

Chemical Analysis Report

CEN-DIST-2023-02-07-01

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

Event Description: **Run 22**
Request ID: **RQ-2023-02-06-24**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
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Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 02-MAR-2023 09:25



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Lake Louise @ Center of South Lobe

Collection Date/Time: 02/06/2023 11:52

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385370	EPA 200.7 Rev. 4.4	Calcium	6.03		mg/L	P425553	
		Chromium	1.0	U	ug/L	P425553	
		Iron	30	U	ug/L	P425553	
		Magnesium	3.99		mg/L	P425553	
		Potassium	6.3		mg/L	P425553	
		Sodium	9.1		mg/L	P425553	
		Strontium	28.0		ug/L	P425553	
		Tin	3.0	U	ug/L	P425553	
		Titanium	0.75	U	ug/L	P425553	
		Vanadium	2.0	U	ug/L	P425553	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P425553	
		Aluminum	32		ug/L	P425553	
		Antimony	0.057	I	ug/L	P425553	
		Arsenic	1.26		ug/L	P425553	
		Barium	12.4		ug/L	P425553	
		Beryllium	0.010	U	ug/L	P425553	
		Boron	64.4		ug/L	P425553	
		Cadmium	0.020	U	ug/L	P425553	
		Cobalt	0.020	U	ug/L	P425553	
		Copper	0.40	U	ug/L	P425553	
		Lead	0.20	U	ug/L	P425553	
		Manganese	6.30		ug/L	P425553	
		Molybdenum	0.15	U	ug/L	P425553	
		Nickel	0.50	U	ug/L	P425553	
		Selenium	0.20	U	ug/L	P425553	
		Silver	0.010	U	ug/L	P425553	
		Thallium	0.10	U	ug/L	P425553	
	SM 2340 B-2011	Hardness	31.5		mg/L	P425553	
2385372	EPA 8270E	Oxybenzone**	160		ng/L	P425530	
		Acetochlor	0.24	U	ng/L	P425530	
		Octinoxate**	20	U	ng/L	P425530	
		Alachlor	0.24	U	ng/L	P425530	
		Avobenzone**	98	U	ng/L	P425530	
		Ametryn	0.59	U	ng/L	P425530	
		Atrazine	0.55	I	ng/L	P425530	
		PBDE-47**	3.9	U	ng/L	P425530	
		Atrazine Desethyl	1.5	U	ng/L	P425530	
		PBDE-99**	4.9	U	ng/L	P425530	
		Azinphos Methyl	2.0	U	ng/L	P425530	
		Tri-o-cresyl Phosphate**	5.9	U	ng/L	P425530	
		Azoxystrobin	0.49	U	ng/L	P425530	
		Bromacil	0.49	U	ng/L	P425530	
		2-Ethylhexyl	12	U	ng/L	P425530	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385372	EPA 8270E	Butylate	0.39	U	ng/L	P425530	
		Dechlorane Plus**	29	U	ng/L	P425530	RPD
		Caffeine**	8.9	I	ng/L	P425530	
		Carbophenothion	0.20	U	ng/L	P425530	
		Carfentrazone Ethyl	0.098	U	ng/L	P425530	
		Chlorfenapyr	0.17	U	ng/L	P425530	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P425530	
		Chlorpyrifos Methyl	0.049	U	ng/L	P425530	
		Coumaphos	0.49	U	ng/L	P425530	RPD
		Cyanazine	3.2	UJ	ng/L	P425530	LCS, MS
		Cyprodinil	0.098	U	ng/L	P425530	
		Demeton	1.5	U	ng/L	P425530	
		Diazinon	0.12	U	ng/L	P425530	
		Difenoconazole	0.59	U	ng/L	P425530	RPD
		Dimethenamid	0.098	U	ng/L	P425530	MS, RPD
		Dimethomorph	0.17	UJ	ng/L	P425530	CCV
		Disulfoton	0.49	U	ng/L	P425530	
		Dithiopyr	0.61	U	ng/L	P425530	
		EPTC	1.2	U	ng/L	P425530	
		Ethion	0.15	U	ng/L	P425530	MS, RPD
		Ethoprop	0.098	U	ng/L	P425530	
		Etridiazole	0.15	U	ng/L	P425530	RPD
		Fenamiphos	0.49	U	ng/L	P425530	
		Fenbuconazole	0.12	U	ng/L	P425530	
		Fipronil	0.24	U	ng/L	P425530	
		Fipronil Desulfinyl**	0.12	U	ng/L	P425530	
		Fipronil Sulfide	0.15	U	ng/L	P425530	
		Fipronil Sulfone	0.15	U	ng/L	P425530	
		Fluazifop-P-butyl	0.098	U	ng/L	P425530	
		Fludioxonil	0.13	I	ng/L	P425530	
		Flumioxazin	4.4	U	ng/L	P425530	RPD
		Flutolanil	0.098	U	ng/L	P425530	
		Fluxapyroxad	20		ng/L	P425530	MS, RPD
		Fonofos	0.20	U	ng/L	P425530	
		Hexazinone	0.49	U	ng/L	P425530	
		Imazalil	0.73	U	ng/L	P425530	
		Iprodione	0.59	U	ng/L	P425530	
		Loratadine**	0.34	UJ	ng/L	P425530	LCS
		Malathion	0.34	U	ng/L	P425530	
		Metalaxyl	0.73	U	ng/L	P425530	
		Metolachlor	0.58	I	ng/L	P425530	
		Metribuzin	1.5	U	ng/L	P425530	
		Mevinphos	1.0	U	ng/L	P425530	
		Molinate	0.29	U	ng/L	P425530	
		Myclobutanil	0.24	U	ng/L	P425530	

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385372	EPA 8270E	Naled	1.5	U	ng/L	P425530	
		Napropamide	0.39	U	ng/L	P425530	MS, RPD
		Norflurazon	0.95	I J	ng/L	P425530	CCV
		Oxadiazon	0.29	U	ng/L	P425530	
		Oxyfluorfen	0.15	U	ng/L	P425530	
		Parathion Ethyl	0.24	U	ng/L	P425530	
		Parathion Methyl	0.54	U	ng/L	P425530	
		Pendimethalin	0.98	U	ng/L	P425530	
		Phenytoin**	3.4	UJ	ng/L	P425530	LCS
		Phorate	0.51	U	ng/L	P425530	
		Prodiamine	0.17	U	ng/L	P425530	
		Prometon	0.88	U	ng/L	P425530	
		Prometryn	0.20	U	ng/L	P425530	
		Pronamide	0.15	U	ng/L	P425530	
		Propanil	0.12	U	ng/L	P425530	
		Propargite	1.5	U	ng/L	P425530	
		Propiconazole	0.49	UJ	ng/L	P425530	CCV
		Pyraflufen Ethyl	0.24	UJ	ng/L	P425530	CCV
		Pyridaben	0.44	U	ng/L	P425530	
		Pyriproxyfen	0.12	U	ng/L	P425530	
		Simazine	0.49	U	ng/L	P425530	
		Stirophos	0.12	U	ng/L	P425530	
		Sulfentrazone	0.49	UJ	ng/L	P425530	CCV
		Tebuconazole	3.0	J	ng/L	P425530	CCV, MS, RPD
		Terbufos	0.098	U	ng/L	P425530	
		Terbuthylazine	0.42	U	ng/L	P425530	
		Thiobencarb	0.59	U	ng/L	P425530	
		Triadimefon	0.24	U	ng/L	P425530	

