

Chemical Analysis Report

NE-DIST-2023-02-14-01

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

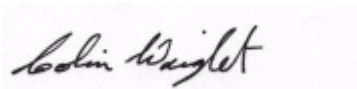
Event Description: **LSJR South Lake 2023**
Request ID: **RQ-2023-01-30-29**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 08-MAR-2023 09:09

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light pink rectangular background.

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: 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: Silver Lake Center

Collection Date/Time: 02/13/2023 12:00

Field ID: G2NE1132

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2387112	DEP SOP: NU-094-1	Color (true)	300		PCU	P425788	
	EPA 180.1 Rev. 2.0	Turbidity	0.85	I	NTU	P425794	
	EPA 300.0 Rev. 2.1	Chloride	13		mg Cl/L	P426337	
		Sulfate	2.9		mg SO4/L	P426651	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P426295	
	SM 2540 C-2015	TDS	70		mg/L	P426459	
	SM 2540 D-2015	TSS	2	U	mg/L	P426313	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P426438	
	2387114	EPA 350.1 Rev. 2.0	Ammonia-N	0.040	mg N/L	P426243	
		EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2	mg N/L	P426209	
		EPA 353.2 Rev. 2.0	NO2NO3-N	0.12	mg N/L	P425945	
		EPA 365.1 Rev. 2.0	Total-P	0.032	mg P/L	P425990	
	SM 5310 B-2011	Organic Carbon	23		mg C/L	P426023	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: Bull Creek Ditch downstream of East ditch

Collection Date/Time: 02/13/2023 13:10

Field ID: G2NE1212

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2387129	EPA 8276	Chlordane	2.1	U	ng/L	P425892	
		Toxaphene	15	U	ng/L	P425892	
2387130	EPA 8270E	Acetochlor	0.27	U	ng/L	P425781	
		Alachlor	0.27	U	ng/L	P425781	MS
		Ametryn	11		ng/L	P425781	
		Atrazine	4.3E+03		ng/L	P425781	
		Atrazine Desethyl	600		ng/L	P425781	
		Azinphos Methyl	2.1	U	ng/L	P425781	
		Azoxystrobin	200		ng/L	P425781	
		Bromacil	0.54	U	ng/L	P425781	
		Butylate	0.43	U	ng/L	P425781	
		Caffeine**	8.2	I	ng/L	P425781	
		Carbophenothion	0.21	U	ng/L	P425781	
		Carfentrazone Ethyl	0.11	U	ng/L	P425781	RPD
		Chlorfenapyr	0.19	U	ng/L	P425781	RPD
		Chlorpyrifos Ethyl	0.27	U	ng/L	P425781	
		Chlorpyrifos Methyl	0.054	U	ng/L	P425781	MS
		Coumaphos	0.54	U	ng/L	P425781	
		Cyanazine	3.5	U	ng/L	P425781	
		Cyprodinil	0.72		ng/L	P425781	RPD
		Demeton	1.6	U	ng/L	P425781	
		Diazinon	0.13	U	ng/L	P425781	
		Difenoconazole	8.2		ng/L	P425781	
		Dimethenamid	0.11	U	ng/L	P425781	
		Dimethomorph	0.19	U	ng/L	P425781	RPD
		Disulfoton	0.54	U	ng/L	P425781	
		Dithiopyr	23		ng/L	P425781	RPD
		EPTC	1.3	U	ng/L	P425781	
		Ethion	0.16	U	ng/L	P425781	
		Ethoprop	0.14	I	ng/L	P425781	
		Etridiazole	0.16	U	ng/L	P425781	
		Fenamiphos	0.54	U	ng/L	P425781	
		Fenbuconazole	0.13	U	ng/L	P425781	
		Fipronil	49		ng/L	P425781	MS, RPD
		Fipronil Desulfinyl**	10		ng/L	P425781	MS, RPD
		Fipronil Sulfide	17		ng/L	P425781	MS, RPD
		Fipronil Sulfone	18		ng/L	P425781	MS, RPD
		Fluazifop-P-butyl	0.11	U	ng/L	P425781	
		Fludioxonil	18		ng/L	P425781	
		Flumioxazin	4.8	U	ng/L	P425781	
		Flutolanil	0.34	I	ng/L	P425781	RPD
		Fluxapyroxad	0.11	U	ng/L	P425781	
		Fonofos	0.21	U	ng/L	P425781	
		Hexazinone	0.54	U	ng/L	P425781	

