

Chemical Analysis Report

CEN-DIST-2023-12-07-01

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

Event Description: **Run 22**
Request ID: **RQ-2023-12-04-23**
Customer: **CEN-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Matthew Bearden

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

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

Date Certified: 04-JAN-2024 17:02

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: LAKE LOUISE AT CENTER OF SOUTH LOBE

Collection Date/Time: 12/06/2023 12:05

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455408	EPA 200.7 Rev. 4.4	Calcium	5.83		mg/L	P438706	
		Chromium	1.0	U	ug/L	P438706	
		Iron	30	U	ug/L	P438706	
		Magnesium	4.33		mg/L	P438706	
		Potassium	5.8		mg/L	P438706	
		Sodium	9.2		mg/L	P438706	
		Strontium	25.8		ug/L	P438706	
		Tin	3.0	U	ug/L	P438706	
		Titanium	0.75	U	ug/L	P438706	
		Vanadium	2.0	U	ug/L	P438706	
		Zinc	5.0	U	ug/L	P438706	
	EPA 200.8 Rev. 5.4	Aluminum	21		ug/L	P438706	
		Antimony	0.061	I	ug/L	P438706	
		Arsenic	1.12		ug/L	P438706	
		Barium	11.5		ug/L	P438706	
		Beryllium	0.010	U	ug/L	P438706	
		Boron	64.5		ug/L	P438706	
		Cadmium	0.020	U	ug/L	P438706	
		Cobalt	0.020	U	ug/L	P438706	
		Copper	0.40	U	ug/L	P438706	
		Lead	0.20	U	ug/L	P438706	
		Manganese	7.03		ug/L	P438706	
		Molybdenum	0.15	U	ug/L	P438706	
		Nickel	0.50	U	ug/L	P438706	
		Selenium	0.20	U	ug/L	P438706	
		Silver	0.010	U	ug/L	P438706	
		Thallium	0.10	U	ug/L	P438706	
	SM 2340 B-2011	Hardness	32.4		mg/L	P438706	
2455409	EPA 8270E	Oxybenzone**	10	U	ng/L	P438700	RPD
		Acetochlor	0.21	U	ng/L	P438700	
		Octinoxate**	160	U	ng/L	P438700	RPD
		Alachlor	0.41	U	ng/L	P438700	
		Avobenzone**	100	U	ng/L	P438700	
		Ametryn	1.1	U	ng/L	P438700	
		Atrazine	0.68	I	ng/L	P438700	
		PBDE-47**	4.1	U	ng/L	P438700	RPD
		Atrazine Desethyl	1.3	U	ng/L	P438700	
		PBDE-99**	5.2	U	ng/L	P438700	
		Azinphos Methyl	3.1	U	ng/L	P438700	
		Tri-o-cresyl Phosphate**	6.2	U	ng/L	P438700	RPD
		Azoxystrobin	0.41	U	ng/L	P438700	
		Bromacil	0.62	U	ng/L	P438700	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P438700	

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455409	EPA 8270E	Butylate	0.47	U	ng/L	P438700	
		Dechlorane Plus**	31	U	ng/L	P438700	RPD
		Caffeine**	7.8	U	ng/L	P438700	
		Dechlorane 602**	5.2	U	ng/L	P438700	RPD
		Carbophenothion	0.52	UJ	ng/L	P438700	LCS
		Dechlorane 603**	4.1	U	ng/L	P438700	RPD
		Carfentrazone Ethyl	0.16	U	ng/L	P438700	
		Hexabromobenzene**	6.2	U	ng/L	P438700	
		Chlorfenapyr	0.31	U	ng/L	P438700	
		PBB-153**	6.2	U	ng/L	P438700	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P438700	
		Pentabromotoluene**	3.1	U	ng/L	P438700	RPD
		Chlorpyrifos Methyl	0.10	UJ	ng/L	P438700	LCS
		Tris(2-chloroethyl) phosphate (TCEP)**	57	U	ng/L	P438700	
		Coumaphos	1.1	U	ng/L	P438700	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	38	I	ng/L	P438700	
		Cyanazine	5.2	U	ng/L	P438700	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P438700	
		Cyprodinil	0.21	U	ng/L	P438700	
		Tetradecachloro-m-terphenyl**	7.8	U	ng/L	P438700	RPD
		Demeton	3.6	U	ng/L	P438700	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	62	U	ng/L	P438700	MS, RPD
		Diazinon	0.13	U	ng/L	P438700	
		Difenoconazole	0.62	U	ng/L	P438700	MS
		Dimethenamid	0.10	U	ng/L	P438700	
		Dimethomorph	0.31	U	ng/L	P438700	
		Disulfoton	0.62	U	ng/L	P438700	
		Dithiopyr	1.0	U	ng/L	P438700	
		EPTC	0.52	U	ng/L	P438700	
		Ethion	0.31	U	ng/L	P438700	
		Ethoprop	0.13	U	ng/L	P438700	
		Etridiazole	0.10	U	ng/L	P438700	
		Fenamiphos	0.47	U	ng/L	P438700	
		Fenbuconazole	0.52	U	ng/L	P438700	MS, RPD
		Fipronil	0.21	U	ng/L	P438700	
		Fipronil Desulfinyl**	0.10	U	ng/L	P438700	
		Fipronil Sulfide	0.10	U	ng/L	P438700	
		Fipronil Sulfone	0.10	U	ng/L	P438700	
		Fluazifop-P-butyl	0.10	U	ng/L	P438700	
		Fludioxonil	0.10	U	ng/L	P438700	
		Flumioxazin	3.1	U	ng/L	P438700	
		Flutolanil	0.10	U	ng/L	P438700	
		Fluxapyroxad	22		ng/L	P438700	
		Fonofos	0.16	U	ng/L	P438700	

Field ID: G2CE0065

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455409	EPA 8270E	Hexazinone	0.52	U	ng/L	P438700	CCV
		Imazalil	0.67	U	ng/L	P438700	
		Iprodione	0.52	UJ	ng/L	P438700	
		Loratadine**	0.31	U	ng/L	P438700	
		Malathion	0.36	U	ng/L	P438700	
		Metalaxyl	0.52	U	ng/L	P438700	
		Metolachlor	0.78	U	ng/L	P438700	
		Metribuzin	0.41	U	ng/L	P438700	
		Mevinphos	1.0	U	ng/L	P438700	
		Molinate	0.26	U	ng/L	P438700	
		Myclobutanil	0.36	U	ng/L	P438700	
		Naled	2.6	U	ng/L	P438700	
		Napropamide	0.73	U	ng/L	P438700	
		Norflurazon	1.0	U	ng/L	P438700	
		Oxadiazon	0.36	U	ng/L	P438700	
		Oxyfluorfen	0.21	U	ng/L	P438700	
		Parathion Ethyl	0.16	U	ng/L	P438700	
		Parathion Methyl	0.21	U	ng/L	P438700	
		Pendimethalin	1.8	U	ng/L	P438700	MS
		Phenytol**	5.5	U	ng/L	P438700	
		Phorate	0.26	U	ng/L	P438700	
		Prodiamine	0.21	U	ng/L	P438700	
		Prometon	3.1	U	ng/L	P438700	
		Prometryn	0.36	U	ng/L	P438700	
		Pronamide	0.10	U	ng/L	P438700	
		Propanil	0.10	U	ng/L	P438700	
		Propargite	0.83	U	ng/L	P438700	
		Propiconazole	0.62	U	ng/L	P438700	
		Pyraflufen Ethyl	0.31	U	ng/L	P438700	
		Pyridaben	1.5	U	ng/L	P438700	
		Pyriproxyfen	0.26	U	ng/L	P438700	
		Simazine	0.26	U	ng/L	P438700	
		Stirophos	0.41	U	ng/L	P438700	
		Sulfentrazone	1.5	U	ng/L	P438700	
		Tebuconazole	1.5	U	ng/L	P438700	
		Terbufos	0.21	U	ng/L	P438700	
		Terbuthylazine	0.21	U	ng/L	P438700	
		Thiobencarb	0.52	U	ng/L	P438700	
		Triadimefon	0.16	U	ng/L	P438700	