Ref. Method and Comment:

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

Sample Location: Lake Winona @ NE of Center of lake

Collection Date/Time: 02/06/2023 13:20

Field ID: G2CE0268

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385369	EPA 200.7 Rev. 4.4	Calcium	3.65		mg/L	P425553	
		Chromium	1.0	U	ug/L	P425553	
		Iron	30	U	ug/L	P425553	
		Magnesium	3.37		mg/L	P425553	
		Potassium	3.4		mg/L	P425553	
		Sodium	8.4		mg/L	P425553	
		Strontium	22.6		ug/L	P425553	
		Tin	3.0	U	ug/L	P425553	
		Titanium	0.75	U	ug/L	P425553	
		Vanadium	2.0	U	ug/L	P425553	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P425553	
		Aluminum	55		ug/L	P425553	
		Antimony	0.12	I	ug/L	P425553	
		Arsenic	0.56		ug/L	P425553	
		Barium	13.9		ug/L	P425553	
		Beryllium	0.010	U	ug/L	P425553	
		Boron	30.2		ug/L	P425553	
		Cadmium	0.020	U	ug/L	P425553	
		Cobalt	0.020	U	ug/L	P425553	
		Copper	0.40	U	ug/L	P425553	
		Lead	0.20	U	ug/L	P425553	
		Manganese	5.86		ug/L	P425553	
		Molybdenum	0.15	U	ug/L	P425553	
		Nickel	0.50	U	ug/L	P425553	
		Selenium	0.20	U	ug/L	P425553	
		Silver	0.050		ug/L	P425553	
		Thallium	0.10	U	ug/L	P425553	
	SM 2340 B-2011	Hardness	23.0		mg/L	P425553	

Sample Location: FB

Collection Date/Time: 02/06/2023 13:43

Field ID: FB_02062023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2385367	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P425485	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P425478	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P426266	
		Sulfate	0.20	U	mg SO4/L	P426095	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P425709	
	SM 2540 C-2015	TDS	15	U	mg/L	P426040	
	SM 2540 D-2015	TSS	2	U	mg/L	P425998	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P426437	MS, RPD
2385368	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P425871	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P425571	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P425715	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P425641	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P425644	
2385371	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P425553	
		Chromium	1.0	U	ug/L	P425553	
		Iron	30	U	ug/L	P425553	
		Magnesium	0.040	U	mg/L	P425553	
		Potassium	0.30	U	mg/L	P425553	
		Sodium	0.50	U	mg/L	P425553	
		Strontium	2.0	U	ug/L	P425553	
		Tin	3.0	U	ug/L	P425553	
		Titanium	0.75	U	ug/L	P425553	
		Vanadium	2.0	U	ug/L	P425553	
		Zinc	5.0	U	ug/L	P425553	
		Aluminum	5.0	U	ug/L	P425553	
		Antimony	0.050	U	ug/L	P425553	
		Arsenic	0.050	U	ug/L	P425553	
	EPA 200.8 Rev. 5.4	Barium	0.20	U	ug/L	P425553	
		Beryllium	0.010	U	ug/L	P425553	
		Boron	2.0	U	ug/L	P425553	
		Cadmium	0.020	U	ug/L	P425553	
		Cobalt	0.020	U	ug/L	P425553	
		Copper	0.40	U	ug/L	P425553	
		Lead	0.20	U	ug/L	P425553	
		Manganese	0.10	U	ug/L	P425553	
		Molybdenum	0.15	U	ug/L	P425553	
		Nickel	0.50	U	ug/L	P425553	
		Selenium	0.20	U	ug/L	P425553	
		Silver	0.010	U	ug/L	P425553	
		Thallium	0.10	U	ug/L	P425553	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P425485

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425478

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P425553

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/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: P425553

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
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: P426095

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426266

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425871

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425715

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425641

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

Reference Method: EPA 8270E
Batch ID: P425530

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	0.25	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425530

Component	Result	Code	Units
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.20	U	ng/L
Carbophenothion	0.20	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorfenapyr	0.18	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Coumaphos	0.50	U	ng/L
Coumaphos	0.50	U	ng/L
Cyanazine	3.2	U	ng/L
Cyanazine	3.2	U	ng/L
Cyprodinil	0.10	U	ng/L
Cyprodinil	0.10	U	ng/L
Dechlorane Plus	30	U	ng/L
Dechlorane Plus	30	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
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	0.62	U	ng/L
Dithiopyr	0.62	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425530

Component	Result	Code	Units
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	4.5	U	ng/L
Flumioxazin	4.5	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	0.35	U	ng/L
Loratadine	0.35	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
Metribuzin	1.5	U	ng/L
Metribuzin	1.5	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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425530

Component	Result	Code	Units
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	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	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytol	3.5	U	ng/L
Phenytol	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiatone	0.18	U	ng/L
Prodiatone	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Pronamide	0.15	U	ng/L
Propanil	0.12	U	ng/L
Propanil	0.12	U	ng/L
Propargite	1.5	U	ng/L
Propargite	1.5	U	ng/L
Propiconazole	0.50	U	ng/L
Propiconazole	0.50	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyraflufen Ethyl	0.25	U	ng/L
Pyridaben	0.45	U	ng/L
Pyridaben	0.45	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Stirophos	0.12	U	ng/L
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
Terbutylazine	0.42	U	ng/L
Terbutylazine	0.42	U	ng/L
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P425709

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2015
Batch ID: P426040

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P425998

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P426437

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P425644

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: P425485

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425478

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P425553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Chromium	101		P	85 - 115
Iron	102		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	102		P	85 - 115
Sodium	104		P	85 - 115
Strontium	99.2		P	85 - 115
Tin	101		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P425553

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	101		P	85 - 115
Barium	103		P	85 - 115
Beryllium	93.6		P	85 - 115
Boron	104		P	85 - 115
Cadmium	103		P	85 - 115
Cobalt	99.7		P	85 - 115
Copper	101		P	85 - 115
Lead	95.3		P	85 - 115
Manganese	101		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	103		P	85 - 115
Selenium	101		P	85 - 115
Silver	104		P	85 - 115
Thallium	97.9		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	95.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426266

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425871

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	91.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425641

