

Chemical Analysis Report

SE-DIST-2022-05-24-01

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

Event Description: **Stuart Boat**
Request ID: **RQ-2022-05-23-35**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

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

Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 15-JUN-2022 10:33



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: South Fork St. Lucie North of Pipers Landing **Collection Date/Time: 05/23/2022 10:25**

Field ID: G2SE0067

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329444	EPA 8321B	Acesulfame K	0.10	U	ug/L	P414386	
		2,4-D	0.028		ug/L	P414328	
		AMPA	10	U	ug/L	P414386	
		2,4,5-T	0.0040	U	ug/L	P414328	
		Acetaminophen	0.0080	U	ug/L	P414328	
		Endothall	0.25	U	ug/L	P414386	
		Acetamiprid	0.0020	U	ug/L	P414328	
		Glufosinate	10	U	ug/L	P414386	
		Glyphosate	10	U	ug/L	P414386	
		Afidopyropen	0.0020	U	ug/L	P414328	
		Sucralose	0.13		ug/L	P414386	
		Bentazon	0.018		ug/L	P414328	
		Benzovindiflupyr	0.0020	U	ug/L	P414328	
		Carbamazepine	8.0E-04	U	ug/L	P414328	
		Clothianidin	0.0020	U	ug/L	P414328	
		Dinotefuran	0.0020	U	ug/L	P414328	
		Diuron	0.023		ug/L	P414328	
		Fenuron	0.032	U	ug/L	P414328	
		Fluridone	0.0045		ug/L	P414328	
		Imazapyr	0.10		ug/L	P414328	
		Hydrocodone	0.0020	U	ug/L	P414328	
		Ibuprofen	0.020	U	ug/L	P414328	
		Imidacloprid	0.0043	I	ug/L	P414328	MS
		Linuron	0.0040	U	ug/L	P414328	
		Mandestrobin	0.0020	U	ug/L	P414328	
		MCPP	0.0040	U	ug/L	P414328	
		Naproxen	0.0080	U	ug/L	P414328	
		Primidone	0.0040	U	ug/L	P414328	
		Pyraclostrobin	0.0020	U	ug/L	P414328	
		Silvex	0.0040	U	ug/L	P414328	
		Thiamethoxam	0.0020	U	ug/L	P414328	
		Tolfenpyrad	0.0020	U	ug/L	P414328	
		Triclopyr	0.0040	U	ug/L	P414328	
2329447	EPA 200.7 Rev. 4.4	Calcium	241		mg/L	P414421	
		Iron	150	I	ug/L	P414421	
		Magnesium	571		mg/L	P414421	
		Strontium	4.48E+03		ug/L	P414421	
		Tin	150	U	ug/L	P414421	
		Titanium	7.5	I	ug/L	P414421	
		Vanadium	6.0	U	ug/L	P414421	
		Zinc	15	U	ug/L	P414421	
	EPA 200.8 Rev. 5.4	Aluminum	180	I	ug/L	P414421	
		Antimony	0.20	U	ug/L	P414421	
		Arsenic	2.74		ug/L	P414421	

Field ID: G2SE0067

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329447	EPA 200.8 Rev. 5.4	Beryllium	0.10	U	ug/L	P414421	
		Cadmium	0.080	U	ug/L	P414421	
		Chromium	1.6	U	ug/L	P414421	
		Cobalt	0.22	I	ug/L	P414421	
		Copper	1.6	U	ug/L	P414421	
		Lead	0.80	U	ug/L	P414421	
		Manganese	28.3		ug/L	P414421	
		Molybdenum	6.0		ug/L	P414421	
		Nickel	2.0	U	ug/L	P414421	
		Selenium	0.80	U	ug/L	P414421	
		Silver	0.040	U	ug/L	P414421	
		Thallium	0.40	U	ug/L	P414421	

Ref. Method and Comment:
EPA 8321B: MDL for some parameters elevated due to matrix interference.
EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample. Precision data is unavailable for tin because sample matrix interference necessitated a high dilution.

Sample Location: North Fork St. Lucie @ Harbor Inn

Collection Date/Time: 05/23/2022 11:11

Field ID: G2SE0066

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329448	EPA 200.7 Rev. 4.4	Calcium	333		mg/L	P414421	
		Iron	330	I	ug/L	P414421	
		Magnesium	922		mg/L	P414421	
		Strontium	6.62E+03		ug/L	P414421	
		Tin	150	U	ug/L	P414421	
		Titanium	15.0		ug/L	P414421	
		Vanadium	6.0	U	ug/L	P414421	
		Zinc	15	U	ug/L	P414421	
	EPA 200.8 Rev. 5.4	Aluminum	310		ug/L	P414421	
		Antimony	0.20	U	ug/L	P414421	
		Arsenic	2.39		ug/L	P414421	
		Beryllium	0.040	U	ug/L	P414421	
		Cadmium	0.080	U	ug/L	P414421	
		Chromium	1.6	U	ug/L	P414421	
		Cobalt	0.32		ug/L	P414421	
		Copper	1.9	I	ug/L	P414421	
		Lead	0.80	U	ug/L	P414421	
		Manganese	20.5		ug/L	P414421	
		Molybdenum	9.3		ug/L	P414421	
		Nickel	2.0	U	ug/L	P414421	
		Selenium	0.80	U	ug/L	P414421	
		Silver	0.040	U	ug/L	P414421	
		Thallium	0.40	U	ug/L	P414421	
2329451	EPA 8270E	Oxybenzone**	9.9	U	ng/L	P414288	MS, RPD
		Acetochlor	0.25	U	ng/L	P414288	
		Octinoxate**	20	U	ng/L	P414288	
		Alachlor	0.25	U	ng/L	P414288	
		Avobenzone**	99	U	ng/L	P414288	
		Ametryn	4.5		ng/L	P414288	
		Atrazine	42		ng/L	P414288	
		Atrazine Desethyl	8.3		ng/L	P414288	
		Azinphos Methyl	2.0	U	ng/L	P414288	
		Azoxystrobin**	1.7	I	ng/L	P414288	
		Bromacil	0.49	U	ng/L	P414288	
		Butylate	0.40	U	ng/L	P414288	
		Caffeine**	7.4	U	ng/L	P414288	
		Carbophenothion	2.5	U	ng/L	P414288	
		Carfentrazone Ethyl**	0.099	U	ng/L	P414288	
		Chlorfenapyr**	0.17	U	ng/L	P414288	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P414288	
		Chlorpyrifos Methyl	0.049	U	ng/L	P414288	
		Coumaphos**	0.49	U	ng/L	P414288	
		Cyanazine	3.2	U	ng/L	P414288	
		Cyprodinil**	0.099	U	ng/L	P414288	

Field ID: G2SE0066

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329451	EPA 8270E	Demeton	1.5	U	ng/L	P414288	
		Diazinon	0.12	U	ng/L	P414288	
		Difenoconazole**	0.59	U	ng/L	P414288	
		Dimethenamid**	0.099	UJ	ng/L	P414288	LCS
		Dimethomorph**	0.17	U	ng/L	P414288	MS, RPD
		Disulfoton	0.49	U	ng/L	P414288	
		Dithiopyr**	0.17	U	ng/L	P414288	
		EPTC	1.2	U	ng/L	P414288	
		Ethion	0.15	U	ng/L	P414288	
		Ethoprop	0.099	U	ng/L	P414288	
		Etridiazole**	0.15	U	ng/L	P414288	
		Fenamiphos	0.49	U	ng/L	P414288	
		Fenbuconazole**	0.21	I	ng/L	P414288	
		Fipronil	0.25	U	ng/L	P414288	
		Fipronil Desulfinyl**	0.20	I	ng/L	P414288	
		Fipronil Sulfide	0.15	U	ng/L	P414288	
		Fipronil Sulfone	0.15	I	ng/L	P414288	
		Fluazifop-P-butyl**	0.099	U	ng/L	P414288	
		Fludioxonil**	0.12	U	ng/L	P414288	
		Flumioxazin**	1.7	U	ng/L	P414288	
		Flutolanil**	0.099	U	ng/L	P414288	
		Fluxapyroxad**	0.37	I	ng/L	P414288	
		Fonofos	0.20	U	ng/L	P414288	
		Hexazinone	8.5		ng/L	P414288	
		Imazalil**	0.74	U	ng/L	P414288	
		Iprodione**	0.59	U	ng/L	P414288	
		Loratadine**	0.099	U	ng/L	P414288	
		Malathion	0.35	U	ng/L	P414288	
		Metalaxyl	2.0	I	ng/L	P414288	
		Metolachlor	0.35	U	ng/L	P414288	
		Metribuzin	2.5	U	ng/L	P414288	
		Mevinphos	1.0	U	ng/L	P414288	
		Molinate	0.30	U	ng/L	P414288	
		Myclobutanil**	0.25	U	ng/L	P414288	
		Naled**	1.5	U	ng/L	P414288	
		Napropamide**	0.40	UJ	ng/L	P414288	LCS
		Norflurazon	6.0		ng/L	P414288	
		Oxadiazon	0.97	I	ng/L	P414288	
		Oxyfluorfen**	0.15	U	ng/L	P414288	
		Parathion Ethyl	0.25	U	ng/L	P414288	
		Parathion Methyl	0.54	U	ng/L	P414288	
		Pendimethalin	0.99	U	ng/L	P414288	
		Phenytol**	3.5	U	ng/L	P414288	
		Phorate	0.52	U	ng/L	P414288	
		Prodiamine**	0.30	U	ng/L	P414288	

