

Chemical Analysis Report

SO-DIST-2023-04-20-01

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

Event Description: **2023 SMP : Shell Creek**
Request ID: **RQ-2023-03-06-31**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: William Mullen

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

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

Date Certified: 12-MAY-2023 08:57

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: PRAIRIE CREEK AT WASHINGTON LOOP

Collection Date/Time: 04/19/2023 08:35

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401947	EPA 8321B	2,4-D	0.0023	I	ug/L	P428783	
		Acesulfame K	0.10	U	ug/L	P428748	
		2,4,5-T	0.0040	U	ug/L	P428783	
		AMPA	3.4		ug/L	P428748	
		Acetaminophen	0.0080	U	ug/L	P428783	
		Acetamiprid	0.0020	U	ug/L	P428783	
		Endothall	0.25	U	ug/L	P428748	
		Glufosinate	0.10	U	ug/L	P428748	
		Glyphosate	1.7		ug/L	P428748	
		Afidopyropen	0.0020	U	ug/L	P428783	
		Bentazon	0.30		ug/L	P428783	
		Sucralose	0.023	I	ug/L	P428748	
		Benzovindiflupyr	0.0020	U	ug/L	P428783	
		Carbamazepine	8.0E-04	U	ug/L	P428783	
		Clothianidin	0.018		ug/L	P428783	
		Dinotefuran	0.0020	U	ug/L	P428783	
		Diuron	0.024		ug/L	P428783	
		Fenuron	0.032	U	ug/L	P428783	
		Fluridone	0.0028	I	ug/L	P428783	
		Imazapyr	0.0040	U	ug/L	P428783	
		Hydrocodone	0.0020	U	ug/L	P428783	
		Ibuprofen	0.080	U	ug/L	P428783	
		Imidacloprid	0.036		ug/L	P428783	
		Linuron	0.0040	U	ug/L	P428783	
		Mandestrobin	0.0020	U	ug/L	P428783	
		MCPP	0.0020	U	ug/L	P428783	
		Naproxen	0.0080	U	ug/L	P428783	
		Primidone	0.0040	U	ug/L	P428783	
		Pyraclostrobin	0.0020	U	ug/L	P428783	
		Silvex	0.0040	U	ug/L	P428783	
		Thiamethoxam	0.016		ug/L	P428783	
		Tolfenpyrad	0.0020	U	ug/L	P428783	
		Triclopyr	0.0040	U	ug/L	P428783	
2401950	EPA 8270E	Oxybenzone**	10	U	ng/L	P428829	
		Acetochlor	0.20	U	ng/L	P428829	
		Octinoxate**	20	U	ng/L	P428829	
		Alachlor	0.41	U	ng/L	P428829	
		Avobenzone**	100	U	ng/L	P428829	
		Ametryn	1.1	U	ng/L	P428829	
		Atrazine	1.0E+03		ng/L	P428829	
		PBDE-47**	4.1	U	ng/L	P428829	
		Atrazine Desethyl	270		ng/L	P428829	
		PBDE-99**	5.1	U	ng/L	P428829	
		Azinphos Methyl	3.1	U	ng/L	P428829	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401950	EPA 8270E	Tri-o-cresyl Phosphate**	6.1	U	ng/L	P428829	LCS, MS
		Azoxystrobin	2.3		ng/L	P428829	
		Bromacil	79		ng/L	P428829	
		2-Ethylhexyl	12	U	ng/L	P428829	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.20	U	ng/L	P428829	
		Dechlorane Plus**	31	U	ng/L	P428829	
		Caffeine**	7.6	U	ng/L	P428829	
		Dechlorane 602**	5.1	U	ng/L	P428829	
		Carbophenothion	0.51	U	ng/L	P428829	
		Dechlorane 603**	4.1	U	ng/L	P428829	
		Carfentrazone Ethyl	0.15	U	ng/L	P428829	
		Hexabromobenzene**	6.1	U	ng/L	P428829	
		Chlorfenapyr	0.31	U	ng/L	P428829	
		PBB-153**	8.1	U	ng/L	P428829	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P428829	
		Pentabromotoluene**	3.1	U	ng/L	P428829	
		Chlorpyrifos Methyl	0.10	U	ng/L	P428829	
		Tris(2-chloroethyl) phosphate (TCEP)**	71	U	ng/L	P428829	
		Coumaphos	1.1	U	ng/L	P428829	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	22	I	ng/L	P428829	
		Cyanazine	5.1	U	ng/L	P428829	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.5	U	ng/L	P428829	
		Cyprodinil	0.20	U	ng/L	P428829	
		Tetradecachloro-m-terphenyl**	7.6	U	ng/L	P428829	
		Demeton	3.6	U	ng/L	P428829	
		Diazinon	0.13	U	ng/L	P428829	
		Difenoconazole	0.61	U	ng/L	P428829	
		Dimethenamid	0.10	UJ	ng/L	P428829	
		Dimethomorph	0.31	U	ng/L	P428829	
		Disulfoton	0.61	U	ng/L	P428829	
		Dithiopyr	2.9	IV	ng/L	P428829	
		EPTC	0.51	U	ng/L	P428829	
		Ethion	0.31	U	ng/L	P428829	
		Ethoprop	0.13	U	ng/L	P428829	
		Etridiazole	0.10	U	ng/L	P428829	
		Fenamiphos	0.46	U	ng/L	P428829	
		Fenbuconazole	1.8	I	ng/L	P428829	
		Fipronil	0.20	U	ng/L	P428829	
		Fipronil Desulfinyl**	0.11	I	ng/L	P428829	
		Fipronil Sulfide	0.10	U	ng/L	P428829	
		Fipronil Sulfone	0.10	U	ng/L	P428829	
		Fluazifop-P-butyl	0.10	U	ng/L	P428829	
		Fludioxonil	0.10	U	ng/L	P428829	
		Flumioxazin	3.1	U	ng/L	P428829	

Field ID: G3SD0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401950	EPA 8270E	Flutolanil	0.10	U	ng/L	P428829	
		Fluxapyroxad	0.25	U	ng/L	P428829	
		Fonofos	0.15	U	ng/L	P428829	
		Hexazinone	33		ng/L	P428829	
		Imazalil	0.66	U	ng/L	P428829	
		Iprodione	0.51	U	ng/L	P428829	
		Loratadine**	0.31	U	ng/L	P428829	
		Malathion	0.36	U	ng/L	P428829	
		Metalaxyl	47		ng/L	P428829	
		Metolachlor	1.1E+03		ng/L	P428829	MS
		Metribuzin	0.41	U	ng/L	P428829	
		Mevinphos	1.0	U	ng/L	P428829	
		Molinate	0.25	U	ng/L	P428829	
		Myclobutanil	0.36	U	ng/L	P428829	
		Naled	2.5	U	ng/L	P428829	
		Napropamide	0.71	U	ng/L	P428829	
		Norflurazon	130		ng/L	P428829	
		Oxadiazon	0.36	U	ng/L	P428829	RPD
		Oxyfluorfen	0.20	U	ng/L	P428829	
		Parathion Ethyl	0.15	U	ng/L	P428829	
		Parathion Methyl	0.20	U	ng/L	P428829	
		Pendimethalin	0.76	U	ng/L	P428829	MS
		Phenytol**	5.4	U	ng/L	P428829	
		Phorate	0.25	U	ng/L	P428829	
		Prodiamine	0.20	U	ng/L	P428829	
		Prometon	3.1	U	ng/L	P428829	
		Prometryn	0.36	UJ	ng/L	P428829	LCS
		Pronamide	0.10	UJ	ng/L	P428829	LCS, MS
		Propanil	0.10	U	ng/L	P428829	
		Propargite	0.81	U	ng/L	P428829	
		Propiconazole	72		ng/L	P428829	
		Pyraflufen Ethyl	0.31	U	ng/L	P428829	
		Pyridaben	1.4	U	ng/L	P428829	
		Pyriproxyfen	0.25	U	ng/L	P428829	
		Simazine	0.25	U	ng/L	P428829	
		Stirophos	0.41	U	ng/L	P428829	
		Sulfentrazone	31		ng/L	P428829	
		Tebuconazole	1.4	U	ng/L	P428829	
		Terbufos	0.20	U	ng/L	P428829	
		Terbutylazine	0.20	U	ng/L	P428829	
		Thiobencarb	0.51	U	ng/L	P428829	
		Triadimefon	21		ng/L	P428829	

Ref. Method and Comment:

EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. V - Due to the presence of dithiopyr in both the Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: SHELL CR AT HATHAWAY PARK