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

Reference Method: EPA 8270E
Batch ID: P425530

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	75.9		P	42 - 162
Acetochlor	95.1		P	67 - 124
Alachlor	89.5		P	60 - 120
Ametryn	100		P	54 - 216
Atrazine	97.7		P	66 - 128
Atrazine Desethyl	103		P	15 - 122
Avobenzone	91.1		P	40 - 203
Azinphos Methyl	121		P	40 - 292
Azoxystrobin	113		P	35 - 220
Bromacil	95.0		P	45 - 127
Butylate	62.6		P	20 - 83.0
Caffeine	78.5		P	10 - 194
Carbophenothion	113		P	57 - 127
Carfentrazone Ethyl	117		P	51 - 141
Chlorfenapyr	96.8		P	46 - 111
Chlorpyrifos Ethyl	91.5		P	52 - 120
Chlorpyrifos Methyl	110		P	63 - 119
Coumaphos	105		P	10 - 228
Cyanazine	323		F	59 - 241
Cyprodinil	120		P	47 - 146
Dechlorane Plus	84.3		P	47 - 182
Demeton	89.3		P	40 - 136

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P425530

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Diazinon	97.5		P	69 - 132
Difenoconazole	124		P	57 - 258
Dimethenamid	79.8		P	54 - 110
Dimethomorph	173		P	28 - 210
Disulfoton	102		P	43 - 133
Dithiopyr	96.4		P	39 - 116
EPTC	61.0		P	20 - 78.0
Ethion	37.7		P	17 - 119
Ethoprop	93.9		P	66 - 120
Etridiazole	70.0		P	28 - 96.0
Fenamiphos	96.8		P	41 - 126
Fenbuconazole	110		P	42 - 169
Fipronil	123		P	61 - 132
Fipronil Desulfinyl	116		P	56 - 132
Fipronil Sulfide	93.8		P	48 - 119
Fipronil Sulfone	112		P	42 - 131
Fluazifop-P-butyl	99.6		P	53 - 131
Fludioxonil	99.2		P	56 - 127
Flumioxazin	119		P	19 - 300
Flutolanil	105		P	41 - 127
Fluxapyroxad	77.3		P	42 - 172
Fonofos	90.5		P	59 - 113
Hexazinone	87.2		P	66 - 122
Imazalil	85.1		P	21 - 283
Iprodione	109		P	43 - 150
Loratadine	203		F	23 - 201
Malathion	91.1		P	58 - 136
Metaxyl	103		P	55 - 120
Metolachlor	97.8		P	57 - 121
Metribuzin	103		P	58 - 294
Mevinphos	81.4		P	50 - 126
Molinate	70.9		P	42 - 93.0
Myclobutanil	94.4		P	55 - 125
Naled	111		P	18 - 200
Napropamide	65.5		P	39 - 110
Norflurazon	95.1		P	48 - 128
Octinoxate	73.4		P	26 - 166
Oxadiazon	93.9		P	43 - 112
Oxybenzone	69.3		P	49 - 135
Oxyfluorfen	113		P	64 - 153
Parathion Ethyl	84.5		P	69 - 114
Parathion Methyl	106		P	79 - 139
PBDE-47	70.0		P	41 - 148
PBDE-99	68.4		P	38 - 147
Pendimethalin	87.6		P	50 - 139
Phenytol	4.28		F	10 - 146
Phorate	95.7		P	54 - 161
Prodiamine	42.3		P	30 - 161
Prometon	85.0		P	45 - 134
Prometryn	92.4		P	45 - 137
Pronamide	90.0		P	65 - 133
Propanil	93.7		P	49 - 142

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P425530

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Propargite	63.5		P	10 - 203
Propiconazole	105		P	38 - 146
Pyraflufen Ethyl	106		P	34 - 153
Pyridaben	134		P	12 - 192
Pyriproxyfen	74.6		P	33 - 180
Simazine	91.7		P	51 - 157
Stirophos	66.1		P	10 - 128
Sulfentrazone	69.1		P	53 - 186
Tebuconazole	46.1		P	10 - 133
Terbufos	111		P	65 - 139
Terbuthylazine	82.1		P	66 - 117
Thiobencarb	80.0		P	51 - 119
Tri-o-cresyl Phosphate	71.7		P	49 - 150
Triadimefon	81.6		P	48 - 119

Reference Method: SM 2320 B-2011
Batch ID: P425709

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.9		P	94 - 106

Reference Method: SM 2540 C-2015
Batch ID: P426040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.3		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P425998

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426437

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P425644

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P425553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385042	Calcium	103		P	80 - 120
2385042	Chromium	102	102	P/P	80 - 120
2385042	Iron	105	103	P/P	80 - 120
2385042	Magnesium	102		P	80 - 120
2385042	Potassium	104	103	P/P	80 - 120
2385042	Sodium	104	102	P/P	80 - 120
2385042	Strontium	102	101	P/P	80 - 120
2385042	Tin	102	102	P/P	80 - 120
2385042	Titanium	101	101	P/P	80 - 120
2385042	Vanadium	105	104	P/P	80 - 120
2385042	Zinc	105	105	P/P	80 - 120
2385369	Calcium	105		P	80 - 120
2385369	Chromium	100		P	80 - 120
2385369	Iron	106		P	80 - 120
2385369	Magnesium	103		P	80 - 120
2385369	Potassium	105		P	80 - 120
2385369	Sodium	103		P	80 - 120
2385369	Strontium	100		P	80 - 120
2385369	Tin	102		P	80 - 120
2385369	Titanium	102		P	80 - 120
2385369	Vanadium	103		P	80 - 120
2385369	Zinc	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P425553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385042	Aluminum	97.2	102	P/P	80 - 120
2385042	Antimony	98.8	102	P/P	80 - 120
2385042	Arsenic	99.8	103	P/P	80 - 120
2385042	Barium	102	105	P/P	80 - 120
2385042	Beryllium	93.5	93.7	P/P	80 - 120
2385042	Boron	103	106	P/P	80 - 120
2385042	Cadmium	103	103	P/P	80 - 120
2385042	Cobalt	96.9	99.9	P/P	80 - 120
2385042	Copper	98.7	102	P/P	80 - 120
2385042	Lead	94.3	97.7	P/P	80 - 120
2385042	Manganese	97.2	103	P/P	80 - 120
2385042	Molybdenum	99.3	103	P/P	80 - 120
2385042	Nickel	99.6	102	P/P	80 - 120
2385042	Selenium	96.8	101	P/P	80 - 120
2385042	Silver	97.7	101	P/P	80 - 120
2385042	Thallium	98.5	103	P/P	80 - 120
2385369	Aluminum	101		P	80 - 120
2385369	Antimony	103		P	80 - 120
2385369	Arsenic	103		P	80 - 120
2385369	Barium	104		P	80 - 120
2385369	Beryllium	91.9		P	80 - 120
2385369	Boron	107		P	80 - 120
2385369	Cadmium	103		P	80 - 120
2385369	Cobalt	100		P	80 - 120
2385369	Copper	104		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P425553

