

Chemical Analysis Report

NE-DIST-2019-02-19-01

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

Event Description: **ICW Boat**
Request ID: **RQ-2019-02-18-08**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
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Certified by: Colin Wright, Program Administrator

Date Certified: 08-MAR-2019 10:17

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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: 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: OPEN CREEK 400 METERS ABOVE MOUTH

Collection Date/Time: 02/18/2019 10:25

Field ID: G2NE1178

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2063307	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P359189	
	EPA 300.0	Bromide	28		mg Br/L	P359948	
	SM 2320 B-97	Total Alkalinity	88	A	mg CaCO3/L	P359610	
	SM 2540 D-97	TSS	7	I	mg/L	P359299	
	SM 4500 F-C-97	Fluoride	0.59		mg F/L	P359612	
2063308	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P359345	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P359322	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P359286	
	EPA 365.1 Rev. 2.0	Total-P	0.063		mg P/L	P359310	
	SM 5310 B-00	Organic Carbon	9.5		mg C/L	P359685	
2063309	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P359179	
2063321	EPA 8321B	Aldicarb	0.020	U	ug/L	P359132	
		Aldicarb Sulfone	0.0020	U	ug/L	P359132	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P359132	
		Carbaryl	0.0020	U	ug/L	P359132	
		Carbofuran	0.0020	U	ug/L	P359132	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P359132	
		Methiocarb	0.0020	U	ug/L	P359132	
		Methomyl	0.0020	U	ug/L	P359132	
		Oxamyl	0.0020	U	ug/L	P359132	
		Propoxur	0.0020	U	ug/L	P359132	
2063322		2,4-D	0.0084		ug/L	P359132	
		Acesulfame K**	0.10	UJ	ug/L	P358980	SUR
		AMPA**	0.10	UJ	ug/L	P358980	SUR
		Sucralose**	0.41		ug/L	P358980	
		Acetaminophen**	0.0080	U	ug/L	P359132	
		Endothall**	0.25	UJ	ug/L	P358980	SUR
		Glufosinate**	0.10	UJ	ug/L	P358980	SUR
		Bentazon	0.0083		ug/L	P359132	
		Glyphosate**	0.10	UJ	ug/L	P358980	SUR
		Carbamazepine**	8.0E-04	U	ug/L	P359132	
		Diuron	0.0036	I	ug/L	P359132	
		Fenuron	0.016	U	ug/L	P359132	
		Imazapyr**	0.071		ug/L	P359132	
		Imidacloprid	0.011	J	ug/L	P359132	MS
		Linuron	0.0040	U	ug/L	P359132	
		MCPP	0.0020	U	ug/L	P359132	
		Primidone**	0.0040	U	ug/L	P359132	
		Pyraclostrobin**	0.0020	U	ug/L	P359132	
		Triclopyr**	0.0040	U	ug/L	P359132	
		Fluridone**	0.0036		ug/L	P359132	
Hydrocodone**	0.0020	U	ug/L	P359132			
Naproxen**	0.0080	U	ug/L	P359132			

Field ID: G2NE1178

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2063322	EPA 8321B	Ibuprofen**	0.020	U	ug/L	P359132	
2063327	EPA 8270D	Aldrin	4.1	U	ng/L	P359283	
		Alpha-BHC	2.0	UJ	ng/L	P359283	LCS
		Alpha-Chlordane	1.0	U	ng/L	P359283	
		Beta-BHC	10	U	ng/L	P359283	MS
		Delta-BHC	10	U	ng/L	P359283	
		Gamma-BHC	10	U	ng/L	P359283	
		Carbophenothion	12	U	ng/L	P359283	
		Chlorothalonil	2.0	U	ng/L	P359283	RPD
		Cypermethrin	20	U	ng/L	P359283	
		DDD-p,p'	8.1	U	ng/L	P359283	
		DDE-p,p'	8.1	U	ng/L	P359283	
		DDT-p,p'	10	U	ng/L	P359283	
		Dicofol	31	U	ng/L	P359283	
		Dieldrin	4.1	U	ng/L	P359283	
		Endosulfan I	4.1	U	ng/L	P359283	
		Endosulfan II	4.1	U	ng/L	P359283	
		Endosulfan Sulfate	2.0	U	ng/L	P359283	
		Endrin	2.0	U	ng/L	P359283	
		Endrin Aldehyde	2.0	U	ng/L	P359283	
		Endrin Ketone	2.0	U	ng/L	P359283	
		Gamma-Chlordane	1.0	U	ng/L	P359283	
		Heptachlor	1.5	U	ng/L	P359283	
		Heptachlor Epoxide	2.0	U	ng/L	P359283	
		Methoxychlor	4.1	U	ng/L	P359283	
		Mirex	2.0	U	ng/L	P359283	
		Permethrin	10	U	ng/L	P359283	
		Trifluralin	2.5	U	ng/L	P359283	
	EPA 8276	Chlordane	5.1	U	ng/L	P359283	
		Toxaphene	31	U	ng/L	P359283	
2063328	EPA 8270D	Acetochlor	0.24	U	ng/L	P359412	
		Alachlor	0.24	U	ng/L	P359412	
		Ametryn	0.58	I	ng/L	P359412	
		Atrazine	15		ng/L	P359412	
		Atrazine Desethyl	1.4	U	ng/L	P359412	
		Azinphos Methyl	2.1	U	ng/L	P359412	
		Bromacil	0.55	I	ng/L	P359412	
		Butylate	0.38	U	ng/L	P359412	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P359412	
		Chlorpyrifos Methyl	0.094	U	ng/L	P359412	
		Cyanazine	3.1	U	ng/L	P359412	
		Demeton	6.6	U	ng/L	P359412	
		Diazinon	0.12	U	ng/L	P359412	
		Dimethenamid**	0.094	U	ng/L	P359412	
		Disulfoton	0.47	U	ng/L	P359412	

Field ID: G2NE1178

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2063328	EPA 8270D	Dithiopyr**	0.23	I	ng/L	P359412	
		EPTC	1.2	U	ng/L	P359412	
		Ethion	0.14	U	ng/L	P359412	
		Ethoprop	0.094	U	ng/L	P359412	
		Fenamiphos	0.47	U	ng/L	P359412	
		Fipronil	0.34	I	ng/L	P359412	
		Fipronil DesulfinyI**	0.20	IJ	ng/L	P359412	LCS
		Fipronil Sulfide	0.31	I	ng/L	P359412	
		Fipronil Sulfone	0.69		ng/L	P359412	
		Fonofos	0.19	U	ng/L	P359412	
		Hexazinone	1.9	I	ng/L	P359412	
		Malathion	0.33	U	ng/L	P359412	
		Metaxyl	2.0		ng/L	P359412	
		Metolachlor	14		ng/L	P359412	
		Metribuzin	3.0		ng/L	P359412	
		Mevinphos	0.47	U	ng/L	P359412	
		Molinate	0.28	U	ng/L	P359412	
		Norflurazon	0.47	U	ng/L	P359412	
		Oxadiazon**	1.9		ng/L	P359412	
		Parathion Ethyl	0.24	U	ng/L	P359412	
		Parathion Methyl	0.52	U	ng/L	P359412	
		Pendimethalin	0.94	U	ng/L	P359412	
		Phorate	0.24	U	ng/L	P359412	
		Prodiamine**	0.17	U	ng/L	P359412	
		Prometon	0.85	U	ng/L	P359412	
		Prometryn	0.19	U	ng/L	P359412	
		Simazine	12		ng/L	P359412	
		Tebuconazole**	1.9		ng/L	P359412	
		Terbufos	0.094	U	ng/L	P359412	
		Terbutylazine	0.40	U	ng/L	P359412	
2063332	EPA 200.7 Rev. 4.4	Iron	200	I	ug/L	P359254	
		Manganese	12		ug/L	P359254	
		Zinc	15	U	ug/L	P359254	
	EPA 200.8 Rev. 5.4	Aluminum	137		ug/L	P359254	
		Antimony	0.20	U	ug/L	P359254	
		Arsenic	1.88		ug/L	P359254	
		Cadmium	0.080	U	ug/L	P359254	
		Chromium	4.0	U	ug/L	P359254	
		Copper	1.6	U	ug/L	P359254	
		Lead	2.0	U	ug/L	P359254	
		Nickel	2.0	U	ug/L	P359254	
		Selenium	0.80	U	ug/L	P359254	
		Silver	0.040	U	ug/L	P359254	
		Thallium	0.40	U	ug/L	P359254	

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
EPA 8321B:	Refer to the narrative for an explanation of QC Codes.						
EPA 8321B:	Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.						
EPA 8270D:	Refer to the narrative for an explanation of QC Codes.						

