

Chemical Analysis Report

NE-DIST-2023-05-26-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

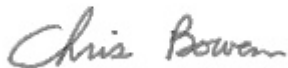
Event Description: **Lake LVI Dead lake and blank**
Request ID: **RQ-2023-05-29-16**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 14-JUN-2023 12:59



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: Dead Lake Center

Collection Date/Time: 05/25/2023 10:30

Field ID: 20030461

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2413204	DEP SOP: NU-094-1	Color (true)	190		PCU	P430490	
	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P430492	
	EPA 300.0 Rev. 2.1	Chloride	170		mg Cl/L	P430756	
		Sulfate	49		mg SO4/L	P430762	
	SM 2320 B-2011	Total Alkalinity	43		mg CaCO3/L	P430787	
	SM 2540 C-2015	TDS	482		mg/L	P430935	
	SM 2540 D-2015	TSS	6	I	mg/L	P430936	
2413205	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P431100	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P430742	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P430667	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.089		mg N/L	P430839	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P430792	
2413206	SM 5310 B-2011	Organic Carbon	22		mg C/L	P430726	
2413208	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.075		mg P/L	P430493	
2413208	EPA 200.7 Rev. 4.4	Calcium	47.5		mg/L	P430552	
		Chromium	1.0	U	ug/L	P430552	
		Iron	460		ug/L	P430552	
		Magnesium	17.8		mg/L	P430552	
		Potassium	4.3		mg/L	P430552	
		Sodium	73.5		mg/L	P430552	
		Strontium	626		ug/L	P430552	
	EPA 200.8 Rev. 5.4	Tin	3.0	U	ug/L	P430552	
		Titanium	0.75	U	ug/L	P430552	
		Vanadium	2.0	U	ug/L	P430552	
		Aluminum	92		ug/L	P430552	
		Antimony	0.065	I	ug/L	P430552	
		Arsenic	0.95		ug/L	P430552	
		Barium	21.5		ug/L	P430552	
		Beryllium	0.015	I	ug/L	P430552	
		Boron	41.0		ug/L	P430552	
		Cadmium	0.020	U	ug/L	P430552	
		Cobalt	0.116		ug/L	P430552	
		Copper	0.75	I	ug/L	P430552	
		Lead	0.29	I	ug/L	P430552	
		Manganese	24.4		ug/L	P430552	
		Molybdenum	0.55	I	ug/L	P430552	
		Nickel	0.50	U	ug/L	P430552	
		Selenium	0.20	U	ug/L	P430552	
		Silver	0.010	U	ug/L	P430552	
		Thallium	0.10	U	ug/L	P430552	
		Zinc	7.0	U	ug/L	P430552	
	SM 2340 B-2011	Hardness	192		mg/L	P430552	
2413209	EPA 8270E	Oxybenzone**	10	U	ng/L	P430467	

Field ID: 20030461

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2413209	EPA 8270E	Acetochlor	0.20	U	ng/L	P430467	
		Octinoxate**	20	U	ng/L	P430467	
		Alachlor	0.41	U	ng/L	P430467	
		Avobenzone**	100	UJ	ng/L	P430467	MS
		Ametryn	1.1	U	ng/L	P430467	
		Atrazine	220		ng/L	P430467	
		PBDE-47**	4.1	U	ng/L	P430467	
		Atrazine Desethyl	26		ng/L	P430467	
		PBDE-99**	5.1	U	ng/L	P430467	
		Azinphos Methyl	3.1	U	ng/L	P430467	
		Tri-o-cresyl Phosphate**	6.1	U	ng/L	P430467	
		Azoxystrobin	94		ng/L	P430467	
		Bromacil	0.61	U	ng/L	P430467	
		2-Ethylhexyl	12	U	ng/L	P430467	
		2,3,4,5-tetrabromobenzoate (EHTBB)**					
		Butylate	0.20	U	ng/L	P430467	
		Dechlorane Plus**	31	U	ng/L	P430467	
		Caffeine**	7.7	U	ng/L	P430467	
		Dechlorane 602**	5.1	U	ng/L	P430467	
		Carbophenothion	0.51	U	ng/L	P430467	
		Dechlorane 603**	4.1	U	ng/L	P430467	
		Carfentrazone Ethyl	0.15	U	ng/L	P430467	
		Hexabromobenzene**	6.1	U	ng/L	P430467	
		Chlorfenapyr	0.31	U	ng/L	P430467	
		PBB-153**	8.2	UJ	ng/L	P430467	MS
		Chlorpyrifos Ethyl	0.31	U	ng/L	P430467	
		Pentabromotoluene**	3.1	U	ng/L	P430467	
		Chlorpyrifos Methyl	0.10	UJ	ng/L	P430467	MS
		Tris(2-chloroethyl) phosphate (TCEP)**	72	U	ng/L	P430467	
		Coumaphos	1.1	U	ng/L	P430467	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	15	U	ng/L	P430467	
		Cyanazine	5.1	U	ng/L	P430467	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P430467	
		Cyprodinil	0.74	I	ng/L	P430467	
		Tetradecachloro-m-terphenyl**	7.7	UJ	ng/L	P430467	MS
		Demeton	3.6	U	ng/L	P430467	
		Diazinon	0.13	UJ	ng/L	P430467	MS
		Difenoconazole	0.61	U	ng/L	P430467	
		Dimethenamid	2.2	J	ng/L	P430467	MS
		Dimethomorph	0.31	U	ng/L	P430467	
		Disulfoton	0.61	U	ng/L	P430467	
		Dithiopyr	1.0	UJ	ng/L	P430467	LCS, MS
		EPTC	0.51	U	ng/L	P430467	
		Ethion	0.31	UJ	ng/L	P430467	MS
		Ethoprop	0.13	U	ng/L	P430467	