Collection Date/Time: 04/19/2023 09:05

Field ID: G3SD0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401949	EPA 200.7 Rev. 4.4	Calcium	95.1		mg/L	P428825	
		Iron	180		ug/L	P428825	
		Magnesium	12.4		mg/L	P428825	
		Potassium	4.2		mg/L	P428825	
		Sodium	60.9		mg/L	P428825	
		Strontium	2.69E+03		ug/L	P428825	
		Tin	3.0	U	ug/L	P428825	
		Titanium	0.76	I	ug/L	P428825	
		Vanadium	2.0	U	ug/L	P428825	
		Zinc	5.0	U	ug/L	P428825	
	EPA 200.8 Rev. 5.4	Aluminum	41		ug/L	P428825	
		Antimony	0.14	I	ug/L	P428825	
		Arsenic	1.11		ug/L	P428825	
		Barium	32.6		ug/L	P428825	
		Beryllium	0.010	U	ug/L	P428825	
		Boron	55.0		ug/L	P428825	
		Cadmium	0.020	U	ug/L	P428825	
		Chromium	0.40	U	ug/L	P428825	
		Cobalt	0.076	I	ug/L	P428825	
		Copper	1.16		ug/L	P428825	
		Lead	0.20	U	ug/L	P428825	
		Manganese	27.6		ug/L	P428825	
		Molybdenum	5.44		ug/L	P428825	
		Nickel	0.84	I	ug/L	P428825	
		Selenium	0.39	I	ug/L	P428825	
		Silver	0.010	U	ug/L	P428825	
		Thallium	0.10	U	ug/L	P428825	
	SM 2340 B-2011	Hardness	289		mg/L	P428825	
2401955	EPA 8321B	2,4-D	0.012		ug/L	P428783	
		Acesulfame K	1.0	U	ug/L	P428748	
		2,4,5-T	0.0040	U	ug/L	P428783	
		AMPA	0.78		ug/L	P428748	
		Acetaminophen	0.0080	U	ug/L	P428783	
		Acetamiprid	0.0020	U	ug/L	P428783	
		Endothall	0.25	U	ug/L	P428748	
		Glufosinate	0.10	U	ug/L	P428748	
		Glyphosate	0.70		ug/L	P428748	
		Afidopyropen	0.0020	U	ug/L	P428783	
		Bentazon	0.012		ug/L	P428783	
		Sucralose	0.10	U	ug/L	P428748	
		Benzovindiflupyr	0.0020	U	ug/L	P428783	
		Carbamazepine	8.0E-04	U	ug/L	P428783	
		Clothianidin	0.0031	I	ug/L	P428783	
		Dinotefuran	0.0020	U	ug/L	P428783	

Field ID: G3SD0120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401955	EPA 8321B	Diuron	0.0020	U	ug/L	P428783	
		Fenuron	0.032	U	ug/L	P428783	
		Fluridone	0.0050		ug/L	P428783	
		Imazapyr	0.0040	U	ug/L	P428783	
		Hydrocodone	0.0020	U	ug/L	P428783	
		Ibuprofen	0.080	U	ug/L	P428783	
		Imidacloprid	0.0080	I	ug/L	P428783	
		Linuron	0.0040	U	ug/L	P428783	
		Mandestrobin	0.0020	U	ug/L	P428783	
		MCP	0.0020	U	ug/L	P428783	
		Naproxen	0.0080	U	ug/L	P428783	
		Primidone	0.0040	U	ug/L	P428783	
		Pyraclostrobin	0.0020	U	ug/L	P428783	
		Silvex	0.0040	U	ug/L	P428783	
		Thiamethoxam	0.0020	U	ug/L	P428783	
		Tolfenpyrad	0.0020	U	ug/L	P428783	
		Triclopyr	0.0040	U	ug/L	P428783	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.
 EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Sample Location: SHELLCREEKRESERVOIR MID

Collection Date/Time: 04/19/2023 10:00

Field ID: G3SD0204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401939	DEP SOP: NU-094-1	Color (true)	42		PCU	P428786	
	EPA 180.1 Rev. 2.0	Turbidity	6.1		NTU	P428796	
	EPA 300.0 Rev. 2.1	Chloride	120		mg Cl/L	P429068	
		Sulfate	110		mg SO4/L	P429072	
	SM 2320 B-2011	Total Alkalinity	138		mg CaCO3/L	P429189	
	SM 2540 C-2015	TDS	515		mg/L	P429119	
	SM 2540 D-2015	TSS	9	I	mg/L	P429121	
	SM 4500-F- C-2011	Fluoride	0.35		mg F/L	P429281	RPD
2401940	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P429096	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P428976	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P429142	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P428887	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P429041	
2401948	EPA 8321B	2,4-D	0.0020	U	ug/L	P428783	
		Acesulfame K	1.0	U	ug/L	P428748	
		2,4,5-T	0.0040	U	ug/L	P428783	
		AMPA	1.8		ug/L	P428748	
		Acetaminophen	0.0080	U	ug/L	P428783	
		Acetamiprid	0.0020	U	ug/L	P428783	
		Endothall	0.25	U	ug/L	P428748	
		Glufosinate	0.10	U	ug/L	P428748	
		Glyphosate	0.60		ug/L	P428748	
		Afidopyropen	0.0020	U	ug/L	P428783	
		Bentazon	0.13		ug/L	P428783	
		Sucralose	0.10	U	ug/L	P428748	
		Benzovindiflupyr	0.0020	U	ug/L	P428783	
		Carbamazepine	8.0E-04	U	ug/L	P428783	
		Clothianidin	0.0092		ug/L	P428783	
		Dinotefuran	0.0020	U	ug/L	P428783	
		Diuron	0.015		ug/L	P428783	
		Fenuron	0.032	U	ug/L	P428783	
		Fluridone	0.0050		ug/L	P428783	
		Imazapyr	0.0040	U	ug/L	P428783	
		Hydrocodone	0.0020	U	ug/L	P428783	
		Ibuprofen	0.080	U	ug/L	P428783	
		Imidacloprid	0.019		ug/L	P428783	
		Linuron	0.0040	U	ug/L	P428783	
		Mandestrobin	0.0020	U	ug/L	P428783	
		MCP	0.0020	U	ug/L	P428783	
		Naproxen	0.0080	U	ug/L	P428783	
		Primidone	0.0040	U	ug/L	P428783	
		Pyraclostrobin	0.0020	U	ug/L	P428783	
		Silvex	0.0040	U	ug/L	P428783	
		Thiamethoxam	0.0090		ug/L	P428783	

Field ID: G3SD0204

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2401948	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P428783	
		Triclopyr	0.0040	U	ug/L	P428783	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: MS accuracy for bentazon could not be assessed due to high concentration of parameter in the spiked sample.
EPA 8321B: Some MDLs are elevated due to required dilution of sample matrix.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P428786

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428796

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P428825

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: P428825

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: P429068

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

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Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429072

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429096

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428976

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429142

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428887

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

Reference Method: EPA 8270E
Batch ID: P428829

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
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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428829

Component	Result	Code	Units
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	1.7	I	ng/L
Dithiopyr	1.0	I	ng/L
EPTC	0.50	U	ng/L
EPTC	0.50	U	ng/L
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

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428829

Component	Result	Code	Units
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
Metaxyl	0.50	U	ng/L
Metaxyl	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
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	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L

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Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428829

Component	Result	Code	Units
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
Phenytol	5.3	U	ng/L
Phenytol	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiatone	0.20	U	ng/L
Prodiatone	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
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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P428829

Component	Result	Code	Units
Terbutylazine	0.20	U	ng/L
Terbutylazine	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: P428748

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B

Batch ID: P428783

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

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Method Blank Results

Reference Method: EPA 8321B

Batch ID: P428783

Component	Result	Code	Units
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: P429189

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

Reference Method: SM 2540 C-2015

Batch ID: P429119

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P429121

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P429281

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P429041

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: P428786

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428796

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P428825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	98.2		P	80 - 120
Iron	98.4		P	80 - 120
Magnesium	101		P	80 - 120
Potassium	98.7		P	80 - 120
Sodium	105		P	80 - 120
Strontium	99.3		P	80 - 120
Tin	100		P	80 - 120
Titanium	98.1		P	80 - 120
Vanadium	99.8		P	80 - 120
Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P428825

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	102		P	85 - 115
Antimony	103		P	85 - 115
Arsenic	101		P	85 - 115
Barium	102		P	85 - 115
Beryllium	97.3		P	85 - 115
Boron	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	98.1		P	85 - 115
Cobalt	103		P	85 - 115
Copper	97.8		P	85 - 115
Lead	103		P	85 - 115
Manganese	96.9		P	85 - 115
Molybdenum	97.7		P	85 - 115
Nickel	99.4		P	85 - 115
Selenium	97.4		P	85 - 115
Silver	106		P	85 - 115
Thallium	98.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429068