Sample Location: OPEN CREEK 0.5M UPSTREAM OF MOUTH

Collection Date/Time: 02/18/2019 11:05

Field ID: G2NE1186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2063310	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P359189	
	EPA 300.0	Bromide	28		mg Br/L	P359948	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P359610	
	SM 2540 D-97	TSS	7	I	mg/L	P359299	
	SM 4500 F-C-97	Fluoride	0.57		mg F/L	P359612	
2063311	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P359377	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P359322	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.18		mg N/L	P359286	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P359310	
	SM 5310 B-00	Organic Carbon	9.7		mg C/L	P359685	
2063312	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P359179	
2063323	EPA 8321B	2,4-D	0.0079	I	ug/L	P359132	
		Acesulfame K**	0.10	UJ	ug/L	P358980	SUR
		AMPA**	0.10	UJ	ug/L	P358980	SUR
		Sucralose**	0.42		ug/L	P358980	
		Acetaminophen**	0.0098	I	ug/L	P359132	
		Endothall**	0.25	UJ	ug/L	P358980	SUR
		Glufosinate**	0.10	UJ	ug/L	P358980	SUR
		Bentazon	0.013		ug/L	P359132	
		Glyphosate**	0.10	UJ	ug/L	P358980	SUR
		Carbamazepine**	8.0E-04	U	ug/L	P359132	
		Diuron	0.0041	I	ug/L	P359132	
		Fenuron	0.016	U	ug/L	P359132	
		Imazapyr**	0.096		ug/L	P359132	
		Imidacloprid	0.013		ug/L	P359132	MS
		Linuron	0.0040	U	ug/L	P359132	
		MCPP	0.0020	U	ug/L	P359132	
		Primidone**	0.0040	U	ug/L	P359132	
		Pyraclostrobin**	0.0020	U	ug/L	P359132	
		Triclopyr**	0.0040	U	ug/L	P359132	
		Fluridone**	0.0062		ug/L	P359132	
		Hydrocodone**	0.0020	U	ug/L	P359132	
		Naproxen**	0.0080	U	ug/L	P359132	
		Ibuprofen**	0.020	U	ug/L	P359132	
2063333	EPA 200.7 Rev. 4.4	Iron	210	I	ug/L	P359254	
		Manganese	13		ug/L	P359254	
		Zinc	15	U	ug/L	P359254	
	EPA 200.8 Rev. 5.4	Aluminum	146		ug/L	P359254	
		Antimony	0.20	U	ug/L	P359254	
		Arsenic	1.93		ug/L	P359254	
		Cadmium	0.080	U	ug/L	P359254	
		Chromium	4.0	U	ug/L	P359254	
		Copper	1.6	U	ug/L	P359254	

Field ID: G2NE1186

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2063333	EPA 200.8 Rev. 5.4	Lead	2.0	U	ug/L	P359254	
		Nickel	2.0	U	ug/L	P359254	
		Selenium	0.80	U	ug/L	P359254	
		Silver	0.040	U	ug/L	P359254	
		Thallium	0.40	U	ug/L	P359254	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359189

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P359254

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P359254

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	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
Batch ID: P359948

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359345

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359377

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359322

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359286

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359179

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

Reference Method: EPA 8270D
Batch ID: P359283

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	10	U	ng/L
Carbophenothion	12	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	8.0	U	ng/L
DDE-p,p'	8.0	U	ng/L
DDT-p,p'	10	U	ng/L
Delta-BHC	10	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	10	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270D
Batch ID: P359412

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D
Batch ID: P359412

Component	Result	Code	Units
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	7.0	U	ng/L
Diazinon	0.12	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.10	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.30	U	ng/L
Metolachlor	0.50	U	ng/L
Metribuzin	0.75	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.10	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.25	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P359283

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P358980

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P359132

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
3-Hydroxycarbofuran	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Oxamyl	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Propoxur	0.0020	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-97
Batch ID: P359610

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

Reference Method: SM 2540 D-97
Batch ID: P359299

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P359612

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P359685

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P359254

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	107		P	85 - 115
Manganese	105		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P359254

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.8		P	85 - 115
Antimony	96.0		P	85 - 115
Arsenic	100		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	99.7		P	85 - 115
Copper	98.1		P	85 - 115
Lead	94.1		P	85 - 115
Nickel	98.2		P	85 - 115
Selenium	100		P	85 - 115
Silver	101		P	85 - 115
Thallium	99.9		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P359948

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359345

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359377

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359322

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359286

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359310

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359179

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

Reference Method: EPA 8270D
Batch ID: P359283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	69.3	65.9	P/P	20 - 93.0
Alpha-BHC	121	108	F/P	57 - 119
Alpha-Chlordane	91.1	87.5	P/P	58 - 112
Beta-BHC	143	142	P/P	56 - 149
Carbophenothion	103	111	P/P	26 - 147
Chlorothalonil	117	114	P/P	20 - 155
Cypermethrin	80.6	89.3	P/P	40 - 137
DDD-p,p'	105	102	P/P	65 - 129
DDE-p,p'	91.2	87.3	P/P	57 - 116
DDT-p,p'	111	105	P/P	53 - 133
Delta-BHC	148	146	P/P	59 - 163
Dicofol	108	97.2	P/P	24 - 138
Dieldrin	98.9	94.3	P/P	60 - 120
Endosulfan I	97.0	93.4	P/P	64 - 118
Endosulfan II	106	107	P/P	58 - 142
Endosulfan Sulfate	92.3	94.7	P/P	60 - 127
Endrin	103	93.9	P/P	59 - 122
Endrin Aldehyde	109	107	P/P	49 - 132
Endrin Ketone	94.3	93.4	P/P	64 - 121
Gamma-BHC	137	124	P/P	56 - 141
Gamma-Chlordane	88.4	86.3	P/P	56 - 110
Heptachlor	75.5	71.9	P/P	46 - 96.0
Heptachlor Epoxide	94.5	90.9	P/P	61 - 112
Methoxychlor	128	122	P/P	63 - 134
Mirex	66.4	65.3	P/P	45 - 100
Permethrin	74.8	76.5	P/P	53 - 115
Trifluralin	99.1	94.7	P/P	39 - 142

Reference Method: EPA 8270D
Batch ID: P359412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	90.6	100	P/P	71 - 121
Alachlor	89.4	98.0	P/P	72 - 119
Ametryn	86.7	101	P/P	47 - 144
Atrazine	88.1	91.4	P/P	75 - 123
Atrazine Desethyl	77.8	78.0	P/P	45 - 133
Azinphos Methyl	109	115	P/P	66 - 165
Bromacil	71.3	79.9	P/P	43 - 123
Butylate	52.2	59.7	P/P	27 - 83.0