Field ID: 20030461

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2413209	EPA 8270E	Etridiazole	0.10	U	ng/L	P430467	
		Fenamiphos	0.46	U	ng/L	P430467	
		Fenbuconazole	0.51	U	ng/L	P430467	
		Fipronil	5.6	J	ng/L	P430467	MS
		Fipronil Desulfinyl**	5.6		ng/L	P430467	
		Fipronil Sulfide	6.5		ng/L	P430467	
		Fipronil Sulfone	8.1		ng/L	P430467	
		Fluazifop-P-butyl	0.10	U	ng/L	P430467	
		Fludioxonil	11		ng/L	P430467	
		Flumioxazin	3.1	U	ng/L	P430467	
		Flutolanil	0.79		ng/L	P430467	
		Fluxapyroxad	2.6		ng/L	P430467	
		Fonofos	0.15	UJ	ng/L	P430467	LCS, MS
		Hexazinone	0.51	U	ng/L	P430467	
		Imazalil	0.66	U	ng/L	P430467	
		Iprodione	0.51	U	ng/L	P430467	
		Loratadine**	0.31	U	ng/L	P430467	
		Malathion	0.36	U	ng/L	P430467	
		Metalaxyl	17		ng/L	P430467	
		Metolachlor	690		ng/L	P430467	
		Metribuzin	51		ng/L	P430467	
		Mevinphos	1.0	U	ng/L	P430467	
		Molinate	0.26	U	ng/L	P430467	
		Myclobutanil	0.36	U	ng/L	P430467	
		Naled	2.6	U	ng/L	P430467	
		Napropamide	0.72	U	ng/L	P430467	
		Norflurazon	1.0	U	ng/L	P430467	
		Oxadiazon	30		ng/L	P430467	
		Oxyfluorfen	0.20	U	ng/L	P430467	
		Parathion Ethyl	0.15	U	ng/L	P430467	
		Parathion Methyl	0.20	U	ng/L	P430467	
		Pendimethalin	0.77	U	ng/L	P430467	
		Phenytion**	5.4	U	ng/L	P430467	
		Phorate	0.26	U	ng/L	P430467	
		Prodiamine	0.20	U	ng/L	P430467	
		Prometon	3.1	U	ng/L	P430467	
		Prometryn	0.36	U	ng/L	P430467	
		Pronamide	0.10	U	ng/L	P430467	
		Propanil	0.10	U	ng/L	P430467	
		Propargite	0.82	U	ng/L	P430467	
		Propiconazole	0.61	U	ng/L	P430467	
		Pyraflufen Ethyl	0.31	U	ng/L	P430467	
		Pyridaben	1.4	U	ng/L	P430467	
		Pyriproxyfen	0.26	U	ng/L	P430467	
		Simazine	400		ng/L	P430467	

Field ID: 20030461

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2413209	EPA 8270E	Stirophos	0.41	U	ng/L	P430467	
		Sulfentrazone	17		ng/L	P430467	
		Tebuconazole	1.4	U	ng/L	P430467	
		Terbufos	0.20	U	ng/L	P430467	
		Terbutylazine	6.4		ng/L	P430467	
		Thiobencarb	0.51	U	ng/L	P430467	
		Triadimefon	0.15	U	ng/L	P430467	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.
EPA 8270E: MS accuracy for some parameters not assessed due to high content of these parameters in the sample spiked. Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P430490

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430492

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P430552

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430552

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
Zinc	7.0	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430756

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430762

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430742

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430667

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430839

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430792

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P430493

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

Reference Method: EPA 8270E
Batch ID: P430467

Component	Result	Code	Units
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azinphos Methyl	3.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P430467

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P430467

Component	Result	Code	Units
Fenamiphos	0.45	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.50	U	ng/L
Metalaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Napropamide	0.70	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P430467

Component	Result	Code	Units
Norflurazon	1.0	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	20	U	ng/L
Octinoxate	20	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	8.0	U	ng/L
PBB-153	8.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	0.75	U	ng/L
Pendimethalin	0.75	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytol	5.3	U	ng/L
Phenytol	5.3	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prodiatone	0.20	U	ng/L
Prodiatone	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Stirophos	0.40	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P430467

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

Reference Method: SM 2320 B-2011

Batch ID: P430787

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

Reference Method: SM 2540 C-2015

Batch ID: P430935

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P430936

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P431100

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P430726

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: P430490

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430492

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P430552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Chromium	99.3		P	85 - 115
Iron	108		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	104		P	85 - 115
Sodium	95.2		P	85 - 115
Strontium	101		P	85 - 115
Tin	104		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430552

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.3		P	85 - 115
Antimony	99.9		P	85 - 115
Arsenic	99.6		P	85 - 115
Barium	101		P	85 - 115
Beryllium	95.5		P	85 - 115
Boron	100		P	85 - 115
Cadmium	98.6		P	85 - 115
Cobalt	99.2		P	85 - 115
Copper	98.3		P	85 - 115
Lead	95.8		P	85 - 115
Manganese	98.2		P	85 - 115
Molybdenum	98.1		P	85 - 115
Nickel	98.2		P	85 - 115
Selenium	101		P	85 - 115
Silver	101		P	85 - 115
Thallium	93.1		P	85 - 115
Zinc	98.2		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430756

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.1		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430762

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430742

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430839

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430792

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P430493

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

Reference Method: EPA 8270E
Batch ID: P430467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	107		P	42 - 162
Acetochlor	92.7		P	69 - 123
Alachlor	90.6		P	65 - 118
Ametryn	96.3		P	58 - 141
Atrazine	88.4		P	73 - 118
Atrazine Desethyl	83.4		P	32 - 125
Avobenzone	135		P	40 - 203
Azinphos Methyl	95.9		P	36 - 197
Azoxystrobin	106		P	58 - 226
Bromacil	86.8		P	48 - 120
Butylate	69.3		P	27 - 85.0
Caffeine	84.4		P	40 - 137
Carbophenothion	121		P	54 - 132
Carfentrazone Ethyl	127		P	60 - 142
Chlorfenapyr	99.4		P	53 - 117
Chlorpyrifos Ethyl	76.2		P	59 - 116