Field ID: G2SE0066

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329451	EPA 8270E	Prometon	0.89	U	ng/L	P414288	
		Prometryn	0.20	U	ng/L	P414288	
		Pronamide**	0.15	U	ng/L	P414288	
		Propanil**	0.12	U	ng/L	P414288	
		Propargite**	1.5	U	ng/L	P414288	
		Propiconazole**	2.0	I	ng/L	P414288	
		Pyraflufen Ethyl**	0.25	U	ng/L	P414288	
		Pyridaben**	0.45	U	ng/L	P414288	
		Pyriproxyfen**	0.12	U	ng/L	P414288	
		Simazine	1.1	I	ng/L	P414288	
		Stiophos**	0.12	U	ng/L	P414288	
		Sulfentrazone**	0.49	U	ng/L	P414288	
		Tebuconazole**	0.49	U	ng/L	P414288	
		Terbufos	0.099	U	ng/L	P414288	
		Terbutylazine	0.42	U	ng/L	P414288	
		Thiobencarb**	0.59	U	ng/L	P414288	
		Triadimefon**	0.25	U	ng/L	P414288	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample. Precision data is unavailable for tin because sample matrix interference necessitated a high dilution.

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

Sample Location: Bessey Creek @ Mouth

Collection Date/Time: 05/23/2022 11:40

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329438	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P414319	
	SM 2320 B-2011	Total Alkalinity	140		mg CaCO3/L	P414540	
	SM 2540 D-2011	TSS	12		mg/L	P414663	
	SM 4500-F- C-2011	Fluoride	0.83	J	mg F/L	P414544	LCS
2329439	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P414450	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.67		mg N/L	P414617	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P414430	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P414409	
	SM 5310 B-2011	Organic Carbon	9.3		mg C/L	P414518	
2329450	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P414288	MS, RPD
		Acetochlor	0.24	U	ng/L	P414288	
		Octinoxate**	19	U	ng/L	P414288	
		Alachlor	0.24	U	ng/L	P414288	
		Avobenzone**	96	U	ng/L	P414288	
		Ametryn	3.3		ng/L	P414288	
		Atrazine	40		ng/L	P414288	
		Atrazine Desethyl	7.1		ng/L	P414288	
		Azinphos Methyl	1.9	U	ng/L	P414288	
		Azoxystrobin**	1.5	I	ng/L	P414288	
		Bromacil	1.5	I	ng/L	P414288	
		Butylate	0.38	U	ng/L	P414288	
		Caffeine**	7.2	U	ng/L	P414288	
		Carbophenothion	2.4	U	ng/L	P414288	
		Carfentrazone Ethyl**	0.096	U	ng/L	P414288	
		Chlorfenapyr**	0.17	U	ng/L	P414288	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P414288	
		Chlorpyrifos Methyl	0.048	U	ng/L	P414288	
		Coumaphos**	0.48	U	ng/L	P414288	
		Cyanazine	3.1	U	ng/L	P414288	
		Cyprodinil**	0.096	U	ng/L	P414288	
		Demeton	1.4	U	ng/L	P414288	
		Diazinon	0.12	U	ng/L	P414288	
		Difenoconazole**	0.58	U	ng/L	P414288	
		Dimethenamid**	0.096	UJ	ng/L	P414288	LCS
		Dimethomorph**	0.17	U	ng/L	P414288	MS, RPD
		Disulfoton	0.48	U	ng/L	P414288	
		Dithiopyr**	0.17	U	ng/L	P414288	
		EPTC	1.2	U	ng/L	P414288	
		Ethion	0.14	U	ng/L	P414288	
		Ethoprop	0.096	U	ng/L	P414288	
		Etridiazole**	0.14	U	ng/L	P414288	
		Fenamiphos	0.48	U	ng/L	P414288	
		Fenbuconazole**	0.17	I	ng/L	P414288	
		Fipronil	0.24	U	ng/L	P414288	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329450	EPA 8270E	Fipronil Desulfinyl**	0.39	I	ng/L	P414288	
		Fipronil Sulfide	0.14	U	ng/L	P414288	
		Fipronil Sulfone	0.34	I	ng/L	P414288	
		Fluazifop-P-butyl**	0.096	U	ng/L	P414288	
		Fludioxonil**	0.12	U	ng/L	P414288	
		Flumioxazin**	1.7	U	ng/L	P414288	
		Flutolanil**	0.096	U	ng/L	P414288	
		Fluxapyroxad**	0.32	I	ng/L	P414288	
		Fonofos	0.19	U	ng/L	P414288	
		Hexazinone	9.9		ng/L	P414288	
		Imazalil**	0.72	U	ng/L	P414288	
		Iprodione**	0.58	U	ng/L	P414288	
		Loratadine**	0.096	U	ng/L	P414288	
		Malathion	0.34	U	ng/L	P414288	
		Metalaxyl	1.4	I	ng/L	P414288	
		Metolachlor	0.34	U	ng/L	P414288	
		Metribuzin	2.4	U	ng/L	P414288	
		Mevinphos	1.0	U	ng/L	P414288	
		Molinate	0.29	U	ng/L	P414288	
		Myclobutanil**	0.24	U	ng/L	P414288	
		Naled**	1.4	U	ng/L	P414288	
		Napropamide**	0.38	UJ	ng/L	P414288	LCS
		Norflurazon	5.1		ng/L	P414288	
		Oxadiazon	8.0		ng/L	P414288	
		Oxyfluorfen**	0.14	U	ng/L	P414288	
		Parathion Ethyl	0.24	U	ng/L	P414288	
		Parathion Methyl	0.53	U	ng/L	P414288	
		Pendimethalin	0.96	U	ng/L	P414288	
		Phenytol**	3.4	U	ng/L	P414288	
		Phorate	0.50	U	ng/L	P414288	
		Prodiamine**	0.29	U	ng/L	P414288	
		Prometon	0.86	U	ng/L	P414288	
		Prometryn	0.19	U	ng/L	P414288	
		Pronamide**	0.14	U	ng/L	P414288	
		Propanil**	0.12	U	ng/L	P414288	
		Propargite**	1.4	U	ng/L	P414288	
		Propiconazole**	2.5		ng/L	P414288	
		Pyraflufen Ethyl**	0.24	U	ng/L	P414288	
		Pyridaben**	0.43	U	ng/L	P414288	
		Pyriproxyfen**	0.12	U	ng/L	P414288	
		Simazine	0.48	U	ng/L	P414288	
		Stirophos**	0.12	U	ng/L	P414288	
		Sulfentrazone**	12		ng/L	P414288	
		Tebuconazole**	0.85	I	ng/L	P414288	
		Terbufos	0.096	U	ng/L	P414288	

Field ID: G2SE0048

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329450	EPA 8270E	Terbutylazine	0.41	U	ng/L	P414288	
		Thiobencarb**	0.58	U	ng/L	P414288	
		Triadimefon**	0.24	U	ng/L	P414288	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
SM 4500-F- C-2011: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: South Fork SLR @ Leighton Park

Collection Date/Time: 05/23/2022 12:25

Field ID: G2SE0013

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329445	EPA 200.7 Rev. 4.4	Calcium	291		mg/L	P414421	
		Iron	400		ug/L	P414421	
		Magnesium	774		mg/L	P414421	
		Strontium	5.60E+03		ug/L	P414421	
		Tin	150	U	ug/L	P414421	
		Vanadium	6.0	U	ug/L	P414421	
	EPA 200.8 Rev. 5.4	Zinc	15	U	ug/L	P414421	
		Aluminum	350		ug/L	P414421	
		Antimony	0.20	U	ug/L	P414421	
		Arsenic	2.61		ug/L	P414421	
		Beryllium	0.040	U	ug/L	P414421	
		Cadmium	0.080	U	ug/L	P414421	
		Chromium	1.6	U	ug/L	P414421	
		Cobalt	0.22	I	ug/L	P414421	
		Copper	1.6	U	ug/L	P414421	
		Lead	0.80	U	ug/L	P414421	
		Manganese	30.8		ug/L	P414421	
		Molybdenum	7.5		ug/L	P414421	
		Nickel	2.0	U	ug/L	P414421	
		Selenium	0.80	U	ug/L	P414421	
		Silver	0.040	U	ug/L	P414421	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample. Precision data is unavailable for tin because sample matrix interference necessitated a high dilution.