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

Sample Location: FB

Collection Date/Time: 12/06/2023 12:22

Field ID: FB_12062023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455410	EPA 8270E	Oxybenzone**	10	U	ng/L	P438700	RPD
		Acetochlor	0.20	U	ng/L	P438700	
		Octinoxate**	150	U	ng/L	P438700	RPD
		Alachlor	0.41	U	ng/L	P438700	
		Avobenzone**	100	U	ng/L	P438700	
		Ametryn	1.1	U	ng/L	P438700	
		Atrazine	0.20	U	ng/L	P438700	
		PBDE-47**	4.1	U	ng/L	P438700	RPD
		Atrazine Desethyl	1.3	U	ng/L	P438700	
		PBDE-99**	5.1	U	ng/L	P438700	
		Azinphos Methyl	3.1	U	ng/L	P438700	
		Tri-o-cresyl Phosphate**	6.1	U	ng/L	P438700	RPD
		Azoxystrobin	0.41	U	ng/L	P438700	
		Bromacil	0.61	U	ng/L	P438700	
		2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)**	12	U	ng/L	P438700	
		Butylate	0.46	U	ng/L	P438700	
		Dechlorane Plus**	31	U	ng/L	P438700	RPD
		Caffeine**	7.7	U	ng/L	P438700	
		Dechlorane 602**	5.1	U	ng/L	P438700	RPD
		Carbophenothion	0.51	UJ	ng/L	P438700	LCS
		Dechlorane 603**	4.1	U	ng/L	P438700	RPD
		Carfentrazone Ethyl	0.15	U	ng/L	P438700	
		Hexabromobenzene**	6.1	U	ng/L	P438700	
		Chlorfenapyr	0.31	U	ng/L	P438700	
		PBB-153**	6.1	U	ng/L	P438700	
		Chlorpyrifos Ethyl	0.31	U	ng/L	P438700	
		Pentabromotoluene**	3.1	U	ng/L	P438700	RPD
		Chlorpyrifos Methyl	0.10	UJ	ng/L	P438700	LCS
		Tris(2-chloroethyl) phosphate (TCEP)**	56	U	ng/L	P438700	
		Coumaphos	1.1	U	ng/L	P438700	
		Tris(1-chloro-2-propyl) phosphate (TCPP)**	26	U	ng/L	P438700	
		Cyanazine	5.1	U	ng/L	P438700	
		Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)**	2.6	U	ng/L	P438700	
		Cyprodinil	0.20	U	ng/L	P438700	
		Tetradecachloro-m-terphenyl**	7.7	U	ng/L	P438700	RPD
		Demeton	3.6	U	ng/L	P438700	
		2-(2H-benzotriazol-2-yl)-4,6-ditertpentyl phenol (UV-328)**	61	U	ng/L	P438700	MS, RPD
		Diazinon	0.13	U	ng/L	P438700	
		Difenoconazole	0.61	U	ng/L	P438700	MS
		Dimethenamid	0.10	U	ng/L	P438700	
		Dimethomorph	0.31	U	ng/L	P438700	
		Disulfoton	0.61	U	ng/L	P438700	

Field ID: FB_12062023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455410	EPA 8270E	Dithiopyr	1.0	U	ng/L	P438700	
		EPTC	0.51	U	ng/L	P438700	
		Ethion	0.31	U	ng/L	P438700	
		Ethoprop	0.13	U	ng/L	P438700	
		Etridiazole	0.10	U	ng/L	P438700	
		Fenamiphos	0.46	U	ng/L	P438700	
		Fenbuconazole	0.51	U	ng/L	P438700	MS, RPD
		Fipronil	0.20	U	ng/L	P438700	
		Fipronil Desulfinyl**	0.10	U	ng/L	P438700	
		Fipronil Sulfide	0.10	U	ng/L	P438700	
		Fipronil Sulfone	0.10	U	ng/L	P438700	
		Fluazifop-P-butyl	0.10	U	ng/L	P438700	
		Fludioxonil	0.10	U	ng/L	P438700	
		Flumioxazin	3.1	U	ng/L	P438700	
		Flutolanil	0.10	U	ng/L	P438700	
		Fluxapyroxad	0.26	U	ng/L	P438700	
		Fonofos	0.15	U	ng/L	P438700	
		Hexazinone	0.51	U	ng/L	P438700	
		Imazalil	0.67	U	ng/L	P438700	
		Iprodione	0.51	UJ	ng/L	P438700	CCV
		Loratadine**	0.31	U	ng/L	P438700	
		Malathion	0.36	U	ng/L	P438700	
		Metalaxyl	0.51	U	ng/L	P438700	
		Metolachlor	0.77	U	ng/L	P438700	
		Metribuzin	0.41	U	ng/L	P438700	
		Mevinphos	1.0	U	ng/L	P438700	
		Molinate	0.26	U	ng/L	P438700	
		Myclobutanil	0.36	U	ng/L	P438700	
		Naled	2.6	U	ng/L	P438700	
		Napropamide	0.72	U	ng/L	P438700	
		Norflurazon	1.0	U	ng/L	P438700	
		Oxadiazon	0.36	U	ng/L	P438700	
		Oxyfluorfen	0.20	U	ng/L	P438700	
		Parathion Ethyl	0.15	U	ng/L	P438700	
		Parathion Methyl	0.20	U	ng/L	P438700	
		Pendimethalin	1.7	U	ng/L	P438700	MS
		Phenytoin**	5.4	U	ng/L	P438700	
		Phorate	0.26	U	ng/L	P438700	
		Prodiamine	0.20	U	ng/L	P438700	
		Prometon	3.1	U	ng/L	P438700	
		Prometryn	0.36	U	ng/L	P438700	
		Pronamide	0.10	U	ng/L	P438700	
		Propanil	0.10	U	ng/L	P438700	
		Propargite	0.82	U	ng/L	P438700	
		Propiconazole	0.61	U	ng/L	P438700	

Field ID: FB_12062023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455410	EPA 8270E	Pyraflufen Ethyl	0.31	U	ng/L	P438700	
		Pyridaben	1.4	U	ng/L	P438700	
		Pyriproxyfen	0.26	U	ng/L	P438700	
		Simazine	0.26	U	ng/L	P438700	
		Stirophos	0.41	U	ng/L	P438700	
		Sulfentrazone	1.4	U	ng/L	P438700	
		Tebuconazole	1.4	U	ng/L	P438700	
		Terbufos	0.20	U	ng/L	P438700	
		Terbuthylazine	0.20	U	ng/L	P438700	
		Thiobencarb	0.51	U	ng/L	P438700	
		Triadimefon	0.15	U	ng/L	P438700	

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

Sample Location: LAKE WINONA AT CENTER OF LAKE

Collection Date/Time: 12/06/2023 13:00

Field ID: G2CE0288

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455407	EPA 200.7 Rev. 4.4	Calcium	3.48		mg/L	P438706	
		Chromium	1.0	U	ug/L	P438706	
		Iron	30	U	ug/L	P438706	
		Magnesium	3.46		mg/L	P438706	
		Potassium	3.4		mg/L	P438706	
		Sodium	8.1		mg/L	P438706	
		Strontium	20.3		ug/L	P438706	
		Tin	3.0	U	ug/L	P438706	
		Titanium	0.75	U	ug/L	P438706	
		Vanadium	2.0	U	ug/L	P438706	
		Zinc	25		ug/L	P438706	
	EPA 200.8 Rev. 5.4	Aluminum	40		ug/L	P438706	
		Antimony	0.12	I	ug/L	P438706	
		Arsenic	0.59		ug/L	P438706	
		Barium	12.2		ug/L	P438706	
		Beryllium	0.010	U	ug/L	P438706	
		Boron	29.7		ug/L	P438706	
		Cadmium	0.020	U	ug/L	P438706	
		Cobalt	0.020	U	ug/L	P438706	
		Copper	0.40	U	ug/L	P438706	
		Lead	0.20	U	ug/L	P438706	
		Manganese	5.41		ug/L	P438706	
		Molybdenum	0.15	U	ug/L	P438706	
		Nickel	0.50	U	ug/L	P438706	
		Selenium	0.20	U	ug/L	P438706	
		Silver	0.010	U	ug/L	P438706	
		Thallium	0.10	U	ug/L	P438706	
	SM 2340 B-2011	Hardness	22.9		mg/L	P438706	