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P430467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Methyl	116		P	66 - 119
Coumaphos	79.9		P	11 - 234
Cyanazine	133		P	61 - 248
Cyprodinil	94.3		P	50 - 147
Dechlorane 602	87.6		P	50 - 150
Dechlorane 603	129		P	50 - 150
Dechlorane Plus	109		P	47 - 182
Demeton	81.0		P	30 - 138
Diazinon	111		P	67 - 126
Difenoconazole	91.0		P	38 - 205
Dimethenamid	103		P	57 - 111
Dimethomorph	140		P	16 - 212
Disulfoton	106		P	46 - 126
Dithiopyr	120		F	62 - 115
EPTC	63.9		P	28 - 80.0
Ethion	102		P	24 - 122
Ethoprop	97.5		P	62 - 113
Etridiazole	67.9		P	28 - 92.0
Fenamiphos	88.8		P	57 - 128
Fenbuconazole	60.7		P	52 - 155
Fipronil	112		P	63 - 130
Fipronil Desulfinyl	109		P	61 - 130
Fipronil Sulfide	110		P	56 - 117
Fipronil Sulfone	110		P	52 - 118
Fluazifop-P-butyl	79.6		P	61 - 128
Fludioxonil	95.5		P	59 - 129
Flumioxazin	95.5		P	30 - 250
Flutolanil	84.5		P	53 - 127
Fluxapyroxad	106		P	42 - 132
Fonofos	119		F	61 - 110
Hexabromobenzene	137		P	50 - 150
Hexazinone	93.5		P	46 - 139
Imazalil	58.9		P	40 - 139
Iprodione	90.8		P	40 - 146
Loratadine	119		P	10 - 224
Malathion	87.0		P	61 - 135
Metaxyl	87.9		P	58 - 121
Metolachlor	103		P	64 - 118
Metribuzin	85.9		P	45 - 245
Mevinphos	94.5		P	49 - 118
Molinate	66.0		P	42 - 92.0
Myclobutanil	96.0		P	55 - 127
Naled	41.6		P	10 - 114
Napropamide	97.3		P	39 - 121
Norflurazon	110		P	55 - 129
Octinoxate	126		P	26 - 166
Oxadiazon	80.4		P	54 - 115
Oxybenzone	127		P	49 - 135
Oxyfluorfen	130		P	64 - 139
Parathion Ethyl	96.8		P	70 - 111
Parathion Methyl	95.4		P	76 - 136
PBB-153	128		P	50 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P430467

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PBDE-47	110		P	41 - 148
PBDE-99	96.9		P	38 - 147
Pendimethalin	109		P	52 - 118
Pentabromotoluene	121		P	50 - 150
Phenytoin	39.7		P	10 - 162
Phorate	104		P	40 - 122
Prodiamine	75.8		P	26 - 141
Prometon	105		P	54 - 122
Prometryn	116		P	61 - 128
Pronamide	102		P	72 - 121
Propanil	86.6		P	45 - 144
Propargite	62.5		P	10 - 199
Propiconazole	90.6		P	56 - 127
Pyraflufen Ethyl	70.9		P	56 - 140
Pyridaben	81.8		P	26 - 211
Pyriproxyfen	80.5		P	33 - 194
Simazine	85.5		P	67 - 121
Stirophos	82.7		P	20 - 142
Sulfentrazone	65.8		P	21 - 144
Tebuconazole	56.2		P	10 - 122
Terbufos	110		P	60 - 129
Terbutylazine	86.5		P	69 - 113
Tetradecachloro-m-terphenyl	190		P	70 - 200
Thiobencarb	89.8		P	51 - 120
Tri-o-cresyl Phosphate	124		P	49 - 150
Triadimefon	96.6		P	56 - 114
Tris(1-chloro-2-propyl) phosphate (TCPP)	112		P	50 - 150
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	113		P	50 - 150
Tris(2-chloroethyl) phosphate (TCEP)	117		P	70 - 180

Reference Method: SM 2320 B-2011

Batch ID: P430787

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P430935

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

Reference Method: SM 2540 D-2015

Batch ID: P430936

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.8		P	85 - 106

Reference Method: SM 4500-F- C-2011

Batch ID: P431100

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

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P431100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P430726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P430552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2412307	Calcium	106		P	80 - 120
2412307	Chromium	103	103	P/P	80 - 120
2412307	Iron	107	108	P/P	80 - 120
2412307	Magnesium	105	105	P/P	80 - 120
2412307	Potassium	101	102	P/P	80 - 120
2412307	Sodium	95.3		P	80 - 120
2412307	Strontium	101	102	P/P	80 - 120
2412307	Tin	104	102	P/P	80 - 120
2412307	Titanium	101	105	P/P	80 - 120
2412307	Vanadium	105	104	P/P	80 - 120
2412965	Calcium	106		P	80 - 120
2412965	Chromium	103		P	80 - 120
2412965	Iron	108		P	80 - 120
2412965	Magnesium	106		P	80 - 120
2412965	Potassium	102		P	80 - 120
2412965	Sodium	93.8		P	80 - 120
2412965	Strontium	101		P	80 - 120
2412965	Tin	103		P	80 - 120
2412965	Titanium	107		P	80 - 120
2412965	Vanadium	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P430552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2412307	Aluminum	97.8	95.5	P/P	80 - 120
2412307	Antimony	101	99.3	P/P	80 - 120
2412307	Arsenic	99.4	100	P/P	80 - 120
2412307	Barium	103	103	P/P	80 - 120
2412307	Beryllium	94.4	96.1	P/P	80 - 120
2412307	Boron	104	98.9	P/P	80 - 120
2412307	Cadmium	102	99.7	P/P	80 - 120
2412307	Cobalt	100	98.9	P/P	80 - 120
2412307	Copper	98.0	98.3	P/P	80 - 120
2412307	Lead	95.9	96.2	P/P	80 - 120
2412307	Manganese	101	99.0	P/P	80 - 120
2412307	Molybdenum	98.8	100	P/P	80 - 120
2412307	Nickel	99.8	99.2	P/P	80 - 120
2412307	Selenium	98.8	98.3	P/P	80 - 120
2412307	Silver	102	103	P/P	80 - 120
2412307	Thallium	95.6	97.7	P/P	80 - 120
2412307	Zinc	100	99.9	P/P	80 - 120
2412965	Aluminum	93.6		P	80 - 120
2412965	Antimony	98.5		P	80 - 120
2412965	Arsenic	98.7		P	80 - 120
2412965	Barium	100		P	80 - 120
2412965	Beryllium	94.9		P	80 - 120
2412965	Boron	100		P	80 - 120
2412965	Cadmium	99.7		P	80 - 120
2412965	Cobalt	99.6		P	80 - 120
2412965	Copper	101		P	80 - 120
2412965	Lead	95.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430552

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2412965	Manganese	101		P	80 - 120
2412965	Molybdenum	98.5		P	80 - 120
2412965	Nickel	98.7		P	80 - 120
2412965	Selenium	99.6		P	80 - 120
2412965	Silver	100		P	80 - 120
2412965	Thallium	94.9		P	80 - 120
2412965	Zinc	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430756

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2412514	Chloride	98.5		P	90 - 110
2413105	Chloride	91.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430762

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2412514	Sulfate	98.4		P	90 - 110
2413105	Sulfate	94.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413111	Ammonia-N	99.6	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413224	Kjeldahl Nitrogen	105	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430839

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413111	NO2NO3-N	105	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430792

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413903	Total-P	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P430493