Sample Location: South Fork St. Lucie West of Matchett Point

Collection Date/Time: 05/23/2022 10:50

Field ID: G2SE0068

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329446	EPA 200.7 Rev. 4.4	Calcium	297		mg/L	P414421	
		Iron	460		ug/L	P414421	
		Magnesium	831		mg/L	P414421	
		Strontium	5.83E+03		ug/L	P414421	
		Tin	150	U	ug/L	P414421	
		Titanium	17.5		ug/L	P414421	
		Vanadium	6.0	U	ug/L	P414421	
		Zinc	15	U	ug/L	P414421	
	EPA 200.8 Rev. 5.4	Aluminum	410		ug/L	P414421	
		Antimony	0.20	U	ug/L	P414421	
		Arsenic	2.50		ug/L	P414421	
		Beryllium	0.040	U	ug/L	P414421	
		Cadmium	0.080	U	ug/L	P414421	
		Chromium	1.6	U	ug/L	P414421	
		Cobalt	0.24	I	ug/L	P414421	
		Copper	1.9	I	ug/L	P414421	
		Lead	0.80	U	ug/L	P414421	
		Manganese	26.6		ug/L	P414421	
		Molybdenum	8.7		ug/L	P414421	
		Nickel	2.0	U	ug/L	P414421	
		Selenium	0.80	U	ug/L	P414421	
		Silver	0.040	U	ug/L	P414421	
		Thallium	0.40	U	ug/L	P414421	
2329449	EPA 8270E	Oxybenzone**	9.6	U	ng/L	P414288	MS, RPD
		Acetochlor	0.24	U	ng/L	P414288	
		Octinoxate**	19	U	ng/L	P414288	
		Alachlor	0.24	U	ng/L	P414288	
		Avobenzone**	96	U	ng/L	P414288	
		Ametryn	3.6		ng/L	P414288	
		Atrazine	36		ng/L	P414288	
		Atrazine Desethyl	6.2		ng/L	P414288	
		Azinphos Methyl	1.9	U	ng/L	P414288	
		Azoxystrobin**	1.7	I	ng/L	P414288	
		Bromacil	1.2	I	ng/L	P414288	
		Butylate	0.38	U	ng/L	P414288	
		Caffeine**	7.2	U	ng/L	P414288	
		Carbophenothion	2.4	U	ng/L	P414288	
		Carfentrazone Ethyl**	0.096	U	ng/L	P414288	
		Chlorfenapyr**	0.17	U	ng/L	P414288	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P414288	
		Chlorpyrifos Methyl	0.048	U	ng/L	P414288	
		Coumaphos**	0.48	U	ng/L	P414288	
		Cyanazine	3.1	U	ng/L	P414288	
		Cyprodinil**	0.096	U	ng/L	P414288	

Field ID: G2SE0068

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329449	EPA 8270E	Demeton	1.4	U	ng/L	P414288	
		Diazinon	0.12	U	ng/L	P414288	
		Difenoconazole**	0.57	U	ng/L	P414288	
		Dimethenamid**	0.096	UJ	ng/L	P414288	LCS
		Dimethomorph**	0.17	U	ng/L	P414288	MS, RPD
		Disulfoton	0.48	U	ng/L	P414288	
		Dithiopyr**	0.17	U	ng/L	P414288	
		EPTC	1.2	U	ng/L	P414288	
		Ethion	0.14	U	ng/L	P414288	
		Ethoprop	0.096	U	ng/L	P414288	
		Etridiazole**	0.14	U	ng/L	P414288	
		Fenamiphos	0.48	U	ng/L	P414288	
		Fenbuconazole**	0.19	I	ng/L	P414288	
		Fipronil	0.24	U	ng/L	P414288	
		Fipronil Desulfinyl**	0.24	I	ng/L	P414288	
		Fipronil Sulfide	0.14	U	ng/L	P414288	
		Fipronil Sulfone	0.15	I	ng/L	P414288	
		Fluazifop-P-butyl**	0.096	U	ng/L	P414288	
		Fludioxonil**	0.12	U	ng/L	P414288	
		Flumioxazin**	1.7	U	ng/L	P414288	
		Flutolanil**	0.096	U	ng/L	P414288	
		Fluxapyroxad**	0.37	I	ng/L	P414288	
		Fonofos	0.19	U	ng/L	P414288	
		Hexazinone	9.1		ng/L	P414288	
		Imazalil**	0.72	U	ng/L	P414288	
		Iprodione**	0.57	U	ng/L	P414288	
		Loratadine**	0.096	U	ng/L	P414288	
		Malathion	0.33	U	ng/L	P414288	
		Metaxyl	1.1	I	ng/L	P414288	
		Metolachlor	0.53	I	ng/L	P414288	
		Metribuzin	2.4	U	ng/L	P414288	
		Mevinphos	1.0	U	ng/L	P414288	
		Molinate	0.29	U	ng/L	P414288	
		Myclobutanil**	0.29	I	ng/L	P414288	
		Naled**	1.4	U	ng/L	P414288	
		Napropamide**	0.38	UJ	ng/L	P414288	LCS
		Norflurazon	6.7		ng/L	P414288	
		Oxadiazon	1.0	I	ng/L	P414288	
		Oxyfluorfen**	0.14	U	ng/L	P414288	
		Parathion Ethyl	0.24	U	ng/L	P414288	
		Parathion Methyl	0.53	U	ng/L	P414288	
		Pendimethalin	0.96	U	ng/L	P414288	
		Phenytol**	3.3	U	ng/L	P414288	
		Phorate	0.50	U	ng/L	P414288	
		Prodiamine**	0.29	U	ng/L	P414288	

Field ID: G2SE0068

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2329449	EPA 8270E	Prometon	0.86	U	ng/L	P414288	
		Prometryn	0.19	U	ng/L	P414288	
		Pronamide**	0.14	U	ng/L	P414288	
		Propanil**	0.12	U	ng/L	P414288	
		Propargite**	1.4	U	ng/L	P414288	
		Propiconazole**	2.3		ng/L	P414288	
		Pyraflufen Ethyl**	0.24	U	ng/L	P414288	
		Pyridaben**	0.43	U	ng/L	P414288	
		Pyriproxyfen**	0.12	U	ng/L	P414288	
		Simazine	0.48	U	ng/L	P414288	
		Stiophos**	0.12	U	ng/L	P414288	
		Sulfentrazone**	0.48	U	ng/L	P414288	
		Tebuconazole**	0.53	I	ng/L	P414288	
		Terbufos	0.096	U	ng/L	P414288	
		Terbutylazine	0.41	U	ng/L	P414288	
		Thiobencarb**	0.57	U	ng/L	P414288	
		Triadimefon**	0.24	U	ng/L	P414288	

Ref. Method and Comment:

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium, magnesium and strontium are unavailable because of high analyte concentration in the QC sample. Precision data is unavailable for tin because sample matrix interference necessitated a high dilution.

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P414319

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P414421

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	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: P414421

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
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 350.1 Rev. 2.0
Batch ID: P414450

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P414617

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P414430

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P414409

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

Reference Method: EPA 8270E
Batch ID: P414288

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	2.5	U	ng/L
Carbophenothion	2.5	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Demeton	1.5	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethenamid	0.10	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P414288

Component	Result	Code	Units
Dimethomorph	0.18	U	ng/L
Dimethomorph	0.18	U	ng/L
Disulfoton	0.50	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Iprodione	0.60	U	ng/L
Loratadine	0.10	U	ng/L
Loratadine	0.10	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metolachlor	0.35	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P414288

Component	Result	Code	Units
Metribuzin	2.5	U	ng/L
Metribuzin	2.5	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Naled	1.5	U	ng/L
Napropamide	0.40	U	ng/L
Napropamide	0.40	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.30	U	ng/L
Prodiamine	0.30	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P414288

Component	Result	Code	Units
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
Stirophos	0.12	U	ng/L
Sulfentrazone	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8321B

Batch ID: P414328

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	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P414386

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: P414540

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

Reference Method: SM 2540 D-2011

Batch ID: P414663

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P414544

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P414518

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P414319

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.6		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P414421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	101		P	85 - 115
Magnesium	102		P	85 - 115
Strontium	97.5		P	85 - 115
Tin	96.0		P	85 - 115
Titanium	97.8		P	85 - 115
Vanadium	91.8		P	85 - 115
Zinc	94.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P414421

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.5		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.3		P	85 - 115
Beryllium	90.6		P	85 - 115
Cadmium	98.6		P	85 - 115
Chromium	95.3		P	85 - 115
Cobalt	97.2		P	85 - 115
Copper	96.3		P	85 - 115
Lead	100		P	85 - 115
Manganese	95.3		P	85 - 115
Molybdenum	99.5		P	85 - 115
Nickel	98.3		P	85 - 115
Selenium	97.9		P	85 - 115
Silver	100		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P414450