Sample Location: LAKE TALMADGE S OF CENTER

Collection Date/Time: 12/06/2023 13:53

Field ID: G2CE0267

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2455404	DEP SOP: NU-094-1	Color (true)	120		PCU	P438672	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P438658	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P439033	
		Sulfate	6.3		mg SO4/L	P439139	
	SM 2320 B-2011	Total Alkalinity	15		mg CaCO3/L	P438936	
	SM 2540 C-2015	TDS	90		mg/L	P439247	
	SM 2540 D-2015	TSS	3	I	mg/L	P439287	
	SM 4500-F- C-2011	Fluoride	0.039	I	mg F/L	P438938	
2455405	EPA 350.1 Rev. 2.0	Ammonia-N	0.086		mg N/L	P438842	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.97		mg N/L	P438760	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P438727	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P438835	
	SM 5310 B-2014	Organic Carbon	18		mg C/L	P438734	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P438672

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438658

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439033

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: P439139

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438842

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438760

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438727

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438835

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

Reference Method: EPA 8270E
Batch ID: P438700

Component	Result	Code	Units
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	60	U	ng/L
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	12	U	ng/L
Acetochlor	0.20	U	ng/L
Alachlor	0.40	U	ng/L
Ametryn	1.1	U	ng/L
Atrazine	0.20	U	ng/L
Atrazine Desethyl	1.3	U	ng/L
Avobenzone	100	U	ng/L
Azinphos Methyl	3.0	U	ng/L
Azoxystrobin	0.40	U	ng/L
Bromacil	0.60	U	ng/L
Butylate	0.45	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.15	U	ng/L
Chlorfenapyr	0.30	U	ng/L
Chlorpyrifos Ethyl	0.30	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Coumaphos	1.0	U	ng/L
Cyanazine	5.0	U	ng/L
Cyprodinil	0.20	U	ng/L
Dechlorane 602	5.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438700

Component	Result	Code	Units
Dechlorane 603	4.0	U	ng/L
Dechlorane Plus	30	U	ng/L
Demeton	3.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Dimethomorph	0.30	U	ng/L
Disulfoton	0.60	U	ng/L
Dithiopyr	1.0	U	ng/L
EPTC	0.50	U	ng/L
Ethion	0.30	U	ng/L
Ethoprop	0.12	U	ng/L
Etridiazole	0.10	U	ng/L
Fenamiphos	0.45	U	ng/L
Fenbuconazole	0.50	U	ng/L
Fipronil	0.20	U	ng/L
Fipronil Desulfinyl	0.10	U	ng/L
Fipronil Sulfide	0.10	U	ng/L
Fipronil Sulfone	0.10	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.10	U	ng/L
Flumioxazin	3.0	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.25	U	ng/L
Fonofos	0.15	U	ng/L
Hexabromobenzene	6.0	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.65	U	ng/L
Iprodione	0.50	U	ng/L
Loratadine	0.30	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.50	U	ng/L
Metolachlor	0.75	U	ng/L
Metribuzin	0.40	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.25	U	ng/L
Myclobutanil	0.35	U	ng/L
Naled	2.5	U	ng/L
Napropamide	0.70	U	ng/L
Norflurazon	1.0	U	ng/L
Octinoxate	150	U	ng/L
Oxadiazon	0.35	U	ng/L
Oxybenzone	10	U	ng/L
Oxyfluorfen	0.20	U	ng/L
Parathion Ethyl	0.15	U	ng/L
Parathion Methyl	0.20	U	ng/L
PBB-153	6.0	U	ng/L
PBDE-47	4.0	U	ng/L
PBDE-99	5.0	U	ng/L
Pendimethalin	1.7	U	ng/L
Pentabromotoluene	3.0	U	ng/L
Phenytol	5.3	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P438700

Component	Result	Code	Units
Phorate	0.25	U	ng/L
Prodiamine	0.20	U	ng/L
Prometon	3.0	U	ng/L
Prometryn	0.35	U	ng/L
Pronamide	0.10	U	ng/L
Propanil	0.10	U	ng/L
Propargite	0.80	U	ng/L
Propiconazole	0.60	U	ng/L
Pyraflufen Ethyl	0.30	U	ng/L
Pyridaben	1.4	U	ng/L
Pyriproxyfen	0.25	U	ng/L
Simazine	0.25	U	ng/L
Stirophos	0.40	U	ng/L
Sulfentrazone	1.4	U	ng/L
Tebuconazole	1.4	U	ng/L
Terbufos	0.20	U	ng/L
Terbutylazine	0.20	U	ng/L
Tetradecachloro-m-terphenyl	7.5	U	ng/L
Thiobencarb	0.50	U	ng/L
Tri-o-cresyl Phosphate	6.0	U	ng/L
Triadimefon	0.15	U	ng/L
Tris(1-chloro-2-propyl) phosphate (TCPP)	25	U	ng/L
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	2.5	U	ng/L
Tris(2-chloroethyl) phosphate (TCEP)	55	U	ng/L

Reference Method: SM 2320 B-2011

Batch ID: P438936

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

Reference Method: SM 2540 C-2015

Batch ID: P439247

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P439287

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P438938

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 5310 B-2014
Batch ID: P438734

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: P438672

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.3		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438658

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	110		P	85 - 115
Chromium	100		P	85 - 115
Iron	111		P	85 - 115
Magnesium	112		P	85 - 115
Potassium	101		P	85 - 115
Sodium	99.2		P	85 - 115
Strontium	97.7		P	85 - 115
Tin	98.1		P	85 - 115
Titanium	102		P	85 - 115
Vanadium	98.2		P	85 - 115
Zinc	94.9		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.8		P	85 - 115
Antimony	98.9		P	85 - 115
Arsenic	97.0		P	85 - 115
Barium	98.4		P	85 - 115
Beryllium	103		P	85 - 115
Boron	103		P	85 - 115
Cadmium	98.0		P	85 - 115
Cobalt	98.2		P	85 - 115
Copper	96.5		P	85 - 115
Lead	101		P	85 - 115
Manganese	95.0		P	85 - 115
Molybdenum	97.2		P	85 - 115
Nickel	96.3		P	85 - 115
Selenium	97.6		P	85 - 115
Silver	104		P	85 - 115
Thallium	101		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439033

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439139

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438842

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438760

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438727

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438835

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

Reference Method: EPA 8270E
Batch ID: P438700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	66.5		P	50 - 150
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	92.9		P	37 - 154
Acetochlor	108		P	64 - 124
Alachlor	84.2		P	61 - 118
Ametryn	101		P	47 - 158
Atrazine	101		P	68 - 121
Atrazine Desethyl	103		P	30 - 119
Avobenzone	107		P	48 - 193
Azinphos Methyl	140		P	30 - 194
Azoxystrobin	106		P	58 - 154
Bromacil	105		P	47 - 126
Butylate	63.6		P	31 - 83.0
Caffeine	113		P	10 - 180
Carbophenothion	156		F	59 - 133
Carfentrazone Ethyl	140		P	59 - 147
Chlorfenapyr	108		P	52 - 118
Chlorpyrifos Ethyl	107		P	59 - 119
Chlorpyrifos Methyl	141		F	65 - 123
Coumaphos	160		P	11 - 223
Cyanazine	107		P	63 - 250
Cyprodinil	126		P	52 - 143
Dechlorane 602	57.2		P	23 - 142

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dechlorane 603	128		P	51 - 171
Dechlorane Plus	107		P	46 - 161
Demeton	64.8		P	42 - 119
Diazinon	119		P	67 - 132
Difenoconazole	101		P	12 - 204
Dimethenamid	98.2		P	53 - 113
Dimethomorph	147		P	13 - 238
Disulfoton	116		P	56 - 126
Dithiopyr	91.0		P	58 - 127
EPTC	56.9		P	31 - 78.0
Ethion	70.1		P	24 - 127
Ethoprop	91.6		P	60 - 118
Etridiazole	83.5		P	32 - 91.0
Fenamiphos	112		P	54 - 129
Fenbuconazole	70.2		P	31 - 162
Fipronil	96.9		P	56 - 131
Fipronil Desulfinyl	79.1		P	58 - 132
Fipronil Sulfide	112		P	51 - 123
Fipronil Sulfone	113		P	50 - 125
Fluazifop-P-butyl	131		P	52 - 132
Fludioxonil	92.3		P	52 - 129
Flumioxazin	126		P	34 - 250
Flutolanil	119		P	45 - 128
Fluxapyroxad	108		P	31 - 150
Fonofos	90.1		P	60 - 116
Hexabromobenzene	91.7		P	52 - 165
Hexazinone	80.1		P	59 - 120
Imazalil	108		P	39 - 134
Iprodione	113		P	39 - 243
Loratadine	146		P	10 - 240
Malathion	128		P	53 - 145
Metalaxyl	78.6		P	59 - 120
Metolachlor	114		P	64 - 122
Metribuzin	96.1		P	33 - 128
Mevinphos	104		P	48 - 119
Molinate	67.1		P	42 - 89.0
Myclobutanil	99.2		P	54 - 129
Naled	50.5		P	10 - 138
Napropamide	86.0		P	40 - 122
Norflurazon	108		P	49 - 132
Octinoxate	113		P	29 - 176
Oxadiazon	96.7		P	50 - 115
Oxybenzone	112		P	45 - 145
Oxyfluorfen	129		P	62 - 149
Parathion Ethyl	85.2		P	68 - 119
Parathion Methyl	96.7		P	68 - 147
PBB-153	89.6		P	42 - 179
PBDE-47	92.7		P	44 - 141
PBDE-99	95.3		P	36 - 141
Pendimethalin	121		P	59 - 158
Pentabromotoluene	97.4		P	58 - 148
Phenytol	30.1		P	10 - 151