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2412990	O-Phosphate-P	95.4	95.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P430467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413209	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	121	131	P/P	26 - 165
2413209	Acetochlor	85.0	95.1	P/P	67 - 124
2413209	Alachlor	93.2	96.1	P/P	60 - 120
2413209	Ametryn	132	156	P/P	54 - 216
2413209	Avobenzone	169	179	P/F	37 - 178
2413209	Azinphos Methyl	102	102	P/P	40 - 292
2413209	Bromacil	89.5	100	P/P	45 - 127
2413209	Butylate	67.4	70.4	P/P	20 - 83.0
2413209	Caffeine	93.0	95.4	P/P	10 - 194
2413209	Carbophenothion	126	124	P/P	57 - 127
2413209	Carfentrazone Ethyl	126	125	P/P	51 - 141
2413209	Chlorfenapyr	93.6	93.3	P/P	46 - 111
2413209	Chlorpyrifos Ethyl	83.1	86.2	P/P	52 - 120
2413209	Chlorpyrifos Methyl	120	124	F/F	63 - 119
2413209	Coumaphos	115	125	P/P	10 - 228
2413209	Cyanazine	139	160	P/P	59 - 241
2413209	Cyprodinil	106	108	P/P	47 - 146
2413209	Dechlorane 602	79.9	98.6	P/P	50 - 150
2413209	Dechlorane 603	131	122	P/P	50 - 150
2413209	Dechlorane Plus	85.2	89.2	P/P	50 - 150
2413209	Demeton	79.6	84.0	P/P	40 - 136
2413209	Diazinon	121	134	P/F	69 - 132
2413209	Difenoconazole	145	150	P/P	57 - 258
2413209	Dimethenamid	109	122	P/F	54 - 110
2413209	Dimethomorph	169	147	P/P	28 - 210
2413209	Disulfoton	100	114	P/P	43 - 133
2413209	Dithiopyr	136	127	F/F	39 - 116
2413209	EPTC	58.2	59.9	P/P	20 - 78.0
2413209	Ethion	130	137	F/F	17 - 119
2413209	Ethoprop	99.1	107	P/P	66 - 120
2413209	Etridiazole	71.0	71.1	P/P	28 - 96.0
2413209	Fenamiphos	91.3	88.0	P/P	41 - 126
2413209	Fenbuconazole	88.6	88.7	P/P	42 - 169
2413209	Fipronil	146	142	F/F	61 - 132
2413209	Fluazifop-P-butyl	79.2	76.5	P/P	53 - 131
2413209	Flumioxazin	169	178	P/P	19 - 300
2413209	Flutolanil	64.3	65.5	P/P	41 - 127
2413209	Fluxapyroxad	104	131	P/P	42 - 172
2413209	Fonofos	123	136	F/F	59 - 113
2413209	Hexabromobenzene	150	149	P/P	50 - 150
2413209	Hexazinone	113	114	P/P	66 - 122
2413209	Imazalil	93.2	87.6	P/P	21 - 283
2413209	Iprodione	88.0	95.0	P/P	43 - 150
2413209	Loratadine	182	184	P/P	23 - 201
2413209	Malathion	82.6	93.6	P/P	58 - 136
2413209	Mevinphos	98.5	106	P/P	50 - 126
2413209	Molinate	65.9	66.4	P/P	42 - 93.0
2413209	Myclobutanil	106	110	P/P	55 - 125
2413209	Naled	49.5	49.0	P/P	18 - 200
2413209	Napropamide	93.2	93.8	P/P	39 - 110
2413209	Norflurazon	100	97.8	P/P	48 - 128
2413209	Octinoxate	131	133	P/P	21 - 159

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P430467

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413209	Oxybenzone	138	142	P/P	41 - 142
2413209	Oxyfluorfen	137	132	P/P	64 - 153
2413209	Parathion Ethyl	109	102	P/P	69 - 114
2413209	Parathion Methyl	86.0	99.2	P/P	79 - 139
2413209	PBB-153	148	151	P/F	50 - 150
2413209	PBDE-47	111	125	P/P	27 - 144
2413209	PBDE-99	102	114	P/P	18 - 150
2413209	Pendimethalin	102	106	P/P	50 - 139
2413209	Pentabromotoluene	133	137	P/P	50 - 150
2413209	Phenytoin	51.8	61.9	P/P	10 - 146
2413209	Phorate	126	137	P/P	54 - 161
2413209	Prodiamine	79.6	92.0	P/P	30 - 161
2413209	Prometon	102	110	P/P	45 - 134
2413209	Prometryn	119	115	P/P	45 - 137
2413209	Pronamide	106	116	P/P	65 - 133
2413209	Propanil	87.2	90.9	P/P	49 - 142
2413209	Propargite	63.2	60.2	P/P	10 - 203
2413209	Propiconazole	109	106	P/P	38 - 146
2413209	Pyraflufen Ethyl	72.0	67.0	P/P	34 - 153
2413209	Pyridaben	128	112	P/P	12 - 192
2413209	Pyriproxyfen	89.1	95.1	P/P	33 - 180
2413209	Stiropfos	80.3	85.8	P/P	10 - 128
2413209	Tebuconazole	49.7	60.0	P/P	10 - 133
2413209	Terbufos	115	129	P/P	65 - 139
2413209	Tetradecachloro-m-terphenyl	212	196	F/P	70 - 200
2413209	Thiobencarb	85.0	95.2	P/P	51 - 119
2413209	Tri-o-cresyl Phosphate	129	129	P/P	31 - 144
2413209	Triadimefon	90.5	112	P/P	48 - 119
2413209	Tris(1-chloro-2-propyl) phosphate (TCPP)	93.4	110	P/P	50 - 150
2413209	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	119	123	P/P	50 - 150
2413209	Tris(2-chloroethyl) phosphate (TCEP)	126	132	P/P	70 - 180

Reference Method: SM 4500-F- C-2011

Batch ID: P431100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413223	Fluoride	101	102	P/P	94 - 106

Reference Method: SM 5310 B-2011

Batch ID: P430726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2413018	Organic Carbon	95.2	97.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P430490

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413068	Color (true)	0.385	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P430492

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2412928	Turbidity	0.985	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P430552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2412307	Calcium	0.370	Spike	P	0 - 20
2412307	Chromium	0.466	Spike	P	0 - 20
2412307	Iron	0.515	Spike	P	0 - 20
2412307	Magnesium	0.0392	Spike	P	0 - 20
2412307	Potassium	0.349	Spike	P	0 - 20
2412307	Sodium	0.526	Spike	P	0 - 20
2412307	Strontium	0.938	Spike	P	0 - 20
2412307	Tin	2.10	Spike	P	0 - 20
2412307	Titanium	3.14	Spike	P	0 - 20
2412307	Vanadium	0.923	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P430552