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429072

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429096

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428976

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429142

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428887

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

Reference Method: EPA 8270E
Batch ID: P428829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.8		P	42 - 162
Acetochlor	88.5		P	69 - 123
Alachlor	105		P	65 - 118
Ametryn	117		P	58 - 141
Atrazine	104		P	73 - 118
Atrazine Desethyl	103		P	32 - 125
Avobenzone	136		P	40 - 203
Azinphos Methyl	131		P	36 - 197
Azoxystrobin	116		P	58 - 226
Bromacil	114		P	48 - 120
Butylate	62.7		P	27 - 85.0
Caffeine	104		P	40 - 137
Carbophenothion	123		P	54 - 132
Carfentrazone Ethyl	122		P	60 - 142
Chlorfenapyr	105		P	53 - 117
Chlorpyrifos Ethyl	97.6		P	59 - 116
Chlorpyrifos Methyl	111		P	66 - 119
Coumaphos	108		P	11 - 234
Cyanazine	124		P	61 - 248
Cyprodinil	105		P	50 - 147
Dechlorane 602	78.2		P	50 - 150
Dechlorane 603	105		P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
 Batch ID: P428829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dechlorane Plus	97.8		P	47 - 182
Demeton	86.8		P	30 - 138
Diazinon	119		P	67 - 126
Difenoconazole	87.7		P	38 - 205
Dimethenamid	116		F	57 - 111
Dimethomorph	129		P	16 - 212
Disulfoton	118		P	46 - 126
Dithiopyr	108		P	62 - 115
EPTC	56.5		P	28 - 80.0
Ethion	94.6		P	24 - 122
Ethoprop	101		P	62 - 113
Etridiazole	68.6		P	28 - 92.0
Fenamiphos	87.9		P	57 - 128
Fenbuconazole	72.1		P	52 - 155
Fipronil	111		P	63 - 130
Fipronil Desulfinyl	113		P	61 - 130
Fipronil Sulfide	116		P	56 - 117
Fipronil Sulfone	98.3		P	52 - 118
Fluazifop-P-butyl	72.2		P	61 - 128
Fludioxonil	85.0		P	59 - 129
Flumioxazin	142		P	30 - 250
Flutolanil	90.4		P	53 - 127
Fluxapyroxad	102		P	42 - 132
Fonofos	99.6		P	61 - 110
Hexabromobenzene	115		P	50 - 150
Hexazinone	97.6		P	46 - 139
Imazalil	85.3		P	40 - 139
Iprodione	95.0		P	40 - 146
Loratadine	123		P	10 - 224
Malathion	112		P	61 - 135
Metalaxyl	98.1		P	58 - 121
Metolachlor	118		P	64 - 118
Metribuzin	102		P	45 - 245
Mevinphos	82.4		P	49 - 118
Molinate	64.8		P	42 - 92.0
Myclobutanil	103		P	55 - 127
Naled	27.5		P	10 - 114
Napropamide	89.2		P	39 - 121
Norflurazon	104		P	55 - 129
Octinoxate	107		P	26 - 166
Oxadiazon	95.4		P	54 - 115
Oxybenzone	104		P	49 - 135
Oxyfluorfen	120		P	64 - 139
Parathion Ethyl	107		P	70 - 111
Parathion Methyl	119		P	76 - 136
PBB-153	104		P	50 - 150
PBDE-47	87.2		P	41 - 148
PBDE-99	78.5		P	38 - 147
Pendimethalin	114		P	52 - 118
Pentabromotoluene	105		P	50 - 150
Phenytoin	69.8		P	10 - 162
Phorate	111		P	40 - 122

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P428829

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Prodiamine	70.1		P	26 - 141
Prometon	114		P	54 - 122
Prometryn	129		F	61 - 128
Pronamide	130		F	72 - 121
Propanil	126		P	45 - 144
Propargite	84.8		P	10 - 199
Propiconazole	88.1		P	56 - 127
Pyraflufen Ethyl	69.6		P	56 - 140
Pyridaben	86.2		P	26 - 211
Pyriproxyfen	103		P	33 - 194
Simazine	96.3		P	67 - 121
Stirophos	87.8		P	20 - 142
Sulfentrazone	102		P	21 - 144
Tebuconazole	71.1		P	10 - 122
Terbufos	125		P	60 - 129
Terbutylazine	89.4		P	69 - 113
Tetradecachloro-m-terphenyl	146		P	70 - 200
Thiobencarb	112		P	51 - 120
Tri-o-cresyl Phosphate	110		P	49 - 150
Triadimefon	94.3		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	114		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	101		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	104		P	70 - 180

Reference Method: EPA 8321B

Batch ID: P428748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	111		P	40 - 150
AMPA	120		P	40 - 150
Endothall	101		P	40 - 150
Glufosinate	97.8		P	40 - 150
Glyphosate	127		P	40 - 150
Sucralose	97.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P428783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	114		P	40 - 150
2,4,5-T	113		P	40 - 150
Acetaminophen	92.7		P	30 - 150
Acetamiprid	83.7		P	40 - 150
Afidopyropen	49.5		P	30 - 150
Bentazon	109		P	30 - 150
Benzovindiflupyr	89.3		P	40 - 150
Carbamazepine	100		P	40 - 150
Clothianidin	109		P	40 - 150
Dinotefuran	101		P	40 - 150
Diuron	101		P	40 - 150
Fenuron	101		P	40 - 150
Fluridone	91.5		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P428783

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hydrocodone	94.0		P	40 - 150
Ibuprofen	93.2		P	40 - 150
Imazapyr	105		P	40 - 150
Imidacloprid	88.3		P	40 - 150
Linuron	91.5		P	40 - 150
Mandestrobin	92.9		P	40 - 150
MCPP	114		P	40 - 150
Naproxen	61.6		P	40 - 150
Primidone	104		P	40 - 150
Pyraclostrobin	82.7		P	40 - 150
Silvex	97.8		P	40 - 150
Thiamethoxam	110		P	40 - 150
Tolfenpyrad	56.7		P	30 - 150
Triclopyr	114		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P429189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.2		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P429119

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	97.4		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P429121

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	89.6		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P429281

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P429041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.1		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P428825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401747	Calcium	97.8	97.5	P/P	80 - 120
2401747	Iron	98.9	98.2	P/P	80 - 120
2401747	Magnesium	102	102	P/P	80 - 120
2401747	Potassium	100	98.4	P/P	80 - 120
2401747	Sodium	107	104	P/P	80 - 120
2401747	Strontium	100	98.6	P/P	80 - 120
2401747	Tin	96.1	99.0	P/P	80 - 120
2401747	Titanium	96.4	97.3	P/P	80 - 120
2401747	Vanadium	98.1	99.7	P/P	80 - 120
2401747	Zinc	99.3	101	P/P	80 - 120
2401925	Calcium	100		P	80 - 120
2401925	Iron	102		P	80 - 120
2401925	Magnesium	104		P	80 - 120
2401925	Potassium	101		P	80 - 120
2401925	Sodium	106		P	80 - 120
2401925	Strontium	100		P	80 - 120
2401925	Tin	97.2		P	80 - 120
2401925	Titanium	97.5		P	80 - 120
2401925	Vanadium	101		P	80 - 120
2401925	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P428825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401747	Aluminum	100	98.7	P/P	80 - 120
2401747	Antimony	102	102	P/P	80 - 120
2401747	Arsenic	100	99.0	P/P	80 - 120
2401747	Barium	103	102	P/P	80 - 120
2401747	Beryllium	91.4	93.4	P/P	80 - 120
2401747	Boron	105	103	P/P	80 - 120
2401747	Cadmium	100	99.8	P/P	80 - 120
2401747	Chromium	99.0	99.0	P/P	80 - 120
2401747	Cobalt	103	103	P/P	80 - 120
2401747	Copper	101	99.8	P/P	80 - 120
2401747	Lead	104	103	P/P	80 - 120
2401747	Manganese	99.0	96.1	P/P	80 - 120
2401747	Molybdenum	98.4	98.6	P/P	80 - 120
2401747	Nickel	101	101	P/P	80 - 120
2401747	Selenium	98.8	97.3	P/P	80 - 120
2401747	Silver	104	104	P/P	80 - 120
2401747	Thallium	101	101	P/P	80 - 120
2401925	Aluminum	98.5		P	80 - 120
2401925	Antimony	102		P	80 - 120
2401925	Arsenic	97.8		P	80 - 120
2401925	Barium	102		P	80 - 120
2401925	Beryllium	93.2		P	80 - 120
2401925	Boron	99.5		P	80 - 120
2401925	Cadmium	99.7		P	80 - 120
2401925	Chromium	97.5		P	80 - 120
2401925	Cobalt	101		P	80 - 120
2401925	Copper	96.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P428825

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401925	Lead	104		P	80 - 120
2401925	Manganese	97.6		P	80 - 120
2401925	Molybdenum	98.1		P	80 - 120
2401925	Nickel	98.4		P	80 - 120
2401925	Selenium	95.4		P	80 - 120
2401925	Silver	104		P	80 - 120
2401925	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401813	Chloride	101		P	90 - 110
2401909	Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429072

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401909	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429096

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401912	Ammonia-N	97.4	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402109	Kjeldahl Nitrogen	103	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429142

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401857	NO2NO3-N	97.4	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428887