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E

Batch ID: P438700

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Phorate	84.8		P	44 - 124
Prodiamine	114		P	10 - 136
Prometon	79.6		P	45 - 131
Prometryn	137		P	52 - 140
Pronamide	122		P	70 - 129
Propanil	113		P	54 - 144
Propargite	80.1		P	10 - 191
Propiconazole	86.8		P	49 - 128
Pyraflufen Ethyl	136		P	46 - 141
Pyridaben	36.3		P	29 - 198
Pyriproxyfen	72.8		P	33 - 221
Simazine	98.3		P	62 - 119
Stirophos	113		P	13 - 144
Sulfentrazone	104		P	12 - 152
Tebuconazole	52.3		P	10 - 135
Terbufos	94.1		P	67 - 136
Terbutylazine	90.5		P	66 - 113
Tetradecachloro-m-terphenyl	165		P	30 - 235
Thiobencarb	107		P	51 - 125
Tri-o-cresyl Phosphate	115		P	50 - 150
Triadimefon	104		P	57 - 118
Tris(1-chloro-2-propyl) phosphate (TCPP)	97.3		P	60 - 160
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.0		P	66 - 141
Tris(2-chloroethyl) phosphate (TCEP)	93.8		P	59 - 166

Reference Method: SM 2320 B-2011

Batch ID: P438936

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.7		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P439247

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.4		P	85 - 115

Reference Method: SM 2540 D-2015

Batch ID: P439287

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	102		P	85 - 115

Reference Method: SM 4500-F- C-2011

Batch ID: P438938

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-2014
Batch ID: P438734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454849	Calcium	109	109	P/P	80 - 120
2454849	Chromium	89.7	90.4	P/P	80 - 120
2454849	Iron	108	109	P/P	80 - 120
2454849	Magnesium	109	111	P/P	80 - 120
2454849	Potassium	99.5	99.4	P/P	80 - 120
2454849	Sodium	97.1		P	80 - 120
2454849	Strontium	96.5	96.9	P/P	80 - 120
2454849	Tin	96.6	97.0	P/P	80 - 120
2454849	Titanium	104	104	P/P	80 - 120
2454849	Vanadium	99.1	98.9	P/P	80 - 120
2454849	Zinc	93.2	91.6	P/P	80 - 120
2455252	Calcium	105		P	80 - 120
2455252	Chromium	99.7		P	80 - 120
2455252	Iron	111		P	80 - 120
2455252	Magnesium	112		P	80 - 120
2455252	Potassium	101		P	80 - 120
2455252	Sodium	100		P	80 - 120
2455252	Strontium	98.6		P	80 - 120
2455252	Tin	99.0		P	80 - 120
2455252	Titanium	103		P	80 - 120
2455252	Vanadium	99.2		P	80 - 120
2455252	Zinc	94.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454849	Aluminum	97.8	95.7	P/P	80 - 120
2454849	Antimony	96.9	96.4	P/P	80 - 120
2454849	Arsenic	95.3	95.6	P/P	80 - 120
2454849	Barium	97.5	96.7	P/P	80 - 120
2454849	Beryllium	106	104	P/P	80 - 120
2454849	Boron	101	97.6	P/P	80 - 120
2454849	Cadmium	97.6	95.5	P/P	80 - 120
2454849	Cobalt	96.9	96.2	P/P	80 - 120
2454849	Copper	95.0	95.4	P/P	80 - 120
2454849	Lead	101	99.9	P/P	80 - 120
2454849	Manganese	90.9	90.2	P/P	80 - 120
2454849	Molybdenum	96.1	96.5	P/P	80 - 120
2454849	Nickel	83.0	83.0	P/P	80 - 120
2454849	Selenium	95.1	94.9	P/P	80 - 120
2454849	Silver	101	102	P/P	80 - 120
2454849	Thallium	103	103	P/P	80 - 120
2455252	Aluminum	90.2		P	80 - 120
2455252	Antimony	97.2		P	80 - 120
2455252	Arsenic	96.7		P	80 - 120
2455252	Barium	95.9		P	80 - 120
2455252	Beryllium	96.5		P	80 - 120
2455252	Boron	103		P	80 - 120
2455252	Cadmium	95.8		P	80 - 120
2455252	Cobalt	97.0		P	80 - 120
2455252	Copper	95.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P438706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455252	Lead	99.9		P	80 - 120
2455252	Manganese	99.7		P	80 - 120
2455252	Molybdenum	96.3		P	80 - 120
2455252	Nickel	95.1		P	80 - 120
2455252	Selenium	92.8		P	80 - 120
2455252	Silver	102		P	80 - 120
2455252	Thallium	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P439033

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455183	Chloride	100		P	90 - 110
2455512	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P439139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455183	Sulfate	100		P	90 - 110
2455512	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P438842

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455265	Ammonia-N	95.8	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P438760

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455405	Kjeldahl Nitrogen	103	109	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P438727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455265	NO2NO3-N	97.1	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P438835

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454962	Total-P	104	108	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P438700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455623	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	69.6	49.3	P/F	50 - 150
2455623	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	64.7	54.1	P/P	29 - 155

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P438700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455623	Acetochlor	98.2	93.2	P/P	60 - 124
2455623	Alachlor	75.5	77.9	P/P	54 - 122
2455623	Ametryn	135	111	P/P	51 - 208
2455623	Atrazine	105	109	P/P	57 - 131
2455623	Atrazine Desethyl	104	107	P/P	13 - 124
2455623	Avobenzone	64.7	54.2	P/P	35 - 187
2455623	Azinphos Methyl	103	130	P/P	43 - 276
2455623	Azoxystrobin	79.9	118	P/P	52 - 300
2455623	Bromacil	87.5	90.4	P/P	44 - 134
2455623	Butylate	72.4	70.0	P/P	23 - 82.0
2455623	Caffeine	142	138	P/P	10 - 277
2455623	Carbophenothion	105	87.6	P/P	47 - 135
2455623	Carfentrazone Ethyl	90.3	78.5	P/P	46 - 147
2455623	Chlorfenapyr	72.5	89.9	P/P	43 - 114
2455623	Chlorpyrifos Ethyl	117	112	P/P	47 - 124
2455623	Chlorpyrifos Methyl	111	107	P/P	60 - 135
2455623	Coumaphos	86.8	98.3	P/P	10 - 222
2455623	Cyanazine	102	105	P/P	10 - 257
2455623	Cyprodinil	111	120	P/P	42 - 148
2455623	Dechlorane 602	53.8	28.1	P/P	14 - 133
2455623	Dechlorane 603	111	48.8	P/P	18 - 191
2455623	Dechlorane Plus	84.7	52.3	P/P	23 - 154
2455623	Demeton	60.7	62.5	P/P	41 - 137
2455623	Diazinon	129	123	P/P	64 - 139
2455623	Difenoconazole	45.5	58.9	F/P	46 - 254
2455623	Dimethenamid	75.4	71.4	P/P	47 - 117
2455623	Dimethomorph	105	168	P/P	14 - 255
2455623	Disulfoton	112	120	P/P	52 - 130
2455623	Dithiopyr	114	117	P/P	40 - 121
2455623	EPTC	66.0	65.5	P/P	19 - 78.0
2455623	Ethion	74.4	35.1	P/P	12 - 124
2455623	Ethoprop	96.2	104	P/P	68 - 144
2455623	Etridiazole	77.7	65.6	P/P	26 - 96.0
2455623	Fenamiphos	80.2	84.3	P/P	41 - 129
2455623	Fenbuconazole	21.9	76.5	F/P	26 - 169
2455623	Fipronil	114	101	P/P	46 - 145
2455623	Fipronil Desulfinyl	94.7	75.2	P/P	47 - 136
2455623	Fipronil Sulfide	94.7	80.8	P/P	41 - 127
2455623	Fipronil Sulfone	124	90.5	P/P	35 - 133
2455623	Fluazifop-P-butyl	100	76.2	P/P	46 - 131
2455623	Fludioxonil	68.3	81.8	P/P	51 - 124
2455623	Flumioxazin	48.2	79.5	P/P	10 - 289
2455623	Flutolanil	78.8	102	P/P	34 - 130
2455623	Fluxapyroxad	71.3	50.0	P/P	10 - 197
2455623	Fonofos	101	101	P/P	42 - 131
2455623	Hexabromobenzene	77.9	59.2	P/P	47 - 178
2455623	Hexazinone	96.9	91.3	P/P	64 - 125
2455623	Imazalil	75.5	105	P/P	37 - 252
2455623	Iprodione	66.6	69.4	P/P	34 - 265
2455623	Loratadine	87.6	144	P/P	20 - 231
2455623	Malathion	93.3	132	P/P	34 - 164
2455623	Metalaxyl	107	96.8	P/P	49 - 125