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2412307	Aluminum	1.73	Spike	P	0 - 20
2412307	Antimony	1.49	Spike	P	0 - 20
2412307	Arsenic	0.885	Spike	P	0 - 20
2412307	Barium	0.0329	Spike	P	0 - 20
2412307	Beryllium	1.69	Spike	P	0 - 20
2412307	Boron	4.46	Spike	P	0 - 20
2412307	Cadmium	2.00	Spike	P	0 - 20
2412307	Cobalt	1.22	Spike	P	0 - 20
2412307	Copper	0.334	Spike	P	0 - 20
2412307	Lead	0.250	Spike	P	0 - 20
2412307	Manganese	0.822	Spike	P	0 - 20
2412307	Molybdenum	1.32	Spike	P	0 - 20
2412307	Nickel	0.651	Spike	P	0 - 20
2412307	Selenium	0.516	Spike	P	0 - 20
2412307	Silver	1.04	Spike	P	0 - 20
2412307	Thallium	2.22	Spike	P	0 - 20
2412307	Zinc	0.249	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430756

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2412514	Chloride	0.166	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P430762

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2412514	Sulfate	1.16	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P430742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413111	Ammonia-N	0.573	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P430667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413224	Kjeldahl Nitrogen	4.32	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413111	NO2NO3-N	1.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P430792

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413903	Total-P	0.439	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P430493

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2412990	O-Phosphate-P	0.105	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P430467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413209	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	8.23	Spike	P	0 - 37
2413209	Acetochlor	11.3	Spike	P	0 - 28

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P430467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413209	Alachlor	3.01	Spike	P	0 - 30
2413209	Ametryn	16.9	Spike	P	0 - 32
2413209	Atrazine	6.79	Spike	P	0 - 41
2413209	Atrazine Desethyl	1.67	Spike	P	0 - 36
2413209	Avobenzone	5.80	Spike	P	0 - 36
2413209	Azinphos Methyl	0.615	Spike	P	0 - 75
2413209	Azoxystrobin	1.20	Spike	P	0 - 39
2413209	Bromacil	11.0	Spike	P	0 - 33
2413209	Butylate	4.46	Spike	P	0 - 44
2413209	Caffeine	2.57	Spike	P	0 - 74
2413209	Carbophenothion	1.65	Spike	P	0 - 25
2413209	Carfentrazone Ethyl	1.16	Spike	P	0 - 27
2413209	Chlorfenapyr	0.401	Spike	P	0 - 24
2413209	Chlorpyrifos Ethyl	3.71	Spike	P	0 - 26
2413209	Chlorpyrifos Methyl	3.85	Spike	P	0 - 26
2413209	Coumaphos	8.23	Spike	P	0 - 28
2413209	Cyanazine	13.9	Spike	P	0 - 48
2413209	Cyprodinil	1.44	Spike	P	0 - 29
2413209	Dechlorane 602	20.9	Spike	P	0 - 30
2413209	Dechlorane 603	7.30	Spike	P	0 - 30
2413209	Dechlorane Plus	4.61	Spike	P	0 - 30
2413209	Demeton	5.39	Spike	P	0 - 33
2413209	Diazinon	10.3	Spike	P	0 - 29
2413209	Difenoconazole	3.45	Spike	P	0 - 34
2413209	Dimethenamid	7.36	Spike	P	0 - 39
2413209	Dimethomorph	14.0	Spike	P	0 - 51
2413209	Disulfoton	13.2	Spike	P	0 - 30
2413209	Dithiopyr	6.78	Spike	P	0 - 26
2413209	EPTC	2.93	Spike	P	0 - 43
2413209	Ethion	5.52	Spike	P	0 - 79
2413209	Ethoprop	8.12	Spike	P	0 - 29
2413209	Etridiazole	0.143	Spike	P	0 - 33
2413209	Fenamiphos	3.61	Spike	P	0 - 40
2413209	Fenbuconazole	0.108	Spike	P	0 - 74
2413209	Fipronil	2.06	Spike	P	0 - 29
2413209	Fipronil Desulfinyl	11.3	Spike	P	0 - 32
2413209	Fipronil Sulfide	0.965	Spike	P	0 - 30
2413209	Fipronil Sulfone	1.22	Spike	P	0 - 33
2413209	Fluazifop-P-butyl	3.52	Spike	P	0 - 38
2413209	Fludioxonil	2.90	Spike	P	0 - 29
2413209	Flumioxazin	5.27	Spike	P	0 - 51
2413209	Flutolanil	1.32	Spike	P	0 - 25
2413209	Fluxapyroxad	13.6	Spike	P	0 - 45
2413209	Fonofos	10.3	Spike	P	0 - 27
2413209	Hexabromobenzene	0.693	Spike	P	0 - 30
2413209	Hexazinone	0.539	Spike	P	0 - 30
2413209	Imazalil	6.16	Spike	P	0 - 100
2413209	Iprodione	7.59	Spike	P	0 - 33
2413209	Loratadine	1.36	Spike	P	0 - 56
2413209	Malathion	12.5	Spike	P	0 - 37
2413209	Metalaxyl	6.85	Spike	P	0 - 40