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385369	Lead	98.5		P	80 - 120
2385369	Manganese	102		P	80 - 120
2385369	Molybdenum	105		P	80 - 120
2385369	Nickel	102		P	80 - 120
2385369	Selenium	101		P	80 - 120
2385369	Silver	98.3		P	80 - 120
2385369	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385219	Sulfate	93.0		P	90 - 110
2385501	Sulfate	99.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385219	Chloride	101		P	90 - 110
2385501	Chloride	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425871

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385053	Ammonia-N	101	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385313	Kjeldahl Nitrogen	97.2	89.4	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385504	NO2NO3-N	102	95.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385292	Total-P	99.4	98.6	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P425530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385305	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	57.0	72.2	P/P	26 - 165
2385305	Acetochlor	88.6	83.2	P/P	67 - 124

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P425530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385305	Alachlor	81.8	75.4	P/P	60 - 120
2385305	Ametryn	122	87.7	P/P	54 - 216
2385305	Avobenzone	72.6	81.7	P/P	37 - 178
2385305	Azinphos Methyl	120	111	P/P	40 - 292
2385305	Azoxystrobin	136	112	P/P	35 - 220
2385305	Bromacil	79.4	83.6	P/P	45 - 127
2385305	Butylate	64.4	49.1	P/P	20 - 83.0
2385305	Caffeine	71.2	74.7	P/P	10 - 194
2385305	Carbophenothion	108	109	P/P	57 - 127
2385305	Carfentrazone Ethyl	101	89.5	P/P	51 - 141
2385305	Chlorfenapyr	86.9	69.1	P/P	46 - 111
2385305	Chlorpyrifos Ethyl	83.6	79.9	P/P	52 - 120
2385305	Chlorpyrifos Methyl	108	100	P/P	63 - 119
2385305	Coumaphos	49.7	72.0	P/P	10 - 228
2385305	Cyanazine	179	285	P/F	59 - 241
2385305	Cyprodinil	122	107	P/P	47 - 146
2385305	Dechlorane Plus	76.2	52.2	P/P	50 - 150
2385305	Demeton	121	101	P/P	40 - 136
2385305	Diazinon	99.7	94.4	P/P	69 - 132
2385305	Difenoconazole	77.4	156	P/P	57 - 258
2385305	Dimethenamid	51.5	78.5	F/P	54 - 110
2385305	Dimethomorph	208	191	P/P	28 - 210
2385305	Disulfoton	115	106	P/P	43 - 133
2385305	Dithiopyr	94.4	84.5	P/P	39 - 116
2385305	EPTC	69.3	48.1	P/P	20 - 78.0
2385305	Ethion	14.7	43.6	F/P	17 - 119
2385305	Ethoprop	107	94.6	P/P	66 - 120
2385305	Etridiazole	87.4	55.2	P/P	28 - 96.0
2385305	Fenamiphos	109	98.2	P/P	41 - 126
2385305	Fenbuconazole	82.2	102	P/P	42 - 169
2385305	Fipronil	120	113	P/P	61 - 132
2385305	Fipronil Desulfinyl	110	111	P/P	56 - 132
2385305	Fipronil Sulfide	99.1	93.9	P/P	48 - 119
2385305	Fipronil Sulfone	88.6	73.4	P/P	42 - 131
2385305	Fluazifop-P-butyl	93.7	89.2	P/P	53 - 131
2385305	Fludioxonil	99.5	81.7	P/P	56 - 127
2385305	Flumioxazin	82.6	157	P/P	19 - 300
2385305	Flutolanil	79.3	90.5	P/P	41 - 127
2385305	Fluxapyroxad	31.3	66.8	F/P	42 - 172
2385305	Fonofos	102	83.2	P/P	59 - 113
2385305	Hexazinone	78.9	90.1	P/P	66 - 122
2385305	Imazalil	127	113	P/P	21 - 283
2385305	Iprodione	67.2	89.2	P/P	43 - 150
2385305	Loratadine	175	195	P/P	23 - 201
2385305	Malathion	89.2	82.3	P/P	58 - 136
2385305	Metalaxyl	114	95.6	P/P	55 - 120
2385305	Metolachlor	84.8	83.5	P/P	57 - 121
2385305	Metribuzin	126	89.1	P/P	58 - 294
2385305	Mevinphos	89.0	77.5	P/P	50 - 126
2385305	Molinate	78.1	64.1	P/P	42 - 93.0
2385305	Myclobutanil	113	116	P/P	55 - 125
2385305	Naled	113	98.9	P/P	18 - 200

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P425530

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385305	Napropamide	9.16	68.2	F/P	39 - 110
2385305	Norflurazon	81.2	89.8	P/P	48 - 128
2385305	Octinoxate	61.8	60.8	P/P	21 - 159
2385305	Oxadiazon	81.1	70.8	P/P	43 - 112
2385305	Oxybenzone	63.8	59.4	P/P	41 - 142
2385305	Oxyfluorfen	97.9	111	P/P	64 - 153
2385305	Parathion Ethyl	94.3	82.5	P/P	69 - 114
2385305	Parathion Methyl	112	122	P/P	79 - 139
2385305	PBDE-47	49.5	63.3	P/P	27 - 144
2385305	PBDE-99	48.6	64.0	P/P	18 - 150
2385305	Pendimethalin	105	112	P/P	50 - 139
2385305	Phenytoin	19.9	12.4	P/P	10 - 146
2385305	Phorate	110	86.7	P/P	54 - 161
2385305	Prodiamine	56.1	68.4	P/P	30 - 161
2385305	Prometon	75.3	77.0	P/P	45 - 134
2385305	Prometryn	96.0	81.7	P/P	45 - 137
2385305	Pronamide	96.8	90.9	P/P	65 - 133
2385305	Propanil	85.1	87.4	P/P	49 - 142
2385305	Propargite	37.8	57.6	P/P	10 - 203
2385305	Propiconazole	92.3	89.2	P/P	38 - 146
2385305	Pyraflufen Ethyl	86.1	85.5	P/P	34 - 153
2385305	Pyridaben	115	122	P/P	12 - 192
2385305	Pyriproxyfen	40.9	81.4	P/P	33 - 180
2385305	Simazine	119	103	P/P	51 - 157
2385305	Stirophos	40.8	61.3	P/P	10 - 128
2385305	Sulfentrazone	74.7	69.0	P/P	53 - 186
2385305	Tebuconazole	3.58	47.3	F/P	10 - 133
2385305	Terbufos	129	104	P/P	65 - 139
2385305	Terbutylazine	89.9	69.0	P/P	66 - 117
2385305	Thiobencarb	75.6	71.9	P/P	51 - 119
2385305	Tri-o-cresyl Phosphate	62.9	60.2	P/P	31 - 144
2385305	Triadimefon	50.4	64.4	P/P	48 - 119