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P438700

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2455623	Metolachlor	113	119	P/P	54 - 125
2455623	Metribuzin	82.8	137	P/P	51 - 139
2455623	Mevinphos	92.4	99.2	P/P	46 - 130
2455623	Molinate	71.6	74.4	P/P	39 - 93.0
2455623	Myclobutanil	84.2	66.1	P/P	50 - 130
2455623	Naled	49.2	46.4	P/P	10 - 150
2455623	Napropamide	71.3	35.9	P/P	10 - 109
2455623	Norflurazon	68.3	75.2	P/P	36 - 134
2455623	Octinoxate	158	93.6	P/P	18 - 170
2455623	Oxadiazon	75.7	76.9	P/P	43 - 112
2455623	Oxybenzone	149	68.0	P/P	33 - 154
2455623	Oxyfluorfen	98.4	90.4	P/P	62 - 154
2455623	Parathion Ethyl	89.6	95.9	P/P	65 - 120
2455623	Parathion Methyl	83.9	103	P/P	77 - 185
2455623	PBB-153	53.4	51.1	P/P	23 - 193
2455623	PBDE-47	111	54.8	P/P	31 - 139
2455623	PBDE-99	71.7	55.4	P/P	24 - 138
2455623	Pendimethalin	139	167	P/F	50 - 146
2455623	Pentabromotoluene	134	58.7	P/P	54 - 152
2455623	Phenytoin	29.9	29.4	P/P	10 - 157
2455623	Phorate	72.6	79.8	P/P	54 - 161
2455623	Prodiamine	119	91.9	P/P	29 - 160
2455623	Prometon	85.7	108	P/P	38 - 145
2455623	Prometryn	99.5	124	P/P	32 - 151
2455623	Pronamide	118	113	P/P	61 - 140
2455623	Propanil	98.9	94.6	P/P	50 - 147
2455623	Propargite	54.4	54.7	P/P	10 - 190
2455623	Propiconazole	60.3	67.5	P/P	30 - 146
2455623	Pyraflufen Ethyl	67.4	77.2	P/P	30 - 147
2455623	Pyridaben	78.7	98.0	P/P	15 - 195
2455623	Pyriproxyfen	45.6	59.9	P/P	31 - 218
2455623	Simazine	108	110	P/P	45 - 139
2455623	Stiropfos	74.7	50.1	P/P	10 - 134
2455623	Sulfentrazone	75.4	84.0	P/P	53 - 186
2455623	Tebuconazole	41.4	28.2	P/P	10 - 133
2455623	Terbufos	96.8	96.5	P/P	65 - 151
2455623	Terbutylazine	91.1	85.0	P/P	62 - 117
2455623	Tetradecachloro-m-terphenyl	173	104	P/P	10 - 260
2455623	Thiobencarb	72.8	86.1	P/P	48 - 122
2455623	Tri-o-cresyl Phosphate	121	72.1	P/P	32 - 151
2455623	Triadimefon	97.5	78.2	P/P	46 - 124
2455623	Tris(1-chloro-2-propyl) phosphate (TCPP)	83.7	93.4	P/P	51 - 154
2455623	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	80.1	91.8	P/P	59 - 147
2455623	Tris(2-chloroethyl) phosphate (TCEP)	94.1	100	P/P	65 - 156

Reference Method: SM 4500-F- C-2011

Batch ID: P438938

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454527	Fluoride	101	101	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2014
Batch ID: P438734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2454741	Organic Carbon	98.7	99.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P438672

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455345	Color (true)	0.449	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P438658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455109	Turbidity	0.727	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P438706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454849	Calcium	0.315	Spike	P	0 - 20
2454849	Chromium	0.674	Spike	P	0 - 20
2454849	Iron	0.593	Spike	P	0 - 20
2454849	Magnesium	0.913	Spike	P	0 - 20
2454849	Potassium	0.0834	Spike	P	0 - 20
2454849	Sodium	0.623	Spike	P	0 - 20
2454849	Strontium	0.396	Spike	P	0 - 20
2454849	Tin	0.503	Spike	P	0 - 20
2454849	Titanium	0.125	Spike	P	0 - 20
2454849	Vanadium	0.223	Spike	P	0 - 20
2454849	Zinc	1.60	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P438706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454849	Aluminum	1.79	Spike	P	0 - 20
2454849	Antimony	0.472	Spike	P	0 - 20
2454849	Arsenic	0.261	Spike	P	0 - 20
2454849	Barium	0.751	Spike	P	0 - 20
2454849	Beryllium	1.75	Spike	P	0 - 20
2454849	Boron	2.40	Spike	P	0 - 20
2454849	Cadmium	2.12	Spike	P	0 - 20
2454849	Cobalt	0.647	Spike	P	0 - 20
2454849	Copper	0.365	Spike	P	0 - 20
2454849	Lead	1.25	Spike	P	0 - 20
2454849	Manganese	0.653	Spike	P	0 - 20
2454849	Molybdenum	0.395	Spike	P	0 - 20
2454849	Nickel	0.0495	Spike	P	0 - 20
2454849	Selenium	0.190	Spike	P	0 - 20
2454849	Silver	1.21	Spike	P	0 - 20
2454849	Thallium	0.112	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439033

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455183	Chloride	1.16	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P439139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455183	Sulfate	1.19	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455265	Ammonia-N	0.477	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P438760

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455405	Kjeldahl Nitrogen	3.73	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455265	NO2NO3-N	1.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P438835

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454962	Total-P	3.10	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P438700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455623	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	34.2	Spike	F	0 - 30
2455623	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	17.8	Spike	P	0 - 35
2455623	Acetochlor	5.22	Spike	P	0 - 28
2455623	Alachlor	3.15	Spike	P	0 - 30
2455623	Ametryn	19.3	Spike	P	0 - 32
2455623	Atrazine	3.72	Spike	P	0 - 33
2455623	Atrazine Desethyl	2.29	Spike	P	0 - 36
2455623	Avobenzone	17.7	Spike	P	0 - 35
2455623	Azinphos Methyl	22.8	Spike	P	0 - 62