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P430467

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413209	Metolachlor	1.57	Spike	P	0 - 29
2413209	Metribuzin	10.2	Spike	P	0 - 45
2413209	Mevinphos	7.15	Spike	P	0 - 29
2413209	Molinate	0.681	Spike	P	0 - 33
2413209	Myclobutanil	3.82	Spike	P	0 - 26
2413209	Naled	1.01	Spike	P	0 - 37
2413209	Napropamide	0.677	Spike	P	0 - 44
2413209	Norflurazon	2.27	Spike	P	0 - 30
2413209	Octinoxate	1.24	Spike	P	0 - 45
2413209	Oxadiazon	2.25	Spike	P	0 - 28
2413209	Oxybenzone	2.41	Spike	P	0 - 46
2413209	Oxyfluorfen	4.22	Spike	P	0 - 28
2413209	Parathion Ethyl	6.18	Spike	P	0 - 31
2413209	Parathion Methyl	14.2	Spike	P	0 - 29
2413209	PBB-153	1.94	Spike	P	0 - 30
2413209	PBDE-47	11.7	Spike	P	0 - 36
2413209	PBDE-99	10.8	Spike	P	0 - 40
2413209	Pendimethalin	4.01	Spike	P	0 - 33
2413209	Pentabromotoluene	2.32	Spike	P	0 - 30
2413209	Phenytoin	17.7	Spike	P	0 - 100
2413209	Phorate	7.98	Spike	P	0 - 36
2413209	Prodiamine	14.5	Spike	P	0 - 71
2413209	Prometon	7.02	Spike	P	0 - 36
2413209	Prometryn	3.52	Spike	P	0 - 28
2413209	Pronamide	8.20	Spike	P	0 - 24
2413209	Propanil	4.13	Spike	P	0 - 28
2413209	Propargite	4.78	Spike	P	0 - 43
2413209	Propiconazole	3.37	Spike	P	0 - 33
2413209	Pyraflufen Ethyl	7.21	Spike	P	0 - 29
2413209	Pyridaben	12.8	Spike	P	0 - 30
2413209	Pyriproxyfen	6.54	Spike	P	0 - 79
2413209	Simazine	3.39	Spike	P	0 - 29
2413209	Stirophos	6.73	Spike	P	0 - 61
2413209	Sulfentrazone	0.197	Spike	P	0 - 33
2413209	Tebuconazole	18.7	Spike	P	0 - 69
2413209	Terbufos	11.9	Spike	P	0 - 29
2413209	Terbuthylazine	12.9	Spike	P	0 - 32
2413209	Tetradecachloro-m-terphenyl	7.70	Spike	P	0 - 30
2413209	Thiobencarb	11.3	Spike	P	0 - 26
2413209	Tri-o-cresyl Phosphate	0.616	Spike	P	0 - 33
2413209	Triadimefon	20.9	Spike	P	0 - 28
2413209	Tris(1-chloro-2-propyl) phosphate (TCPP)	15.8	Spike	P	0 - 30
2413209	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	3.39	Spike	P	0 - 30
2413209	Tris(2-chloroethyl) phosphate (TCEP)	4.69	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P430787

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413223	Total Alkalinity	2.71	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P430935

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413016	TDS	0.844	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P431100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413223	Fluoride	0.483	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P430726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2413018	Organic Carbon	1.56	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2413209
Field Sample ID: 20030461

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	73.7	P	20 - 200
EPA 8270E	Simazine-d10	71.9	P	62 - 142
EPA 8270E	Terbufos-d10	85.1	P	58 - 132
EPA 8270E	Terphenyl-d14	81.1	P	52 - 137

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A119439

Included Lab Sample IDs: 2413204

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A119440

Included Lab Sample IDs: 2413204

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	97.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119441

Included Lab Sample IDs: 2413206

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A119475

Included Lab Sample IDs: 2413208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	106	106	P/P	90 - 110
Chromium	101	102	P/P	90 - 110
Iron	107	107	P/P	90 - 110
Magnesium	105	104	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	93.5	92.4	P/P	90 - 110
Strontium	101	100	P/P	90 - 110
Tin	100	103	P/P	90 - 110
Titanium	104	105	P/P	90 - 110
Vanadium	102	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A119496

Included Lab Sample IDs: 2413204

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.5	99.2	P/P	90 - 110
Sulfate	97.5	97.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119501

Included Lab Sample IDs: 2413208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.5	98.0	P/P	90 - 110
Antimony	98.7	99.3	P/P	90 - 110
Arsenic	99.2	99.2	P/P	90 - 110
Barium	97.9	97.3	P/P	90 - 110
Beryllium	99.1	99.3	P/P	90 - 110
Boron	98.6	97.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A119501

Included Lab Sample IDs: 2413208

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	99.2	98.2	P/P	90 - 110
Cobalt	101	100	P/P	90 - 110
Copper	98.4	97.7	P/P	90 - 110
Lead	94.6	94.0	P/P	90 - 110
Manganese	103	102	P/P	90 - 110
Molybdenum	98.3	97.5	P/P	90 - 110
Nickel	99.3	98.4	P/P	90 - 110
Selenium	98.6	98.0	P/P	90 - 110
Silver	99.6	99.3	P/P	90 - 110
Thallium	98.1	96.7	P/P	90 - 110
Zinc	100	99.6	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A119540

Included Lab Sample IDs: 2413205

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119550

Included Lab Sample IDs: 2413205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.5	99.9	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A119566

Included Lab Sample IDs: 2413204

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119573

Included Lab Sample IDs: 2413205

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	106	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A119591

Included Lab Sample IDs: 2413209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	102		P	80 - 120
Avobenzone	107		P	80 - 120
Dechlorane 602	101		P	80 - 120
Dechlorane 603	98.8		P	80 - 120
Dechlorane Plus	97.5		P	80 - 120
Hexabromobenzene	101		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119591
Included Lab Sample IDs: 2413209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Octinoxate	98.9		P	80 - 120
Oxybenzone	99.1		P	80 - 120
PBB-153	102		P	80 - 120
PBDE-47	97.4		P	80 - 120
PBDE-99	103		P	80 - 120
Pentabromotoluene	98.8		P	80 - 120
Tetradecachloro-m-terphenyl	111		P	80 - 120
Tri-o-cresyl Phosphate	98.1		P	80 - 120
Tris(1-chloro-2-propyl) phosphate (TCPP)	83.8		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	93.9		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	93.9		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A119595
Included Lab Sample IDs: 2413205

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A119596
Included Lab Sample IDs: 2413205