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P359412

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorpyrifos Ethyl	91.8	103	P/P	70 - 117
Chlorpyrifos Methyl	88.6	98.2	P/P	71 - 120
Cyanazine	93.1	96.6	P/P	34 - 264
Demeton	81.5	91.7	P/P	41 - 122
Diazinon	87.5	97.2	P/P	70 - 127
Dimethenamid	90.2	99.6	P/P	60 - 130
Disulfoton	84.3	104	P/P	56 - 127
Dithiopyr	87.0	98.2	P/P	60 - 130
EPTC	51.0	60.2	P/P	24 - 84.0
Ethion	81.9	92.7	P/P	53 - 132
Ethoprop	84.8	95.0	P/P	57 - 117
Fenamiphos	75.0	82.2	P/P	55 - 136
Fipronil	71.4	74.5	P/P	64 - 126
Fipronil Desulfinyl	59.3	63.6	F/P	60 - 130
Fipronil Sulfide	59.7	65.5	P/P	57 - 120
Fipronil Sulfone	66.0	74.0	P/P	52 - 115
Fonofos	82.1	95.2	P/P	61 - 121
Hexazinone	90.0	99.9	P/P	62 - 131
Malathion	91.6	103	P/P	67 - 126
Metalaxyl	86.6	95.3	P/P	54 - 128
Metolachlor	89.2	98.7	P/P	71 - 118
Metribuzin	151	163	P/P	42 - 221
Mevinphos	75.7	86.2	P/P	45 - 114
Molinate	67.6	76.3	P/P	33 - 91.0
Norflurazon	79.4	84.2	P/P	60 - 123
Oxadiazon	78.2	89.1	P/P	60 - 130
Parathion Ethyl	83.6	90.9	P/P	73 - 111
Parathion Methyl	96.6	110	P/P	74 - 126
Pendimethalin	80.9	94.6	P/P	63 - 131
Phorate	94.5	107	P/P	54 - 115
Prodiamine	77.0	86.6	P/P	60 - 130
Prometon	76.7	81.4	P/P	61 - 120
Prometryn	77.4	86.7	P/P	62 - 126
Simazine	106	120	P/P	75 - 126
Tebuconazole	66.5	70.0	P/P	30 - 100
Terbufos	84.8	98.1	P/P	65 - 116
Terbuthylazine	85.9	98.4	P/P	73 - 117

Reference Method: EPA 8276
Batch ID: P359283

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	79.6	88.6	P/P	43 - 128
Toxaphene	65.0	55.8	P/P	38 - 140

Reference Method: EPA 8321B
Batch ID: P358980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	118		P	40 - 150
AMPA	87.8		P	40 - 150
Endothall	92.3		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P358980

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glufosinate	105		P	40 - 150
Glyphosate	100		P	40 - 140
Sucralose	95.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P359132

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	78.2		P	40 - 150
3-Hydroxycarbofuran	109		P	40 - 150
Acetaminophen	95.1		P	30 - 150
Aldicarb	65.0		P	30 - 150
Aldicarb Sulfone	98.6		P	40 - 150
Aldicarb Sulfoxide	119		P	40 - 150
Bentazon	115		P	30 - 150
Carbamazepine	92.2		P	40 - 150
Carbaryl	81.1		P	40 - 150
Carbofuran	81.0		P	40 - 150
Diuron	82.7		P	40 - 150
Fenuron	115		P	40 - 150
Fluridone	102		P	40 - 150
Hydrocodone	102		P	40 - 150
Ibuprofen	88.5		P	40 - 150
Imazapyr	102		P	40 - 150
Imidacloprid	103		P	40 - 150
Linuron	74.2		P	40 - 150
MCPP	99.7		P	40 - 150
Methiocarb	71.8		P	40 - 150
Methomyl	108		P	40 - 150
Naproxen	75.6		P	40 - 150
Oxamyl	93.8		P	40 - 150
Primidone	104		P	40 - 150
Propoxur	89.3		P	40 - 150
Pyraclostrobin	69.0		P	40 - 150
Triclopyr	64.2		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P359610

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P359612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.3		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P359685

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

Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P359685

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P359254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063332	Iron	103	106	P/P	80 - 120
2063332	Manganese	98.2	100	P/P	80 - 120
2063332	Zinc	104	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P359254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063332	Aluminum	112	110	P/P	70 - 130
2063332	Antimony	99.7	101	P/P	70 - 130
2063332	Arsenic	109	107	P/P	70 - 130
2063332	Cadmium	94.6	92.0	P/P	70 - 130
2063332	Chromium	99.3	96.5	P/P	70 - 130
2063332	Copper	96.1	94.0	P/P	70 - 130
2063332	Lead	98.4	97.3	P/P	70 - 130
2063332	Nickel	95.4	93.4	P/P	70 - 130
2063332	Selenium	102	100	P/P	70 - 130
2063332	Silver	95.1	94.2	P/P	70 - 130
2063332	Thallium	104	106	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P359948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063443	Bromide	101	96.7	P/P	90 - 110
2065388	Bromide	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359345

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2062785	Ammonia-N	102	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359377

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063311	Ammonia-N	102	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359322

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063120	Kjeldahl Nitrogen	96.6	94.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359286

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063119	NO2NO3-N	99.5	102	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P359310

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063472	Total-P	108	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P359179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063312	O-Phosphate-P	95.1	97.8	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P359283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2064059	Aldrin	70.8	72.1	P/P	25 - 92.0
2064059	Alpha-BHC	121	120	P/P	49 - 130
2064059	Alpha-Chlordane	97.0	91.5	P/P	50 - 115
2064059	Beta-BHC	182	155	F/P	43 - 157
2064059	Carbophenothion	131	128	P/P	27 - 180
2064059	Chlorothalonil	126	76.9	P/P	10 - 216
2064059	Cypermethrin	82.5	79.6	P/P	40 - 153
2064059	DDD-p,p'	115	104	P/P	53 - 128
2064059	DDE-p,p'	98.1	91.9	P/P	48 - 116
2064059	DDT-p,p'	117	112	P/P	47 - 128
2064059	Delta-BHC	188	162	P/P	51 - 196
2064059	Dicofol	109	120	P/P	10 - 147
2064059	Dieldrin	103	95.4	P/P	48 - 128
2064059	Endosulfan I	97.4	96.7	P/P	58 - 126
2064059	Endosulfan II	114	103	P/P	50 - 150
2064059	Endosulfan Sulfate	99.7	99.8	P/P	56 - 130
2064059	Endrin	107	98.7	P/P	50 - 126
2064059	Endrin Aldehyde	106	84.9	P/P	12 - 145
2064059	Endrin Ketone	98.9	88.6	P/P	59 - 132
2064059	Gamma-BHC	141	133	P/P	50 - 155
2064059	Gamma-Chlordane	95.0	89.3	P/P	50 - 112
2064059	Heptachlor	72.7	74.3	P/P	41 - 98.0
2064059	Heptachlor Epoxide	97.5	93.6	P/P	55 - 117
2064059	Methoxychlor	116	91.5	P/P	55 - 133
2064059	Mirex	61.9	56.1	P/P	44 - 101
2064059	Permethrin	81.4	79.4	P/P	52 - 124
2064059	Trifluralin	103	103	P/P	10 - 201

Reference Method: EPA 8270D
 Batch ID: P359412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063768	Acetochlor	97.2	108	P/P	63 - 129
2063768	Alachlor	86.9	93.6	P/P	65 - 127
2063768	Ametryn	96.4	108	P/P	40 - 164
2063768	Atrazine	93.5	104	P/P	66 - 135
2063768	Atrazine Desethyl	76.9	74.5	P/P	14 - 157
2063768	Azinphos Methyl	107	116	P/P	49 - 180
2063768	Bromacil	77.3	83.4	P/P	48 - 130
2063768	Butylate	52.0	44.7	P/P	10 - 94.0

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P359412

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063768	Chlorpyrifos Ethyl	96.5	103	P/P	58 - 123
2063768	Chlorpyrifos Methyl	84.5	93.9	P/P	58 - 125
2063768	Cyanazine	79.3	88.3	P/P	24 - 253
2063768	Demeton	47.5	48.7	P/P	25 - 149
2063768	Diazinon	86.3	90.6	P/P	59 - 144
2063768	Dimethenamid	88.5	97.7	P/P	60 - 130
2063768	Disulfoton	87.1	95.4	P/P	54 - 132
2063768	Dithiopyr	86.5	91.2	P/P	60 - 130
2063768	EPTC	43.4	37.9	P/P	10 - 92.0
2063768	Ethion	92.2	101	P/P	30 - 148
2063768	Ethoprop	88.7	97.5	P/P	50 - 130
2063768	Fenamiphos	77.5	82.0	P/P	49 - 142
2063768	Fipronil	79.5	86.0	P/P	46 - 140
2063768	Fipronil Desulfiny	66.2	69.0	P/P	60 - 130
2063768	Fipronil Sulfide	78.7	80.2	P/P	31 - 136
2063768	Fipronil Sulfone	82.5	75.3	P/P	16 - 136
2063768	Fonofos	84.8	96.0	P/P	55 - 129
2063768	Hexazinone	97.0	107	P/P	56 - 141
2063768	Malathion	101	108	P/P	56 - 135
2063768	Metalaxyl	87.4	93.7	P/P	54 - 135
2063768	Metolachlor	90.5	97.8	P/P	51 - 140
2063768	Metribuzin	153	166	P/P	45 - 254
2063768	Mevinphos	84.7	96.0	P/P	33 - 131
2063768	Molinate	70.3	71.0	P/P	14 - 98.0
2063768	Norflurazon	84.5	88.7	P/P	34 - 136
2063768	Oxadiazon	84.7	95.8	P/P	60 - 130
2063768	Parathion Ethyl	82.2	89.8	P/P	66 - 118
2063768	Parathion Methyl	101	109	P/P	64 - 136
2063768	Pendimethalin	91.8	94.0	P/P	59 - 144
2063768	Phorate	78.2	81.9	P/P	42 - 130
2063768	Prodiamine	87.6	101	P/P	60 - 130
2063768	Prometon	82.1	88.3	P/P	59 - 134
2063768	Prometryn	80.9	93.4	P/P	54 - 135
2063768	Simazine	99.5	112	P/P	53 - 156
2063768	Tebuconazole	92.6	96.6	P/P	30 - 100
2063768	Terbufos	84.3	95.3	P/P	57 - 131
2063768	Terbutylazine	85.9	96.9	P/P	68 - 125