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P414617

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

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P414430

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P414409

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

Reference Method: EPA 8270E

Batch ID: P414288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	80.9		P	70 - 121
Alachlor	81.7		P	68 - 119
Ametryn	93.2		P	64 - 139
Atrazine	80.7		P	76 - 120
Atrazine Desethyl	70.2		P	44 - 126
Avobenzone	97.6		P	76 - 212
Azinphos Methyl	102		P	43 - 192
Azoxystrobin	120		P	36 - 224
Bromacil	65.8		P	52 - 121
Butylate	52.0		P	28 - 91.0
Caffeine	72.0		P	50 - 134
Carbophenothion	74.6		P	56 - 129
Carfentrazone Ethyl	92.2		P	60 - 141
Chlorfenapyr	71.5		P	56 - 115
Chlorpyrifos Ethyl	78.8		P	60 - 118
Chlorpyrifos Methyl	83.3		P	68 - 119
Coumaphos	58.7		P	18 - 250
Cyanazine	73.6		P	61 - 250
Cyprodinil	95.7		P	55 - 145
Demeton	68.5		P	30 - 159
Diazinon	97.6		P	70 - 123
Difenoconazole	168		P	49 - 204
Dimethenamid	59.1		F	64 - 115
Dimethomorph	126		P	12 - 219
Disulfoton	93.4		P	44 - 125
Dithiopyr	75.8		P	64 - 115
EPTC	53.4		P	28 - 86.0
Ethion	57.3		P	33 - 125
Ethoprop	98.2		P	64 - 116
Etridiazole	60.6		P	34 - 91.0
Fenamiphos	62.4		P	12 - 127
Fenbuconazole	76.1		P	59 - 151
Fipronil	82.2		P	67 - 129
Fipronil Desulfinyl	81.5		P	65 - 127
Fipronil Sulfide	76.9		P	61 - 116
Fipronil Sulfone	75.3		P	55 - 117
Fluazifop-P-butyl	89.4		P	62 - 127
Fludioxonil	63.1		P	62 - 128
Flumioxazin	51.0		P	33 - 250
Flutolanil	63.8		P	56 - 127
Fluxapyroxad	119		P	45 - 128
Fonofos	89.8		P	62 - 111
Hexazinone	69.1		P	46 - 139
Imazalil	63.2		P	38 - 142
Iprodione	73.5		P	47 - 135
Loratadine	143		P	10 - 244

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P414288

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Malathion	80.0		P	61 - 139
Metalaxyl	76.4		P	10 - 119
Metolachlor	74.5		P	65 - 118
Metribuzin	106		P	51 - 250
Mevinphos	85.5		P	53 - 121
Molinate	64.8		P	42 - 96.0
Myclobutanil	58.2		P	55 - 128
Naled	82.8		P	10 - 98.0
Napropamide	41.9		F	49 - 121
Norflurazon	64.3		P	61 - 126
Octinoxate	61.6		P	30 - 159
Oxadiazon	70.1		P	59 - 116
Oxybenzone	69.5		P	61 - 139
Oxyfluorfen	73.5		P	64 - 137
Parathion Ethyl	90.9		P	70 - 112
Parathion Methyl	116		P	76 - 133
Pendimethalin	85.8		P	52 - 117
Phenytoin	20.3		P	10 - 199
Phorate	82.0		P	48 - 121
Prodiamine	49.6		P	26 - 142
Prometon	69.1		P	43 - 123
Prometryn	88.5		P	66 - 127
Pronamide	89.1		P	75 - 121
Propanil	84.6		P	45 - 150
Propargite	100		P	42 - 208
Propiconazole	76.0		P	60 - 125
Pyraflufen Ethyl	112		P	70 - 138
Pyridaben	69.2		P	35 - 245
Pyriproxyfen	38.4		P	30 - 149
Simazine	81.5		P	72 - 125
Stirophos	64.3		P	29 - 164
Sulfentrazone	52.8		P	21 - 139
Tebuconazole	20.7		P	10 - 115
Terbufos	115		P	60 - 123
Terbuthylazine	83.3		P	72 - 115
Thiobencarb	72.7		P	31 - 139
Triadimefon	66.5		P	65 - 116

Reference Method: EPA 8321B
Batch ID: P414328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	92.1		P	40 - 150
2,4,5-T	74.9		P	40 - 150
Acetaminophen	68.4		P	30 - 150
Acetamiprid	88.6		P	40 - 150
Afidopyropen	71.8		P	30 - 150
Bentazon	119		P	30 - 150
Benzovindiflupyr	90.1		P	40 - 150
Carbamazepine	102		P	40 - 150
Clothianidin	98.0		P	40 - 150
Dinotefuran	99.6		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P414328

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diuron	89.1		P	40 - 150
Fenuron	106		P	40 - 150
Fluridone	83.0		P	40 - 150
Hydrocodone	90.1		P	40 - 150
Ibuprofen	78.0		P	40 - 150
Imazapyr	99.4		P	40 - 150
Imidacloprid	96.6		P	40 - 150
Linuron	71.1		P	40 - 150
Mandestrobin	83.0		P	40 - 150
MCPP	119		P	40 - 150
Naproxen	76.0		P	40 - 150
Primidone	94.7		P	40 - 150
Pyraclostrobin	94.8		P	40 - 150
Silvex	75.0		P	40 - 150
Thiamethoxam	94.5		P	40 - 150
Tolfenpyrad	55.0		P	30 - 150
Triclopyr	88.1		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P414386

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	129		P	40 - 150
AMPA	97.7		P	40 - 150
Endothall	95.8		P	40 - 150
Glufosinate	97.7		P	40 - 150
Glyphosate	95.2		P	40 - 150
Sucralose	95.3		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P414540

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	95.2		P	94 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P414544

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

Reference Method: SM 5310 B-2011

Batch ID: P414518

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P414421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2329447	Iron	104	108	P/P	70 - 130
2329447	Tin	72.0	91.9	P/P	70 - 130
2329447	Titanium	102	112	P/P	70 - 130
2329447	Vanadium	98.8	103	P/P	70 - 130
2329447	Zinc	94.6	99.9	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P414421

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2329447	Aluminum	97.7	102	P/P	70 - 130
2329447	Antimony	98.9	102	P/P	70 - 130
2329447	Arsenic	110	110	P/P	70 - 130
2329447	Beryllium	103	122	P/P	70 - 130
2329447	Cadmium	88.5	94.4	P/P	70 - 130
2329447	Chromium	95.8	97.6	P/P	70 - 130
2329447	Cobalt	110	112	P/P	70 - 130
2329447	Copper	107	110	P/P	70 - 130
2329447	Lead	106	109	P/P	70 - 130
2329447	Manganese	92.9	95.2	P/P	70 - 130
2329447	Molybdenum	109	113	P/P	70 - 130
2329447	Nickel	113	115	P/P	70 - 130
2329447	Selenium	98.4	98.3	P/P	70 - 130
2329447	Silver	89.1	90.0	P/P	70 - 130
2329447	Thallium	106	110	P/P	70 - 130

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P414450

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2329737	Ammonia-N	98.4	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P414617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2327402	Kjeldahl Nitrogen	95.1	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P414430

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2328684	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P414409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2329737	Total-P	99.6	98.1	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P414288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2328713	Acetochlor	90.1	75.0	P/P	65 - 124
2328713	Alachlor	82.1	72.1	P/P	61 - 121
2328713	Ametryn	102	99.9	P/P	52 - 216
2328713	Atrazine Desethyl	63.9	56.4	P/P	15 - 160
2328713	Avobenzone	108	110	P/P	59 - 206
2328713	Azinphos Methyl	126	104	P/P	40 - 292
2328713	Azoxystrobin	116	108	P/P	12 - 242
2328713	Bromacil	82.3	71.8	P/P	54 - 167
2328713	Butylate	49.9	41.5	P/P	14 - 94.0
2328713	Caffeine	98.3	95.6	P/P	10 - 226
2328713	Carbophenothion	77.4	66.8	P/P	49 - 122
2328713	Carfentrazone Ethyl	95.0	86.7	P/P	53 - 138
2328713	Chlorfenapyr	73.9	77.8	P/P	50 - 150
2328713	Chlorpyrifos Ethyl	68.9	69.0	P/P	52 - 122
2328713	Chlorpyrifos Methyl	88.2	79.6	P/P	66 - 117
2328713	Coumaphos	74.3	71.9	P/P	50 - 220
2328713	Cyanazine	81.0	68.7	P/P	43 - 245
2328713	Cyprodinil	100	83.2	P/P	50 - 150
2328713	Demeton	111	92.5	P/P	43 - 188
2328713	Diazinon	100	85.5	P/P	69 - 131
2328713	Difenoconazole	102	92.5	P/P	34 - 231
2328713	Dimethenamid	67.5	61.0	P/P	55 - 118
2328713	Dimethomorph	88.7	46.6	P/F	50 - 150
2328713	Disulfoton	84.4	82.2	P/P	38 - 141
2328713	Dithiopyr	71.1	64.2	P/P	42 - 116
2328713	EPTC	44.4	40.5	P/P	18 - 85.0
2328713	Ethion	55.3	51.7	P/P	10 - 131
2328713	Ethoprop	101	88.9	P/P	65 - 129
2328713	Etridiazole	60.3	53.6	P/P	50 - 150
2328713	Fenamiphos	86.1	88.5	P/P	31 - 137
2328713	Fenbuconazole	84.8	74.5	P/P	57 - 160
2328713	Fipronil	89.2	76.4	P/P	62 - 132
2328713	Fipronil Desulfinyl	98.8	83.1	P/P	57 - 131
2328713	Fipronil Sulfide	78.0	69.3	P/P	15 - 138
2328713	Fipronil Sulfone	69.9	56.1	P/P	21 - 134
2328713	Fluazifop-P-butyl	84.2	74.4	P/P	54 - 133
2328713	Fludioxonil	76.8	67.1	P/P	58 - 127
2328713	Flumioxazin	109	98.1	P/P	33 - 300
2328713	Flutolanil	73.6	72.9	P/P	42 - 130
2328713	Fluxapyroxad	64.0	56.0	P/P	23 - 141
2328713	Fonofos	86.0	79.4	P/P	58 - 119
2328713	Hexazinone	82.7	78.5	P/P	68 - 172
2328713	Imazalil	94.1	91.6	P/P	48 - 283
2328713	Iprodione	81.7	68.4	P/P	38 - 140
2328713	Loratadine	87.2	95.1	P/P	50 - 150
2328713	Malathion	79.9	78.7	P/P	40 - 137
2328713	Metalaxyl	80.2	66.8	P/P	21 - 129
2328713	Metolachlor	72.2	64.6	P/P	55 - 122
2328713	Metribuzin	98.5	93.8	P/P	38 - 187
2328713	Mevinphos	105	91.8	P/P	54 - 134
2328713	Molinate	64.7	62.0	P/P	41 - 97.0
2328713	Myclobutanil	86.2	75.9	P/P	56 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P414288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2328713	Naled	87.8	81.3	P/P	10 - 108
2328713	Napropamide	64.8	56.8	P/P	50 - 150
2328713	Norflurazon	76.3	65.1	P/P	32 - 122
2328713	Octinoxate	42.3	52.7	P/P	25 - 150
2328713	Oxadiazon	71.4	65.1	P/P	40 - 119
2328713	Oxybenzone	53.6	157	F/F	59 - 147
2328713	Oxyfluorfen	101	88.6	P/P	61 - 153
2328713	Parathion Ethyl	87.1	76.3	P/P	59 - 130
2328713	Parathion Methyl	124	112	P/P	65 - 155
2328713	Pendimethalin	101	95.6	P/P	49 - 138
2328713	Phenytol	57.5	56.5	P/P	50 - 200
2328713	Phorate	110	84.8	P/P	54 - 161
2328713	Prodiamine	37.9	33.1	P/P	33 - 161
2328713	Prometon	69.6	77.9	P/P	48 - 140
2328713	Prometryn	87.1	74.5	P/P	55 - 134
2328713	Pronamide	93.4	80.3	P/P	66 - 137
2328713	Propanil	114	101	P/P	50 - 150
2328713	Propargite	128	126	P/P	50 - 200
2328713	Propiconazole	76.7	62.9	P/P	36 - 150
2328713	Pyraflufen Ethyl	74.0	68.4	P/P	50 - 150
2328713	Pyridaben	109	103	P/P	50 - 200
2328713	Pyriproxyfen	79.3	69.0	P/P	10 - 165
2328713	Simazine	94.8	80.1	P/P	57 - 145
2328713	Stirophos	73.3	63.4	P/P	50 - 150
2328713	Sulfentrazone	79.8	65.9	P/P	34 - 140
2328713	Tebuconazole	40.5	37.6	P/P	10 - 127
2328713	Terbufos	109	102	P/P	59 - 138
2328713	Terbuthylazine	90.1	75.1	P/P	68 - 119
2328713	Thiobencarb	64.7	64.4	P/P	50 - 150
2328713	Triadimefon	70.1	59.9	P/P	50 - 150