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401997	Total-P	100	101	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P428829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401686	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	114	116	P/P	26 - 165
2401686	Acetochlor	84.3	89.0	P/P	67 - 124
2401686	Alachlor	92.0	110	P/P	60 - 120

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P428829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401686	Ametryn	126	139	P/P	54 - 216
2401686	Atrazine Desethyl	114	113	P/P	15 - 122
2401686	Avobenzone	168	156	P/P	37 - 178
2401686	Azinphos Methyl	127	128	P/P	40 - 292
2401686	Azoxystrobin	102	122	P/P	35 - 220
2401686	Bromacil	108	110	P/P	45 - 127
2401686	Butylate	57.0	66.4	P/P	20 - 83.0
2401686	Caffeine	103	96.8	P/P	10 - 194
2401686	Carbophenothion	111	117	P/P	57 - 127
2401686	Carfentrazone Ethyl	116	115	P/P	51 - 141
2401686	Chlorfenapyr	103	107	P/P	46 - 111
2401686	Chlorpyrifos Ethyl	76.3	84.8	P/P	52 - 120
2401686	Chlorpyrifos Methyl	107	116	P/P	63 - 119
2401686	Coumaphos	123	123	P/P	10 - 228
2401686	Cyanazine	116	118	P/P	59 - 241
2401686	Cyprodinil	100	115	P/P	47 - 146
2401686	Dechlorane 602	76.4	76.8	P/P	50 - 150
2401686	Dechlorane 603	122	101	P/P	50 - 150
2401686	Dechlorane Plus	103	85.5	P/P	50 - 150
2401686	Demeton	89.4	93.2	P/P	40 - 136
2401686	Diazinon	114	119	P/P	69 - 132
2401686	Difenoconazole	109	97.6	P/P	57 - 258
2401686	Dimethenamid	101	115	P/F	54 - 110
2401686	Dimethomorph	118	159	P/P	28 - 210
2401686	Disulfoton	106	115	P/P	43 - 133
2401686	Dithiopyr	92.2	112	P/P	39 - 116
2401686	EPTC	39.9	56.7	P/P	20 - 78.0
2401686	Ethion	89.2	91.4	P/P	17 - 119
2401686	Ethoprop	102	103	P/P	66 - 120
2401686	Etridiazole	61.6	71.8	P/P	28 - 96.0
2401686	Fenamiphos	74.3	75.6	P/P	41 - 126
2401686	Fenbuconazole	85.8	76.4	P/P	42 - 169
2401686	Fipronil	107	113	P/P	61 - 132
2401686	Fipronil Desulfinyl	104	112	P/P	56 - 132
2401686	Fipronil Sulfide	104	112	P/P	48 - 119
2401686	Fipronil Sulfone	120	124	P/P	42 - 131
2401686	Fluazifop-P-butyl	72.2	69.6	P/P	53 - 131
2401686	Fludioxonil	76.4	75.3	P/P	56 - 127
2401686	Flumioxazin	169	158	P/P	19 - 300
2401686	Flutolanil	81.4	97.3	P/P	41 - 127
2401686	Fluxapyroxad	108	119	P/P	42 - 172
2401686	Fonofos	99.0	110	P/P	59 - 113
2401686	Hexabromobenzene	130	135	P/P	50 - 150
2401686	Hexazinone	92.2	102	P/P	66 - 122
2401686	Imazalil	93.5	80.9	P/P	21 - 283
2401686	Iprodione	89.1	94.4	P/P	43 - 150
2401686	Loratadine	131	126	P/P	23 - 201
2401686	Malathion	98.1	106	P/P	58 - 136
2401686	Metalaxyl	86.0	100	P/P	55 - 120
2401686	Metolachlor	110	122	P/F	57 - 121
2401686	Metribuzin	91.5	97.1	P/P	58 - 294
2401686	Mevinphos	83.5	89.5	P/P	50 - 126

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P428829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401686	Molinate	60.4	68.5	P/P	42 - 93.0
2401686	Myclobutanil	105	115	P/P	55 - 125
2401686	Naled	29.4	31.1	P/P	18 - 200
2401686	Napropamide	88.4	94.4	P/P	39 - 110
2401686	Norflurazon	95.3	110	P/P	48 - 128
2401686	Octinoxate	117	116	P/P	21 - 159
2401686	Oxadiazon	52.3	103	P/P	43 - 112
2401686	Oxybenzone	121	114	P/P	41 - 142
2401686	Oxyfluorfen	90.8	108	P/P	64 - 153
2401686	Parathion Ethyl	104	103	P/P	69 - 114
2401686	Parathion Methyl	110	113	P/P	79 - 139
2401686	PBB-153	132	120	P/P	50 - 150
2401686	PBDE-47	89.7	97.6	P/P	27 - 144
2401686	PBDE-99	87.3	89.9	P/P	18 - 150
2401686	Pendimethalin	144	154	F/F	50 - 139
2401686	Pentabromotoluene	120	121	P/P	50 - 150
2401686	Phenytoin	67.4	79.7	P/P	10 - 146
2401686	Phorate	102	116	P/P	54 - 161
2401686	Prodiamine	69.2	75.3	P/P	30 - 161
2401686	Prometon	111	117	P/P	45 - 134
2401686	Prometryn	120	126	P/P	45 - 137
2401686	Pronamide	119	137	P/F	65 - 133
2401686	Propanil	136	131	P/P	49 - 142
2401686	Propargite	68.5	83.6	P/P	10 - 203
2401686	Propiconazole	104	102	P/P	38 - 146
2401686	Pyraflufen Ethyl	62.7	69.1	P/P	34 - 153
2401686	Pyridaben	103	95.1	P/P	12 - 192
2401686	Pyriproxyfen	92.6	101	P/P	33 - 180
2401686	Stirophos	78.1	95.1	P/P	10 - 128
2401686	Tebuconazole	64.4	79.7	P/P	10 - 133
2401686	Terbufos	115	126	P/P	65 - 139
2401686	Terbutylazine	88.4	92.6	P/P	66 - 117
2401686	Tetradecachloro-m-terphenyl	163	139	P/P	70 - 200
2401686	Thiobencarb	107	119	P/P	51 - 119
2401686	Tri-o-cresyl Phosphate	123	119	P/P	31 - 144
2401686	Triadimefon	100	106	P/P	48 - 119
2401686	Tris(1-chloro-2-propyl) phosphate (TCPP)	136	124	P/P	50 - 150
2401686	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	111	111	P/P	50 - 150
2401686	Tris(2-chloroethyl) phosphate (TCEP)	117	111	P/P	70 - 180

Reference Method: EPA 8321B
Batch ID: P428748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401447	Acesulfame K	107	108	P/P	40 - 150
2401447	AMPA	126	119	P/P	40 - 150
2401447	Endothall	105	110	P/P	40 - 150
2401447	Glufosinate	100	99.7	P/P	40 - 150
2401447	Glyphosate	101	105	P/P	40 - 150
2401447	Sucralose	94.6	93.1	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P428783

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2401716	2,4-D	110	104	P/P	40 - 150
2401716	2,4,5-T	129	110	P/P	40 - 150
2401716	Acetaminophen	99.9	93.3	P/P	30 - 150
2401716	Acetamiprid	84.9	82.0	P/P	40 - 150
2401716	Afidopyropen	75.9	86.7	P/P	30 - 150
2401716	Benzovindiflupyr	83.9	77.1	P/P	40 - 150
2401716	Carbamazepine	80.6	84.2	P/P	40 - 150
2401716	Clothianidin	113	110	P/P	40 - 150
2401716	Dinotefuran	81.5	79.7	P/P	40 - 150
2401716	Diuron	82.0	82.8	P/P	40 - 150
2401716	Fenuron	64.4	66.1	P/P	40 - 150
2401716	Fluridone	81.8	80.4	P/P	40 - 150
2401716	Hydrocodone	71.6	68.4	P/P	40 - 150
2401716	Ibuprofen	89.1	72.7	P/P	40 - 150
2401716	Imazapyr	107	112	P/P	40 - 150
2401716	Imidacloprid	118	109	P/P	40 - 150
2401716	Linuron	81.5	83.6	P/P	40 - 150
2401716	Mandestrobin	88.4	85.8	P/P	40 - 150
2401716	MCCPP	122	123	P/P	40 - 150
2401716	Naproxen	63.3	65.4	P/P	40 - 150
2401716	Primidone	105	104	P/P	40 - 150
2401716	Pyraclostrobin	79.7	76.0	P/P	40 - 150
2401716	Silvex	103	95.3	P/P	40 - 150
2401716	Thiamethoxam	105	101	P/P	40 - 150
2401716	Tolfenpyrad	49.7	49.0	P/P	30 - 150
2401716	Triclopyr	128	118	P/P	40 - 150

Reference Method: SM 4500-F- C-2011

Batch ID: P429281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402008	Fluoride	101	96.2	P/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P429041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2402010	Organic Carbon	95.6	95.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P428786

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401856	Color (true)	2.36	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P428796