Field ID: G2NE1212

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2387130	EPA 8270E	Imazalil	0.81	U	ng/L	P425781	
		Iprodione	0.64	U	ng/L	P425781	
		Loratadine**	0.38	U	ng/L	P425781	
		Malathion	0.38	U	ng/L	P425781	
		Metalaxyl	11		ng/L	P425781	
		Metolachlor	7.6E+03		ng/L	P425781	
		Metribuzin	350		ng/L	P425781	
		Mevinphos	1.1	U	ng/L	P425781	
		Molinate	0.32	U	ng/L	P425781	
		Myclobutanil	0.27	U	ng/L	P425781	MS, RPD
		Naled	1.6	UJ	ng/L	P425781	LCS
		Napropamide	8.0		ng/L	P425781	
		Norflurazon	0.54	U	ng/L	P425781	MS, RPD
		Oxadiazon	52		ng/L	P425781	RPD
		Oxyfluorfen	3.0		ng/L	P425781	RPD
		Parathion Ethyl	0.27	U	ng/L	P425781	
		Parathion Methyl	0.59	U	ng/L	P425781	
		Pendimethalin	72		ng/L	P425781	
		Phenytol**	3.8	U	ng/L	P425781	
		Phorate	0.56	U	ng/L	P425781	
		Prodiamine	0.19	U	ng/L	P425781	
		Prometon	0.97	U	ng/L	P425781	
		Prometryn	0.21	U	ng/L	P425781	RPD
		Pronamide	0.16	U	ng/L	P425781	
		Propanil	0.13	U	ng/L	P425781	
		Propargite	1.6	U	ng/L	P425781	
		Propiconazole	0.58	I	ng/L	P425781	RPD
		Pyraflufen Ethyl	0.27	U	ng/L	P425781	RPD
		Pyridaben	0.48	U	ng/L	P425781	RPD
		Pyriproxyfen	0.13	U	ng/L	P425781	
		Simazine	910		ng/L	P425781	
		Stirophos	0.13	U	ng/L	P425781	
		Sulfentrazone	18		ng/L	P425781	
		Tebuconazole	0.54	U	ng/L	P425781	
		Terbufos	0.11	U	ng/L	P425781	
		Terbuthylazine	0.46	U	ng/L	P425781	
		Thiobencarb	0.64	U	ng/L	P425781	RPD
		Triadimefon	0.27	U	ng/L	P425781	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: LAKE BROWARD South

Collection Date/Time: 02/13/2023 11:05

Field ID: G2NE1218

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2387113	DEP SOP: NU-094-1	Color (true)	23	A	PCU	P425789	
	EPA 180.1 Rev. 2.0	Turbidity	0.70	I	NTU	P425794	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P426337	
		Sulfate	8.8		mg SO4/L	P426651	
	SM 2320 B-2011	Total Alkalinity	3.7		mg CaCO3/L	P426295	
	SM 2540 C-2015	TDS	49		mg/L	P426459	
	SM 2540 D-2015	TSS	2	U	mg/L	P426313	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P426438	
2387115	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P426243	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P426209	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P425945	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P425990	
	SM 5310 B-2011	Organic Carbon	6.1		mg C/L	P426023	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P425788

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P425789

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425794

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426337

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426651

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426243

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426209

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425945

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425990

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	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
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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

Component	Result	Code	Units
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Etridiazole	0.15	U	ng/L
Etridiazole	0.15	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P425781

Component	Result	Code	Units
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
Oxadiazon	0.30	U	ng/L
Oxadiazon	0.30	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Pendimethalin	1.0	U	ng/L
Phenytoin	3.5	U	ng/L
Phenytoin	3.5	U	ng/L
Phorate	0.52	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prodiamine	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
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E
Batch ID: P425781

Component	Result	Code	Units
Thiobencarb	0.60	U	ng/L
Thiobencarb	0.60	U	ng/L
Triadimefon	0.25	U	ng/L
Triadimefon	0.25	U	ng/L

Reference Method: EPA 8276
Batch ID: P425892

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: SM 2320 B-2011
Batch ID: P426295

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

Reference Method: SM 2540 C-2015
Batch ID: P426459

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P426313

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P426023

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: P425788

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

Reference Method: DEP SOP: NU-094-1
Batch ID: P425789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425794

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426337

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426651

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426243

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426209

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.6		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425945

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425990

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P425781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	85.2		P	69 - 123
Alachlor	87.0		P	65 - 118
Ametryn	135		P	58 - 141
Atrazine	90.6		P	73 - 118
Atrazine Desethyl	54.8		P	32 - 125
Azinphos Methyl	127		P	36 - 197
Azoxystrobin	114		P	58 - 226
Bromacil	88.8		P	48 - 120
Butylate	44.9		P	27 - 85.0
Caffeine	75.3		P	40 - 137
Carbophenothion	93.9		P	54 - 132
Carfentrazone Ethyl	104		P	60 - 142
Chlorfenapyr	88.6		P	53 - 117
Chlorpyrifos Ethyl	81.3		P	59 - 116
Chlorpyrifos Methyl	80.4		P	66 - 119
Coumaphos	98.3		P	11 - 234
Cyanazine	105		P	61 - 248
Cyprodinil	84.9		P	50 - 147
Demeton	76.4		P	30 - 138
Diazinon	103		P	67 - 126
Difenoconazole	108		P	38 - 205
Dimethenamid	78.2		P	57 - 111
Dimethomorph	133		P	16 - 212
Disulfoton	86.4		P	46 - 126
Dithiopyr	73.0		P	62 - 115
EPTC	49.1		P	28 - 80.0
Ethion	73.0		P	24 - 122
Ethoprop	91.9		P	62 - 113
Etridiazole	53.3		P	28 - 92.0
Fenamiphos	107		P	57 - 128
Fenbuconazole	91.5		P	52 - 155
Fipronil	73.9		P	63 - 130
Fipronil Desulfinyl	73.7		P	61 - 130
Fipronil Sulfide	68.0		P	56 - 117
Fipronil Sulfone	67.7		P	52 - 118
Fluazifop-P-butyl	111		P	61 - 128
Fludioxonil	81.0		P	59 - 129
Flumioxazin	142		P	30 - 250
Flutolanil	109		P	53 - 127
Fluxapyroxad	79.5		P	42 - 132
Fonofos	88.7		P	61 - 110
Hexazinone	96.0		P	46 - 139
Imazalil	68.0		P	40 - 139
Iprodione	115		P	40 - 146
Loratadine	152		P	10 - 224
Malathion	113		P	61 - 135
Metalaxyl	76.0		P	58 - 121
Metolachlor	86.0		P	64 - 118
Metribuzin	97.1		P	45 - 245
Mevinphos	79.9		P	49 - 118
Molinate	59.8		P	42 - 92.0
Myclobutanil	86.1		P	55 - 127