Reference Method: EPA 8321B
Batch ID: P414328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2328671	2,4-D	99.7	100	P/P	40 - 150
2328671	2,4,5-T	78.7	79.5	P/P	40 - 150
2328671	Acetaminophen	104	103	P/P	30 - 150
2328671	Acetamiprid	95.9	102	P/P	40 - 150
2328671	Afidopyropen	69.6	72.7	P/P	30 - 150
2328671	Bentazon	105	105	P/P	30 - 150
2328671	Benzovindiflupyr	92.3	94.7	P/P	40 - 150
2328671	Carbamazepine	104	103	P/P	40 - 150
2328671	Clothianidin	126	122	P/P	40 - 150
2328671	Dinotefuran	141	142	P/P	40 - 150
2328671	Diuron	86.5	86.7	P/P	40 - 150
2328671	Fenuron	85.9	90.1	P/P	40 - 150
2328671	Fluridone	86.3	78.4	P/P	40 - 150
2328671	Hydrocodone	93.3	100	P/P	40 - 150
2328671	Ibuprofen	72.5	78.8	P/P	40 - 150
2328671	Imazapyr	116	119	P/P	40 - 150
2328671	Imidacloprid	160	158	F/F	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P414328

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2328671	Linuron	71.0	64.1	P/P	40 - 150
2328671	Mandestrobin	82.9	81.9	P/P	40 - 150
2328671	MCPP	133	133	P/P	40 - 150
2328671	Naproxen	77.6	72.4	P/P	40 - 150
2328671	Primidone	103	104	P/P	40 - 150
2328671	Pyraclostrobin	95.1	91.5	P/P	40 - 150
2328671	Silvex	79.4	72.0	P/P	40 - 150
2328671	Thiamethoxam	147	149	P/P	40 - 150
2328671	Tolfenpyrad	53.0	51.2	P/P	30 - 150
2328671	Triclopyr	88.3	87.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P414386

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2329414	Acesulfame K	115	90.8	P/P	40 - 150
2329414	AMPA	95.7	72.3	P/P	40 - 150
2329414	Endothall	93.7	73.5	P/P	40 - 150
2329414	Glufosinate	88.0	68.6	P/P	40 - 150
2329414	Glyphosate	85.1	68.8	P/P	40 - 150
2329414	Sucralose	96.4	73.2	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P414544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2329728	Fluoride	103	104	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P414518

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2328964	Organic Carbon	86.1	88.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P414319

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329312	Turbidity	7.09	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P414421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329447	Calcium	3.68	Spike	P	0 - 20
2329447	Iron	3.85	Spike	P	0 - 20
2329447	Magnesium	1.08	Spike	P	0 - 20
2329447	Strontium	3.33	Spike	P	0 - 20
2329447	Titanium	7.55	Spike	P	0 - 20
2329447	Vanadium	4.63	Spike	P	0 - 20
2329447	Zinc	5.41	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P414421

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329447	Aluminum	3.40	Spike	P	0 - 20
2329447	Antimony	2.70	Spike	P	0 - 20
2329447	Arsenic	0.265	Spike	P	0 - 20
2329447	Beryllium	16.3	Spike	P	0 - 20
2329447	Cadmium	6.40	Spike	P	0 - 20
2329447	Chromium	1.91	Spike	P	0 - 20
2329447	Cobalt	1.25	Spike	P	0 - 20
2329447	Copper	2.88	Spike	P	0 - 20
2329447	Lead	2.75	Spike	P	0 - 20
2329447	Manganese	1.76	Spike	P	0 - 20
2329447	Molybdenum	3.12	Spike	P	0 - 20
2329447	Nickel	1.38	Spike	P	0 - 20
2329447	Selenium	0.156	Spike	P	0 - 20
2329447	Silver	1.02	Spike	P	0 - 20
2329447	Thallium	3.75	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P414450

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329737	Ammonia-N	0.892	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P414617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2327402	Kjeldahl Nitrogen	9.56	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P414430

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2328684	NO2NO3-N	0.460	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P414409

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329737	Total-P	1.42	Spike	P	0 - 20

Reference Method: EPA 8270E

Batch ID: P414288

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2328713	Acetochlor	18.3	Spike	P	0 - 27
2328713	Alachlor	13.0	Spike	P	0 - 27
2328713	Ametryn	1.76	Spike	P	0 - 34
2328713	Atrazine	4.12	Spike	P	0 - 41
2328713	Atrazine Desethyl	10.7	Spike	P	0 - 38
2328713	Avobenzone	1.41	Spike	P	0 - 30
2328713	Azinphos Methyl	19.3	Spike	P	0 - 62
2328713	Azoxystrobin	7.31	Spike	P	0 - 32
2328713	Bromacil	13.6	Spike	P	0 - 30
2328713	Butylate	18.3	Spike	P	0 - 59
2328713	Caffeine	2.84	Spike	P	0 - 60
2328713	Carbophenothion	14.8	Spike	P	0 - 25
2328713	Carfentrazone Ethyl	9.09	Spike	P	0 - 26
2328713	Chlorfenapyr	5.19	Spike	P	0 - 30
2328713	Chlorpyrifos Ethyl	0.0625	Spike	P	0 - 27
2328713	Chlorpyrifos Methyl	10.2	Spike	P	0 - 26
2328713	Coumaphos	3.19	Spike	P	0 - 30
2328713	Cyanazine	16.5	Spike	P	0 - 58
2328713	Cyprodinil	18.6	Spike	P	0 - 30
2328713	Demeton	17.8	Spike	P	0 - 25
2328713	Diazinon	15.7	Spike	P	0 - 29
2328713	Difenoconazole	9.37	Spike	P	0 - 25
2328713	Dimethenamid	10.1	Spike	P	0 - 30
2328713	Dimethomorph	62.2	Spike	F	0 - 30
2328713	Disulfoton	2.65	Spike	P	0 - 33
2328713	Dithiopyr	10.2	Spike	P	0 - 22
2328713	EPTC	9.36	Spike	P	0 - 38
2328713	Ethion	6.63	Spike	P	0 - 79
2328713	Ethoprop	12.6	Spike	P	0 - 23
2328713	Etridiazole	11.7	Spike	P	0 - 30
2328713	Fenamiphos	2.79	Spike	P	0 - 58
2328713	Fenbuconazole	13.0	Spike	P	0 - 37
2328713	Fipronil	15.4	Spike	P	0 - 33
2328713	Fipronil Desulfinyl	17.2	Spike	P	0 - 26
2328713	Fipronil Sulfide	9.46	Spike	P	0 - 37
2328713	Fipronil Sulfone	16.4	Spike	P	0 - 50
2328713	Fluazifop-P-butyl	12.4	Spike	P	0 - 24

