6.33
	Metalaxyl	84.4				0.380
	Metolachlor	101	99.3	93.3		6.23
	Metribuzin	93.5	99.8	83.9		17.3
	Mevinphos	97.2	112	103		8.16
	Molinate	64.1	62.7	54.2		14.5
	Myclobutanil	72.6	91.7	86.2		6.14
	Naled	61.7	59.1	61.2		3.51
	Napropamide	62.7	82.7	81.1		1.90
	Norflurazon	71.0				3.69
	Octinoxate	104	113	109		3.68
	Oxadiazon	62.0	69.6	66.3		4.84
	Oxybenzone	105	119	107		11.0
	Oxyfluorfen	85.4	109	105		3.81
	Parathion Ethyl	97.1	98.7	89.8		9.41
	Parathion Methyl	85.6	102	95.1		7.05
	PBB-153	64.9	111	103		7.12
	PBDE-47	75.4	99.8	98.2		1.60
	PBDE-99	48.6	87.9	82.5		6.27

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pendimethalin	67.6	95.2	87.6		8.33
	Pentabromotoluene	96.5	102	100		1.60
	Phenytoin	36.1	57.2	58.2		1.76
	Phorate	91.2	112	105		6.07
	Prodiamine	57.2	37.1	36.3		2.02
	Prometon	98.9	85.3	79.1		3.99
	Prometryn	70.8	95.0	90.1		5.29
	Pronamide	96.3	105	111		6.03
	Propanil	81.7	126	124		1.42
	Propargite	39.1	66.9	82.5		20.9
	Propiconazole	127	89.6	86.3		3.79
	Pyraflufen Ethyl	56.3	97.4	96.6		0.802
	Pyridaben	58.2				12.1
	Pyriproxyfen	42.8	87.4	93.1		6.34
	Simazine	82.3	85.3	58.9		16.6
	Stiophos	40.4	50.2	35.9		33.2
	Sulfentrazone	33.8	80.8	75.2		7.27
	Tebuconazole	36.4	58.1	67.0		14.2
	Terbufos	102	115	107		7.13
	Terbutylazine	76.0	83.9	78.2		7.01
	Tetradecachloro-m-terphenyl	115	81.8	80.8		1.24
	Thiobencarb	78.3	79.1	82.3		4.01
	Tri-o-cresyl Phosphate	94.5	116	111		4.56
	Triadimefon	71.4	85.9	80.0		7.09
	Tris(1-chloro-2-propyl) phosphate (TCPP)	112	126	115		8.63
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	86.0	106	99.6		5.87
	Tris(2-chloroethyl) phosphate (TCEP)	102	122	113		6.85
EPA 8321B	2,4-D	83.3	88.2	95.9		8.37
	2,4,5-T	80.8	90.9	102		11.7
	Acesulfame K	93.2	113	121		6.32
	Acetaminophen	87.3	104	98.3		5.21
	Acetamiprid	93.4	71.7	70.5		1.59
	Afidopyropen	78.9	75.4	75.7		0.494
	AMPA	74.6	64.2	62.1		3.05
	Bentazon	137	159	153		3.94
	Benzovindiflupyr	88.3	77.9	77.7		0.209
	Carbamazepine	66.2	56.9	54.2		4.86
	Clothianidin	95.4	115	102		12.0
	Dinotefuran	114	104	86.7		17.7
	Diuron	63.2	26.8	47.0		54.7
	Endothall	93.3	102	97.4		4.58
	Fenuron	94.7	75.5	70.4		7.00
	Fluridone	102	91.6	86.4		5.83
	Glufosinate	86.6	92.7	78.5		16.5
	Glyphosate	97.1	90.6	96.6		5.25
	Hydrocodone	97.6	77.7	74.9		3.60
	Ibuprofen	72.2	76.1	77.3		1.65
	Imazapyr	77.6	83.6	85.1		1.53
	Imidacloprid	86.8	124	120		3.22
	Linuron	73.7	55.4	58.9		6.05
	Mandestrobin	95.5	85.1	86.8		2.00