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P438700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455623	Azoxystrobin	38.6	Spike	P	0 - 39
2455623	Bromacil	3.28	Spike	P	0 - 33
2455623	Butylate	3.31	Spike	P	0 - 51
2455623	Caffeine	3.45	Spike	P	0 - 100
2455623	Carbophenothion	18.0	Spike	P	0 - 34
2455623	Carfentrazone Ethyl	14.0	Spike	P	0 - 33
2455623	Chlorfenapyr	21.5	Spike	P	0 - 28
2455623	Chlorpyrifos Ethyl	4.30	Spike	P	0 - 31
2455623	Chlorpyrifos Methyl	2.93	Spike	P	0 - 27
2455623	Coumaphos	12.4	Spike	P	0 - 62
2455623	Cyanazine	3.51	Spike	P	0 - 48
2455623	Cyprodinil	7.53	Spike	P	0 - 29
2455623	Dechlorane 602	62.8	Spike	F	0 - 60
2455623	Dechlorane 603	78.1	Spike	F	0 - 40
2455623	Dechlorane Plus	47.4	Spike	F	0 - 38
2455623	Demeton	2.80	Spike	P	0 - 33
2455623	Diazinon	4.29	Spike	P	0 - 32
2455623	Difenoconazole	25.7	Spike	P	0 - 71
2455623	Dimethenamid	5.52	Spike	P	0 - 60
2455623	Dimethomorph	46.1	Spike	P	0 - 61
2455623	Disulfoton	7.69	Spike	P	0 - 30
2455623	Dithiopyr	2.42	Spike	P	0 - 28
2455623	EPTC	0.761	Spike	P	0 - 56
2455623	Ethion	71.9	Spike	P	0 - 79
2455623	Ethoprop	7.54	Spike	P	0 - 31
2455623	Etridiazole	16.9	Spike	P	0 - 43
2455623	Fenamiphos	5.04	Spike	P	0 - 43
2455623	Fenbuconazole	111	Spike	F	0 - 79
2455623	Fipronil	12.3	Spike	P	0 - 46
2455623	Fipronil Desulfanyl	23.0	Spike	P	0 - 36
2455623	Fipronil Sulfide	15.9	Spike	P	0 - 34
2455623	Fipronil Sulfone	30.9	Spike	P	0 - 47
2455623	Fluazifop-P-butyl	27.2	Spike	P	0 - 38
2455623	Fludioxonil	18.0	Spike	P	0 - 29
2455623	Flumioxazin	35.5	Spike	P	0 - 63
2455623	Flutolanil	25.6	Spike	P	0 - 36
2455623	Fluxapyroxad	35.2	Spike	P	0 - 65
2455623	Fonofos	0.222	Spike	P	0 - 35
2455623	Hexabromobenzene	27.3	Spike	P	0 - 41
2455623	Hexazinone	4.16	Spike	P	0 - 31
2455623	Imazalil	32.4	Spike	P	0 - 52
2455623	Iprodione	4.12	Spike	P	0 - 49
2455623	Loratadine	49.0	Spike	P	0 - 59
2455623	Malathion	34.5	Spike	P	0 - 77
2455623	Metalaxyl	9.96	Spike	P	0 - 76
2455623	Metolachlor	5.92	Spike	P	0 - 29
2455623	Metribuzin	49.6	Spike	P	0 - 51
2455623	Mevinphos	7.12	Spike	P	0 - 31
2455623	Molinate	3.90	Spike	P	0 - 39
2455623	Myclobutanil	24.1	Spike	P	0 - 34
2455623	Naled	5.87	Spike	P	0 - 37

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P438700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455623	Napropamide	66.1	Spike	P	0 - 100
2455623	Norflurazon	9.51	Spike	P	0 - 54
2455623	Octinoxate	51.2	Spike	F	0 - 35
2455623	Oxadiazon	1.57	Spike	P	0 - 34
2455623	Oxybenzone	74.7	Spike	F	0 - 35
2455623	Oxyfluorfen	8.49	Spike	P	0 - 28
2455623	Parathion Ethyl	6.76	Spike	P	0 - 31
2455623	Parathion Methyl	20.8	Spike	P	0 - 29
2455623	PBB-153	4.35	Spike	P	0 - 49
2455623	PBDE-47	68.1	Spike	F	0 - 36
2455623	PBDE-99	25.8	Spike	P	0 - 46
2455623	Pendimethalin	18.2	Spike	P	0 - 31
2455623	Pentabromotoluene	78.2	Spike	F	0 - 16
2455623	Phenytoin	1.48	Spike	P	0 - 100
2455623	Phorate	9.42	Spike	P	0 - 36
2455623	Prodiamine	25.7	Spike	P	0 - 68
2455623	Prometon	22.9	Spike	P	0 - 35
2455623	Prometryn	21.8	Spike	P	0 - 33
2455623	Pronamide	4.26	Spike	P	0 - 24
2455623	Propanil	4.41	Spike	P	0 - 28
2455623	Propargite	0.534	Spike	P	0 - 53
2455623	Propiconazole	11.3	Spike	P	0 - 44
2455623	Pyraflufen Ethyl	13.6	Spike	P	0 - 61
2455623	Pyridaben	21.8	Spike	P	0 - 43
2455623	Pyriproxyfen	27.2	Spike	P	0 - 82
2455623	Simazine	2.07	Spike	P	0 - 29
2455623	Stirophos	39.4	Spike	P	0 - 100
2455623	Sulfentrazone	10.8	Spike	P	0 - 64
2455623	Tebuconazole	37.8	Spike	P	0 - 76
2455623	Terbufos	0.359	Spike	P	0 - 29
2455623	Terbuthylazine	6.92	Spike	P	0 - 28
2455623	Tetradecachloro-m-terphenyl	50.1	Spike	F	0 - 42
2455623	Thiobencarb	16.8	Spike	P	0 - 26
2455623	Tri-o-cresyl Phosphate	50.8	Spike	F	0 - 24
2455623	Triadimefon	21.9	Spike	P	0 - 40
2455623	Tris(1-chloro-2-propyl) phosphate (TCPP)	8.37	Spike	P	0 - 30
2455623	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	13.6	Spike	P	0 - 22
2455623	Tris(2-chloroethyl) phosphate (TCEP)	6.44	Spike	P	0 - 15

Reference Method: SM 2320 B-2011

Batch ID: P438936

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454527	Total Alkalinity	0.165	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P439247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
--------------------------	-----------	-----------	-------------------	-----------	----------------

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P439247

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2455264	TDS	4.16	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P438938

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454527	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P438734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2454741	Organic Carbon	0.740	Spike	P	0 - 15

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

Quality Assurance Report Surrogates

Lab Sample ID: 2455409
Field Sample ID: G2CE0065

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	84.7	P	20 - 200
EPA 8270E	Simazine-d10	102	P	58 - 137
EPA 8270E	Terbufos-d10	61.5	P	50 - 134
EPA 8270E	Terphenyl-d14	69.4	P	44 - 134

Lab Sample ID: 2455410
Field Sample ID: FB_12062023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	74.0	P	20 - 200
EPA 8270E	Simazine-d10	106	P	58 - 137
EPA 8270E	Terbufos-d10	87.9	P	50 - 134
EPA 8270E	Terphenyl-d14	79.8	P	44 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A123079

Included Lab Sample IDs: 2455404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A123087

Included Lab Sample IDs: 2455404

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A123112

Included Lab Sample IDs: 2455405

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

Reference Method: SM 5310 B-2014

Run ID: A123116

Included Lab Sample IDs: 2455405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.9	101	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A123118

Included Lab Sample IDs: 2455404

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123144

Included Lab Sample IDs: 2455407, 2455408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.7	97.5	P/P	90 - 110
Aluminum	99.1	96.7	P/P	90 - 110
Antimony	96.0	96.2	P/P	90 - 110
Antimony	96.2	96.2	P/P	90 - 110
Arsenic	97.0	97.7	P/P	90 - 110
Arsenic	97.7	96.1	P/P	90 - 110
Barium	94.7	94.2	P/P	90 - 110
Barium	95.7	94.7	P/P	90 - 110
Boron	103	101	P/P	90 - 110
Boron	103	103	P/P	90 - 110
Cadmium	95.5	96.1	P/P	90 - 110
Cadmium	96.1	96.6	P/P	90 - 110
Cobalt	97.3	99.1	P/P	90 - 110
Cobalt	99.0	97.3	P/P	90 - 110
Copper	96.3	96.5	P/P	90 - 110
Copper	96.3	96.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123144

Included Lab Sample IDs: 2455407, 2455408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	98.9	99.9	P/P	90 - 110
Lead	99.2	98.9	P/P	90 - 110
Molybdenum	96.1	96.3	P/P	90 - 110
Molybdenum	96.3	97.5	P/P	90 - 110
Nickel	97.0	97.8	P/P	90 - 110
Nickel	98.2	97.0	P/P	90 - 110
Selenium	95.0	94.9	P/P	90 - 110
Selenium	96.6	95.0	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Silver	99.6	100	P/P	90 - 110
Thallium	98.8	98.8	P/P	90 - 110
Thallium	99.7	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A123162

Included Lab Sample IDs: 2455405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	99.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A123170

Included Lab Sample IDs: 2455407, 2455408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	100	103	P/P	90 - 110
Beryllium	108	100	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Manganese	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A123193

Included Lab Sample IDs: 2455405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A123197

Included Lab Sample IDs: 2455405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	95.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A123206

Included Lab Sample IDs: 2455407, 2455408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Chromium	101	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A123206