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P414288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2328713	Fludioxonil	13.5	Spike	P	0 - 26
2328713	Flumioxazin	10.6	Spike	P	0 - 37
2328713	Flutolanil	0.996	Spike	P	0 - 26
2328713	Fluxapyroxad	13.2	Spike	P	0 - 34
2328713	Fonofos	7.98	Spike	P	0 - 27
2328713	Hexazinone	5.14	Spike	P	0 - 36
2328713	Imazalil	2.71	Spike	P	0 - 65
2328713	Iprodione	17.7	Spike	P	0 - 33
2328713	Loratadine	8.69	Spike	P	0 - 30
2328713	Malathion	0.613	Spike	P	0 - 44
2328713	Metalaxyl	18.2	Spike	P	0 - 38
2328713	Metolachlor	11.1	Spike	P	0 - 36
2328713	Metribuzin	4.85	Spike	P	0 - 63
2328713	Mevinphos	13.5	Spike	P	0 - 26
2328713	Molinate	4.21	Spike	P	0 - 40
2328713	Myclobutanil	12.8	Spike	P	0 - 21
2328713	Naled	7.64	Spike	P	0 - 26
2328713	Napropamide	13.2	Spike	P	0 - 30
2328713	Norflurazon	15.8	Spike	P	0 - 24
2328713	Octinoxate	21.8	Spike	P	0 - 30
2328713	Oxadiazon	9.29	Spike	P	0 - 27
2328713	Oxybenzone	98.2	Spike	F	0 - 30
2328713	Oxyfluorfen	13.3	Spike	P	0 - 24
2328713	Parathion Ethyl	13.2	Spike	P	0 - 28
2328713	Parathion Methyl	10.1	Spike	P	0 - 27
2328713	Pendimethalin	5.33	Spike	P	0 - 31
2328713	Phenytoin	1.89	Spike	P	0 - 30
2328713	Phorate	25.5	Spike	P	0 - 27
2328713	Prodiamine	13.6	Spike	P	0 - 52
2328713	Prometon	11.3	Spike	P	0 - 31
2328713	Prometryn	15.6	Spike	P	0 - 28
2328713	Pronamide	15.0	Spike	P	0 - 26
2328713	Propanil	12.1	Spike	P	0 - 30
2328713	Propargite	1.08	Spike	P	0 - 30
2328713	Propiconazole	14.2	Spike	P	0 - 31
2328713	Pyraflufen Ethyl	7.81	Spike	P	0 - 30
2328713	Pyridaben	5.60	Spike	P	0 - 30
2328713	Pyriproxyfen	13.8	Spike	P	0 - 50
2328713	Simazine	16.9	Spike	P	0 - 29
2328713	Stirophos	14.4	Spike	P	0 - 30
2328713	Sulfentrazone	19.0	Spike	P	0 - 33
2328713	Tebuconazole	5.56	Spike	P	0 - 44
2328713	Terbufos	6.39	Spike	P	0 - 29
2328713	Terbutylazine	18.1	Spike	P	0 - 27
2328713	Thiobencarb	0.423	Spike	P	0 - 30
2328713	Triadimefon	15.8	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P414328

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2328671	2,4-D	0.733	Spike	P	0 - 30
2328671	2,4,5-T	1.03	Spike	P	0 - 30
2328671	Acetaminophen	1.25	Spike	P	0 - 30
2328671	Acetamiprid	6.52	Spike	P	0 - 30
2328671	Afidopyropen	4.39	Spike	P	0 - 30
2328671	Bentazon	0.508	Spike	P	0 - 30
2328671	Benzovindiflupyr	2.55	Spike	P	0 - 30
2328671	Carbamazepine	0.940	Spike	P	0 - 30
2328671	Clothianidin	3.38	Spike	P	0 - 30
2328671	Dinotefuran	0.620	Spike	P	0 - 30
2328671	Diuron	0.270	Spike	P	0 - 30
2328671	Fenuron	4.79	Spike	P	0 - 30
2328671	Fluridone	7.57	Spike	P	0 - 30
2328671	Hydrocodone	6.98	Spike	P	0 - 30
2328671	Ibuprofen	8.29	Spike	P	0 - 30
2328671	Imazapyr	2.78	Spike	P	0 - 30
2328671	Imidacloprid	1.70	Spike	P	0 - 30
2328671	Linuron	10.2	Spike	P	0 - 30
2328671	Mandestrobin	1.19	Spike	P	0 - 30
2328671	MCP	0.234	Spike	P	0 - 30
2328671	Naproxen	6.94	Spike	P	0 - 30
2328671	Primidone	0.838	Spike	P	0 - 30
2328671	Pyraclostrobin	3.81	Spike	P	0 - 30
2328671	Silvex	9.84	Spike	P	0 - 30
2328671	Thiamethoxam	1.33	Spike	P	0 - 30
2328671	Tolfenpyrad	3.57	Spike	P	0 - 30
2328671	Triclopyr	0.661	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P414386

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329414	Acesulfame K	23.5	Spike	P	0 - 30
2329414	AMPA	27.8	Spike	P	0 - 30
2329414	Endothall	24.1	Spike	P	0 - 30
2329414	Glufosinate	24.8	Spike	P	0 - 30
2329414	Glyphosate	19.8	Spike	P	0 - 30
2329414	Sucralose	23.7	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P414540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329728	Total Alkalinity	0.703	Sample	P	0 - 3.8

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P414544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2329728	Fluoride	0.483	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P414518

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2328964	Organic Carbon	2.15	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2329444
Field Sample ID: G2SE0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	123	P	30 - 160
EPA 8321B	Diuron-d6	82.1	P	30 - 160
EPA 8321B	Endothall-d6	72.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	92.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	85.2	P	30 - 160
EPA 8321B	Primidone-d5	123	P	30 - 160
EPA 8321B	Sucralose-d6	87.0	P	30 - 160

Lab Sample ID: 2329449
Field Sample ID: G2SE0068

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	45.0	P	20 - 200
EPA 8270E	Simazine-d10	87.0	P	71 - 140
EPA 8270E	Terbufos-d10	81.1	P	62 - 131
EPA 8270E	Terphenyl-d14	58.2	P	52 - 141

Lab Sample ID: 2329450
Field Sample ID: G2SE0048

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	48.2	P	20 - 200
EPA 8270E	Simazine-d10	95.5	P	71 - 140
EPA 8270E	Terbufos-d10	83.5	P	62 - 131
EPA 8270E	Terphenyl-d14	63.0	P	52 - 141

Lab Sample ID: 2329451
Field Sample ID: G2SE0066

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	54.7	P	20 - 200
EPA 8270E	Simazine-d10	109	P	71 - 140
EPA 8270E	Terbufos-d10	92.3	P	62 - 131
EPA 8270E	Terphenyl-d14	67.7	P	52 - 141

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A112370

Included Lab Sample IDs: 2329438

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A112428

Included Lab Sample IDs: 2329439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.5	98.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A112440

Included Lab Sample IDs: 2329439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.0	97.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A112484

Included Lab Sample IDs: 2329445, 2329446, 2329447, 2329448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.3	99.3	P/P	90 - 110
Arsenic	99.5	103	P/P	90 - 110
Beryllium	97.2	95.6	P/P	90 - 110
Cadmium	99.4	98.7	P/P	90 - 110
Chromium	98.8	94.6	P/P	90 - 110
Cobalt	102	102	P/P	90 - 110
Copper	103	104	P/P	90 - 110
Lead	98.8	98.0	P/P	90 - 110
Manganese	98.7	96.6	P/P	90 - 110
Molybdenum	99.1	99.4	P/P	90 - 110
Nickel	104	104	P/P	90 - 110
Selenium	97.3	98.0	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Thallium	98.6	98.0	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A112492

Included Lab Sample IDs: 2329439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.2	95.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A112498

Included Lab Sample IDs: 2329444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	95.7	99.0	P/P	60 - 160
Endothall	93.7	92.3	P/P	60 - 160
Glufosinate	95.3	103	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A112498
Included Lab Sample IDs: 2329444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	98.4	92.8	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A112499
Included Lab Sample IDs: 2329444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	133	140	P/P	60 - 160
Sucralose	99.7	103	P/P	60 - 160

Reference Method: SM 2320 B-2011
Run ID: A112501
Included Lab Sample IDs: 2329438

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.0	95.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A112501
Included Lab Sample IDs: 2329438

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

Reference Method: EPA 8321B
Run ID: A112515
Included Lab Sample IDs: 2329444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	104	96.3	P/P	50 - 150
2,4,5-T	98.6	102	P/P	50 - 150
Acetaminophen	105	106	P/P	60 - 160
Acetamiprid	103	105	P/P	50 - 150
Afidopyropen	98.4	103	P/P	50 - 150
Bentazon	104	110	P/P	50 - 160
Benzovindiflupyr	110	109	P/P	50 - 150
Carbamazepine	105	102	P/P	60 - 150
Clothianidin	104	101	P/P	60 - 150
Dinotefuran	105	99.0	P/P	50 - 150
Diuron	110	116	P/P	60 - 160
Fenuron	101	99.4	P/P	60 - 150
Fluridone	109	106	P/P	60 - 160
Hydrocodone	98.6	99.2	P/P	60 - 150
Ibuprofen	102	95.9	P/P	50 - 160
Imazapyr	101	100	P/P	50 - 150
Imidacloprid	99.8	97.7	P/P	60 - 150
Linuron	102	96.5	P/P	60 - 150
Mandestrobin	107	107	P/P	50 - 150
MCPP	102	99.8	P/P	50 - 150
Naproxen	105	91.4	P/P	50 - 160
Primidone	94.8	96.5	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A112515
Included Lab Sample IDs: 2329444