Reference Method: EPA 8276
Batch ID: P359283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2064415	Chlordane	87.6	83.5	P/P	34 - 136
2064415	Toxaphene	65.3	57.7	P/P	22 - 152

Reference Method: EPA 8321B
Batch ID: P358980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2062987	Acesulfame K	86.1	86.3	P/P	40 - 150
2062987	AMPA	67.8	67.6	P/P	40 - 150
2062987	Endothall	94.2	94.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P358980

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2062987	Glufosinate	77.8	71.7	P/P	40 - 150
2062987	Glyphosate	83.1	77.8	P/P	40 - 140
2062987	Sucralose	98.0	96.5	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P359132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2063321	3-Hydroxycarbofuran	109	123	P/P	40 - 150
2063321	Aldicarb	73.1	72.6	P/P	30 - 150
2063321	Aldicarb Sulfone	113	116	P/P	40 - 150
2063321	Aldicarb Sulfoxide	60.7	63.1	P/P	40 - 150
2063321	Carbaryl	72.8	72.4	P/P	40 - 150
2063321	Carbofuran	69.5	70.0	P/P	40 - 150
2063321	Methiocarb	74.5	64.4	P/P	40 - 150
2063321	Methomyl	90.3	97.4	P/P	40 - 150
2063321	Oxamyl	100	86.5	P/P	40 - 150
2063321	Propoxur	67.9	72.5	P/P	40 - 150
2063322	2,4-D	104	104	P/P	40 - 150
2063322	Acetaminophen	125	125	P/P	30 - 150
2063322	Bentazon	90.8	105	P/P	30 - 150
2063322	Carbamazepine	81.5	84.8	P/P	40 - 150
2063322	Diuron	69.4	81.9	P/P	40 - 150
2063322	Fenuron	88.7	86.9	P/P	40 - 150
2063322	Fluridone	113	122	P/P	40 - 150
2063322	Hydrocodone	100	117	P/P	40 - 150
2063322	Ibuprofen	86.0	73.8	P/P	40 - 150
2063322	Imazapyr	130	149	P/P	40 - 150
2063322	Imidacloprid	202	215	F/F	40 - 150
2063322	Linuron	72.5	82.3	P/P	40 - 150
2063322	MCPP	130	140	P/P	40 - 150
2063322	Naproxen	87.2	87.2	P/P	40 - 150
2063322	Primidone	104	109	P/P	40 - 150
2063322	Pyraclostrobin	72.1	69.5	P/P	40 - 150
2063322	Triclopyr	85.8	86.3	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P359612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2061821	Fluoride	94.5	96.3	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P359685

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2062786	Organic Carbon	98.5	99.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P359189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063351	Turbidity	2.32	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P359254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063332	Iron	2.24	Spike	P	0 - 20
2063332	Manganese	1.66	Spike	P	0 - 20
2063332	Zinc	1.49	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P359254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063332	Aluminum	1.76	Spike	P	0 - 20
2063332	Antimony	0.830	Spike	P	0 - 20
2063332	Arsenic	1.68	Spike	P	0 - 20
2063332	Cadmium	2.82	Spike	P	0 - 20
2063332	Chromium	2.90	Spike	P	0 - 20
2063332	Copper	2.20	Spike	P	0 - 20
2063332	Lead	1.06	Spike	P	0 - 20
2063332	Nickel	2.21	Spike	P	0 - 20
2063332	Selenium	2.23	Spike	P	0 - 20
2063332	Silver	1.01	Spike	P	0 - 20
2063332	Thallium	1.26	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P359948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063443	Bromide	2.78	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359345

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2062785	Ammonia-N	2.22	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P359377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063311	Ammonia-N	2.39	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P359322

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063120	Kjeldahl Nitrogen	2.04	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P359286

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063119	NO2NO3-N	2.48	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P359310