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401856	Turbidity	9.61	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P428825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401747	Calcium	0.234	Spike	P	0 - 20
2401747	Iron	0.553	Spike	P	0 - 20
2401747	Magnesium	0.0865	Spike	P	0 - 20
2401747	Potassium	1.85	Spike	P	0 - 20
2401747	Sodium	1.55	Spike	P	0 - 20
2401747	Strontium	1.60	Spike	P	0 - 20
2401747	Tin	3.04	Spike	P	0 - 20
2401747	Titanium	0.893	Spike	P	0 - 20
2401747	Vanadium	1.59	Spike	P	0 - 20
2401747	Zinc	1.49	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P428825

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401747	Aluminum	1.30	Spike	P	0 - 20
2401747	Antimony	0.525	Spike	P	0 - 20
2401747	Arsenic	1.32	Spike	P	0 - 20
2401747	Barium	0.892	Spike	P	0 - 20
2401747	Beryllium	1.90	Spike	P	0 - 20
2401747	Boron	2.35	Spike	P	0 - 20
2401747	Cadmium	0.198	Spike	P	0 - 20
2401747	Chromium	0.0163	Spike	P	0 - 20
2401747	Cobalt	0.0188	Spike	P	0 - 20
2401747	Copper	1.62	Spike	P	0 - 20
2401747	Lead	0.633	Spike	P	0 - 20
2401747	Manganese	1.36	Spike	P	0 - 20
2401747	Molybdenum	0.159	Spike	P	0 - 20
2401747	Nickel	0.388	Spike	P	0 - 20
2401747	Selenium	1.55	Spike	P	0 - 20
2401747	Silver	0.0331	Spike	P	0 - 20
2401747	Thallium	0.0752	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401813	Chloride	0.0105	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P429072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401813	Sulfate	0.716	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429096

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401912	Ammonia-N	1.46	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P428976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402109	Kjeldahl Nitrogen	0.833	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P429142

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401857	NO2NO3-N	0.866	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P428887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401997	Total-P	0.857	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P428829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401686	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	1.88	Spike	P	0 - 37
2401686	Acetochlor	5.40	Spike	P	0 - 28
2401686	Alachlor	17.9	Spike	P	0 - 30
2401686	Ametryn	9.55	Spike	P	0 - 32
2401686	Atrazine	1.39	Spike	P	0 - 41
2401686	Atrazine Desethyl	0.131	Spike	P	0 - 36
2401686	Avobenzene	7.67	Spike	P	0 - 36
2401686	Azinphos Methyl	0.879	Spike	P	0 - 75
2401686	Azoxystrobin	18.1	Spike	P	0 - 39

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P428829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401686	Bromacil	1.90	Spike	P	0 - 33
2401686	Butylate	15.3	Spike	P	0 - 44
2401686	Caffeine	5.32	Spike	P	0 - 74
2401686	Carbophenothion	6.00	Spike	P	0 - 25
2401686	Carfentrazone Ethyl	1.12	Spike	P	0 - 27
2401686	Chlorfenapyr	3.25	Spike	P	0 - 24
2401686	Chlorpyrifos Ethyl	10.6	Spike	P	0 - 26
2401686	Chlorpyrifos Methyl	7.35	Spike	P	0 - 26
2401686	Coumaphos	0.0271	Spike	P	0 - 28
2401686	Cyanazine	1.63	Spike	P	0 - 48
2401686	Cyprodinil	14.3	Spike	P	0 - 29
2401686	Dechlorane 602	0.512	Spike	P	0 - 30
2401686	Dechlorane 603	18.7	Spike	P	0 - 30
2401686	Dechlorane Plus	18.9	Spike	P	0 - 30
2401686	Demeton	4.19	Spike	P	0 - 33
2401686	Diazinon	4.84	Spike	P	0 - 29
2401686	Difenoconazole	10.9	Spike	P	0 - 34
2401686	Dimethenamid	12.2	Spike	P	0 - 39
2401686	Dimethomorph	29.2	Spike	P	0 - 51
2401686	Disulfoton	8.78	Spike	P	0 - 30
2401686	Dithiopyr	16.7	Spike	P	0 - 26
2401686	EPTC	34.8	Spike	P	0 - 43
2401686	Ethion	2.47	Spike	P	0 - 79
2401686	Ethoprop	1.47	Spike	P	0 - 29
2401686	Etridiazole	15.4	Spike	P	0 - 33
2401686	Fenamiphos	1.77	Spike	P	0 - 40
2401686	Fenbuconazole	11.5	Spike	P	0 - 74
2401686	Fipronil	5.29	Spike	P	0 - 29
2401686	Fipronil Desulfinyl	5.11	Spike	P	0 - 32
2401686	Fipronil Sulfide	6.38	Spike	P	0 - 30
2401686	Fipronil Sulfone	2.42	Spike	P	0 - 33
2401686	Fluazifop-P-butyl	3.67	Spike	P	0 - 38
2401686	Fludioxonil	1.46	Spike	P	0 - 29
2401686	Flumioxazin	6.75	Spike	P	0 - 51
2401686	Flutolanil	17.9	Spike	P	0 - 25
2401686	Fluxapyroxad	8.82	Spike	P	0 - 45
2401686	Fonofos	8.96	Spike	P	0 - 27
2401686	Hexabromobenzene	4.07	Spike	P	0 - 30
2401686	Hexazinone	10.2	Spike	P	0 - 30
2401686	Imazalil	14.4	Spike	P	0 - 100
2401686	Iprodione	5.85	Spike	P	0 - 33
2401686	Loratadine	3.46	Spike	P	0 - 56
2401686	Malathion	7.36	Spike	P	0 - 37
2401686	Metalaxyl	15.3	Spike	P	0 - 40
2401686	Metolachlor	11.0	Spike	P	0 - 29
2401686	Metribuzin	5.62	Spike	P	0 - 45
2401686	Mevinphos	6.98	Spike	P	0 - 29
2401686	Molinate	12.5	Spike	P	0 - 33
2401686	Myclobutanil	9.19	Spike	P	0 - 26
2401686	Naled	5.65	Spike	P	0 - 37
2401686	Napropamide	6.53	Spike	P	0 - 44

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P428829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401686	Norflurazon	14.0	Spike	P	0 - 30
2401686	Octinoxate	1.34	Spike	P	0 - 45
2401686	Oxadiazon	51.6	Spike	F	0 - 28
2401686	Oxybenzone	6.59	Spike	P	0 - 46
2401686	Oxyfluorfen	17.0	Spike	P	0 - 28
2401686	Parathion Ethyl	1.89	Spike	P	0 - 31
2401686	Parathion Methyl	2.91	Spike	P	0 - 29
2401686	PBB-153	9.16	Spike	P	0 - 30
2401686	PBDE-47	8.52	Spike	P	0 - 36
2401686	PBDE-99	2.93	Spike	P	0 - 40
2401686	Pendimethalin	5.89	Spike	P	0 - 33
2401686	Pentabromotoluene	1.12	Spike	P	0 - 30
2401686	Phenytoin	16.7	Spike	P	0 - 100
2401686	Phorate	13.2	Spike	P	0 - 36
2401686	Prodiamine	8.43	Spike	P	0 - 71
2401686	Prometon	5.07	Spike	P	0 - 36
2401686	Prometryn	4.57	Spike	P	0 - 28
2401686	Pronamide	14.6	Spike	P	0 - 24
2401686	Propanil	3.65	Spike	P	0 - 28
2401686	Propargite	19.9	Spike	P	0 - 43
2401686	Propiconazole	1.82	Spike	P	0 - 33
2401686	Pyraflufen Ethyl	9.67	Spike	P	0 - 29
2401686	Pyridaben	8.03	Spike	P	0 - 30
2401686	Pyriproxyfen	9.08	Spike	P	0 - 79
2401686	Simazine	2.99	Spike	P	0 - 29
2401686	Stirophos	19.7	Spike	P	0 - 61
2401686	Sulfentrazone	2.29	Spike	P	0 - 33
2401686	Tebuconazole	21.3	Spike	P	0 - 69
2401686	Terbufos	8.70	Spike	P	0 - 29
2401686	Terbutylazine	4.72	Spike	P	0 - 32
2401686	Tetradecachloro-m-terphenyl	15.8	Spike	P	0 - 30
2401686	Thiobencarb	10.2	Spike	P	0 - 26
2401686	Tri-o-cresyl Phosphate	3.92	Spike	P	0 - 33
2401686	Triadimefon	5.62	Spike	P	0 - 28
2401686	Tris(1-chloro-2-propyl) phosphate (TCPP)	7.77	Spike	P	0 - 30
2401686	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	0.356	Spike	P	0 - 30
2401686	Tris(2-chloroethyl) phosphate (TCEP)	5.09	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P428748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401447	Acesulfame K	1.25	Spike	P	0 - 30
2401447	AMPA	5.72	Spike	P	0 - 30
2401447	Endothall	5.18	Spike	P	0 - 30
2401447	Glufosinate	0.488	Spike	P	0 - 30
2401447	Glyphosate	4.50	Spike	P	0 - 30
2401447	Sucralose	1.50	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P428783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401716	2,4-D	4.47	Spike	P	0 - 30
2401716	2,4,5-T	15.7	Spike	P	0 - 30
2401716	Acetaminophen	6.84	Spike	P	0 - 30
2401716	Acetamiprid	3.48	Spike	P	0 - 30
2401716	Afidopyropen	13.3	Spike	P	0 - 30
2401716	Bentazon	10.9	Spike	P	0 - 30
2401716	Benzovindiflupyr	8.43	Spike	P	0 - 30
2401716	Carbamazepine	4.07	Spike	P	0 - 30
2401716	Clothianidin	2.61	Spike	P	0 - 30
2401716	Dinotefuran	2.20	Spike	P	0 - 30
2401716	Diuron	0.982	Spike	P	0 - 30
2401716	Fenuron	2.54	Spike	P	0 - 30
2401716	Fluridone	1.31	Spike	P	0 - 30
2401716	Hydrocodone	4.55	Spike	P	0 - 30
2401716	Ibuprofen	20.3	Spike	P	0 - 30
2401716	Imazapyr	2.40	Spike	P	0 - 30
2401716	Imidacloprid	8.29	Spike	P	0 - 30
2401716	Linuron	2.53	Spike	P	0 - 30
2401716	Mandestrobin	2.98	Spike	P	0 - 30
2401716	MCP	1.16	Spike	P	0 - 30
2401716	Naproxen	3.31	Spike	P	0 - 30
2401716	Primidone	0.842	Spike	P	0 - 30
2401716	Pyraclostrobin	4.73	Spike	P	0 - 30
2401716	Silvex	7.95	Spike	P	0 - 30
2401716	Thiamethoxam	3.43	Spike	P	0 - 30
2401716	Tolfenpyrad	1.41	Spike	P	0 - 30
2401716	Triclopyr	7.77	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P429189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2403072	Total Alkalinity	0.185	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P429119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2401764	TDS	1.55	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P429281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402008	Fluoride	3.97	Spike	F	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P429041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2402010	Organic Carbon	0.136	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2401947
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160
EPA 8321B	Acetaminophen-d4	91.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	68.9	P	30 - 160
EPA 8321B	Diuron-d6	62.5	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	76.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.5	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	128	P	30 - 160