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P425781

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Naled	115		F	10 - 114
Napropamide	97.6		P	39 - 121
Norflurazon	69.1		P	55 - 129
Oxadiazon	76.7		P	54 - 115
Oxyfluorfen	114		P	64 - 139
Parathion Ethyl	105		P	70 - 111
Parathion Methyl	111		P	76 - 136
Pendimethalin	94.1		P	52 - 118
Phenytoin	43.7		P	10 - 162
Phorate	73.0		P	40 - 122
Prodiamine	32.5		P	26 - 141
Prometon	69.6		P	54 - 122
Prometryn	82.3		P	61 - 128
Pronamide	104		P	72 - 121
Propanil	102		P	45 - 144
Propargite	83.8		P	10 - 199
Propiconazole	80.7		P	56 - 127
Pyraflufen Ethyl	74.7		P	56 - 140
Pyridaben	71.9		P	26 - 211
Pyriproxyfen	85.8		P	33 - 194
Simazine	87.1		P	67 - 121
Stirophos	90.9		P	20 - 142
Sulfentrazone	72.2		P	21 - 144
Tebuconazole	57.6		P	10 - 122
Terbufos	96.7		P	60 - 129
Terbuthylazine	89.1		P	69 - 113
Thiobencarb	101		P	51 - 120
Triadimefon	83.0		P	56 - 114

Reference Method: EPA 8276

Batch ID: P425892

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	90.6		P	61 - 116
Toxaphene	94.8		P	48 - 124

Reference Method: SM 2320 B-2011

Batch ID: P426295

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.9		P	94 - 106

Reference Method: SM 2540 C-2015

Batch ID: P426459

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	106		P	89 - 110

Reference Method: SM 2540 D-2015

Batch ID: P426313

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

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P426313

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	94.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.7		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387139	Chloride	102		P	90 - 110
2387167	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426651

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387139	Sulfate	103		P	90 - 110
2387167	Sulfate	107		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426243

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387098	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387098	Kjeldahl Nitrogen	107	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425945