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063472	Total-P	1.77	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P359179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063312	O-Phosphate-P	2.08	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P359283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2064059	Aldrin	1.75	Spike	P	0 - 30
2064059	Alpha-BHC	0.898	Spike	P	0 - 30
2064059	Alpha-Chlordane	5.89	Spike	P	0 - 30
2064059	Beta-BHC	15.6	Spike	P	0 - 30
2064059	Carbophenothion	2.66	Spike	P	0 - 30
2064059	Chlorothalonil	48.4	Spike	F	0 - 30
2064059	Cypermethrin	3.57	Spike	P	0 - 30
2064059	DDD-p,p'	9.85	Spike	P	0 - 30
2064059	DDE-p,p'	6.59	Spike	P	0 - 30
2064059	DDT-p,p'	4.92	Spike	P	0 - 30
2064059	Delta-BHC	14.8	Spike	P	0 - 30
2064059	Dicofol	9.85	Spike	P	0 - 30
2064059	Dieldrin	7.24	Spike	P	0 - 30
2064059	Endosulfan I	0.709	Spike	P	0 - 30
2064059	Endosulfan II	9.51	Spike	P	0 - 30
2064059	Endosulfan Sulfate	0.141	Spike	P	0 - 30
2064059	Endrin	7.75	Spike	P	0 - 30
2064059	Endrin Aldehyde	21.7	Spike	P	0 - 30
2064059	Endrin Ketone	11.1	Spike	P	0 - 30
2064059	Gamma-BHC	5.77	Spike	P	0 - 30
2064059	Gamma-Chlordane	6.18	Spike	P	0 - 30
2064059	Heptachlor	2.24	Spike	P	0 - 30
2064059	Heptachlor Epoxide	4.02	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P359283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2064059	Methoxychlor	23.7	Spike	P	0 - 30
2064059	Mirex	9.81	Spike	P	0 - 30
2064059	Permethrin	2.54	Spike	P	0 - 30
2064059	Trifluralin	0.120	Spike	P	0 - 30
LFB	Aldrin	5.02	LCS	P	0 - 30
LFB	Alpha-BHC	10.8	LCS	P	0 - 30
LFB	Alpha-Chlordane	4.01	LCS	P	0 - 30
LFB	Beta-BHC	0.853	LCS	P	0 - 30
LFB	Carbophenothion	7.17	LCS	P	0 - 30
LFB	Chlorothalonil	2.55	LCS	P	0 - 30
LFB	Cypermethrin	10.2	LCS	P	0 - 30
LFB	DDD-p,p'	2.96	LCS	P	0 - 30
LFB	DDE-p,p'	4.31	LCS	P	0 - 30
LFB	DDT-p,p'	5.15	LCS	P	0 - 30
LFB	Delta-BHC	1.46	LCS	P	0 - 30
LFB	Dicofol	10.6	LCS	P	0 - 30
LFB	Dieldrin	4.86	LCS	P	0 - 30
LFB	Endosulfan I	3.82	LCS	P	0 - 30
LFB	Endosulfan II	1.26	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.48	LCS	P	0 - 30
LFB	Endrin	9.32	LCS	P	0 - 30
LFB	Endrin Aldehyde	1.98	LCS	P	0 - 30
LFB	Endrin Ketone	0.904	LCS	P	0 - 30
LFB	Gamma-BHC	10.3	LCS	P	0 - 30
LFB	Gamma-Chlordane	2.39	LCS	P	0 - 30
LFB	Heptachlor	4.95	LCS	P	0 - 30
LFB	Heptachlor Epoxide	3.86	LCS	P	0 - 30
LFB	Methoxychlor	4.83	LCS	P	0 - 30
LFB	Mirex	1.58	LCS	P	0 - 30
LFB	Permethrin	2.32	LCS	P	0 - 30
LFB	Trifluralin	4.62	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P359412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063768	Acetochlor	8.86	Spike	P	0 - 30
2063768	Alachlor	7.40	Spike	P	0 - 30
2063768	Ametryn	11.6	Spike	P	0 - 30
2063768	Atrazine	11.0	Spike	P	0 - 30
2063768	Atrazine Desethyl	3.15	Spike	P	0 - 30
2063768	Azinphos Methyl	7.88	Spike	P	0 - 30
2063768	Bromacil	7.65	Spike	P	0 - 30
2063768	Butylate	15.0	Spike	P	0 - 30
2063768	Chlorpyrifos Ethyl	6.78	Spike	P	0 - 30
2063768	Chlorpyrifos Methyl	10.5	Spike	P	0 - 30
2063768	Cyanazine	10.8	Spike	P	0 - 30
2063768	Demeton	2.53	Spike	P	0 - 30
2063768	Diazinon	4.95	Spike	P	0 - 30
2063768	Dimethenamid	9.89	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P359412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063768	Disulfoton	9.06	Spike	P	0 - 30
2063768	Dithiopyr	5.27	Spike	P	0 - 30
2063768	EPTC	13.6	Spike	P	0 - 30
2063768	Ethion	9.53	Spike	P	0 - 30
2063768	Ethoprop	9.35	Spike	P	0 - 30
2063768	Fenamiphos	5.68	Spike	P	0 - 30
2063768	Fipronil	7.77	Spike	P	0 - 30
2063768	Fipronil Desulfinyl	4.05	Spike	P	0 - 30
2063768	Fipronil Sulfide	1.95	Spike	P	0 - 30
2063768	Fipronil Sulfone	9.08	Spike	P	0 - 30
2063768	Fonofos	12.4	Spike	P	0 - 30
2063768	Hexazinone	8.83	Spike	P	0 - 30
2063768	Malathion	6.85	Spike	P	0 - 30
2063768	Metalaxyl	6.99	Spike	P	0 - 30
2063768	Metolachlor	7.13	Spike	P	0 - 30
2063768	Metribuzin	7.86	Spike	P	0 - 30
2063768	Mevinphos	12.6	Spike	P	0 - 30
2063768	Molinate	1.06	Spike	P	0 - 30
2063768	Norflurazon	4.90	Spike	P	0 - 30
2063768	Oxadiazon	12.3	Spike	P	0 - 30
2063768	Parathion Ethyl	8.83	Spike	P	0 - 30
2063768	Parathion Methyl	7.52	Spike	P	0 - 30
2063768	Pendimethalin	2.40	Spike	P	0 - 30
2063768	Phorate	4.66	Spike	P	0 - 30
2063768	Prodiamine	14.2	Spike	P	0 - 30
2063768	Prometon	7.27	Spike	P	0 - 30
2063768	Prometryn	14.4	Spike	P	0 - 30
2063768	Simazine	11.4	Spike	P	0 - 30
2063768	Tebuconazole	2.99	Spike	P	0 - 30
2063768	Terbufos	12.2	Spike	P	0 - 30
2063768	Terbutylazine	12.0	Spike	P	0 - 30
LFB	Acetochlor	10.0	LCS	P	0 - 30
LFB	Alachlor	9.12	LCS	P	0 - 30
LFB	Ametryn	15.0	LCS	P	0 - 30
LFB	Atrazine	3.69	LCS	P	0 - 30
LFB	Atrazine Desethyl	0.324	LCS	P	0 - 30
LFB	Azinphos Methyl	4.94	LCS	P	0 - 30
LFB	Bromacil	11.5	LCS	P	0 - 30
LFB	Butylate	13.4	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	11.4	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	10.3	LCS	P	0 - 30
LFB	Cyanazine	3.75	LCS	P	0 - 30
LFB	Demeton	11.8	LCS	P	0 - 30
LFB	Diazinon	10.4	LCS	P	0 - 30
LFB	Dimethenamid	9.87	LCS	P	0 - 30
LFB	Disulfoton	21.2	LCS	P	0 - 30
LFB	Dithiopyr	12.0	LCS	P	0 - 30
LFB	EPTC	16.6	LCS	P	0 - 30
LFB	Ethion	12.3	LCS	P	0 - 30
LFB	Ethoprop	11.3	LCS	P	0 - 30
LFB	Fenamiphos	9.07	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P359412

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Fipronil	4.21	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	7.04	LCS	P	0 - 30
LFB	Fipronil Sulfide	9.15	LCS	P	0 - 30
LFB	Fipronil Sulfone	11.5	LCS	P	0 - 30
LFB	Fonofos	14.7	LCS	P	0 - 30
LFB	Hexazinone	10.4	LCS	P	0 - 30
LFB	Malathion	12.2	LCS	P	0 - 30
LFB	Metalaxyl	9.52	LCS	P	0 - 30
LFB	Metolachlor	10.0	LCS	P	0 - 30
LFB	Metribuzin	7.38	LCS	P	0 - 30
LFB	Mevinphos	13.0	LCS	P	0 - 30
LFB	Molinate	12.2	LCS	P	0 - 30
LFB	Norflurazon	5.90	LCS	P	0 - 30
LFB	Oxadiazon	13.1	LCS	P	0 - 30
LFB	Parathion Ethyl	8.45	LCS	P	0 - 30
LFB	Parathion Methyl	13.2	LCS	P	0 - 30
LFB	Pendimethalin	15.6	LCS	P	0 - 30
LFB	Phorate	12.2	LCS	P	0 - 30
LFB	Prodiamine	11.8	LCS	P	0 - 30
LFB	Prometon	5.99	LCS	P	0 - 30
LFB	Prometryn	11.3	LCS	P	0 - 30
LFB	Simazine	12.5	LCS	P	0 - 30
LFB	Tebuconazole	5.18	LCS	P	0 - 30
LFB	Terbufos	14.5	LCS	P	0 - 30
LFB	Terbutylazine	13.5	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P359283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2064415	Chlordane	4.89	Spike	P	0 - 30
2064415	Toxaphene	12.3	Spike	P	0 - 30
LFB	Chlordane	10.7	LCS	P	0 - 30
LFB	Toxaphene	15.2	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P358980

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2062987	Acesulfame K	0.222	Spike	P	0 - 30
2062987	AMPA	0.353	Spike	P	0 - 30
2062987	Endothall	0.0242	Spike	P	0 - 30
2062987	Glufosinate	8.12	Spike	P	0 - 30
2062987	Glyphosate	5.80	Spike	P	0 - 30
2062987	Sucralose	1.44	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P359132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063321	3-Hydroxycarbofuran	11.6	Spike	P	0 - 30
2063321	Aldicarb	0.660	Spike	P	0 - 30
2063321	Aldicarb Sulfone	2.18	Spike	P	0 - 30
2063321	Aldicarb Sulfoxide	3.86	Spike	P	0 - 30
2063321	Carbaryl	0.443	Spike	P	0 - 30
2063321	Carbofuran	0.634	Spike	P	0 - 30
2063321	Methiocarb	14.5	Spike	P	0 - 30
2063321	Methomyl	7.49	Spike	P	0 - 30
2063321	Oxamyl	14.4	Spike	P	0 - 30
2063321	Propoxur	6.62	Spike	P	0 - 30
2063322	2,4-D	0.0714	Spike	P	0 - 30
2063322	Acetaminophen	0.329	Spike	P	0 - 30
2063322	Bentazon	9.96	Spike	P	0 - 30
2063322	Carbamazepine	3.92	Spike	P	0 - 30
2063322	Diuron	15.6	Spike	P	0 - 30
2063322	Fenuron	1.95	Spike	P	0 - 30
2063322	Fluridone	6.46	Spike	P	0 - 30
2063322	Hydrocodone	15.6	Spike	P	0 - 30
2063322	Ibuprofen	15.3	Spike	P	0 - 30
2063322	Imazapyr	8.26	Spike	P	0 - 30
2063322	Imidacloprid	5.85	Spike	P	0 - 30
2063322	Linuron	12.7	Spike	P	0 - 30
2063322	MCP	7.54	Spike	P	0 - 30
2063322	Naproxen	0.00172	Spike	P	0 - 30
2063322	Primidone	4.77	Spike	P	0 - 30
2063322	Pyraclostrobin	3.61	Spike	P	0 - 30
2063322	Triclopyr	0.627	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P359610