Lab Sample ID: 2401948
Field Sample ID: G3SD0204

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.7	P	30 - 160
EPA 8321B	Diuron-d6	56.9	P	30 - 160
EPA 8321B	Endothall-d6	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	60.0	P	30 - 160
EPA 8321B	Primidone-d5	94.1	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2401950
Field Sample ID: G3SD0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	98.5	P	20 - 200
EPA 8270E	Simazine-d10	94.5	P	62 - 142
EPA 8270E	Terbufos-d10	84.6	P	58 - 132
EPA 8270E	Terphenyl-d14	112	P	52 - 137

Lab Sample ID: 2401955
Field Sample ID: G3SD0120

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	94.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.5	P	30 - 160
EPA 8321B	Diuron-d6	49.8	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	67.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	63.3	P	30 - 160
EPA 8321B	Primidone-d5	92.6	P	30 - 160
EPA 8321B	Sucralose-d6	93.2	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A118689

Included Lab Sample IDs: 2401939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A118691

Included Lab Sample IDs: 2401939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	100	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A118742

Included Lab Sample IDs: 2401949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	97.6	P/P	90 - 110
Antimony	103	102	P/P	90 - 110
Arsenic	100	98.2	P/P	90 - 110
Barium	100	98.8	P/P	90 - 110
Beryllium	97.1	95.7	P/P	90 - 110
Boron	99.0	98.0	P/P	90 - 110
Cadmium	99.4	99.4	P/P	90 - 110
Chromium	101	95.3	P/P	90 - 110
Cobalt	104	100	P/P	90 - 110
Copper	98.1	96.4	P/P	90 - 110
Lead	102	103	P/P	90 - 110
Manganese	101	94.9	P/P	90 - 110
Molybdenum	98.1	96.7	P/P	90 - 110
Nickel	99.4	96.3	P/P	90 - 110
Selenium	99.2	98.4	P/P	90 - 110
Silver	103	103	P/P	90 - 110
Thallium	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A118746

Included Lab Sample IDs: 2401940

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	99.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A118755

Included Lab Sample IDs: 2401939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.4	99.5	P/P	90 - 110
Sulfate	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A118758

Included Lab Sample IDs: 2401947, 2401948, 2401955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	110	110	P/P	60 - 160
Acesulfame K	113	110	P/P	60 - 160
Sucralose	94.2	91.1	P/P	60 - 160
Sucralose	97.8	99.3	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A118762

Included Lab Sample IDs: 2401947, 2401948, 2401955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	115	128	P/P	60 - 160
Endothall	103	108	P/P	60 - 160
Glufosinate	93.8	102	P/P	60 - 160
Glyphosate	116	112	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A118780

Included Lab Sample IDs: 2401947, 2401948, 2401955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.8	97.6	P/P	50 - 150
2,4-D	97.6	91.3	P/P	50 - 150
2,4,5-T	102	112	P/P	50 - 150
2,4,5-T	112	93.2	P/P	50 - 150
Acetaminophen	110	113	P/P	60 - 160
Acetaminophen	113	105	P/P	60 - 160
Acetamiprid	104	106	P/P	50 - 150
Acetamiprid	106	106	P/P	50 - 150
Afidopyropen	85.5	88.4	P/P	50 - 150
Afidopyropen	85.9	85.5	P/P	50 - 150
Bentazon	114	122	P/P	50 - 160
Bentazon	141	136	P/P	50 - 160
Benzovindiflupyr	101	95.4	P/P	50 - 150
Benzovindiflupyr	103	101	P/P	50 - 150
Carbamazepine	107	108	P/P	60 - 150
Carbamazepine	111	107	P/P	60 - 150
Clothianidin	107	110	P/P	60 - 150
Clothianidin	110	111	P/P	60 - 150
Dinotefuran	104	111	P/P	50 - 150
Dinotefuran	111	115	P/P	50 - 150
Diuron	111	107	P/P	60 - 160
Diuron	119	111	P/P	60 - 160
Fenuron	98.6	97.7	P/P	60 - 150
Fenuron	99.3	98.6	P/P	60 - 150
Fluridone	111	106	P/P	60 - 160
Fluridone	116	111	P/P	60 - 160
Hydrocodone	119	124	P/P	60 - 150
Hydrocodone	124	118	P/P	60 - 150
Ibuprofen	104	144	P/P	50 - 160
Ibuprofen	107	104	P/P	50 - 160
Imazapyr	113	114	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A118780

Included Lab Sample IDs: 2401947, 2401948, 2401955

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazapyr	114	115	P/P	50 - 150
Imidacloprid	94.1	88.2	P/P	60 - 150
Imidacloprid	94.8	94.1	P/P	60 - 150
Linuron	112	112	P/P	60 - 150
Linuron	112	109	P/P	60 - 150
Mandestrobin	104	105	P/P	50 - 150
Mandestrobin	105	105	P/P	50 - 150
MCPP	113	116	P/P	50 - 150
MCPP	96.0	113	P/P	50 - 150
Naproxen	100	114	P/P	50 - 160
Naproxen	83.5	100	P/P	50 - 160
Primidone	119	110	P/P	60 - 150
Primidone	125	119	P/P	60 - 150
Pyraclostrobin	106	107	P/P	60 - 150
Pyraclostrobin	106	106	P/P	60 - 150
Silvex	90.5	99.3	P/P	50 - 150
Silvex	99.3	97.6	P/P	50 - 150
Thiamethoxam	111	119	P/P	50 - 150
Thiamethoxam	121	111	P/P	50 - 150
Tolfenpyrad	103	106	P/P	60 - 150
Tolfenpyrad	106	102	P/P	60 - 150
Triclopyr	106	98.3	P/P	50 - 150
Triclopyr	107	106	P/P	50 - 150

Reference Method: EPA 8270E

Run ID: A118808

Included Lab Sample IDs: 2401950

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	98.5		P	80 - 120
Avobenzone	98.3		P	80 - 120
Dechlorane 602	101		P	80 - 120
Dechlorane 603	100		P	80 - 120
Dechlorane Plus	94.7		P	80 - 120
Hexabromobenzene	104		P	80 - 120
Octinoxate	92.8		P	80 - 120
Oxybenzone	94.8		P	80 - 120
PBB-153	99.7		P	80 - 120
PBDE-47	98.3		P	80 - 120
PBDE-99	100		P	80 - 120
Pentabromotoluene	101		P	80 - 120
Tetradecachloro-m-terphenyl	101		P	80 - 120
Tri-o-cresyl Phosphate	94.2		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	94.1		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	92.8		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	92.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A118810

Included Lab Sample IDs: 2401940

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.2	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A118827