Reference Method: SM 4500-F- C-2011

Batch ID: P426437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2388956	Fluoride	104	101	F/P	94 - 104

Reference Method: SM 5310 B-2011

Batch ID: P425644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2385099	Organic Carbon	95.4	97.7	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P425485

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385256	Color (true)	10.5	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385132	Turbidity	7.97	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P425553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385042	Calcium	0.199	Spike	P	0 - 20
2385042	Chromium	0.0989	Spike	P	0 - 20
2385042	Iron	1.13	Spike	P	0 - 20
2385042	Magnesium	0.845	Spike	P	0 - 20
2385042	Potassium	1.38	Spike	P	0 - 20
2385042	Sodium	0.720	Spike	P	0 - 20
2385042	Strontium	0.858	Spike	P	0 - 20
2385042	Tin	0.343	Spike	P	0 - 20
2385042	Titanium	0.0749	Spike	P	0 - 20
2385042	Vanadium	0.526	Spike	P	0 - 20
2385042	Zinc	0.139	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P425553

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385042	Aluminum	3.17	Spike	P	0 - 20
2385042	Antimony	3.06	Spike	P	0 - 20
2385042	Arsenic	3.15	Spike	P	0 - 20
2385042	Barium	2.77	Spike	P	0 - 20
2385042	Beryllium	0.254	Spike	P	0 - 20
2385042	Boron	2.89	Spike	P	0 - 20
2385042	Cadmium	0.213	Spike	P	0 - 20
2385042	Cobalt	3.00	Spike	P	0 - 20
2385042	Copper	3.58	Spike	P	0 - 20
2385042	Lead	3.54	Spike	P	0 - 20
2385042	Manganese	3.51	Spike	P	0 - 20
2385042	Molybdenum	3.43	Spike	P	0 - 20
2385042	Nickel	2.58	Spike	P	0 - 20
2385042	Selenium	4.49	Spike	P	0 - 20
2385042	Silver	3.44	Spike	P	0 - 20
2385042	Thallium	3.95	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426095

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385219	Sulfate	0.829	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385219	Chloride	3.85	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P425871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385053	Ammonia-N	1.90	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P425571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385313	Kjeldahl Nitrogen	6.23	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385504	NO2NO3-N	6.36	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385292	Total-P	0.597	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P425530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385305	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	23.6	Spike	P	0 - 37
2385305	Acetochlor	6.29	Spike	P	0 - 28
2385305	Alachlor	8.17	Spike	P	0 - 30
2385305	Ametryn	17.9	Spike	P	0 - 32
2385305	Atrazine	22.4	Spike	P	0 - 41
2385305	Atrazine Desethyl	19.8	Spike	P	0 - 36
2385305	Avobenzene	11.7	Spike	P	0 - 36
2385305	Azinphos Methyl	8.00	Spike	P	0 - 75
2385305	Azoxystrobin	19.6	Spike	P	0 - 39

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P425530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385305	Bromacil	5.16	Spike	P	0 - 33
2385305	Butylate	27.1	Spike	P	0 - 44
2385305	Caffeine	4.66	Spike	P	0 - 74
2385305	Carbophenothion	0.877	Spike	P	0 - 25
2385305	Carfentrazone Ethyl	12.1	Spike	P	0 - 27
2385305	Chlorfenapyr	22.8	Spike	P	0 - 24
2385305	Chlorpyrifos Ethyl	4.47	Spike	P	0 - 26
2385305	Chlorpyrifos Methyl	7.85	Spike	P	0 - 26
2385305	Coumaphos	36.5	Spike	F	0 - 28
2385305	Cyanazine	46.0	Spike	P	0 - 48
2385305	Cyprodinil	12.9	Spike	P	0 - 29
2385305	Dechlorane Plus	37.3	Spike	F	0 - 30
2385305	Demeton	17.5	Spike	P	0 - 33
2385305	Diazinon	5.53	Spike	P	0 - 29
2385305	Difenoconazole	67.6	Spike	F	0 - 34
2385305	Dimethenamid	41.4	Spike	F	0 - 39
2385305	Dimethomorph	8.16	Spike	P	0 - 51
2385305	Disulfoton	8.36	Spike	P	0 - 30
2385305	Dithiopyr	11.0	Spike	P	0 - 26
2385305	EPTC	36.1	Spike	P	0 - 43
2385305	Ethion	99.0	Spike	F	0 - 79
2385305	Ethoprop	12.1	Spike	P	0 - 29
2385305	Etridiazole	45.2	Spike	F	0 - 33
2385305	Fenamiphos	10.4	Spike	P	0 - 40
2385305	Fenbuconazole	21.7	Spike	P	0 - 74
2385305	Fipronil	6.02	Spike	P	0 - 29
2385305	Fipronil Desulfinyl	0.449	Spike	P	0 - 32
2385305	Fipronil Sulfide	4.06	Spike	P	0 - 30
2385305	Fipronil Sulfone	10.4	Spike	P	0 - 33
2385305	Fluazifop-P-butyl	4.91	Spike	P	0 - 38
2385305	Fludioxonil	19.6	Spike	P	0 - 29
2385305	Flumioxazin	62.2	Spike	F	0 - 51
2385305	Flutolanil	13.2	Spike	P	0 - 25
2385305	Fluxapyroxad	72.4	Spike	F	0 - 45
2385305	Fonofos	20.1	Spike	P	0 - 27
2385305	Hexazinone	13.3	Spike	P	0 - 30
2385305	Imazalil	11.5	Spike	P	0 - 100
2385305	Iprodione	28.1	Spike	P	0 - 33
2385305	Loratadine	11.0	Spike	P	0 - 56
2385305	Malathion	7.98	Spike	P	0 - 37
2385305	Metalaxyl	17.1	Spike	P	0 - 40
2385305	Metolachlor	1.50	Spike	P	0 - 29
2385305	Metribuzin	34.6	Spike	P	0 - 45
2385305	Mevinphos	13.7	Spike	P	0 - 29
2385305	Molinate	19.7	Spike	P	0 - 33
2385305	Myclobutanil	1.27	Spike	P	0 - 26
2385305	Naled	13.5	Spike	P	0 - 37
2385305	Napropamide	153	Spike	F	0 - 44
2385305	Norflurazon	10.0	Spike	P	0 - 30
2385305	Octinoxate	1.56	Spike	P	0 - 45
2385305	Oxadiazon	13.6	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P425530