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063307	Total Alkalinity	0.249	Sample	P	0 - 1.6

Reference Method: SM 2540 D-97
Batch ID: P359299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2063442	TSS	4.51	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P359612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2061821	Fluoride	1.42	Spike	P	0 - 3.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P359685

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2062786	Organic Carbon	0.541	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2063321
Field Sample ID: G2NE1178

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	45.3	P	30 - 160

Lab Sample ID: 2063322
Field Sample ID: G2NE1178

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	82.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	90.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.4	P	30 - 160
EPA 8321B	Diuron-d6	49.7	P	30 - 160
EPA 8321B	Endothall-d6	339	F	40 - 160
EPA 8321B	Endothall-d6	339	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	3.46	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	3.46	F	40 - 160
EPA 8321B	Ibuprofen-d3	53.4	P	30 - 160
EPA 8321B	Primidone-d5	74.5	P	30 - 160
EPA 8321B	Sucralose-d6	99.5	P	40 - 160
EPA 8321B	Sucralose-d6	99.5	P	40 - 160

Lab Sample ID: 2063323
Field Sample ID: G2NE1186

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	88.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	65.4	P	30 - 160
EPA 8321B	Diuron-d6	58.5	P	30 - 160
EPA 8321B	Endothall-d6	1120	F	40 - 160
EPA 8321B	Endothall-d6	1120	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	3.07	F	40 - 160
EPA 8321B	Glyphosate 13C 15N	3.07	F	40 - 160
EPA 8321B	Ibuprofen-d3	67.0	P	30 - 160
EPA 8321B	Primidone-d5	91.1	P	30 - 160
EPA 8321B	Sucralose-d6	98.8	P	40 - 160
EPA 8321B	Sucralose-d6	98.8	P	40 - 160

Lab Sample ID: 2063327
Field Sample ID: G2NE1178

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	92.9	P	39 - 109
EPA 8270D	Tetrachloro-m-xylene	80.9	P	28 - 96.0
EPA 8276	Decachlorobiphenyl	66.8	P	30 - 103
EPA 8276	PCNB	92.0	P	37 - 143

Lab Sample ID: 2063328
Field Sample ID: G2NE1178

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Simazine-d10	106	P	68 - 130
EPA 8270D	Terbufos-d10	106	P	61 - 136

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A89509

Included Lab Sample IDs: 2063309, 2063312

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.4	100	P/P	90 - 110
O-Phosphate-P	99.8	99.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A89511

Included Lab Sample IDs: 2063307, 2063310

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

Reference Method: EPA 8321B

Run ID: A89547

Included Lab Sample IDs: 2063322, 2063323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	84.7	78.1	P/P	60 - 160
Glufosinate	99.5	105	P/P	60 - 160
Glyphosate	110	101	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A89554

Included Lab Sample IDs: 2063308, 2063311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A89563

Included Lab Sample IDs: 2063332, 2063333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	99.6	99.3	P/P	90 - 110
Manganese	102	102	P/P	90 - 110
Zinc	101	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A89577

Included Lab Sample IDs: 2063308

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A89592

Included Lab Sample IDs: 2063311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	106	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89597

Included Lab Sample IDs: 2063308, 2063311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.2	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A89599

Included Lab Sample IDs: 2063322, 2063323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	93.9	99.4	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A89610

Included Lab Sample IDs: 2063322, 2063323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	71.7	95.5	P/P	50 - 150
3-Hydroxycarbofuran	95.7	106	P/P	60 - 150
Acetaminophen	107	113	P/P	60 - 160
Aldicarb	82.1	87.8	P/P	60 - 150
Aldicarb Sulfone	110	101	P/P	50 - 150
Bentazon	70.5	79.2	P/P	50 - 160
Carbamazepine	99.2	98.8	P/P	60 - 150
Carbaryl	109	93.3	P/P	60 - 150
Carbofuran	101	105	P/P	50 - 150
Diuron	107	105	P/P	60 - 150
Fenuron	99.5	105	P/P	60 - 150
Fluridone	103	104	P/P	60 - 160
Hydrocodone	103	96.3	P/P	60 - 150
Ibuprofen	74.3	79.9	P/P	50 - 160
Imazapyr	92.5	98.7	P/P	50 - 150
Imidacloprid	101	95.4	P/P	60 - 150
Linuron	98.1	105	P/P	60 - 150
MCPP	98.9	104	P/P	50 - 150
Methiocarb	103	105	P/P	50 - 150
Methomyl	112	107	P/P	50 - 150
Naproxen	119	116	P/P	50 - 160
Oxamyl	105	98.7	P/P	50 - 150
Primidone	108	100	P/P	60 - 150
Propoxur	105	108	P/P	50 - 150
Pyraclostrobin	98.8	99.3	P/P	60 - 150
Triclopyr	94.7	107	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89639

Included Lab Sample IDs: 2063308, 2063311

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8276
 Run ID: A89673
 Included Lab Sample IDs: 2063327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	94.8		P	80 - 120
Toxaphene	95.2		P	80 - 120

Reference Method: EPA 8321B
 Run ID: A89676
 Included Lab Sample IDs: 2063322, 2063323

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	127	91.8	P/P	60 - 160
Endothall	94.1	104	P/P	60 - 160

Reference Method: EPA 8270D
 Run ID: A89684
 Included Lab Sample IDs: 2063328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.3		P	80 - 120
Alachlor	97.6		P	80 - 120
Ametryn	102		P	80 - 120
Atrazine	91.2		P	80 - 120
Atrazine Desethyl	97.0		P	80 - 120
Azinphos Methyl	106		P	80 - 120
Bromacil	96.6		P	80 - 120
Butylate	97.1		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	98.0		P	80 - 120
Cyanazine	96.4		P	80 - 120
Demeton	100		P	80 - 120
Diazinon	99.1		P	80 - 120
Dimethenamid	98.4		P	80 - 120
Disulfoton	98.6		P	80 - 120
Dithiopyr	97.4		P	80 - 120
EPTC	99.5		P	80 - 120
Ethion	98.2		P	80 - 120
Ethoprop	99.9		P	80 - 120
Fenamiphos	96.9		P	80 - 120
Fipronil	96.4		P	80 - 120
Fipronil Desulfinyl	99.2		P	80 - 120
Fipronil Sulfide	92.0		P	80 - 120
Fipronil Sulfone	97.7		P	80 - 120
Fonofos	94.9		P	80 - 120
Hexazinone	98.8		P	80 - 120
Malathion	97.6		P	80 - 120
Metalaxyl	100		P	80 - 120
Metolachlor	100		P	80 - 120
Metribuzin	87.2		P	80 - 120
Mevinphos	101		P	80 - 120
Molinate	96.0		P	80 - 120
Norflurazon	96.0		P	80 - 120
Oxadiazon	99.8		P	80 - 120
Parathion Ethyl	95.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A89684

Included Lab Sample IDs: 2063328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Methyl	96.8		P	80 - 120
Pendimethalin	95.0		P	80 - 120
Phorate	96.1		P	80 - 120
Prodiamine	98.3		P	80 - 120
Prometon	95.4		P	80 - 120
Prometryn	96.7		P	80 - 120
Simazine	107		P	80 - 120
Tebuconazole	96.4		P	80 - 120
Terbufos	98.6		P	80 - 120
Terbuthylazine	97.1		P	80 - 120

Reference Method: SM 2320 B-97

Run ID: A89688

Included Lab Sample IDs: 2063307, 2063310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.4	P/P	90 - 110
Total Alkalinity	99.4	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A89688

Included Lab Sample IDs: 2063307, 2063310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.6	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A89689