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387115	NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387120	Total-P	98.7	99.8	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P425781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386831	Acetochlor	74.5	69.4	P/P	67 - 124
2386831	Alachlor	71.5	55.3	P/F	60 - 120
2386831	Ametryn	105	122	P/P	54 - 216
2386831	Atrazine	86.7	74.8	P/P	66 - 128
2386831	Atrazine Desethyl	47.4	48.2	P/P	15 - 122
2386831	Azinphos Methyl	119	64.9	P/P	40 - 292
2386831	Azoxystrobin	102	87.3	P/P	35 - 220
2386831	Bromacil	80.1	58.5	P/P	45 - 127
2386831	Butylate	32.4	36.7	P/P	20 - 83.0
2386831	Caffeine	85.2	83.4	P/P	10 - 194
2386831	Carbophenothion	76.3	62.5	P/P	57 - 127
2386831	Carfentrazone Ethyl	85.4	51.6	P/P	51 - 141
2386831	Chlorfenapyr	82.8	55.2	P/P	46 - 111
2386831	Chlorpyrifos Ethyl	108	93.4	P/P	52 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P425781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386831	Chlorpyrifos Methyl	68.7	61.6	P/F	63 - 119
2386831	Coumaphos	63.6	48.2	P/P	10 - 228
2386831	Cyanazine	84.8	71.8	P/P	59 - 241
2386831	Cyprodinil	92.1	51.7	P/P	47 - 146
2386831	Demeton	71.8	58.2	P/P	40 - 136
2386831	Diazinon	107	87.3	P/P	69 - 132
2386831	Difenoconazole	174	135	P/P	57 - 258
2386831	Dimethenamid	68.4	60.7	P/P	54 - 110
2386831	Dimethomorph	138	73.3	P/P	28 - 210
2386831	Disulfoton	67.3	61.2	P/P	43 - 133
2386831	Dithiopyr	64.8	40.1	P/P	39 - 116
2386831	EPTC	24.8	25.5	P/P	20 - 78.0
2386831	Ethion	55.2	34.5	P/P	17 - 119
2386831	Ethoprop	80.4	67.9	P/P	66 - 120
2386831	Etridiazole	43.5	39.8	P/P	28 - 96.0
2386831	Fenamiphos	82.4	56.1	P/P	41 - 126
2386831	Fenbuconazole	67.7	65.6	P/P	42 - 169
2386831	Fipronil	71.4	33.7	P/F	61 - 132
2386831	Fipronil Desulfinyl	59.8	33.1	P/F	56 - 132
2386831	Fipronil Sulfide	63.5	34.8	P/F	48 - 119
2386831	Fipronil Sulfone	64.3	35.9	P/F	42 - 131
2386831	Fluazifop-P-butyl	81.1	66.7	P/P	53 - 131
2386831	Fludioxonil	71.1	58.5	P/P	56 - 127
2386831	Flumioxazin	70.7	53.0	P/P	19 - 300
2386831	Flutolanil	74.3	51.9	P/P	41 - 127
2386831	Fluxapyroxad	62.0	45.0	P/P	42 - 172
2386831	Fonofos	77.7	60.9	P/P	59 - 113
2386831	Hexazinone	101	83.0	P/P	66 - 122
2386831	Imazalil	104	63.5	P/P	21 - 283
2386831	Iprodione	71.5	55.9	P/P	43 - 150
2386831	Loratadine	138	84.1	P/P	23 - 201
2386831	Malathion	79.1	58.3	P/P	58 - 136
2386831	Metalaxyl	76.3	55.6	P/P	55 - 120
2386831	Metolachlor	87.5	65.4	P/P	57 - 121
2386831	Metribuzin	108	68.5	P/P	58 - 294
2386831	Mevinphos	80.6	66.4	P/P	50 - 126
2386831	Molinate	59.0	43.3	P/P	42 - 93.0
2386831	Myclobutanil	80.5	48.9	P/F	55 - 125
2386831	Naled	88.2	69.2	P/P	18 - 200
2386831	Napropamide	50.6	41.5	P/P	39 - 110
2386831	Norflurazon	73.1	46.9	P/F	48 - 128
2386831	Oxadiazon	59.4	43.8	P/P	43 - 112
2386831	Oxyfluorfen	101	68.8	P/P	64 - 153
2386831	Parathion Ethyl	70.8	69.6	P/P	69 - 114
2386831	Parathion Methyl	86.2	93.2	P/P	79 - 139
2386831	Pendimethalin	87.3	70.3	P/P	50 - 139
2386831	Phenytoin	28.1	26.8	P/P	10 - 146
2386831	Phorate	72.3	62.2	P/P	54 - 161
2386831	Prodiamine	134	81.3	P/P	30 - 161
2386831	Prometon	60.0	56.4	P/P	45 - 134
2386831	Prometryn	70.3	49.8	P/P	45 - 137
2386831	Pronamide	98.8	83.0	P/P	65 - 133

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P425781

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386831	Propanil	102	93.7	P/P	49 - 142
2386831	Propargite	49.4	32.6	P/P	10 - 203
2386831	Propiconazole	63.7	40.9	P/P	38 - 146
2386831	Pyraflufen Ethyl	69.6	40.6	P/P	34 - 153
2386831	Pyridaben	74.8	31.4	P/P	12 - 192
2386831	Pyriproxyfen	84.3	51.4	P/P	33 - 180
2386831	Simazine	81.3	78.7	P/P	51 - 157
2386831	Stiropfos	61.5	38.3	P/P	10 - 128
2386831	Sulfentrazone	66.6	81.1	P/P	53 - 186
2386831	Tebuconazole	40.5	21.8	P/P	10 - 133
2386831	Terbufos	104	91.3	P/P	65 - 139
2386831	Terbuthylazine	82.6	69.2	P/P	66 - 117
2386831	Thiobencarb	87.7	57.7	P/P	51 - 119
2386831	Triadimefon	87.2	69.0	P/P	48 - 119

Reference Method: EPA 8276
Batch ID: P425892

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386930	Chlordane	87.6	102	P/P	53 - 126
2386930	Toxaphene	102	120	P/P	56 - 211

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2386877	Fluoride	99.5	100	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P426023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2387115	Organic Carbon	95.0	96.1	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P425788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387009	Color (true)	0.0902	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P425789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387113	Color (true)	2.49	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P425794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387057	Turbidity	0.518	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P426337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387139	Chloride	3.79	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P426243

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387098	Ammonia-N	0.456	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P426209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387098	Kjeldahl Nitrogen	2.31	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P425945