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385305	Oxybenzone	7.08	Spike	P	0 - 46
2385305	Oxyfluorfen	12.8	Spike	P	0 - 28
2385305	Parathion Ethyl	13.4	Spike	P	0 - 31
2385305	Parathion Methyl	8.70	Spike	P	0 - 29
2385305	PBDE-47	24.5	Spike	P	0 - 36
2385305	PBDE-99	27.4	Spike	P	0 - 40
2385305	Pendimethalin	7.08	Spike	P	0 - 33
2385305	Phenytoin	46.1	Spike	P	0 - 100
2385305	Phorate	23.4	Spike	P	0 - 36
2385305	Prodiamine	19.7	Spike	P	0 - 71
2385305	Prometon	2.19	Spike	P	0 - 36
2385305	Prometryn	16.1	Spike	P	0 - 28
2385305	Pronamide	6.25	Spike	P	0 - 24
2385305	Propanil	2.73	Spike	P	0 - 28
2385305	Propargite	41.4	Spike	P	0 - 43
2385305	Propiconazole	1.91	Spike	P	0 - 33
2385305	Pyraflufen Ethyl	0.663	Spike	P	0 - 29
2385305	Pyridaben	5.60	Spike	P	0 - 30
2385305	Pyriproxyfen	66.2	Spike	P	0 - 79
2385305	Simazine	12.8	Spike	P	0 - 29
2385305	Stiropfos	40.1	Spike	P	0 - 61
2385305	Sulfentrazone	5.35	Spike	P	0 - 33
2385305	Tebuconazole	98.7	Spike	F	0 - 69
2385305	Terbufos	21.1	Spike	P	0 - 29
2385305	Terbuthylazine	26.3	Spike	P	0 - 32
2385305	Thiobencarb	5.03	Spike	P	0 - 26
2385305	Tri-o-cresyl Phosphate	4.29	Spike	P	0 - 33
2385305	Triadimefon	18.4	Spike	P	0 - 28

Reference Method: SM 2320 B-2011

Batch ID: P425709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385218	Total Alkalinity	0.143	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P426040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2384704	TDS	5.51	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P426437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2388956	Fluoride	3.55	Spike	F	0 - 1.6

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P425644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2385099	Organic Carbon	1.80	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2385372
Field Sample ID: G2CE0065

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	82.1	P	20 - 200
EPA 8270E	Simazine-d10	72.6	P	62 - 142
EPA 8270E	Terbufos-d10	98.1	P	58 - 132
EPA 8270E	Terphenyl-d14	77.4	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117299

Included Lab Sample IDs: 2385367

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

Reference Method: DEP SOP: NU-094-1

Run ID: A117300

Included Lab Sample IDs: 2385367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.7	96.1	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A117362

Included Lab Sample IDs: 2385369, 2385370, 2385371

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	100	P/P	90 - 110
Calcium	99.4	98.3	P/P	95 - 105
Chromium	100	103	P/P	95 - 105
Chromium	103	103	P/P	90 - 110
Iron	102	99.9	P/P	90 - 110
Iron	102	99.4	P/P	95 - 105
Magnesium	101	99.2	P/P	95 - 105
Magnesium	101	99.1	P/P	90 - 110
Potassium	102	99.7	P/P	95 - 105
Potassium	102	100	P/P	90 - 110
Sodium	100	99.1	P/P	95 - 105
Sodium	100	99.7	P/P	90 - 110
Strontium	102	102	P/P	90 - 110
Strontium	99.7	101	P/P	95 - 105
Tin	100	102	P/P	95 - 105
Tin	103	101	P/P	90 - 110
Titanium	101	102	P/P	90 - 110
Titanium	99.2	101	P/P	95 - 105
Vanadium	102	102	P/P	90 - 110
Vanadium	99.6	102	P/P	95 - 105
Zinc	106	105	P/P	90 - 110
Zinc	99.5	106	P/P	95 - 105

Reference Method: SM 5310 B-2011

Run ID: A117374

Included Lab Sample IDs: 2385368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.7	99.1	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A117401

Included Lab Sample IDs: 2385367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.7	94.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117403

Included Lab Sample IDs: 2385368

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117406

Included Lab Sample IDs: 2385368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117408

Included Lab Sample IDs: 2385368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.0	96.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117421

Included Lab Sample IDs: 2385369, 2385370, 2385371

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	102	P/P	90 - 110
Aluminum	101	101	P/P	90 - 110
Antimony	102	103	P/P	90 - 110
Antimony	99.1	102	P/P	90 - 110
Arsenic	101	102	P/P	90 - 110
Arsenic	102	102	P/P	90 - 110
Barium	102	102	P/P	90 - 110
Barium	99.9	102	P/P	90 - 110
Beryllium	94.8	96.3	P/P	90 - 110
Beryllium	96.3	96.5	P/P	90 - 110
Boron	101	103	P/P	90 - 110
Boron	103	105	P/P	90 - 110
Cadmium	101	102	P/P	90 - 110
Cadmium	98.4	101	P/P	90 - 110
Cobalt	97.9	98.1	P/P	90 - 110
Cobalt	98.1	98.8	P/P	90 - 110
Copper	101	102	P/P	90 - 110
Copper	101	101	P/P	90 - 110
Lead	98.2	99.5	P/P	90 - 110
Lead	99.5	98.5	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Manganese	98.9	102	P/P	90 - 110
Molybdenum	101	101	P/P	90 - 110
Molybdenum	99.0	101	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Nickel	101	101	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Selenium	99.8	102	P/P	90 - 110
Silver	97.4	99.6	P/P	90 - 110
Silver	99.6	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A117421

Included Lab Sample IDs: 2385369, 2385370, 2385371

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Thallium	97.3	99.0	P/P	90 - 110
Thallium	99.0	99.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117426

Included Lab Sample IDs: 2385367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	95.8	100	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117440

Included Lab Sample IDs: 2385372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	97.3		P	80 - 120
Avobenzone	96.7		P	80 - 120
Dechlorane Plus	95.1		P	80 - 120
Octinoxate	92.2		P	80 - 120
Oxybenzone	94.4		P	80 - 120
PBDE-47	96.2		P	80 - 120
PBDE-99	98.3		P	80 - 120
Tri-o-cresyl Phosphate	95.2		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117458

Included Lab Sample IDs: 2385368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.0	98.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117607

Included Lab Sample IDs: 2385367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	105	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117664