Included Lab Sample IDs: 2401940

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A118833

Included Lab Sample IDs: 2401940

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.9	94.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A118847

Included Lab Sample IDs: 2401949

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Iron	103	102	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	102	103	P/P	90 - 110
Sodium	106	107	P/P	90 - 110
Strontium	102	102	P/P	90 - 110
Tin	98.5	97.6	P/P	90 - 110
Titanium	98.7	97.8	P/P	90 - 110
Vanadium	99.6	99.5	P/P	90 - 110
Zinc	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A118856

Included Lab Sample IDs: 2401940

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A118869

Included Lab Sample IDs: 2401939

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	93.2	95.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A118916

Included Lab Sample IDs: 2401939

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

Reference Method: SM 4500-F- C-2011

Run ID: A118916

Included Lab Sample IDs: 2401939

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

Reference Method: EPA 8270E

Run ID: A119027

Included Lab Sample IDs: 2401950

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	85.3		P	80 - 120
Alachlor	87.9		P	80 - 120
Ametryn	97.5		P	80 - 120
Atrazine Desethyl	114		P	80 - 120
Azinphos Methyl	99.2		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	103		P	80 - 120
Butylate	99.6		P	80 - 120
Caffeine	95.6		P	80 - 120
Carbophenothion	106		P	80 - 120
Carfentrazone Ethyl	99.8		P	80 - 120
Chlorfenapyr	104		P	80 - 120
Chlorpyrifos Ethyl	85.8		P	80 - 120
Chlorpyrifos Methyl	103		P	80 - 120
Coumaphos	98.4		P	80 - 120
Cyanazine	105		P	80 - 120
Cyprodinil	94.3		P	80 - 120
Demeton	97.8		P	80 - 120
Diazinon	104		P	80 - 120
Difenoconazole	95.0		P	80 - 120
Dimethenamid	98.9		P	80 - 120
Dimethomorph	87.7		P	80 - 120
Disulfoton	96.9		P	80 - 120
Dithiopyr	101		P	80 - 120
EPTC	101		P	80 - 120
Ethion	92.9		P	80 - 120
Ethoprop	104		P	80 - 120
Etridiazole	101		P	80 - 120
Fenamiphos	85.7		P	80 - 120
Fenbuconazole	87.6		P	80 - 120
Fipronil	88.4		P	80 - 120
Fipronil Desulfinyl	96.5		P	80 - 120
Fipronil Sulfide	98.8		P	80 - 120
Fipronil Sulfone	97.9		P	80 - 120
Fluazifop-P-butyl	100		P	80 - 120
Fludioxonil	93.2		P	80 - 120
Flumioxazin	101		P	80 - 120
Flutolanil	98.8		P	80 - 120
Fluxapyroxad	97.6		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	101		P	80 - 120
Imazalil	92.9		P	80 - 120
Iprodione	94.5		P	80 - 120
Loratadine	86.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119027
Included Lab Sample IDs: 2401950

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Malathion	89.8		P	80 - 120
Metalaxyl	90.7		P	80 - 120
Metribuzin	103		P	80 - 120
Mevinphos	85.2		P	80 - 120
Molinate	86.9		P	80 - 120
Myclobutanil	88.2		P	80 - 120
Naled	93.0		P	80 - 120
Napropamide	92.2		P	80 - 120
Norflurazon	99.3		P	80 - 120
Oxadiazon	104		P	80 - 120
Oxyfluorfen	88.4		P	80 - 120
Parathion Ethyl	102		P	80 - 120
Parathion Methyl	94.9		P	80 - 120
Pendimethalin	108		P	80 - 120
Phenytol	107		P	80 - 120
Phorate	105		P	80 - 120
Prodiamine	104		P	80 - 120
Prometon	103		P	80 - 120
Prometryn	102		P	80 - 120
Pronamide	99.1		P	80 - 120
Propanil	115		P	80 - 120
Propargite	99.8		P	80 - 120
Propiconazole	87.4		P	80 - 120
Pyraflufen Ethyl	107		P	80 - 120
Pyridaben	100		P	80 - 120
Pyriproxyfen	100		P	80 - 120
Simazine	80.6		P	80 - 120
Stirophos	89.9		P	80 - 120
Sulfentrazone	97.4		P	80 - 120
Tebuconazole	97.9		P	80 - 120
Terbufos	99.3		P	80 - 120
Terbuthylazine	86.7		P	80 - 120
Thiobencarb	102		P	80 - 120
Triadimefon	101		P	80 - 120

Reference Method: EPA 8270E
Run ID: A119058
Included Lab Sample IDs: 2401950

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	90.3		P	80 - 120
Metolachlor	102		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			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	100					2.36	
EPA 180.1 Rev. 2.0	Turbidity	99.7					9.61	
EPA 200.7 Rev. 4.4	Calcium	98.2	97.8	97.5	100			0.234
	Iron	98.4	98.9	98.2	102			0.553
	Magnesium	101	102	102	104			0.0865
	Potassium	98.7	100	98.4	101			1.85
	Sodium	105	107	104	106			1.55
	Strontium	99.3	100	98.6	100			1.60
	Tin	100	96.1	99.0	97.2			3.04
	Titanium	98.1	96.4	97.3	97.5			0.893
	Vanadium	99.8	98.1	99.7	101			1.59
	Zinc	102	99.3	101	102			1.49
EPA 200.8 Rev. 5.4	Aluminum	102	100	98.7	98.5			1.30
	Antimony	103	102	102	102			0.525
	Arsenic	101	100	99.0	97.8			1.32
	Barium	102	103	102	102			0.892
	Beryllium	97.3	91.4	93.4	93.2			1.90
	Boron	101	105	103	99.5			2.35
	Cadmium	101	100	99.8	99.7			0.198
	Chromium	98.1	99.0	99.0	97.5			0.0163
	Cobalt	103	103	103	101			0.0188
	Copper	97.8	96.8	101	99.8			1.62
	Lead	103	104	103	104			0.633
	Manganese	96.9	99.0	96.1	97.6			1.36
	Molybdenum	97.7	98.4	98.6	98.1			0.159
	Nickel	99.4	101	101	98.4			0.388
	Selenium	97.4	98.8	97.3	95.4			1.55
	Silver	106	104	104	104			0.0331
	Thallium	98.2	101	101	101			0.0752
EPA 300.0 Rev. 2.1	Chloride	101	101	103			0.0105	
	Sulfate	102	103				0.716	
EPA 350.1 Rev. 2.0	Ammonia-N	97.2	99.0	97.4				1.46
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.6	103	102				0.833
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	97.4	98.4				0.866
EPA 365.1 Rev. 2.0	Total-P	101	100	101				0.857
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	93.8	114	116				1.88
	Acetochlor	88.5	84.3	89.0				5.40
	Alachlor	105	92.0	110				17.9
	Ametryn	117	126	139				9.55
	Atrazine	104						1.39
	Atrazine Desethyl	103	114	113				0.131
	Avobenzone	136	168	156				7.67
	Azinphos Methyl	131	127	128				0.879
	Azoxystrobin	116	102	122				18.1
	Bromacil	114	108	110				1.90
	Butylate	62.7	57.0	66.4				15.3
	Caffeine	104	103	96.8				5.32
	Carbophenothion	123	111	117				6.00
	Carfentrazone Ethyl	122	116	115				1.12
	Chlorfenapyr	105	103	107				3.25
	Chlorpyrifos Ethyl	97.6	76.3	84.8				10.6
	Chlorpyrifos Methyl	111	107	116				7.35

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Coumaphos	108	123	123			0.0271
	Cyanazine	124	116	118			1.63
	Cyprodinil	105	100	115			14.3
	Dechlorane 602	78.2	76.4	76.8			0.512
	Dechlorane 603	105	122	101			18.7
	Dechlorane Plus	97.8	103	85.5			18.9
	Demeton	86.8	89.4	93.2			4.19
	Diazinon	119	114	119			4.84
	Difenoconazole	87.7	109	97.6			10.9
	Dimethenamid	116	101	115			12.2
	Dimethomorph	129	118	159			29.2
	Disulfoton	118	106	115			8.78
	Dithiopyr	108	92.2	112			16.7
	EPTC	56.5	39.9	56.7			34.8
	Ethion	94.6	89.2	91.4			2.47
	Ethoprop	101	102	103			1.47
	Etridiazole	68.6	61.6	71.8			15.4
	Fenamiphos	87.9	74.3	75.6			1.77
	Fenbuconazole	72.1	85.8	76.4			11.5
	Fipronil	111	107	113			5.29
	Fipronil Desulfinyl	113	104	112			5.11
	Fipronil Sulfide	116	104	112			6.38
	Fipronil Sulfone	98.3	120	124			2.42
	Fluazifop-P-butyl	72.2	72.2	69.6			3.67
	Fludioxonil	85.0	76.4	75.3			1.46
	Flumioxazin	142	169	158			6.75
	Flutolanil	90.4	81.4	97.3			17.9
	Fluxapyroxad	102	108	119			8.82
	Fonofos	99.6	99.0	110			8.96
	Hexabromobenzene	115	130	135			4.07
	Hexazinone	97.6	92.2	102			10.2
	Imazalil	85.3	93.5	80.9			14.4
	Iprodione	95.0	89.1	94.4			5.85
	Loratadine	123	131	126			3.46
	Malathion	112	98.1	106			7.36
	Metalaxyl	98.1	86.0	100			15.3
	Metolachlor	118	110	122			11.0
	Metribuzin	102	91.5	97.1			5.62
	Mevinphos	82.4	83.5	89.5			6.98
	Molinate	64.8	60.4	68.5			12.5
	Myclobutanil	103	105	115			9.19
	Naled	27.5	29.4	31.1			5.65
	Napropamide	89.2	88.4	94.4			6.53
	Norflurazon	104	95.3	110			14.0
	Octinoxate	107	117	116			1.34
	Oxadiazon	95.4	52.3	103			51.6
	Oxybenzone	104	121	114			6.59
	Oxyfluorfen	120	90.8	108			17.0
	Parathion Ethyl	107	104	103			1.89
	Parathion Methyl	119	110	113			2.91
	PBB-153	104	132	120			9.16
	PBDE-47	87.2	89.7	97.6			8.52
	PBDE-99	78.5	87.3	89.9			2.93
	Pendimethalin	114	144	154			5.89