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387115	NO2NO3-N	0.447	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P425990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387120	Total-P	0.976	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E
Batch ID: P425781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386831	Acetochlor	7.12	Spike	P	0 - 28
2386831	Alachlor	25.5	Spike	P	0 - 30
2386831	Ametryn	15.4	Spike	P	0 - 32
2386831	Atrazine	14.8	Spike	P	0 - 41
2386831	Atrazine Desethyl	1.77	Spike	P	0 - 36
2386831	Azinphos Methyl	59.0	Spike	P	0 - 75
2386831	Azoxystrobin	15.5	Spike	P	0 - 39
2386831	Bromacil	31.1	Spike	P	0 - 33
2386831	Butylate	12.4	Spike	P	0 - 44
2386831	Caffeine	2.03	Spike	P	0 - 74
2386831	Carbophenothion	19.8	Spike	P	0 - 25
2386831	Carfentrazone Ethyl	49.4	Spike	F	0 - 27
2386831	Chlorfenapyr	39.9	Spike	F	0 - 24
2386831	Chlorpyrifos Ethyl	14.7	Spike	P	0 - 26
2386831	Chlorpyrifos Methyl	11.0	Spike	P	0 - 26
2386831	Coumaphos	27.7	Spike	P	0 - 28
2386831	Cyanazine	16.5	Spike	P	0 - 48
2386831	Cyprodinil	56.1	Spike	F	0 - 29
2386831	Demeton	21.0	Spike	P	0 - 33
2386831	Diazinon	19.9	Spike	P	0 - 29
2386831	Difenoconazole	25.3	Spike	P	0 - 34
2386831	Dimethenamid	12.0	Spike	P	0 - 39
2386831	Dimethomorph	61.2	Spike	F	0 - 51
2386831	Disulfoton	9.53	Spike	P	0 - 30
2386831	Dithiopyr	47.1	Spike	F	0 - 26
2386831	EPTC	2.87	Spike	P	0 - 43
2386831	Ethion	46.1	Spike	P	0 - 79
2386831	Ethoprop	16.8	Spike	P	0 - 29
2386831	Etridiazole	9.08	Spike	P	0 - 33
2386831	Fenamiphos	38.0	Spike	P	0 - 40
2386831	Fenbuconazole	3.12	Spike	P	0 - 74
2386831	Fipronil	71.6	Spike	F	0 - 29
2386831	Fipronil Desulfinyl	57.5	Spike	F	0 - 32
2386831	Fipronil Sulfide	58.4	Spike	F	0 - 30
2386831	Fipronil Sulfone	56.6	Spike	F	0 - 33
2386831	Fluazifop-P-butyl	19.5	Spike	P	0 - 38
2386831	Fludioxonil	19.4	Spike	P	0 - 29
2386831	Flumioxazin	28.6	Spike	P	0 - 51
2386831	Flutolanil	35.5	Spike	F	0 - 25
2386831	Fluxapyroxad	31.9	Spike	P	0 - 45
2386831	Fonofos	24.2	Spike	P	0 - 27
2386831	Hexazinone	19.8	Spike	P	0 - 30
2386831	Imazalil	48.2	Spike	P	0 - 100
2386831	Iprodione	24.5	Spike	P	0 - 33
2386831	Loratadine	48.4	Spike	P	0 - 56
2386831	Malathion	30.3	Spike	P	0 - 37
2386831	Metalaxyl	31.4	Spike	P	0 - 40
2386831	Metolachlor	28.9	Spike	P	0 - 29
2386831	Metribuzin	44.5	Spike	P	0 - 45
2386831	Mevinphos	19.4	Spike	P	0 - 29
2386831	Molinate	30.8	Spike	P	0 - 33

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P425781

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386831	Myclobutanil	48.8	Spike	F	0 - 26
2386831	Naled	24.1	Spike	P	0 - 37
2386831	Napropamide	19.7	Spike	P	0 - 44
2386831	Norflurazon	43.7	Spike	F	0 - 30
2386831	Oxadiazon	30.3	Spike	F	0 - 28
2386831	Oxyfluorfen	38.1	Spike	F	0 - 28
2386831	Parathion Ethyl	1.77	Spike	P	0 - 31
2386831	Parathion Methyl	7.81	Spike	P	0 - 29
2386831	Pendimethalin	21.6	Spike	P	0 - 33
2386831	Phenytoin	4.89	Spike	P	0 - 100
2386831	Phorate	15.0	Spike	P	0 - 36
2386831	Prodiamine	48.6	Spike	P	0 - 71
2386831	Prometon	6.08	Spike	P	0 - 36
2386831	Prometryn	34.3	Spike	F	0 - 28
2386831	Pronamide	17.3	Spike	P	0 - 24
2386831	Propanil	8.55	Spike	P	0 - 28
2386831	Propargite	40.9	Spike	P	0 - 43
2386831	Propiconazole	43.6	Spike	F	0 - 33
2386831	Pyraflufen Ethyl	52.8	Spike	F	0 - 29
2386831	Pyridaben	81.8	Spike	F	0 - 30
2386831	Pyriproxyfen	48.4	Spike	P	0 - 79
2386831	Simazine	3.32	Spike	P	0 - 29
2386831	Stiropfos	46.6	Spike	P	0 - 61
2386831	Sulfentrazone	19.6	Spike	P	0 - 33
2386831	Tebuconazole	59.9	Spike	P	0 - 69
2386831	Terbufos	12.8	Spike	P	0 - 29
2386831	Terbuthylazine	17.5	Spike	P	0 - 32
2386831	Thiobencarb	41.2	Spike	F	0 - 26
2386831	Triadimefon	23.3	Spike	P	0 - 28