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	111	110	P/P	60 - 150
Silvex	102	103	P/P	50 - 150
Thiamethoxam	101	98.1	P/P	50 - 150
Tolfenpyrad	103	101	P/P	60 - 150
Triclopyr	100	100	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A112522
Included Lab Sample IDs: 2329445, 2329446, 2329447, 2329448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	100	101	P/P	90 - 110
Aluminum	101	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A112529
Included Lab Sample IDs: 2329439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.9	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A112550
Included Lab Sample IDs: 2329447

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	93.3	96.4	P/P	90 - 110

Reference Method: EPA 8270E
Run ID: A112585
Included Lab Sample IDs: 2329449, 2329450, 2329451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	96.8		P	80 - 120
Alachlor	90.2		P	80 - 120
Ametryn	96.9		P	80 - 120
Atrazine	95.5		P	80 - 120
Atrazine Desethyl	105		P	80 - 120
Azinphos Methyl	101		P	80 - 120
Azoxystrobin	95.7		P	80 - 120
Bromacil	91.4		P	80 - 120
Butylate	99.1		P	80 - 120
Caffeine	101		P	80 - 120
Carbophenothion	98.4		P	80 - 120
Carfentrazone Ethyl	94.9		P	80 - 120
Chlorfenapyr	88.6		P	80 - 120
Chlorpyrifos Ethyl	98.6		P	80 - 120
Chlorpyrifos Methyl	104		P	80 - 120
Coumaphos	99.4		P	80 - 120
Cyanazine	90.1		P	80 - 120
Cyprodinil	89.0		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A112585

Included Lab Sample IDs: 2329449, 2329450, 2329451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Demeton	96.7		P	80 - 120
Diazinon	94.9		P	80 - 120
Difenoconazole	87.6		P	80 - 120
Dimethenamid	96.3		P	80 - 120
Dimethomorph	98.7		P	80 - 120
Disulfoton	97.8		P	80 - 120
Dithiopyr	93.5		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	97.8		P	80 - 120
Ethoprop	99.7		P	80 - 120
Etridiazole	93.1		P	80 - 120
Fenamiphos	97.6		P	80 - 120
Fenbuconazole	91.9		P	80 - 120
Fipronil	96.2		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	95.8		P	80 - 120
Fipronil Sulfone	89.7		P	80 - 120
Fluazifop-P-butyl	92.3		P	80 - 120
Fludioxonil	89.4		P	80 - 120
Flumioxazin	89.3		P	80 - 120
Flutolanil	91.8		P	80 - 120
Fluxapyroxad	86.9		P	80 - 120
Fonofos	100		P	80 - 120
Hexazinone	95.6		P	80 - 120
Imazalil	90.9		P	80 - 120
Iprodione	108		P	80 - 120
Loratadine	98.7		P	80 - 120
Malathion	97.9		P	80 - 120
Metalaxyl	97.2		P	80 - 120
Metolachlor	94.8		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	99.3		P	80 - 120
Myclobutanil	90.1		P	80 - 120
Naled	98.9		P	80 - 120
Napropamide	93.4		P	80 - 120
Norflurazon	93.2		P	80 - 120
Oxadiazon	92.7		P	80 - 120
Oxyfluorfen	94.9		P	80 - 120
Parathion Ethyl	97.6		P	80 - 120
Parathion Methyl	94.6		P	80 - 120
Pendimethalin	93.8		P	80 - 120
Phenytol	91.0		P	80 - 120
Phorate	104		P	80 - 120
Prodiamine	98.6		P	80 - 120
Prometon	93.3		P	80 - 120
Prometryn	94.5		P	80 - 120
Pronamide	88.9		P	80 - 120
Propanil	103		P	80 - 120
Propargite	97.0		P	80 - 120
Propiconazole	93.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A112585

Included Lab Sample IDs: 2329449, 2329450, 2329451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraflufen Ethyl	92.1		P	80 - 120
Pyridaben	94.5		P	80 - 120
Pyriproxyfen	90.3		P	80 - 120
Simazine	97.9		P	80 - 120
Stirophos	106		P	80 - 120
Sulfentrazone	86.4		P	80 - 120
Tebuconazole	95.0		P	80 - 120
Terbufos	99.9		P	80 - 120
Terbuthylazine	98.0		P	80 - 120
Thiobencarb	80.9		P	80 - 120
Triadimefon	98.6		P	80 - 120

Reference Method: EPA 8270E

Run ID: A112620

Included Lab Sample IDs: 2329449, 2329450, 2329451

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Avobenzone	110		P	80 - 120
Octinoxate	95.2		P	80 - 120
Oxybenzone	92.8		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A112636

Included Lab Sample IDs: 2329439

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	97.4	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A112640

Included Lab Sample IDs: 2329445, 2329446, 2329447, 2329448

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	96.6	P/P	90 - 110
Calcium	96.6	100	P/P	90 - 110
Iron	102	97.7	P/P	90 - 110
Iron	97.7	98.5	P/P	90 - 110
Magnesium	101	96.7	P/P	90 - 110
Magnesium	96.7	98.0	P/P	90 - 110
Strontium	106	98.8	P/P	90 - 110
Strontium	98.8	105	P/P	90 - 110
Tin	105	99.4	P/P	90 - 110
Tin	99.4	102	P/P	90 - 110
Titanium	105	99.0	P/P	90 - 110
Titanium	99.0	102	P/P	90 - 110
Vanadium	106	99.7	P/P	90 - 110
Vanadium	99.7	104	P/P	90 - 110
Zinc	104	99.3	P/P	90 - 110
Zinc	99.3	101	P/P	90 - 110

Quality Assurance Report

Calibration Verification

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity	96.6				7.09	
EPA 200.7 Rev. 4.4	Calcium	104					3.68
	Iron	101	104	108			3.85
	Magnesium	102					1.08
	Strontium	97.5					3.33
	Tin	96.0	72.0	91.9			
	Titanium	97.8	102	112			7.55
	Vanadium	91.8	98.8	103			4.63
	Zinc	94.4	94.6	99.9			5.41
EPA 200.8 Rev. 5.4	Aluminum	98.5	97.7	102			3.40
	Antimony	101	98.9	102			2.70
	Arsenic	99.3	110	110			0.265
	Beryllium	90.6	103	122			16.3
	Cadmium	98.6	88.5	94.4			6.40
	Chromium	95.3	95.8	97.6			1.91
	Cobalt	97.2	110	112			1.25
	Copper	96.3	107	110			2.88
	Lead	100	106	109			2.75
	Manganese	95.3	92.9	95.2			1.76
	Molybdenum	99.5	109	113			3.12
	Nickel	98.3	113	115			1.38
	Selenium	97.9	98.4	98.3			0.156
	Silver	100	89.1	90.0			1.02
	Thallium	101	106	110			3.75
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	98.4	97.2			0.892
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	95.1	106			9.56
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	101	101			0.460
EPA 365.1 Rev. 2.0	Total-P	102	99.6	98.1			1.42
EPA 8270E	Acetochlor	80.9	90.1	75.0			18.3
	Alachlor	81.7	82.1	72.1			13.0
	Ametryn	93.2	102	99.9			1.76
	Atrazine	80.7					4.12
	Atrazine Desethyl	70.2	63.9	56.4			10.7
	Avobenzone	97.6	108	110			1.41
	Azinphos Methyl	102	126	104			19.3
	Azoxystrobin	120	116	108			7.31
	Bromacil	65.8	82.3	71.8			13.6
	Butylate	52.0	49.9	41.5			18.3
	Caffeine	72.0	98.3	95.6			2.84
	Carbophenothion	74.6	77.4	66.8			14.8
	Carfentrazone Ethyl	92.2	95.0	86.7			9.09
	Chlorfenapyr	71.5	73.9	77.8			5.19
	Chlorpyrifos Ethyl	78.8	68.9	69.0			0.0625
	Chlorpyrifos Methyl	83.3	88.2	79.6			10.2
	Coumaphos	58.7	74.3	71.9			3.19
	Cyanazine	73.6	81.0	68.7			16.5
	Cyprodinil	95.7	100	83.2			18.6
	Demeton	68.5	111	92.5			17.8
	Diazinon	97.6	100	85.5			15.7
	Difenoconazole	168	102	92.5			9.37
	Dimethenamid	59.1	67.5	61.0			10.1
	Dimethomorph	126	88.7	46.6			62.2
	Disulfoton	93.4	84.4	82.2			2.65
	Dithiopyr	75.8	71.1	64.2			10.2