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

Reference Method: EPA 8270E
Run ID: A119664
Included Lab Sample IDs: 2413209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	89.7		P	80 - 120
Alachlor	87.4		P	80 - 120
Ametryn	98.0		P	80 - 120
Atrazine Desethyl	97.3		P	80 - 120
Azinphos Methyl	87.8		P	80 - 120
Azoxystrobin	99.4		P	80 - 120
Bromacil	102		P	80 - 120
Butylate	101		P	80 - 120
Caffeine	85.5		P	80 - 120
Carbophenothion	95.3		P	80 - 120
Carfentrazone Ethyl	103		P	80 - 120
Chlorfenapyr	86.0		P	80 - 120
Chlorpyrifos Ethyl	88.9		P	80 - 120
Chlorpyrifos Methyl	93.6		P	80 - 120
Coumaphos	94.9		P	80 - 120
Cyanazine	108		P	80 - 120
Cyprodinil	92.3		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	97.7		P	80 - 120
Difenoconazole	89.7		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
 Run ID: A119664
 Included Lab Sample IDs: 2413209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dimethenamid	101		P	80 - 120
Dimethomorph	87.1		P	80 - 120
Disulfoton	101		P	80 - 120
Dithiopyr	97.5		P	80 - 120
EPTC	98.5		P	80 - 120
Ethion	86.6		P	80 - 120
Ethoprop	98.7		P	80 - 120
Etridiazole	97.3		P	80 - 120
Fenamiphos	95.7		P	80 - 120
Fenbuconazole	86.6		P	80 - 120
Fipronil	88.8		P	80 - 120
Fipronil Desulfinyl	102		P	80 - 120
Fipronil Sulfide	104		P	80 - 120
Fipronil Sulfone	97.9		P	80 - 120
Fluazifop-P-butyl	102		P	80 - 120
Fludioxonil	97.6		P	80 - 120
Flumioxazin	92.3		P	80 - 120
Flutolanil	107		P	80 - 120
Fluxapyroxad	97.7		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	103		P	80 - 120
Imazalil	95.0		P	80 - 120
Iprodione	84.3		P	80 - 120
Loratadine	81.3		P	80 - 120
Malathion	83.3		P	80 - 120
Metalaxyl	85.0		P	80 - 120
Metribuzin	101		P	80 - 120
Mevinphos	88.5		P	80 - 120
Molinate	88.4		P	80 - 120
Myclobutanil	98.5		P	80 - 120
Naled	91.1		P	80 - 120
Napropamide	102		P	80 - 120
Norflurazon	104		P	80 - 120
Oxadiazon	105		P	80 - 120
Oxyfluorfen	98.6		P	80 - 120
Parathion Ethyl	102		P	80 - 120
Parathion Methyl	92.5		P	80 - 120
Pendimethalin	113		P	80 - 120
Phenytol	103		P	80 - 120
Phorate	98.3		P	80 - 120
Prodiamine	114		P	80 - 120
Prometon	99.2		P	80 - 120
Prometryn	95.2		P	80 - 120
Pronamide	102		P	80 - 120
Propanil	84.9		P	80 - 120
Propargite	94.2		P	80 - 120
Propiconazole	85.9		P	80 - 120
Pyraflufen Ethyl	104		P	80 - 120
Pyridaben	102		P	80 - 120
Pyriproxyfen	96.3		P	80 - 120
Stirophos	88.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A119664
Included Lab Sample IDs: 2413209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfentrazone	102		P	80 - 120
Tebuconazole	97.8		P	80 - 120
Terbufos	97.8		P	80 - 120
Terbutylazine	87.6		P	80 - 120
Thiobencarb	95.9		P	80 - 120
Triadimefon	104		P	80 - 120

Reference Method: EPA 8270E
Run ID: A119679
Included Lab Sample IDs: 2413209

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	87.3		P	80 - 120
Metolachlor	97.9		P	80 - 120
Simazine	91.8		P	80 - 120

Reference Method: SM 4500-F- C-2011
Run ID: A119707
Included Lab Sample IDs: 2413204

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	105	103	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)	98.7					0.385	
EPA 180.1 Rev. 2.0	Turbidity	97.9					0.985	
EPA 200.7 Rev. 4.4	Calcium	105	106	106				0.370
	Chromium	99.3	103	103	103			0.466
	Iron	108	107	108	108			0.515
	Magnesium	106	105	105	106			0.0392
	Potassium	104	101	102	102			0.349
	Sodium	95.2	95.3	93.8				0.526
	Strontium	101	101	102	101			0.938
	Tin	104	104	102	103			2.10
	Titanium	102	101	105	107			3.14
	Vanadium	100	105	104	104			0.923
EPA 200.8 Rev. 5.4	Aluminum	98.3	97.8	95.5	93.6			1.73
	Antimony	99.9	101	99.3	98.5			1.49
	Arsenic	99.6	99.4	100	98.7			0.885
	Barium	101	103	103	100			0.0329
	Beryllium	95.5	94.4	96.1	94.9			1.69
	Boron	100	104	98.9	100			4.46
	Cadmium	98.6	102	99.7	99.7			2.00
	Cobalt	99.2	100	98.9	99.6			1.22
	Copper	98.3	98.0	98.3	101			0.334
	Lead	95.8	95.9	96.2	95.8			0.250
	Manganese	98.2	101	99.0	101			0.822
	Molybdenum	98.1	98.8	100	98.5			1.32
	Nickel	98.2	99.8	99.2	98.7			0.651
	Selenium	101	98.8	98.3	99.6			0.516
	Silver	101	102	103	100			1.04
	Thallium	93.1	95.6	97.7	94.9			2.22
	Zinc	98.2	100	99.9	100			0.249
EPA 300.0 Rev. 2.1	Chloride	98.1	98.5	91.8			0.166	
	Sulfate	97.3	98.4	94.0			1.16	
EPA 350.1 Rev. 2.0	Ammonia-N	95.4	99.6	99.0				0.573
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	105	100				4.32
EPA 353.2 Rev. 2.0	NO2NO3-N	106	105	104				1.44
EPA 365.1 Rev. 2.0	Total-P	100	103	103				0.439
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	95.4	95.5				0.105
EPA 8270E	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	107	121	131				8.23
	Acetochlor	92.7	85.0	95.1				11.3
	Alachlor	90.6	93.2	96.1				3.01
	Ametryn	96.3	132	156				16.9
	Atrazine	88.4						6.79
	Atrazine Desethyl	83.4						1.67
	Avobenzone	135	169	179				5.80
	Azinphos Methyl	95.9	102	102				0.615
	Azoxystrobin	106						1.20
	Bromacil	86.8	89.5	100				11.0
	Butylate	69.3	67.4	70.4				4.46
	Caffeine	84.4	93.0	95.4				2.57
	Carbophenothion	121	126	124				1.65
	Carfentrazone Ethyl	127	126	125				1.16
	Chlorfenapyr	99.4	93.6	93.3				0.401
	Chlorpyrifos Ethyl	76.2	83.1	86.2				3.71