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pentabromotoluene	105	120	121		1.12
	Phenytoin	69.8	67.4	79.7		16.7
	Phorate	111	102	116		13.2
	Prodiamine	70.1	69.2	75.3		8.43
	Prometon	114	111	117		5.07
	Prometryn	129	120	126		4.57
	Pronamide	130	119	137		14.6
	Propanil	126	136	131		3.65
	Propargite	84.8	68.5	83.6		19.9
	Propiconazole	88.1	104	102		1.82
	Pyraflufen Ethyl	69.6	62.7	69.1		9.67
	Pyridaben	86.2	103	95.1		8.03
	Pyriproxyfen	103	92.6	101		9.08
	Simazine	96.3				2.99
	Stiropfos	87.8	78.1	95.1		19.7
	Sulfentrazone	102				2.29
	Tebuconazole	71.1	64.4	79.7		21.3
	Terbufos	125	115	126		8.70
	Terbuthylazine	89.4	88.4	92.6		4.72
	Tetradecachloro-m-terphenyl	146	163	139		15.8
	Thiobencarb	112	107	119		10.2
	Tri-o-cresyl Phosphate	110	123	119		3.92
	Triadimefon	94.3	100	106		5.62
	Tris(1-chloro-2-propyl) phosphate (TCPP)	114	136	124		7.77
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	101	111	111		0.356
	Tris(2-chloroethyl) phosphate (TCEP)	104	117	111		5.09
EPA 8321B	2,4-D	114	110	104		4.47
	2,4,5-T	113	129	110		15.7
	Acesulfame K	111	107	108		1.25
	Acetaminophen	92.7	99.9	93.3		6.84
	Acetamiprid	83.7	84.9	82.0		3.48
	Afidopyropen	49.5	75.9	86.7		13.3
	AMPA	120	126	119		5.72
	Bentazon	109				10.9
	Benzovindiflupyr	89.3	83.9	77.1		8.43
	Carbamazepine	100	80.6	84.2		4.07
	Clothianidin	109	113	110		2.61
	Dinotefuran	101	81.5	79.7		2.20
	Diuron	101	82.0	82.8		0.982
	Endothall	101	105	110		5.18
	Fenuron	101	64.4	66.1		2.54
	Fluridone	91.5	81.8	80.4		1.31
	Glufosinate	97.8	100	99.7		0.488
	Glyphosate	127	101	105		4.50
	Hydrocodone	94.0	71.6	68.4		4.55
	Ibuprofen	93.2	89.1	72.7		20.3
	Imazapyr	105	107	112		2.40
	Imidacloprid	88.3	118	109		8.29
	Linuron	91.5	81.5	83.6		2.53
	Mandestrobin	92.9	88.4	85.8		2.98
	MCPP	114	122	123		1.16

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Naproxen	61.6	63.3	65.4		3.31
	Primidone	104	105	104		0.842
	Pyraclostrobin	82.7	79.7	76.0		4.73
	Silvex	97.8	103	95.3		7.95
	Sucralose	97.4	94.6	93.1		1.50
	Thiamethoxam	110	105	101		3.43
	Tolfenpyrad	56.7	49.7	49.0		1.41
	Triclopyr	114	128	118		7.77
SM 2320 B-2011	Total Alkalinity	96.2			0.185	
SM 2540 C-2015	TDS	97.4			1.55	
SM 2540 D-2015	TSS	89.6				
SM 4500-F- C-2011	Fluoride	98.3	101	96.2		3.97
SM 5310 B-2011	Organic Carbon	98.1	95.6	95.4		0.136

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2401939
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2401939
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2401949
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2401949
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2401939
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2401939
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2401940
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2401940
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2401940
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2401940
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2401950
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2401950
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2401947, 2401948, 2401955
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2401939
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2401949
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2401939
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2401939
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2401939
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2401940

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	04/20/2023			04/20/2023 14:41	Chandler E Cox	2401939
EPA 180.1 Rev. 2.0	04/20/2023			04/20/2023 15:02	Anna M. Plaviak	2401939
EPA 200.7 Rev. 4.4	04/20/2023	04/21/2023 11:10	George D Taylor	04/28/2023 01:55	McKinley C Carter	2401949
EPA 200.8 Rev. 5.4	04/20/2023	04/21/2023 11:10	George D Taylor	04/24/2023 20:19	Conrad Hartmann	2401949
EPA 300.0 Rev. 2.1	04/20/2023			04/27/2023 08:05	James L Waggeberby	2401939
EPA 350.1 Rev. 2.0	04/20/2023			04/27/2023 12:24	Khloe J Berg	2401940
EPA 351.2 Rev. 2.0	04/20/2023	04/26/2023 12:25	Dana G. Hughes	04/27/2023 14:04	Ping Hua	2401940
EPA 353.2 Rev. 2.0	04/20/2023			04/28/2023 10:49	Anna M. Plaviak	2401940
EPA 365.1 Rev. 2.0	04/20/2023	04/24/2023 14:38	Adam P Silver	04/25/2023 09:09	James L Waggeberby	2401940
EPA 8270E	04/20/2023	04/25/2023 08:00	Fe-Val Siddell	04/26/2023 18:09	Vandana T. Nagar	2401950
	04/20/2023	04/25/2023 08:00	Fe-Val Siddell	04/26/2023 22:24	Arthur Maknenko	2401950
	04/20/2023	04/25/2023 08:00	Fe-Val Siddell	04/27/2023 15:22	Vandana T. Nagar	2401950
EPA 8321B	04/20/2023	04/21/2023 13:00	Manjita Shrestha	04/21/2023 19:31	Manjita Shrestha	2401947
	04/20/2023	04/21/2023 13:00	Manjita Shrestha	04/21/2023 19:45	Manjita Shrestha	2401948
	04/20/2023	04/21/2023 13:00	Manjita Shrestha	04/21/2023 19:58	Manjita Shrestha	2401955
	04/20/2023	04/21/2023 13:00	Manjita Shrestha	04/22/2023 15:19	Manjita Shrestha	2401947
	04/20/2023	04/21/2023 13:00	Manjita Shrestha	04/22/2023 19:03	Manjita Shrestha	2401948
	04/20/2023	04/21/2023 13:00	Manjita Shrestha	04/22/2023 19:17	Manjita Shrestha	2401955
	04/20/2023	04/24/2023 09:00	Hoor Shaik	04/26/2023 12:55	Juyoung Kim	2401947
	04/20/2023	04/24/2023 09:00	Hoor Shaik	04/26/2023 13:14	Juyoung Kim	2401948
	04/20/2023	04/24/2023 09:00	Hoor Shaik	04/26/2023 13:51	Juyoung Kim	2401955
	04/20/2023	04/24/2023 09:00	Hoor Shaik	04/26/2023 16:22	Juyoung Kim	2401948
	04/20/2023	04/24/2023 09:00	Hoor Shaik	04/27/2023 11:09	Juyoung Kim	2401947
SM 2320 B-2011	04/20/2023			04/28/2023 04:03	Dale L. Simmons	2401939
SM 2340 B-2011	04/20/2023			04/28/2023 01:55	McKinley C Carter	2401949
SM 2540 C-2015	04/20/2023			04/21/2023 13:06	Dana G. Hughes	2401939
SM 2540 D-2015	04/20/2023			04/21/2023 13:06	Dana G. Hughes	2401939
SM 4500-F- C-2011	04/20/2023			05/02/2023 14:01	Dale L. Simmons	2401939
SM 5310 B-2011	04/20/2023			04/26/2023 22:52	Elise M. Gillis	2401940