Included Lab Sample IDs: 2385372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	94.0		P	80 - 120
Alachlor	86.7		P	80 - 120
Ametryn	115		P	80 - 120
Atrazine	97.7		P	80 - 120
Atrazine Desethyl	104		P	80 - 120
Azinphos Methyl	109		P	80 - 120
Azoxystrobin	102		P	80 - 120
Bromacil	118		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117664
Included Lab Sample IDs: 2385372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Butylate	105		P	80 - 120
Caffeine	99.7		P	80 - 120
Carbophenothion	92.1		P	80 - 120
Carfentrazone Ethyl	98.7		P	80 - 120
Chlorfenapyr	100		P	80 - 120
Chlorpyrifos Ethyl	103		P	80 - 120
Chlorpyrifos Methyl	95.7		P	80 - 120
Coumaphos	100		P	80 - 120
Cyanazine	120		P	80 - 120
Cyprodinil	116		P	80 - 120
Demeton	98.5		P	80 - 120
Diazinon	94.4		P	80 - 120
Difenoconazole	83.1		P	80 - 120
Dimethenamid	90.1		P	80 - 120
Dimethomorph	79.7*		F	80 - 120
Disulfoton	105		P	80 - 120
Dithiopyr	93.8		P	80 - 120
EPTC	102		P	80 - 120
Ethion	93.5		P	80 - 120
Ethoprop	108		P	80 - 120
Etridiazole	102		P	80 - 120
Fenamiphos	106		P	80 - 120
Fenbuconazole	94.6		P	80 - 120
Fipronil	111		P	80 - 120
Fipronil Desulfinyl	92.8		P	80 - 120
Fipronil Sulfide	116		P	80 - 120
Fipronil Sulfone	109		P	80 - 120
Fluazifop-P-butyl	109		P	80 - 120
Fludioxonil	100		P	80 - 120
Flumioxazin	95.1		P	80 - 120
Flutolanil	102		P	80 - 120
Fonofos	102		P	80 - 120
Hexazinone	97.0		P	80 - 120
Imazalil	103		P	80 - 120
Iprodione	95.2		P	80 - 120
Loratadine	93.2		P	80 - 120
Malathion	92.4		P	80 - 120
Metalaxyl	92.9		P	80 - 120
Metolachlor	98.4		P	80 - 120
Metribuzin	104		P	80 - 120
Mevinphos	97.6		P	80 - 120
Molinate	109		P	80 - 120
Myclobutanil	99.0		P	80 - 120
Naled	106		P	80 - 120
Napropamide	107		P	80 - 120
Norflurazon	74.5*		F	80 - 120
Oxadiazon	99.0		P	80 - 120
Oxyfluorfen	98.9		P	80 - 120
Parathion Ethyl	107		P	80 - 120
Parathion Methyl	84.0		P	80 - 120
Pendimethalin	89.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117664
Included Lab Sample IDs: 2385372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Phenytoin	115		P	80 - 120
Phorate	92.8		P	80 - 120
Prodiamine	92.3		P	80 - 120
Prometon	117		P	80 - 120
Prometryn	114		P	80 - 120
Pronamide	98.7		P	80 - 120
Propanil	98.2		P	80 - 120
Propargite	105		P	80 - 120
Propiconazole	68.5*		F	80 - 120
Pyraflufen Ethyl	73.4*		F	80 - 120
Pyridaben	88.1		P	80 - 120
Pyriproxyfen	112		P	80 - 120
Simazine	96.9		P	80 - 120
Stiropfos	101		P	80 - 120
Sulfentrazone	77.4*		F	80 - 120
Tebuconazole	77.3*		F	80 - 120
Terbufos	101		P	80 - 120
Terbutylazine	101		P	80 - 120
Thiobencarb	96.5		P	80 - 120
Triadimefon	114		P	80 - 120

Reference Method: EPA 8270E
Run ID: A117670
Included Lab Sample IDs: 2385372

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluxapyroxad	102		P	80 - 120

Reference Method: SM 4500-F- C-2011
Run ID: A117689
Included Lab Sample IDs: 2385367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	101	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	98.8					10.5	
EPA 180.1 Rev. 2.0	Turbidity	101					7.97	
EPA 200.7 Rev. 4.4	Calcium	104	103	105				0.199
	Chromium	101	102	102	100			0.0989
	Iron	102	105	103	106			1.13
	Magnesium	104	102	103				0.845
	Potassium	102	104	103	105			1.38
	Sodium	104	104	102	103			0.720
	Strontium	99.2	102	101	100			0.858
	Tin	101	102	102	102			0.343
	Titanium	101	101	101	102			0.0749
	Vanadium	101	105	104	103			0.526
	Zinc	103	105	105	104			0.139
EPA 200.8 Rev. 5.4	Aluminum	101	97.2	102	101			3.17
	Antimony	101	98.8	102	103			3.06
	Arsenic	101	99.8	103	103			3.15
	Barium	103	102	105	104			2.77
	Beryllium	93.6	93.5	93.7	91.9			0.254
	Boron	104	103	106	107			2.89
	Cadmium	103	103	103	103			0.213
	Cobalt	99.7	96.9	99.9	100			3.00
	Copper	101	98.7	102	104			3.58
	Lead	95.3	94.3	97.7	98.5			3.54
	Manganese	101	97.2	103	102			3.51
	Molybdenum	101	99.3	103	105			3.43
	Nickel	103	99.6	102	102			2.58
	Selenium	101	96.8	101	101			4.49
	Silver	104	97.7	101	98.3			3.44
	Thallium	97.9	98.5	103	101			3.95
EPA 300.0 Rev. 2.1	Chloride	105	101	104			3.85	
	Sulfate	95.9	93.0	99.7			0.829	
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	101	103				1.90
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	97.2	89.4				6.23
EPA 353.2 Rev. 2.0	NO2NO3-N	91.5	102	95.4				6.36
EPA 365.1 Rev. 2.0	Total-P	98.2	99.4	98.6				0.597
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	75.9	57.0	72.2				23.6
	Acetochlor	95.1	88.6	83.2				6.29
	Alachlor	89.5	81.8	75.4				8.17
	Ametryn	100	122	87.7				17.9
	Atrazine	97.7						22.4
	Atrazine Desethyl	103						19.8
	Avobenzone	91.1	72.6	81.7				11.7
	Azinphos Methyl	121	120	111				8.00
	Azoxystrobin	113	136	112				19.6
	Bromacil	95.0	79.4	83.6				5.16
	Butylate	62.6	64.4	49.1				27.1
	Caffeine	78.5	71.2	74.7				4.66
	Carbophenothion	113	108	109				0.877
	Carfentrazone Ethyl	117	101	89.5				12.1
	Chlorfenapyr	96.8	86.9	69.1				22.8
	Chlorpyrifos Ethyl	91.5	83.6	79.9				4.47
	Chlorpyrifos Methyl	110	108	100				7.85