Reference Method: EPA 8276

Batch ID: P425892

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386930	Chlordane	14.9	Spike	P	0 - 25
2386930	Toxaphene	16.0	Spike	P	0 - 26

Reference Method: SM 2320 B-2011

Batch ID: P426295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387118	Total Alkalinity	1.32	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2015

Batch ID: P426459

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386878	TDS	7.32	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500-F- C-2011
Batch ID: P426438

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2386877	Fluoride	0.480	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P426023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2387115	Organic Carbon	0.834	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2387129
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	39.7	P	30 - 101
EPA 8276	PCNB	110	P	48 - 121

Lab Sample ID: 2387130
Field Sample ID: G2NE1212

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	104	P	20 - 200
EPA 8270E	Simazine-d10	66.5	P	62 - 142
EPA 8270E	Terbufos-d10	73.0	P	58 - 132

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A117435

Included Lab Sample IDs: 2387112, 2387113

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	104	P/P	90 - 110
Color (true)	102	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A117437

Included Lab Sample IDs: 2387112, 2387113

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A117480

Included Lab Sample IDs: 2387114, 2387115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A117520

Included Lab Sample IDs: 2387114, 2387115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.7	98.2	P/P	90 - 110
Organic Carbon	98.2	98.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A117576

Included Lab Sample IDs: 2387114, 2387115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	99.2	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A117598

Included Lab Sample IDs: 2387129

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.4		P	80 - 120
Toxaphene	108		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A117599

Included Lab Sample IDs: 2387114, 2387115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.7	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A117607

Included Lab Sample IDs: 2387112, 2387113

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	107	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A117622

Included Lab Sample IDs: 2387112, 2387113

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.5	97.3	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A117679

Included Lab Sample IDs: 2387130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	101		P	80 - 120
Alachlor	88.7		P	80 - 120
Ametryn	91.2		P	80 - 120
Atrazine	95.7		P	80 - 120
Atrazine Desethyl	105		P	80 - 120
Azinphos Methyl	86.2		P	80 - 120
Azoxystrobin	104		P	80 - 120
Bromacil	94.9		P	80 - 120
Butylate	85.9		P	80 - 120
Caffeine	110		P	80 - 120
Carbophenothion	95.5		P	80 - 120
Carfentrazone Ethyl	105		P	80 - 120
Chlorfenapyr	106		P	80 - 120
Chlorpyrifos Ethyl	94.6		P	80 - 120
Chlorpyrifos Methyl	106		P	80 - 120
Coumaphos	98.2		P	80 - 120
Cyanazine	97.0		P	80 - 120
Cyprodinil	110		P	80 - 120
Demeton	98.2		P	80 - 120
Diazinon	93.8		P	80 - 120
Difenoconazole	96.9		P	80 - 120
Dimethenamid	115		P	80 - 120
Dimethomorph	80.3		P	80 - 120
Disulfoton	92.7		P	80 - 120
Dithiopyr	82.8		P	80 - 120
EPTC	102		P	80 - 120
Ethion	95.4		P	80 - 120
Ethoprop	99.0		P	80 - 120
Etridiazole	104		P	80 - 120
Fenamiphos	106		P	80 - 120
Fenbuconazole	89.2		P	80 - 120
Fipronil	95.7		P	80 - 120
Fipronil Desulfinyl	93.9		P	80 - 120
Fipronil Sulfide	99.8		P	80 - 120
Fipronil Sulfone	102		P	80 - 120
Fluazifop-P-butyl	105		P	80 - 120
Fludioxonil	97.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A117679
Included Lab Sample IDs: 2387130

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Flumioxazin	83.9		P	80 - 120
Flutolanil	111		P	80 - 120
Fluxapyroxad	92.1		P	80 - 120
Fonofos	89.3		P	80 - 120
Hexazinone	97.5		P	80 - 120
Imazalil	110		P	80 - 120
Iprodione	83.0		P	80 - 120
Loratadine	82.9		P	80 - 120
Malathion	95.9		P	80 - 120
Metalaxyl	93.6		P	80 - 120
Metolachlor	92.8		P	80 - 120
Metribuzin	96.0		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	82.6		P	80 - 120
Myclobutanil	101		P	80 - 120
Naled	103		P	80 - 120
Napropamide	103		P	80 - 120
Norflurazon	101		P	80 - 120
Oxadiazon	99.9		P	80 - 120
Oxyfluorfen	109		P	80 - 120
Parathion Ethyl	98.4		P	80 - 120
Parathion Methyl	97.6		P	80 - 120
Pendimethalin	97.1		P	80 - 120
Phenytoin	86.1		P	80 - 120
Phorate	101		P	80 - 120
Prodiamine	87.1		P	80 - 120
Prometon	83.0		P	80 - 120
Prometryn	84.9		P	80 - 120
Pronamide	94.0		P	80 - 120
Propanil	103		P	80 - 120
Propargite	91.1		P	80 - 120
Propiconazole	105		P	80 - 120
Pyraflufen Ethyl	96.0		P	80 - 120
Pyridaben	98.8		P	80 - 120
Pyriproxyfen	95.1		P	80 - 120
Simazine	102		P	80 - 120
Stiropfos	91.8		P	80 - 120
Sulfentrazone	105		P	80 - 120
Tebuconazole	89.0		P	80 - 120
Terbufos	94.1		P	80 - 120
Terbutylazine	96.4		P	80 - 120
Thiobencarb	100		P	80 - 120
Triadimefon	111		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A117687
Included Lab Sample IDs: 2387112, 2387113