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	EPTC	53.4	44.4	40.5		9.36
	Ethion	57.3	55.3	51.7		6.63
	Ethoprop	98.2	101	88.9		12.6
	Etridiazole	60.6	60.3	53.6		11.7
	Fenamiphos	62.4	86.1	88.5		2.79
	Fenbuconazole	76.1	84.8	74.5		13.0
	Fipronil	82.2	89.2	76.4		15.4
	Fipronil Desulfinyl	81.5	98.8	83.1		17.2
	Fipronil Sulfide	76.9	78.0	69.3		9.46
	Fipronil Sulfone	75.3	69.9	56.1		16.4
	Fluazifop-P-butyl	89.4	84.2	74.4		12.4
	Fludioxonil	63.1	76.8	67.1		13.5
	Flumioxazin	51.0	109	98.1		10.6
	Flutolanil	63.8	73.6	72.9		0.996
	Fluxapyroxad	119	64.0	56.0		13.2
	Fonofos	89.8	86.0	79.4		7.98
	Hexazinone	69.1	82.7	78.5		5.14
	Imazalil	63.2	94.1	91.6		2.71
	Iprodione	73.5	81.7	68.4		17.7
	Loratadine	143	87.2	95.1		8.69
	Malathion	80.0	79.9	78.7		0.613
	Metalaxyl	76.4	80.2	66.8		18.2
	Metolachlor	74.5	72.2	64.6		11.1
	Metribuzin	106	98.5	93.8		4.85
	Mevinphos	85.5	105	91.8		13.5
	Molinate	64.8	64.7	62.0		4.21
	Myclobutanil	58.2	86.2	75.9		12.8
	Naled	82.8	87.8	81.3		7.64
	Napropamide	41.9	64.8	56.8		13.2
	Norflurazon	64.3	76.3	65.1		15.8
	Octinoxate	61.6	42.3	52.7		21.8
	Oxadiazon	70.1	71.4	65.1		9.29
	Oxybenzone	69.5	53.6	157		98.2
	Oxyfluorfen	73.5	101	88.6		13.3
	Parathion Ethyl	90.9	87.1	76.3		13.2
	Parathion Methyl	116	124	112		10.1
	Pendimethalin	85.8	101	95.6		5.33
	Phenytoin	20.3	57.5	56.5		1.89
	Phorate	82.0	110	84.8		25.5
	Prodiamine	49.6	37.9	33.1		13.6
	Prometon	69.1	69.6	77.9		11.3
	Prometryn	88.5	87.1	74.5		15.6
	Pronamide	89.1	93.4	80.3		15.0
	Propanil	84.6	114	101		12.1
	Propargite	100	128	126		1.08
	Propiconazole	76.0	76.7	62.9		14.2
	Pyraflufen Ethyl	112	74.0	68.4		7.81
	Pyridaben	69.2	109	103		5.60
	Pyriproxyfen	38.4	79.3	69.0		13.8
	Simazine	81.5	94.8	80.1		16.9
	Stirophos	64.3	73.3	63.4		14.4
	Sulfentrazone	52.8	79.8	65.9		19.0
	Tebuconazole	20.7	40.5	37.6		5.56
	Terbufos	115	109	102		6.39

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision LCS	SMP	MS
EPA 8270E	Terbutylazine	83.3	90.1	75.1			18.1
	Thiobencarb	72.7	64.7	64.4			0.423
	Triadimefon	66.5	70.1	59.9			15.8
EPA 8321B	2,4-D	92.1	99.7	100			0.733
	2,4,5-T	74.9	78.7	79.5			1.03
	Acesulfame K	129	115	90.8			23.5
	Acetaminophen	68.4	104	103			1.25
	Acetamiprid	88.6	95.9	102			6.52
	Afidopyropen	71.8	69.6	72.7			4.39
	AMPA	97.7	95.7	72.3			27.8
	Bentazon	119	105	105			0.508
	Benzovindiflupyr	90.1	92.3	94.7			2.55
	Carbamazepine	102	104	103			0.940
	Clothianidin	98.0	126	122			3.38
	Dinotefuran	99.6	141	142			0.620
	Diuron	89.1	86.5	86.7			0.270
	Endothall	95.8	93.7	73.5			24.1
	Fenuron	106	85.9	90.1			4.79
	Fluridone	83.0	86.3	78.4			7.57
	Glufosinate	97.7	88.0	68.6			24.8
	Glyphosate	95.2	85.1	68.8			19.8
	Hydrocodone	90.1	93.3	100			6.98
	Ibuprofen	78.0	72.5	78.8			8.29
	Imazapyr	99.4	116	119			2.78
	Imidacloprid	96.6	160	158			1.70
	Linuron	71.1	71.0	64.1			10.2
	Mandestrobin	83.0	82.9	81.9			1.19
	MCCP	119	133	133			0.234
	Naproxen	76.0	77.6	72.4			6.94
	Primidone	94.7	103	104			0.838
	Pyraclostrobin	94.8	95.1	91.5			3.81
	Silvex	75.0	79.4	72.0			9.84
	Sucralose	95.3	96.4	73.2			23.7
	Thiamethoxam	94.5	147	149			1.33
	Tolfenpyrad	55.0	53.0	51.2			3.57
	Triclopyr	88.1	88.3	87.7			0.661
SM 2320 B-2011	Total Alkalinity	95.2				0.703	
SM 4500-F- C-2011	Fluoride	104	103	104			0.483
SM 5310 B-2011	Organic Carbon	95.6	86.1	88.5			2.15

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2329438
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2329445, 2329446, 2329447, 2329448
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2329445, 2329446, 2329447, 2329448
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2329439
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2329439
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2329439
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2329439
EPA 8270E	Analysis of Sunscreen Compounds in Water by GC/MS-SIM	2329449, 2329450, 2329451

Reference Method Descriptions

Method	Description	Associated Samples
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2329449, 2329450, 2329451
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2329444
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2329438
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2329438
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2329438
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2329439

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	05/24/2022			05/24/2022 14:55	Khloe J Berg	2329438
EPA 200.7 Rev. 4.4	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 03:31	McKinley C Carter	2329445
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 03:39	McKinley C Carter	2329445
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 03:47	McKinley C Carter	2329446
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 03:55	McKinley C Carter	2329446
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 04:31	McKinley C Carter	2329447
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 05:03	McKinley C Carter	2329447
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 05:35	McKinley C Carter	2329448
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/07/2022 05:43	McKinley C Carter	2329448
EPA 200.8 Rev. 5.4	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/27/2022 21:40	Emily M Philpot	2329445
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/27/2022 21:49	Emily M Philpot	2329446
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/27/2022 21:59	Emily M Philpot	2329448
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/27/2022 22:09	Emily M Philpot	2329447
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/31/2022 16:03	Alexander Thompson	2329447
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/31/2022 16:48	Alexander Thompson	2329445
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/31/2022 16:54	Alexander Thompson	2329446
	05/24/2022	05/26/2022 10:09	Emily M Philpot	05/31/2022 17:01	Alexander Thompson	2329448
	05/24/2022	05/26/2022 10:09	Emily M Philpot	06/01/2022 11:50	Alexander Thompson	2329447
EPA 350.1 Rev. 2.0	05/24/2022			05/26/2022 13:38	Ping Hua	2329439
EPA 351.2 Rev. 2.0	05/24/2022	06/03/2022 11:24	Samantha L Bates	06/07/2022 10:20	Alexandra J Mattheus	2329439
EPA 353.2 Rev. 2.0	05/24/2022			05/25/2022 15:43	Nathaniel J Jones	2329439
EPA 365.1 Rev. 2.0	05/24/2022	05/27/2022 16:17	Adam P Silver	05/31/2022 11:50	James L Waggeberby	2329439
EPA 8270E	05/24/2022	05/26/2022 08:00	Fe-Val Siddell	05/27/2022 19:33	Vandana T. Nagar	2329449
	05/24/2022	05/26/2022 08:00	Fe-Val Siddell	05/27/2022 19:59	Vandana T. Nagar	2329450
	05/24/2022	05/26/2022 08:00	Fe-Val Siddell	05/27/2022 20:26	Vandana T. Nagar	2329451
	05/24/2022	05/26/2022 08:00	Fe-Val Siddell	06/01/2022 22:27	Arthur Maknenko	2329449
	05/24/2022	05/26/2022 08:00	Fe-Val Siddell	06/01/2022 22:51	Arthur Maknenko	2329450
	05/24/2022	05/26/2022 08:00	Fe-Val Siddell	06/01/2022 23:16	Arthur Maknenko	2329451
EPA 8321B	05/24/2022	05/25/2022 10:00	June Rhew	05/28/2022 09:33	Juyoung Kim	2329444
	05/24/2022	05/26/2022 10:00	Umesh Chiluwal	05/26/2022 12:37	Umesh Chiluwal	2329444
	05/24/2022	05/26/2022 10:00	Umesh Chiluwal	05/26/2022 19:46	Umesh Chiluwal	2329444
	05/24/2022	05/26/2022 10:00	Umesh Chiluwal	05/27/2022 18:58	Umesh Chiluwal	2329444
SM 2320 B-2011	05/24/2022			05/27/2022 17:02	Dale L. Simmons	2329438
SM 2540 D-2011	05/24/2022			05/25/2022 15:29	Yijie Li	2329438
SM 4500-F- C-2011	05/24/2022			05/27/2022 15:44	Dale L. Simmons	2329438
SM 5310 B-2011	05/24/2022			05/28/2022 10:45	Khloe J Berg	2329439