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	Coumaphos	105	49.7	72.0			36.5
	Cyanazine	323	179	285			46.0
	Cyprodinil	120	122	107			12.9
	Dechlorane Plus	84.3	76.2	52.2			37.3
	Demeton	89.3	121	101			17.5
	Diazinon	97.5	99.7	94.4			5.53
	Difenoconazole	124	77.4	156			67.6
	Dimethenamid	79.8	51.5	78.5			41.4
	Dimethomorph	173	208	191			8.16
	Disulfoton	102	115	106			8.36
	Dithiopyr	96.4	94.4	84.5			11.0
	EPTC	61.0	69.3	48.1			36.1
	Ethion	37.7	14.7	43.6			99.0
	Ethoprop	93.9	107	94.6			12.1
	Etridiazole	70.0	87.4	55.2			45.2
	Fenamiphos	96.8	109	98.2			10.4
	Fenbuconazole	110	82.2	102			21.7
	Fipronil	123	120	113			6.02
	Fipronil Desulfinyl	116	110	111			0.449
	Fipronil Sulfide	93.8	99.1	93.9			4.06
	Fipronil Sulfone	112	88.6	73.4			10.4
	Fluazifop-P-butyl	99.6	93.7	89.2			4.91
	Fludioxonil	99.2	99.5	81.7			19.6
	Flumioxazin	119	82.6	157			62.2
	Flutolanil	105	79.3	90.5			13.2
	Fluxapyroxad	77.3	31.3	66.8			72.4
	Fonofos	90.5	102	83.2			20.1
	Hexazinone	87.2	78.9	90.1			13.3
	Imazalil	85.1	127	113			11.5
	Iprodione	109	67.2	89.2			28.1
	Loratadine	203	175	195			11.0
	Malathion	91.1	89.2	82.3			7.98
	Metalaxyl	103	114	95.6			17.1
	Metolachlor	97.8	84.8	83.5			1.50
	Metribuzin	103	126	89.1			34.6
	Mevinphos	81.4	89.0	77.5			13.7
	Molinate	70.9	78.1	64.1			19.7
	Myclobutanil	94.4	113	116			1.27
	Naled	111	113	98.9			13.5
	Napropamide	65.5	9.16	68.2			153
	Norflurazon	95.1	81.2	89.8			10.0
	Octinoxate	73.4	61.8	60.8			1.56
	Oxadiazon	93.9	81.1	70.8			13.6
	Oxybenzone	69.3	63.8	59.4			7.08
	Oxyfluorfen	113	97.9	111			12.8
	Parathion Ethyl	84.5	94.3	82.5			13.4
	Parathion Methyl	106	112	122			8.70
	PBDE-47	70.0	49.5	63.3			24.5
	PBDE-99	68.4	48.6	64.0			27.4
	Pendimethalin	87.6	105	112			7.08
	Phenytoin	4.28	19.9	12.4			46.1
	Phorate	95.7	86.7	110			23.4
	Prodiamine	42.3	68.4	56.1			19.7
	Prometon	85.0	77.0	75.3			2.19

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8270E	Prometryn	92.4	81.7	96.0		16.1
	Pronamide	90.0	90.9	96.8		6.25
	Propanil	93.7	87.4	85.1		2.73
	Propargite	63.5	57.6	37.8		41.4
	Propiconazole	105	89.2	92.3		1.91
	Pyraflufen Ethyl	106	85.5	86.1		0.663
	Pyridaben	134	122	115		5.60
	Pyriproxyfen	74.6	81.4	40.9		66.2
	Simazine	91.7	103	119		12.8
	Stirophos	66.1	61.3	40.8		40.1
	Sulfentrazone	69.1	69.0	74.7		5.35
	Tebuconazole	46.1	3.58	47.3		98.7
	Terbufos	111	104	129		21.1
	Terbuthylazine	82.1	69.0	89.9		26.3
	Thiobencarb	80.0	71.9	75.6		5.03
	Tri-o-cresyl Phosphate	71.7	62.9	60.2		4.29
	Triadimefon	81.6	64.4	50.4		18.4
SM 2320 B-2011	Total Alkalinity	96.9			0.143	
SM 2540 C-2015	TDS	96.3			5.51	
SM 2540 D-2015	TSS	93.1				
SM 4500-F- C-2011	Fluoride	98.7	104	101		3.55
SM 5310 B-2011	Organic Carbon	94.6	95.4	97.7		1.80

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2385367
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2385367
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2385369, 2385370, 2385371
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2385369, 2385370, 2385371
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2385367
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2385367
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2385368
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2385368
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2385368
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2385368
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2385372
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2385372
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2385367
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2385369, 2385370
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2385367
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2385367
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2385367
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2385368

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	02/07/2023			02/07/2023 15:00	Alexis Price	2385367
EPA 180.1 Rev. 2.0	02/07/2023			02/07/2023 14:05	Anna M. Plaviak	2385367
EPA 200.7 Rev. 4.4	02/07/2023	02/08/2023 13:50	George D Taylor	02/09/2023 18:06	McKinley C Carter	2385371
	02/07/2023	02/08/2023 13:50	George D Taylor	02/09/2023 20:51	McKinley C Carter	2385369
	02/07/2023	02/08/2023 13:50	George D Taylor	02/09/2023 21:15	McKinley C Carter	2385370
EPA 200.8 Rev. 5.4	02/07/2023	02/08/2023 13:50	George D Taylor	02/13/2023 17:27	Megan Whitefoot	2385371
	02/07/2023	02/08/2023 13:50	George D Taylor	02/13/2023 20:30	Megan Whitefoot	2385370
	02/07/2023	02/08/2023 13:50	George D Taylor	02/13/2023 20:39	Megan Whitefoot	2385369
EPA 300.0 Rev. 2.1	02/07/2023			02/16/2023 23:51	Anna M. Plaviak	2385367
	02/07/2023			02/23/2023 01:55	Anna M. Plaviak	2385367
EPA 350.1 Rev. 2.0	02/07/2023			02/15/2023 12:52	Khloe J Berg	2385368
EPA 351.2 Rev. 2.0	02/07/2023	02/09/2023 09:02	Samantha L Bates	02/13/2023 11:12	Samantha L Bates	2385368
EPA 353.2 Rev. 2.0	02/07/2023			02/10/2023 11:00	Beverly Y. Sanders	2385368
EPA 365.1 Rev. 2.0	02/07/2023	02/10/2023 16:32	Adam P Silver	02/13/2023 13:04	James L Waggeberby	2385368
EPA 8270E	02/07/2023	02/10/2023 08:00	Fe-Val Siddell	02/14/2023 19:52	Arthur Maknenko	2385372
	02/07/2023	02/10/2023 08:00	Fe-Val Siddell	02/23/2023 20:46	Michael Poppell	2385372
	02/07/2023	02/10/2023 08:00	Fe-Val Siddell	02/25/2023 01:02	Michael Poppell	2385372
SM 2320 B-2011	02/07/2023			02/11/2023 06:25	Dale L. Simmons	2385367
SM 2340 B-2011	02/07/2023			02/09/2023 20:51	McKinley C Carter	2385369
	02/07/2023			02/09/2023 21:15	McKinley C Carter	2385370
SM 2540 C-2015	02/07/2023			02/08/2023 14:40	Yijie Li	2385367
SM 2540 D-2015	02/07/2023			02/08/2023 14:40	Yijie Li	2385367
SM 4500-F- C-2011	02/07/2023			02/28/2023 03:24	Chandler E Cox	2385367
SM 5310 B-2011	02/07/2023			02/09/2023 23:22	Elise M. Gillis	2385368