

Chemical Analysis Report

SE-DIST-2017-03-02-02

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

Event Description: **SMP-G3 WPB Run**

Request ID: **RQ-2017-02-27-11**

Customer: **SE-DIST**

Project ID: **SMP**

Send Reports to:

FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 30-MAR-2017 11:04



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 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: Acme South @ Lake Worth Rd

Collection Date/Time: 03/01/2017 12:45

Field ID: G3SE0016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877304	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P320870	
	EPA 300.0 Rev. 2.1	Chloride	53		mg Cl/L	P321676	
		Sulfate	32		mg SO4/L	P321679	
	SM 2120 B	Color (true)	33		PCU	P320877	
	SM 2320 B-97	Total Alkalinity	178		mg CaCO3/L	P321422	
	SM 2540 C-97	TDS	348	A	mg/L	P321771	
	SM 2540 D-97	TSS	3	I	mg/L	P321319	
	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P321426	
1877307	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P321261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P320985	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.060		mg N/L	P321352	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P321068	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P320953	
1877310	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.017		mg P/L	P320859	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Acme North @ South Shore Blvd

Collection Date/Time: 03/01/2017 13:10

Field ID: 32012006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877305	EPA 180.1 Rev. 2.0	Turbidity	5.6		NTU	P320870	
	EPA 300.0 Rev. 2.1	Chloride	61		mg Cl/L	P321676	
		Sulfate	24		mg SO4/L	P321679	
	SM 2120 B	Color (true)	72		PCU	P320877	
	SM 2320 B-97	Total Alkalinity	200		mg CaCO3/L	P321422	
	SM 2540 C-97	TDS	391		mg/L	P321771	
	SM 2540 D-97	TSS	8	I	mg/L	P321557	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P321426	
1877308	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P321261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P320985	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.020		mg N/L	P321352	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P321068	
	SM 5310 B-00	Organic Carbon	19		mg C/L	P320953	
1877311	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.013		mg P/L	P320860	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Clear Lake @ Okeechobee Rd

Collection Date/Time: 03/01/2017 15:20

Field ID: 28010896

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877306	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P320870	
	EPA 300.0 Rev. 2.1	Chloride	45		mg Cl/L	P321677	
		Sulfate	19		mg SO4/L	P321680	

Field ID: 28010896

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877306	SM 2120 B	Color (true)	28	A	PCU	P320877	
	SM 2320 B-97	Total Alkalinity	97		mg CaCO3/L	P321422	
	SM 2540 C-97	TDS	238		mg/L	P321771	
	SM 2540 D-97	TSS	2	U	mg/L	P321557	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P321426	
1877309	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P321292	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.74		mg N/L	P320985	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321352	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P321068	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P320953	
1877312	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P320860	

Ref. Method and Comment:

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

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: C-17 @ SR-702 (45th Street)

Collection Date/Time: 03/01/2017 15:40

Field ID: 32008003

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877313	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P320870	
	EPA 300.0 Rev. 2.1	Chloride	46		mg Cl/L	P321677	
		Sulfate	15		mg SO4/L	P321680	
		Color (true)	38		PCU	P320877	
	SM 2320 B-97	Total Alkalinity	147		mg CaCO3/L	P321422	
	SM 2540 C-97	TDS	275		mg/L	P321772	
	SM 2540 D-97	TSS	7	I	mg/L	P321557	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P321426	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P321292	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P320985	
1877314	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321352	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P321068	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P320953	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P320860	
	EPA 200.7 Rev. 4.4	Calcium	60.8		mg/L	P321249	
1877345		Iron	180		ug/L	P321249	
		Magnesium	4.82		mg/L	P321249	
		Potassium	3.9		mg/L	P321249	
		Sodium	29.7		mg/L	P321249	
		Zinc	5.0	U	ug/L	P321249	
		Arsenic	2.76		ug/L	P321249	
		Cadmium	0.020	U	ug/L	P321249	
		Chromium	0.54	I	ug/L	P321249	
		Copper	1.79		ug/L	P321249	
		Lead	0.34		ug/L	P321249	
		Nickel	0.42	I	ug/L	P321249	
	EPA 200.8 Rev. 5.4						