Included Lab Sample IDs: 2063327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	91.0		P	80 - 120
Alpha-BHC	96.1		P	80 - 120
Alpha-Chlordane	91.8		P	80 - 120
Beta-BHC	87.9		P	80 - 120
Carbophenothion	104		P	80 - 120
Chlorothalonil	83.0		P	80 - 120
Cypermethrin	82.1		P	80 - 120
DDD-p,p'	91.6		P	80 - 120
DDE-p,p'	92.7		P	80 - 120
DDT-p,p'	102		P	80 - 120
Delta-BHC	89.1		P	80 - 120
Dicofol	95.5		P	80 - 120
Dieldrin	92.2		P	80 - 120
Endosulfan I	92.0		P	80 - 120
Endosulfan II	86.2		P	80 - 120
Endosulfan Sulfate	90.8		P	80 - 120
Endrin	88.7		P	80 - 120
Endrin Aldehyde	85.4		P	80 - 120
Endrin Ketone	90.9		P	80 - 120
Gamma-BHC	95.1		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A89689

Included Lab Sample IDs: 2063327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Gamma-Chlordane	89.2		P	80 - 120
Heptachlor	89.8		P	80 - 120
Heptachlor Epoxide	91.5		P	80 - 120
Methoxychlor	96.3		P	80 - 120
Mirex	95.6		P	80 - 120
Permethrin	83.8		P	80 - 120
Trifluralin	93.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89712

Included Lab Sample IDs: 2063332, 2063333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	95.7	96.6	P/P	90 - 110
Arsenic	97.9	99.0	P/P	90 - 110
Cadmium	97.9	97.9	P/P	90 - 110
Lead	93.4	94.6	P/P	90 - 110
Silver	102	102	P/P	90 - 110
Thallium	93.1	90.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89713

Included Lab Sample IDs: 2063332, 2063333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	94.8	97.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A89721

Included Lab Sample IDs: 2063308, 2063311

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	94.6	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A89785

Included Lab Sample IDs: 2063307, 2063310

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	98.1	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89815

Included Lab Sample IDs: 2063332, 2063333

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	103	P/P	90 - 110
Copper	101	101	P/P	90 - 110
Nickel	101	102	P/P	90 - 110
Selenium	104	102	P/P	90 - 110
Thallium	98.7	99.0	P/P	90 - 110

Quality Assurance Report

Calibration Verification

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						2.32	
EPA 200.7 Rev. 4.4	Iron	107		103	106			2.24
	Manganese	105		98.2	100			1.66
	Zinc	106		104	106			1.49
EPA 200.8 Rev. 5.4	Aluminum	99.8		112	110			1.76
	Antimony	96.0		99.7	101			0.830
	Arsenic	100		109	107			1.68
	Cadmium	100		94.6	92.0			2.82
	Chromium	99.7		99.3	96.5			2.90
	Copper	98.1		96.1	94.0			2.20
	Lead	94.1		98.4	97.3			1.06
	Nickel	98.2		95.4	93.4			2.21
	Selenium	100		102	100			2.23
	Silver	101		95.1	94.2			1.01
	Thallium	99.9		104	106			1.26
EPA 300.0	Bromide	107		101	96.7	99.3		2.78
EPA 350.1 Rev. 2.0	Ammonia-N	98.9		102	105			2.22
	Ammonia-N	98.5		102	106			2.39
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		96.6	94.3			2.04
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5		99.5	102			2.48
EPA 365.1 Rev. 2.0	Total-P	107		108	106			1.77
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102		95.1	97.8			2.08
EPA 8270D	Acetochlor	90.6	100	97.2	108	10.0		8.86
	Alachlor	89.4	98.0	86.9	93.6	9.12		7.40
	Aldrin	69.3	65.9	70.8	72.1	5.02		1.75
	Alpha-BHC	121	108	121	120	10.8		0.898
	Alpha-Chlordane	91.1	87.5	97.0	91.5	4.01		5.89
	Ametryn	86.7	101	96.4	108	15.0		11.6
	Atrazine	88.1	91.4	93.5	104	3.69		11.0
	Atrazine Desethyl	77.8	78.0	76.9	74.5	0.324		3.15
	Azinphos Methyl	109	115	107	116	4.94		7.88
	Beta-BHC	143	142	182	155	0.853		15.6
	Bromacil	71.3	79.9	77.3	83.4	11.5		7.65
	Butylate	52.2	59.7	52.0	44.7	13.4		15.0
	Carbophenothion	103	111	131	128	7.17		2.66
	Chlorothalonil	117	114	126	76.9	2.55		48.4
	Chlorpyrifos Ethyl	91.8	103	96.5	103	11.4		6.78
	Chlorpyrifos Methyl	88.6	98.2	84.5	93.9	10.3		10.5
	Cyanazine	93.1	96.6	79.3	88.3	3.75		10.8
	Cypermethrin	80.6	89.3	82.5	79.6	10.2		3.57
	DDD-p,p'	105	102	115	104	2.96		9.85
	DDE-p,p'	91.2	87.3	98.1	91.9	4.31		6.59
	DDT-p,p'	111	105	117	112	5.15		4.92
	Delta-BHC	148	146	188	162	1.46		14.8
	Demeton	81.5	91.7	47.5	48.7	11.8		2.53
	Diazinon	87.5	97.2	86.3	90.6	10.4		4.95
	Dicofol	108	97.2	109	120	10.6		9.85
	Dieldrin	98.9	94.3	103	95.4	4.86		7.24
	Dimethenamid	90.2	99.6	88.5	97.7	9.87		9.89
	Disulfoton	84.3	104	87.1	95.4	21.2		9.06
	Dithiopyr	87.0	98.2	86.5	91.2	12.0		5.27
	Endosulfan I	97.0	93.4	97.4	96.7	3.82		0.709
	Endosulfan II	106	107	114	103	1.26		9.51
	Endosulfan Sulfate	92.3	94.7	99.7	99.8	2.48		0.141

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Endrin	103	93.9	107	98.7	9.32	7.75
	Endrin Aldehyde	109	107	106	84.9	1.98	21.7
	Endrin Ketone	94.3	93.4	98.9	88.6	0.904	11.1
	EPTC	51.0	60.2	43.4	37.9	16.6	13.6
	Ethion	81.9	92.7	92.2	101	12.3	9.53
	Ethoprop	84.8	95.0	88.7	97.5	11.3	9.35
	Fenamiphos	75.0	82.2	77.5	82.0	9.07	5.68
	Fipronil	71.4	74.5	79.5	86.0	4.21	7.77
	Fipronil Desulfinyl	59.3	63.6	66.2	69.0	7.04	4.05
	Fipronil Sulfide	59.7	65.5	78.7	80.2	9.15	1.95
	Fipronil Sulfone	66.0	74.0	82.5	75.3	11.5	9.08
	Fonofos	82.1	95.2	84.8	96.0	14.7	12.4
	Gamma-BHC	137	124	141	133	10.3	5.77
	Gamma-Chlordane	88.4	86.3	95.0	89.3	2.39	6.18
	Heptachlor	75.5	71.9	72.7	74.3	4.95	2.24
	Heptachlor Epoxide	94.5	90.9	97.5	93.6	3.86	4.02
	Hexazinone	90.0	99.9	97.0	107	10.4	8.83
	Malathion	91.6	103	101	108	12.2	6.85
	Metalaxyl	86.6	95.3	87.4	93.7	9.52	6.99
	Methoxychlor	128	122	116	91.5	4.83	23.7
	Metolachlor	89.2	98.7	90.5	97.8	10.0	7.13
	Metribuzin	151	163	153	166	7.38	7.86
	Mevinphos	75.7	86.2	84.7	96.0	13.0	12.6
	Mirex	66.4	65.3	61.9	56.1	1.58	9.81
	Molinate	67.6	76.3	70.3	71.0	12.2	1.06
	Norflurazon	79.4	84.2	84.5	88.7	5.90	4.90
	Oxadiazon	78.2	89.1	84.7	95.8	13.1	12.3
	Parathion Ethyl	83.6	90.9	82.2	89.8	8.45	8.83
	Parathion Methyl	96.6	110	101	109	13.2	7.52
	Pendimethalin	80.9	94.6	91.8	94.0	15.6	2.40
	Permethrin	74.8	76.5	81.4	79.4	2.32	2.54
	Phorate	94.5	107	78.2	81.9	12.2	4.66
	Prodiamine	77.0	86.6	87.6	101	11.8	14.2
	Prometon	76.7	81.4	82.1	88.3	5.99	7.27
	Prometryn	77.4	86.7	80.9	93.4	11.3	14.4
	Simazine	106	120	99.5	112	12.5	11.4
	Tebuconazole	66.5	70.0	92.6	96.6	5.18	2.99
	Terbufos	84.8	98.1	84.3	95.3	14.5	12.2
	Terbuthylazine	85.9	98.4	85.9	96.9	13.5	12.0
	Trifluralin	99.1	94.7	103	103	4.62	0.120
EPA 8276	Chlordane	79.6	88.6	87.6	83.5	10.7	4.89
	Toxaphene	65.0	55.8	65.3	57.7	15.2	12.3
EPA 8321B	2,4-D	78.2		104	104		0.0714
	3-Hydroxycarbofuran	109		109	123		11.6
	Acesulfame K	118		86.1	86.3		0.222
	Acetaminophen	95.1		125	125		0.329
	Aldicarb	65.0		73.1	72.6		0.660
	Aldicarb Sulfone	98.6		113	116		2.18
	Aldicarb Sulfoxide	119		60.7	63.1		3.86
	AMPA	87.8		67.8	67.6		0.353
	Bentazon	115		90.8	105		9.96
	Carbamazepine	92.2		81.5	84.8		3.92
	Carbaryl	81.1		72.8	72.4		0.443
	Carbofuran	81.0		69.5	70.0		0.634