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Methyl	116	120	124		3.85
	Coumaphos	79.9	115	125		8.23
	Cyanazine	133	139	160		13.9
	Cyprodinil	94.3	106	108		1.44
	Dechlorane 602	87.6	79.9	98.6		20.9
	Dechlorane 603	129	131	122		7.30
	Dechlorane Plus	109	85.2	89.2		4.61
	Demeton	81.0	79.6	84.0		5.39
	Diazinon	111	121	134		10.3
	Difenoconazole	91.0	145	150		3.45
	Dimethenamid	103	109	122		7.36
	Dimethomorph	140	169	147		14.0
	Disulfoton	106	100	114		13.2
	Dithiopyr	120	136	127		6.78
	EPTC	63.9	58.2	59.9		2.93
	Ethion	102	130	137		5.52
	Ethoprop	97.5	99.1	107		8.12
	Etridiazole	67.9	71.0	71.1		0.143
	Fenamiphos	88.8	91.3	88.0		3.61
	Fenbuconazole	60.7	88.6	88.7		0.108
	Fipronil	112	146	142		2.06
	Fipronil Desulfinyl	109				11.3
	Fipronil Sulfide	110				0.965
	Fipronil Sulfone	110				1.22
	Fluazifop-P-butyl	79.6	79.2	76.5		3.52
	Fludioxonil	95.5				2.90
	Flumioxazin	95.5	169	178		5.27
	Flutolanil	84.5	64.3	65.5		1.32
	Fluxapyroxad	106	104	131		13.6
	Fonofos	119	123	136		10.3
	Hexabromobenzene	137	150	149		0.693
	Hexazinone	93.5	113	114		0.539
	Imazalil	58.9	93.2	87.6		6.16
	Iprodione	90.8	88.0	95.0		7.59
	Loratadine	119	182	184		1.36
	Malathion	87.0	82.6	93.6		12.5
	Metalaxyl	87.9				6.85
	Metolachlor	103				1.57
	Metribuzin	85.9				10.2
	Mevinphos	94.5	98.5	106		7.15
	Molinate	66.0	65.9	66.4		0.681
	Myclobutanil	96.0	106	110		3.82
	Naled	41.6	49.5	49.0		1.01
	Napropamide	97.3	93.2	93.8		0.677
	Norflurazon	110	100	97.8		2.27
	Octinoxate	126	131	133		1.24
	Oxadiazon	80.4				2.25
	Oxybenzone	127	138	142		2.41
	Oxyfluorfen	130	137	132		4.22
	Parathion Ethyl	96.8	109	102		6.18
	Parathion Methyl	95.4	86.0	99.2		14.2
	PBB-153	128	148	151		1.94
	PBDE-47	110	111	125		11.7
	PBDE-99	96.9	102	114		10.8

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Pendimethalin	109	102	106		4.01
	Pentabromotoluene	121	133	137		2.32
	Phenytain	39.7	51.8	61.9		17.7
	Phorate	104	126	137		7.98
	Prodiamine	75.8	79.6	92.0		14.5
	Prometon	105	102	110		7.02
	Prometryn	116	119	115		3.52
	Pronamide	102	106	116		8.20
	Propanil	86.6	87.2	90.9		4.13
	Propargite	62.5	63.2	60.2		4.78
	Propiconazole	90.6	109	106		3.37
	Pyraflufen Ethyl	70.9	72.0	67.0		7.21
	Pyridaben	81.8	128	112		12.8
	Pyriproxyfen	80.5	89.1	95.1		6.54
	Simazine	85.5				3.39
	Stirophos	82.7	80.3	85.8		6.73
	Sulfentrazone	65.8				0.197
	Tebuconazole	56.2	49.7	60.0		18.7
	Terbufos	110	115	129		11.9
	Terbutylazine	86.5				12.9
	Tetradecachloro-m-terphenyl	190	212	196		7.70
	Thiobencarb	89.8	85.0	95.2		11.3
	Tri-o-cresyl Phosphate	124	129	129		0.616
	Triadimefon	96.6	90.5	112		20.9
	Tris(1-chloro-2-propyl) phosphate (TCPP)	112	93.4	110		15.8
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	113	119	123		3.39
	Tris(2-chloroethyl) phosphate (TCEP)	117	126	132		4.69
SM 2320 B-2011	Total Alkalinity	97.0			2.71	
SM 2540 C-2015	TDS	109			0.844	
SM 2540 D-2015	TSS	94.8				
SM 4500-F- C-2011	Fluoride	101	101	102		0.483
SM 5310 B-2011	Organic Carbon	95.8	95.2	97.6		1.56

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2413204
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2413204
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2413208
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2413208
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2413204
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2413204
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2413205
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2413205
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2413205
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2413205
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2413206
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2413209

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2413209
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2413204
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2413208
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2413204
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2413204
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2413204
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2413205

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	05/26/2023			05/26/2023 14:52	Alexis Price	2413204
EPA 180.1 Rev. 2.0	05/26/2023			05/26/2023 14:17	Anna M. Plaviak	2413204
EPA 200.7 Rev. 4.4	05/26/2023	05/30/2023 11:35	George D Taylor	05/31/2023 13:00	McKinley C Carter	2413208
EPA 200.8 Rev. 5.4	05/26/2023	05/30/2023 11:35	George D Taylor	05/31/2023 22:28	Emily M Philpot	2413208
EPA 300.0 Rev. 2.1	05/26/2023			06/01/2023 23:35	James L Waggeberby	2413204
EPA 350.1 Rev. 2.0	05/26/2023			06/02/2023 14:38	Khloe J Berg	2413205
EPA 351.2 Rev. 2.0	05/26/2023	06/02/2023 10:00	Dana G. Hughes	06/05/2023 10:39	Samantha L Bates	2413205
EPA 353.2 Rev. 2.0	05/26/2023			06/06/2023 10:42	Beverly Y. Sanders	2413205
EPA 365.1 Rev. 2.0	05/26/2023	06/05/2023 14:34	Adam P Silver	06/06/2023 10:00	James L Waggeberby	2413205
EPA 365.1 Rev. 2.0 dissolved	05/26/2023			05/26/2023 15:37	Elise M. Gillis	2413206
EPA 8270E	05/26/2023	06/01/2023 08:00	Fe-Val Siddell	06/03/2023 22:12	Arthur Maknenko	2413209
	05/26/2023	06/01/2023 08:00	Fe-Val Siddell	06/04/2023 17:22	Vandana T. Nagar	2413209
	05/26/2023	06/01/2023 08:00	Fe-Val Siddell	06/08/2023 16:18	Vandana T. Nagar	2413209
SM 2320 B-2011	05/26/2023			06/03/2023 08:52	Dale L. Simmons	2413204
SM 2340 B-2011	05/26/2023			05/31/2023 13:00	McKinley C Carter	2413208
SM 2540 C-2015	05/26/2023			05/31/2023 14:41	Yijie Li	2413204
SM 2540 D-2015	05/26/2023			05/31/2023 14:41	Yijie Li	2413204
SM 4500-F- C-2011	05/26/2023			06/09/2023 20:09	Dale L. Simmons	2413204
SM 5310 B-2011	05/26/2023			06/01/2023 20:12	Elise M. Gillis	2413205