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	MCCP	90.8	97.6	103		5.49
	Naproxen	76.1	62.7	70.6		11.9
	Primidone	79.2	88.6	87.4		1.33
	Pyraclostrobin	71.5	75.0	78.3		4.30
	Silvex	89.4	108	101		6.40
	Sucralose	85.4	84.5	87.1		3.04
	Thiamethoxam	99.0	104	96.6		7.56
	Tolfenpyrad	44.3	51.0	54.3		6.16
	Triclopyr	82.4	91.4	94.2		3.01
SM 2320 B-2011	Total Alkalinity	97.2				1.31
SM 2540 C-2015	TDS	96.8				7.36
SM 2540 D-2015	TSS	89.7				
SM 4500-F- C-2011	Fluoride	99.3	99.0	97.9		0.984
SM 5310 B-2011	Organic Carbon	96.0	96.3	97.1		0.622

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2428089
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2428089
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2428106
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2428106
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2428089
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2428089
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2428090
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2428090
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2428090
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2428090
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2428091
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2428107
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2428107
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2428105
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2428089
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2428106
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2428089
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2428089
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2428089
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2428090

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	08/02/2023			08/02/2023 15:06	Chandler E Cox	2428089
EPA 180.1 Rev. 2.0	08/02/2023			08/02/2023 14:42	Anna M. Plaviak	2428089
EPA 200.7 Rev. 4.4	08/02/2023	08/03/2023 13:05	George D Taylor	08/04/2023 19:51	Samatha Luckman	2428106
EPA 200.8 Rev. 5.4	08/02/2023	08/03/2023 13:05	George D Taylor	08/04/2023 21:29	Emily M Philpot	2428106
	08/02/2023	08/08/2023 11:55	George D Taylor	08/09/2023 18:43	Emily M Philpot	2428106
EPA 300.0 Rev. 2.1	08/02/2023			08/04/2023 20:13	James L Waggeberby	2428089
EPA 350.1 Rev. 2.0	08/02/2023			08/08/2023 11:03	Khloe J Berg	2428090
EPA 351.2 Rev. 2.0	08/02/2023	08/03/2023 10:50	Dana G. Hughes	08/07/2023 14:42	Samantha L Bates	2428090
EPA 353.2 Rev. 2.0	08/02/2023			08/04/2023 09:27	Beverly Y. Sanders	2428090
EPA 365.1 Rev. 2.0	08/02/2023	08/03/2023 13:11	Simonne.V. Calhoun	08/04/2023 15:31	Chandler E Cox	2428090
EPA 365.1 Rev. 2.0 dissolved	08/02/2023			08/02/2023 14:32	James L Waggeberby	2428091
EPA 8270E	08/02/2023	08/04/2023 08:00	Fe-Val Siddell	08/07/2023 18:09	Vandana T. Nagar	2428107
	08/02/2023	08/04/2023 08:00	Fe-Val Siddell	08/09/2023 21:29	Arthur Maknenko	2428107
EPA 8321B	08/02/2023	08/03/2023 13:00	Hoor Shaik	08/05/2023 09:48	Juyoung Kim	2428105
	08/02/2023	08/07/2023 10:00	Tae K Lee	08/07/2023 13:31	Hana Lee	2428105
	08/02/2023	08/07/2023 10:00	Tae K Lee	08/07/2023 21:43	Hana Lee	2428105
SM 2320 B-2011	08/02/2023			08/04/2023 20:49	Dale L. Simmons	2428089
SM 2340 B-2011	08/02/2023			08/04/2023 19:51	Samatha Luckman	2428106
SM 2540 C-2015	08/02/2023			08/04/2023 16:14	Yijie Li	2428089
SM 2540 D-2015	08/02/2023			08/04/2023 16:14	Yijie Li	2428089
SM 4500-F- C-2011	08/02/2023			08/04/2023 20:49	Dale L. Simmons	2428089
SM 5310 B-2011	08/02/2023			08/07/2023 20:55	Elise M. Gillis	2428090