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sulfate	99.0	97.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 4500-F- C-2011

Run ID: A117689

Included Lab Sample IDs: 2387112, 2387113

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A117706

Included Lab Sample IDs: 2387114, 2387115

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	96.6	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	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	102				0.0902	
	Color (true)	103				2.49	
EPA 180.1 Rev. 2.0	Turbidity	102				0.518	
EPA 300.0 Rev. 2.1	Chloride	106	102	105		3.79	
	Sulfate	106	103	107			
EPA 350.1 Rev. 2.0	Ammonia-N	99.4	101	101			0.456
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.6	107	104			2.31
EPA 353.2 Rev. 2.0	NO2NO3-N	102	103	102			0.447
EPA 365.1 Rev. 2.0	Total-P	99.4	98.7	99.8			0.976
EPA 8270E	Acetochlor	85.2	69.4	74.5			7.12
	Alachlor	87.0	71.5	55.3			25.5
	Ametryn	135	122	105			15.4
	Atrazine	90.6	74.8	86.7			14.8
	Atrazine Desethyl	54.8	48.2	47.4			1.77
	Azinphos Methyl	127	64.9	119			59.0
	Azoxystrobin	114	87.3	102			15.5
	Bromacil	88.8	58.5	80.1			31.1
	Butylate	44.9	36.7	32.4			12.4
	Caffeine	75.3	83.4	85.2			2.03
	Carbophenothion	93.9	76.3	62.5			19.8
	Carfentrazone Ethyl	104	85.4	51.6			49.4
	Chlorfenapyr	88.6	82.8	55.2			39.9
	Chlorpyrifos Ethyl	81.3	108	93.4			14.7
	Chlorpyrifos Methyl	80.4	68.7	61.6			11.0
	Coumaphos	98.3	63.6	48.2			27.7
	Cyanazine	105	71.8	84.8			16.5
	Cyprodinil	84.9	92.1	51.7			56.1
	Demeton	76.4	58.2	71.8			21.0
	Diazinon	103	107	87.3			19.9
	Difenoconazole	108	174	135			25.3
	Dimethenamid	78.2	60.7	68.4			12.0
	Dimethomorph	133	138	73.3			61.2
	Disulfoton	86.4	67.3	61.2			9.53
	Dithiopyr	73.0	64.8	40.1			47.1
	EPTC	49.1	25.5	24.8			2.87
	Ethion	73.0	34.5	55.2			46.1
	Ethoprop	91.9	67.9	80.4			16.8
	Etridiazole	53.3	39.8	43.5			9.08
	Fenamiphos	107	56.1	82.4			38.0
	Fenbuconazole	91.5	67.7	65.6			3.12
	Fipronil	73.9	71.4	33.7			71.6
	Fipronil Desulfinyl	73.7	59.8	33.1			57.5
	Fipronil Sulfide	68.0	63.5	34.8			58.4
	Fipronil Sulfone	67.7	64.3	35.9			56.6
	Fluazifop-P-butyl	111	66.7	81.1			19.5
	Fludioxonil	81.0	58.5	71.1			19.4
	Flumioxazin	142	70.7	53.0			28.6
	Flutolanil	109	74.3	51.9			35.5
	Fluxapyroxad	79.5	45.0	62.0			31.9
	Fonofos	88.7	77.7	60.9			24.2
	Hexazinone	96.0	83.0	101			19.8
	Imazalil	68.0	63.5	104			48.2
	Iprodione	115	55.9	71.5			24.5
	Loratadine	152	84.1	138			48.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8270E	Malathion	113	79.1	58.3		
	Metalaxyl	76.0	76.3	55.6		
	Metolachlor	86.0	87.5	65.4		
	Metribuzin	97.1	68.5	108		
	Mevinphos	79.9	66.4	80.6		
	Molinate	59.8	43.3	59.0		
	Myclobutanil	86.1	80.5	48.9		
	Naled	115	69.2	88.2		
	Napropamide	97.6	41.5	50.6		
	Norflurazon	69.1	73.1	46.9		
	Oxadiazon	76.7	59.4	43.8		
	Oxyfluorfen	114	101	68.8		
	Parathion Ethyl	105	69.6	70.8		
	Parathion Methyl	111	93.2	86.2		
	Pendimethalin	94.1	70.3	87.3		
	Phenytain	43.7	26.8	28.1		
	Phorate	73.0	72.3	62.2		
	Prodiamine	32.5	134	81.3		
	Prometon	69.6	56.4	60.0		
	Prometryn	82.3	70.3	49.8		
	Pronamide	104	98.8	83.0		
	Propanil	102	93.7	102		
	Propargite	83.8	32.6	49.4		
	Propiconazole	80.7	63.7	40.9		
	Pyraflufen Ethyl	74.7	69.6	40.6		
	Pyridaben	71.9	74.8	31.4		
	Pyriproxyfen	85.8	51.4	84.3		
	Simazine	87.1	78.7	81.3		
	Stirophos	90.9	38.3	61.5		
	Sulfentrazone	72.2	81.1	66.6		
	Tebuconazole	57.6	21.8	40.5		
	Terbufos	96.7	104	91.3		
	Terbutylazine	89.1	82.6	69.2		
	Thiobencarb	101	87.7	57.7		
	Triadimefon	83.0	87.2	69.0		
EPA 8276	Chlordane	90.6	87.6	102		
	Toxaphene	94.8	102	120		
SM 2320 B-2011	Total Alkalinity	98.9				1.32
SM 2540 C-2015	TDS	106				7.32
SM 2540 D-2015	TSS	94.3				
SM 4500-F- C-2011	Fluoride	97.7	99.5	100		0.480
SM 5310 B-2011	Organic Carbon	94.3	95.0	96.1		0.834