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Diuron	82.7	69.4	81.9			15.6
	Endothall	92.3	94.2	94.2			0.0242
	Fenuron	115	88.7	86.9			1.95
	Fluridone	102	113	122			6.46
	Glufosinate	105	77.8	71.7			8.12
	Glyphosate	100	83.1	77.8			5.80
	Hydrocodone	102	100	117			15.6
	Ibuprofen	88.5	86.0	73.8			15.3
	Imazapyr	102	130	149			8.26
	Imidacloprid	103	202	215			5.85
	Linuron	74.2	72.5	82.3			12.7
	MCP	99.7	130	140			7.54
	Methiocarb	71.8	74.5	64.4			14.5
	Methomyl	108	90.3	97.4			7.49
	Naproxen	75.6	87.2	87.2			0.0017
	Oxamyl	93.8	100	86.5			14.4
	Primidone	104	104	109			4.77
	Propoxur	89.3	67.9	72.5			6.62
	Pyraclostrobin	69.0	72.1	69.5			3.61
	Sucralose	95.4	98.0	96.5			1.44
	Triclopyr	64.2	85.8	86.3			0.627
SM 2320 B-97	Total Alkalinity	102				0.249	
SM 2540 D-97	TSS					4.51	
SM 4500 F-C-97	Fluoride	96.3	94.5	96.3			1.42
SM 5310 B-00	Organic Carbon	95.9	98.5	99.0			0.541

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2063307, 2063310
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2063332, 2063333
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2063332, 2063333
EPA 300.0 / E31780	Bromide in aqueous matrices	2063307, 2063310
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2063308, 2063311
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2063308, 2063311
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2063308, 2063311
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2063308, 2063311
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2063309, 2063312
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	2063327
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2063328
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2063327
EPA 8321B / E31780	Carbamates in water matrices by HPLC/MS/MS	2063321
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2063322, 2063323
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2063322, 2063323
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2063307, 2063310
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2063307, 2063310

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2063307, 2063310
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2063308, 2063311

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	02/19/2019			02/19/2019 17:21	Adrian Shelby	2063307, 2063310
EPA 200.7 Rev. 4.4	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/21/2019 13:46	Martin Acosta	2063332
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/21/2019 14:15	Martin Acosta	2063333
EPA 200.8 Rev. 5.4	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/27/2019 21:21	Allison Taylor	2063332
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/27/2019 21:43	Allison Taylor	2063333
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/28/2019 02:43	Robert K Palmer	2063332
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/28/2019 03:11	Robert K Palmer	2063333
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/28/2019 04:18	Robert K Palmer	2063332
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	02/28/2019 04:47	Robert K Palmer	2063333
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	03/05/2019 17:47	Robert K Palmer	2063332
	02/19/2019	02/20/2019 17:30	Elliott D. Healy	03/05/2019 18:09	Robert K Palmer	2063333
EPA 300.0	02/19/2019			03/05/2019 15:47	Lipi Saha	2063307
	02/19/2019			03/05/2019 16:04	Lipi Saha	2063310
EPA 350.1 Rev. 2.0	02/19/2019			02/21/2019 12:23	Ping Hua	2063308
	02/19/2019			02/22/2019 10:58	Ping Hua	2063311
EPA 351.2 Rev. 2.0	02/19/2019	02/21/2019 16:30	Adrian Shelby	02/22/2019 16:16	Joseph Suarez	2063308
	02/19/2019	02/21/2019 16:30	Adrian Shelby	02/22/2019 16:18	Joseph Suarez	2063311
EPA 353.2 Rev. 2.0	02/19/2019			02/21/2019 10:22	Beverly Y. Sanders	2063308
	02/19/2019			02/21/2019 10:23	Beverly Y. Sanders	2063311
EPA 365.1 Rev. 2.0	02/19/2019	02/21/2019 13:10	Sima Feizi	02/22/2019 16:24	Rosalyn Ballman	2063308
	02/19/2019	02/21/2019 13:10	Sima Feizi	02/22/2019 16:25	Rosalyn Ballman	2063311
EPA 365.1 Rev. 2.0 dissolved	02/19/2019			02/19/2019 14:33	Jhamieka S. Greenwood	2063312
	02/19/2019			02/19/2019 15:20	Jhamieka S. Greenwood	2063309
EPA 8270D	02/19/2019	02/22/2019 09:00	Fe-Val Siddell	02/26/2019 20:23	Dinesh Mishra	2063327
	02/19/2019	02/25/2019 08:10	Dinesh Mishra	02/26/2019 15:42	Vandana T. Nagar	2063328
EPA 8276	02/19/2019	02/22/2019 09:00	Fe-Val Siddell	02/26/2019 07:54	Arthur Maknenko	2063327
EPA 8321B	02/19/2019	02/20/2019 11:00	Rebecca Ware	02/20/2019 13:06	Mohammad Ghaffari	2063322
	02/19/2019	02/20/2019 11:00	Rebecca Ware	02/20/2019 13:17	Mohammad Ghaffari	2063323
	02/19/2019	02/20/2019 11:00	Rebecca Ware	02/20/2019 20:38	Rebecca Ware	2063322
	02/19/2019	02/20/2019 11:00	Rebecca Ware	02/20/2019 20:52	Rebecca Ware	2063323
	02/19/2019	02/20/2019 11:00	Rebecca Ware	02/22/2019 20:39	Mohammad Ghaffari	2063322
	02/19/2019	02/20/2019 11:00	Rebecca Ware	02/22/2019 20:52	Mohammad Ghaffari	2063323
	02/19/2019	02/21/2019 10:00	Hoor Shaik	02/24/2019 09:14	Juyoung Kim	2063321
	02/19/2019	02/21/2019 10:00	Hoor Shaik	02/24/2019 12:06	Juyoung Kim	2063322
	02/19/2019	02/21/2019 10:00	Hoor Shaik	02/24/2019 14:25	Juyoung Kim	2063323
SM 2320 B-97	02/19/2019			02/27/2019 03:33	Dale L. Simmons	2063310
	02/19/2019			02/27/2019 04:44	Dale L. Simmons	2063307
SM 2540 D-97	02/19/2019			02/20/2019 15:05	Mariam Hanna	2063307, 2063310
SM 4500 F-C-97	02/19/2019			02/27/2019 02:58	Dale L. Simmons	2063307
	02/19/2019			02/27/2019 03:03	Dale L. Simmons	2063310

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	02/19/2019			02/28/2019 08:31	Chelsea Hernandez	2063308
	02/19/2019			02/28/2019 08:44	Chelsea Hernandez	2063311