Included Lab Sample IDs: 2455407, 2455408

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	102	101	P/P	90 - 110
Magnesium	103	102	P/P	90 - 110
Potassium	100	101	P/P	90 - 110
Sodium	97.7	96.7	P/P	90 - 110
Strontium	98.4	99.1	P/P	90 - 110
Tin	101	102	P/P	90 - 110
Titanium	103	103	P/P	90 - 110
Vanadium	99.4	99.3	P/P	90 - 110
Zinc	99.5	99.2	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A123207

Included Lab Sample IDs: 2455404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.3	98.3	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A123207

Included Lab Sample IDs: 2455404

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A123254

Included Lab Sample IDs: 2455404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	103	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A123488

Included Lab Sample IDs: 2455409, 2455410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	95.9		P	80 - 120
2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	95.3		P	80 - 120
Avobenzone	93.1		P	80 - 120
Dechlorane 602	105		P	80 - 120
Dechlorane 603	109		P	80 - 120
Dechlorane Plus	111		P	80 - 120
Hexabromobenzene	94.5		P	80 - 120
Octinoxate	94.6		P	80 - 120
Oxybenzone	93.1		P	80 - 120
PBB-153	91.2		P	80 - 120
PBDE-47	95.3		P	80 - 120
PBDE-99	99.0		P	80 - 120
Pentabromotoluene	92.8		P	80 - 120
Tetradecachloro-m-terphenyl	90.4		P	80 - 120
Tri-o-cresyl Phosphate	97.3		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A123488

Included Lab Sample IDs: 2455409, 2455410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Tris(1-chloro-2-propyl) phosphate (TCPP)	96.3		P	80 - 120
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	98.1		P	80 - 120
Tris(2-chloroethyl) phosphate (TCEP)	96.0		P	80 - 120

Reference Method: EPA 8270E

Run ID: A123491

Included Lab Sample IDs: 2455409, 2455410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	85.7		P	80 - 120
Alachlor	90.4		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	97.1		P	80 - 120
Atrazine Desethyl	107		P	80 - 120
Azinphos Methyl	95.9		P	80 - 120
Azoxystrobin	101		P	80 - 120
Bromacil	104		P	80 - 120
Butylate	97.8		P	80 - 120
Caffeine	118		P	80 - 120
Carbophenothion	88.0		P	80 - 120
Carfentrazone Ethyl	92.6		P	80 - 120
Chlorfenapyr	99.9		P	80 - 120
Chlorpyrifos Ethyl	89.6		P	80 - 120
Chlorpyrifos Methyl	87.8		P	80 - 120
Coumaphos	109		P	80 - 120
Cyanazine	94.0		P	80 - 120
Cyprodinil	104		P	80 - 120
Demeton	91.5		P	80 - 120
Diazinon	95.7		P	80 - 120
Difenoconazole	97.2		P	80 - 120
Dimethenamid	93.8		P	80 - 120
Dimethomorph	105		P	80 - 120
Disulfoton	97.1		P	80 - 120
Dithiopyr	111		P	80 - 120
EPTC	98.3		P	80 - 120
Ethion	99.9		P	80 - 120
Ethoprop	101		P	80 - 120
Etridiazole	96.8		P	80 - 120
Fenamiphos	103		P	80 - 120
Fenbuconazole	93.9		P	80 - 120
Fipronil	106		P	80 - 120
Fipronil Desulfinyl	97.9		P	80 - 120
Fipronil Sulfide	93.9		P	80 - 120
Fipronil Sulfone	119		P	80 - 120
Fluazifop-P-butyl	109		P	80 - 120
Fludioxonil	109		P	80 - 120
Flumioxazin	95.5		P	80 - 120
Flutolanil	82.3		P	80 - 120
Fluxapyroxad	99.4		P	80 - 120
Fonofos	84.5		P	80 - 120
Hexazinone	100		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E

Run ID: A123491

Included Lab Sample IDs: 2455409, 2455410

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Imazalil	116		P	80 - 120
Iprodione	78.5*		F	80 - 120
Loratadine	98.3		P	80 - 120
Malathion	92.4		P	80 - 120
Metalaxyl	90.1		P	80 - 120
Metolachlor	104		P	80 - 120
Metribuzin	89.5		P	80 - 120
Mevinphos	103		P	80 - 120
Molinate	89.6		P	80 - 120
Myclobutanil	100		P	80 - 120
Naled	115		P	80 - 120
Napropamide	107		P	80 - 120
Norflurazon	116		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	90.9		P	80 - 120
Parathion Ethyl	101		P	80 - 120
Parathion Methyl	90.3		P	80 - 120
Pendimethalin	111		P	80 - 120
Phenytoin	101		P	80 - 120
Phorate	89.1		P	80 - 120
Prodiamine	80.7		P	80 - 120
Prometon	102		P	80 - 120
Prometryn	111		P	80 - 120
Pronamide	103		P	80 - 120
Propanil	87.0		P	80 - 120
Propargite	101		P	80 - 120
Propiconazole	90.7		P	80 - 120
Pyraflufen Ethyl	106		P	80 - 120
Pyridaben	103		P	80 - 120
Pyriproxyfen	96.4		P	80 - 120
Simazine	90.0		P	80 - 120
Stirophos	87.1		P	80 - 120
Sulfentrazone	106		P	80 - 120
Tebuconazole	107		P	80 - 120
Terbufos	84.9		P	80 - 120
Terbuthylazine	81.9		P	80 - 120
Thiobencarb	101		P	80 - 120
Triadimefon	104		P	80 - 120

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

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
DEP SOP: NU-094-1	Color (true)	99.3					0.449	
EPA 180.1 Rev. 2.0	Turbidity	104					0.727	
EPA 200.7 Rev. 4.4	Calcium	110	109	109	105			0.315
	Chromium	100	89.7	90.4	99.7			0.674
	Iron	111	108	109	111			0.593
	Magnesium	112	109	111	112			0.913
	Potassium	101	99.5	99.4	101			0.0834
	Sodium	99.2	97.1	100				0.623
	Strontium	97.7	96.5	96.9	98.6			0.396
	Tin	98.1	96.6	97.0	99.0			0.503
	Titanium	102	104	104	103			0.125
	Vanadium	98.2	99.1	98.9	99.2			0.223
	Zinc	94.9	93.2	91.6	94.5			1.60
EPA 200.8 Rev. 5.4	Aluminum	97.8	97.8	95.7	90.2			1.79
	Antimony	98.9	96.9	96.4	97.2			0.472
	Arsenic	97.0	95.3	95.6	96.7			0.261
	Barium	98.4	97.5	96.7	95.9			0.751
	Beryllium	103	106	104	96.5			1.75
	Boron	103	101	97.6	103			2.40
	Cadmium	98.0	97.6	95.5	95.8			2.12
	Cobalt	98.2	96.9	96.2	97.0			0.647
	Copper	96.5	95.0	95.4	95.7			0.365
	Lead	101	101	99.9	99.9			1.25
	Manganese	95.0	90.9	90.2	99.7			0.653
	Molybdenum	97.2	96.1	96.5	96.3			0.395
	Nickel	96.3	83.0	83.0	95.1			0.0495
	Selenium	97.6	95.1	94.9	92.8			0.190
	Silver	104	101	102	102			1.21
	Thallium	101	103	103	101			0.112
EPA 300.0 Rev. 2.1	Chloride	103	100	101			1.16	
	Sulfate	101	100	100			1.19	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	95.8	96.4				0.477
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	103	109				3.73
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	97.1	98.6				1.22
EPA 365.1 Rev. 2.0	Total-P	106	104	108				3.10
EPA 8270E	2-(2H-benzotriazol-2-yl)-4,6-ditertpe ntylphenol (UV-328)	66.5	69.6	49.3				34.2
	2-Ethylhexyl 2,3,4,5-tetrabromobenzoate (EHTBB)	92.9	64.7	54.1				17.8
	Acetochlor	108	98.2	93.2				5.22
	Alachlor	84.2	75.5	77.9				3.15
	Ametryn	101	135	111				19.3
	Atrazine	101	105	109				3.72
	Atrazine Desethyl	103	104	107				2.29
	Avobenzone	107	64.7	54.2				17.7
	Azinphos Methyl	140	103	130				22.8
	Azoxystrobin	106	79.9	118				38.6
	Bromacil	105	87.5	90.4				3.28
	Butylate	63.6	72.4	70.0				3.31
	Caffeine	113	142	138				3.45
	Carbophenothion	156	105	87.6				18.0
	Carfentrazone Ethyl	140	90.3	78.5				14.0
	Chlorfenapyr	108	72.5	89.9				21.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Chlorpyrifos Ethyl	107	117	112		4.30
	Chlorpyrifos Methyl	141	111	107		2.93
	Coumaphos	160	86.8	98.3		12.4
	Cyanazine	107	102	105		3.51
	Cyprodinil	126	111	120		7.53
	Dechlorane 602	57.2	53.8	28.1		62.8
	Dechlorane 603	128	111	48.8		78.1
	Dechlorane Plus	107	84.7	52.3		47.4
	Demeton	64.8	60.7	62.5		2.80
	Diazinon	119	129	123		4.29
	Difenoconazole	101	45.5	58.9		25.7
	Dimethenamid	98.2	75.4	71.4		5.52
	Dimethomorph	147	105	168		46.1
	Disulfoton	116	112	120		7.69
	Dithiopyr	91.0	114	117		2.42
	EPTC	56.9	66.0	65.5		0.761
	Ethion	70.1	74.4	35.1		71.9
	Ethoprop	91.6	96.2	104		7.54
	Etridiazole	83.5	77.7	65.6		16.9
	Fenamiphos	112	80.2	84.3		5.04
	Fenbuconazole	70.2	21.9	76.5		111
	Fipronil	96.9	114	101		12.3
	Fipronil Desulfinyl	79.1	94.7	75.2		23.0
	Fipronil Sulfide	112	94.7	80.8		15.9
	Fipronil Sulfone	113	124	90.5		30.9
	Fluazifop-P-butyl	131	100	76.2		27.2
	Fludioxonil	92.3	68.3	81.8		18.0
	Flumioxazin	126	48.2	79.5		35.5
	Flutolanil	119	78.8	102		25.6
	Fluxapyroxad	108	71.3	50.0		35.2
	Fonofos	90.1	101	101		0.222
	Hexabromobenzene	91.7	77.9	59.2		27.3
	Hexazinone	80.1	96.9	91.3		4.16
	Imazalil	108	75.5	105		32.4
	Iprodione	113	66.6	69.4		4.12
	Loratadine	146	87.6	144		49.0
	Malathion	128	93.3	132		34.5
	Metalaxyl	78.6	107	96.8		9.96
	Metolachlor	114	113	119		5.92
	Metribuzin	96.1	82.8	137		49.6
	Mevinphos	104	92.4	99.2		7.12
	Molinate	67.1	71.6	74.4		3.90
	Myclobutanil	99.2	84.2	66.1		24.1
	Naled	50.5	49.2	46.4		5.87
	Napropamide	86.0	71.3	35.9		66.1
	Norflurazon	108	68.3	75.2		9.51
	Octinoxate	113	158	93.6		51.2
	Oxadiazon	96.7	75.7	76.9		1.57
	Oxybenzone	112	149	68.0		74.7
	Oxyfluorfen	129	98.4	90.4		8.49
	Parathion Ethyl	85.2	89.6	95.9		6.76
	Parathion Methyl	96.7	83.9	103		20.8
	PBB-153	89.6	53.4	51.1		4.35
	PBDE-47	92.7	111	54.8		68.1