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2387112, 2387113
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2387112, 2387113
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2387112, 2387113
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2387112, 2387113
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2387114, 2387115
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2387114, 2387115
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2387114, 2387115

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2387114, 2387115
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2387130
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2387129
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2387112, 2387113
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2387112, 2387113
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2387112, 2387113
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2387112, 2387113
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2387114, 2387115

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	02/14/2023			02/14/2023 14:59	Alexis Price	2387113
	02/14/2023			02/14/2023 15:27	Alexis Price	2387112
EPA 180.1 Rev. 2.0	02/14/2023			02/14/2023 15:06	Anna M. Plaviak	2387112
	02/14/2023			02/14/2023 15:07	Anna M. Plaviak	2387113
EPA 300.0 Rev. 2.1	02/14/2023			02/24/2023 05:16	Anna M. Plaviak	2387112
	02/14/2023			02/24/2023 05:31	Anna M. Plaviak	2387113
	02/14/2023			03/01/2023 13:13	Judith K. Clark	2387112
	02/14/2023			03/01/2023 13:28	Judith K. Clark	2387113
EPA 350.1 Rev. 2.0	02/14/2023			02/22/2023 12:39	Khloe J Berg	2387114
	02/14/2023			02/22/2023 12:41	Khloe J Berg	2387115
	02/14/2023	02/22/2023 13:15	Simonne.V. Calhoun	02/28/2023 13:54	Samantha L Bates	2387114
EPA 351.2 Rev. 2.0	02/14/2023	02/22/2023 13:15	Simonne.V. Calhoun	02/28/2023 13:55	Samantha L Bates	2387115
	02/14/2023			02/16/2023 10:56	Beverly Y. Sanders	2387115
EPA 353.2 Rev. 2.0	02/14/2023			02/16/2023 11:02	Beverly Y. Sanders	2387114
	02/14/2023	02/17/2023 12:21	Adam P Silver	02/21/2023 14:11	James L Waggeberby	2387114
EPA 365.1 Rev. 2.0	02/14/2023	02/17/2023 12:21	Adam P Silver	02/21/2023 14:12	James L Waggeberby	2387115
	02/14/2023	02/15/2023 09:30	Rasheda Ghaffari	02/21/2023 00:08	Michael Poppell	2387130
EPA 8270E	02/14/2023	02/15/2023 09:30	Rasheda Ghaffari	02/21/2023 00:34	Michael Poppell	2387130
	02/14/2023	02/15/2023 09:30	Rasheda Ghaffari	02/21/2023 01:00	Michael Poppell	2387130
	02/14/2023	02/15/2023 09:30	Rasheda Ghaffari	02/21/2023 01:25	Michael Poppell	2387130
	02/14/2023	02/15/2023 09:30	Rasheda Ghaffari	02/21/2023 01:51	Michael Poppell	2387130
	02/14/2023	02/15/2023 09:30	Rasheda Ghaffari	02/21/2023 01:51	Michael Poppell	2387130
EPA 8276	02/14/2023	02/15/2023 08:00	Fe-Val Siddell	02/22/2023 04:39	Arthur Maknenko	2387129
SM 2320 B-2011	02/14/2023			02/23/2023 06:52	Chandler E Cox	2387112
	02/14/2023			02/23/2023 07:03	Chandler E Cox	2387113
SM 2540 C-2015	02/14/2023			02/17/2023 15:46	Yijie Li	2387112, 2387113
SM 2540 D-2015	02/14/2023			02/17/2023 15:46	Yijie Li	2387112, 2387113
SM 4500-F- C-2011	02/14/2023			02/28/2023 05:07	Chandler E Cox	2387112
	02/14/2023			02/28/2023 05:12	Chandler E Cox	2387113
SM 5310 B-2011	02/14/2023			02/17/2023 02:44	Elise M. Gillis	2387115
	02/14/2023			02/17/2023 06:21	Elise M. Gillis	2387114