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8270E	PBDE-99	95.3	71.7	55.4			25.8
	Pendimethalin	121	139	167			18.2
	Pentabromotoluene	97.4	134	58.7			78.2
	Phenytoln	30.1	29.9	29.4			1.48
	Phorate	84.8	72.6	79.8			9.42
	Prodiamine	114	119	91.9			25.7
	Prometon	79.6	85.7	108			22.9
	Prometryn	137	99.5	124			21.8
	Pronamide	122	118	113			4.26
	Propanil	113	98.9	94.6			4.41
	Propargite	80.1	54.4	54.7			0.534
	Propiconazole	86.8	60.3	67.5			11.3
	Pyraflufen Ethyl	136	67.4	77.2			13.6
	Pyridaben	36.3	78.7	98.0			21.8
	Pyriproxyfen	72.8	45.6	59.9			27.2
	Simazine	98.3	108	110			2.07
	Stirophos	113	74.7	50.1			39.4
	Sulfentrazone	104	75.4	84.0			10.8
	Tebuconazole	52.3	41.4	28.2			37.8
	Terbufos	94.1	96.8	96.5			0.359
	Terbuthylazine	90.5	91.1	85.0			6.92
	Tetradecachloro-m-terphenyl	165	173	104			50.1
	Thiobencarb	107	72.8	86.1			16.8
	Tri-o-cresyl Phosphate	115	121	72.1			50.8
	Triadimefon	104	78.2	97.5			21.9
	Tris(1-chloro-2-propyl) phosphate (TCPP)	97.3	83.7	93.4			8.37
	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	95.0	80.1	91.8			13.6
	Tris(2-chloroethyl) phosphate (TCEP)	93.8	94.1	100			6.44
SM 2320 B-2011	Total Alkalinity	97.7				0.165	
SM 2540 C-2015	TDS	96.4				4.16	
SM 2540 D-2015	TSS	102					
SM 4500-F- C-2011	Fluoride	102	101	101			0.0
SM 5310 B-2014	Organic Carbon	98.4	98.7	99.6			0.740

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2455404
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2455404
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2455407, 2455408
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2455407, 2455408
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2455404
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2455404
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2455405
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2455405
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2455405
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2455405
EPA 8270E	Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM	2455409, 2455410
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2455409, 2455410

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2455404
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2455407, 2455408
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2455404
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2455404
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2455404
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2455405

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	12/07/2023			12/07/2023 15:06	Anna M. Plaviak	2455404
EPA 180.1 Rev. 2.0	12/07/2023			12/07/2023 13:58	Chandler E Cox	2455404
EPA 200.7 Rev. 4.4	12/07/2023	12/08/2023 12:10	George D Taylor	12/13/2023 18:59	Chase Roberts	2455407
	12/07/2023	12/08/2023 12:10	George D Taylor	12/13/2023 19:07	Chase Roberts	2455408
EPA 200.8 Rev. 5.4	12/07/2023	12/08/2023 12:10	George D Taylor	12/11/2023 19:42	Conrad Hartmann	2455407
	12/07/2023	12/08/2023 12:10	George D Taylor	12/11/2023 20:36	Conrad Hartmann	2455408
	12/07/2023	12/08/2023 12:10	George D Taylor	12/13/2023 02:06	Conrad Hartmann	2455407
	12/07/2023	12/08/2023 12:10	George D Taylor	12/13/2023 02:42	Conrad Hartmann	2455408
EPA 300.0 Rev. 2.1	12/07/2023			12/13/2023 05:49	Anna M. Plaviak	2455404
	12/07/2023			12/16/2023 01:02	James L Waggeberby	2455404
EPA 350.1 Rev. 2.0	12/07/2023			12/12/2023 13:18	Khloe J Berg	2455405
EPA 351.2 Rev. 2.0	12/07/2023	12/12/2023 10:36	Ping Hua	12/13/2023 13:03	Ping Hua	2455405
EPA 353.2 Rev. 2.0	12/07/2023			12/08/2023 13:46	Fadila Guebre	2455405
EPA 365.1 Rev. 2.0	12/07/2023	12/12/2023 14:15	Adam P Silver	12/13/2023 14:54	Simonne.V. Calhoun	2455405
EPA 8270E	12/07/2023	12/12/2023 08:00	Fe-Val Siddell	01/03/2024 22:12	Arthur Maknenko	2455409
	12/07/2023	12/12/2023 08:00	Fe-Val Siddell	01/03/2024 22:39	Arthur Maknenko	2455410
	12/07/2023	12/12/2023 08:00	Fe-Val Siddell	12/19/2023 17:41	Vandana T. Nagar	2455409
	12/07/2023	12/12/2023 08:00	Fe-Val Siddell	12/19/2023 18:08	Vandana T. Nagar	2455410
SM 2320 B-2011	12/07/2023			12/13/2023 05:40	Dale L. Simmons	2455404
SM 2340 B-2011	12/07/2023			12/13/2023 18:59	Chase Roberts	2455407
	12/07/2023			12/13/2023 19:07	Chase Roberts	2455408
SM 2540 C-2015	12/07/2023			12/12/2023 15:24	Yijie Li	2455404
SM 2540 D-2015	12/07/2023			12/12/2023 15:24	Yijie Li	2455404
SM 4500-F- C-2011	12/07/2023			12/13/2023 05:40	Dale L. Simmons	2455404
SM 5310 B-2014	12/07/2023			12/09/2023 00:32	Kenneth H Lee	2455405