Field ID: 32008003

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877345	EPA 200.8 Rev. 5.4	Silver	0.010	U	ug/L	P321249	

Ref. Method and Comment:

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

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Pine Lake @ Stub Canal Park

Collection Date/Time: 03/01/2017 15:00

Field ID: G3SE0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877316	EPA 180.1 Rev. 2.0	Turbidity	4.3	A	NTU	P320871	
	EPA 300.0 Rev. 2.1	Chloride	52		mg Cl/L	P321677	
		Sulfate	15		mg SO4/L	P321680	
	SM 2120 B	Color (true)	28		PCU	P320877	
	SM 2320 B-97	Total Alkalinity	129		mg CaCO3/L	P321422	
	SM 2540 C-97	TDS	252	A	mg/L	P321772	
	SM 2540 D-97	TSS	8	I	mg/L	P321558	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P321426	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P321292	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P320985	
1877317	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P321352	
	EPA 365.1 Rev. 2.0	Total-P	0.051		mg P/L	P321068	
	SM 5310 B-00	Organic Carbon	9.3		mg C/L	P320953	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P320860	
	EPA 8321B	Sucralose**	0.22		ug/L	P320822	
1877342	USGS O-2060-01	Diuron	0.0050	I	ug/L	P320919	
		Fenuron	0.0080	U	ug/L	P320919	
		Imidacloprid	0.017		ug/L	P320919	
		Linuron	0.0040	U	ug/L	P320919	
		Acetaminophen**	0.0040	U	ug/L	P320919	
		Carbamazepine**	0.0011	I	ug/L	P320919	
		Primidone**	0.0080	U	ug/L	P320919	
		Fluridone**	0.015	J	ug/L	P320919	MS
	EPA 200.7 Rev. 4.4	Calcium	54.6		mg/L	P321249	
		Iron	190		ug/L	P321249	
1877346		Magnesium	3.48		mg/L	P321249	
		Potassium	1.9		mg/L	P321249	
		Sodium	32.5		mg/L	P321249	
		Zinc	5.0	U	ug/L	P321249	
	EPA 200.8 Rev. 5.4	Arsenic	0.71		ug/L	P321249	
		Cadmium	0.020	U	ug/L	P321249	
		Chromium	0.40	U	ug/L	P321249	
		Copper	2.10		ug/L	P321249	
		Lead	0.73		ug/L	P321249	
		Nickel	0.46	I	ug/L	P321249	
		Silver	0.010	U	ug/L	P321249	

Field ID: G3SE0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.							
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.							
USGS O-2060-01: Refer to the narrative for an explanation of QC Codes.							

Sample Location: Lake Clarke @ Pine Tree Lane

Collection Date/Time: 03/01/2017 14:20

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877319	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P320871	
	EPA 300.0 Rev. 2.1	Chloride	110		mg Cl/L	P321677	
		Sulfate	61		mg SO4/L	P321680	
	SM 2120 B	Color (true)	37		PCU	P320877	
	SM 2320 B-97	Total Alkalinity	159		mg CaCO3/L	P321422	
	SM 2540 C-97	TDS	451		mg/L	P321772	
	SM 2540 D-97	TSS	4	I	mg/L	P321558	
1877320	SM 4500 F-C-97	Fluoride	0.18		mg F/L	P321426	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P321292	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P320985	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.035		mg N/L	P321352	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P321068	
1877321	SM 5310 B-00	Organic Carbon	13		mg C/L	P320953	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P320860	
1877343	EPA 8321B	Glyphosate**	10	U	ug/L	P320640	
		Sucralose**	0.27		ug/L	P320822	
	USGS O-2060-01	2,4-D	0.060		ug/L	P320727	
		Diuron	0.0047	I	ug/L	P320727	
		2,4-DB	0.0020	U	ug/L	P320727	
		Fenuron	0.0080	U	ug/L	P320727	
		2,4,5-T	0.0020	U	ug/L	P320727	
		Acifluorfen	0.0020	U	ug/L	P320727	
		Imidacloprid	0.011	I	ug/L	P320727	
		Bentazon	0.14		ug/L	P320727	MS
		Linuron	0.0040	U	ug/L	P320727	
		Dichlorprop	0.0020	U	ug/L	P320727	
		Dinoseb	0.020	U	ug/L	P320727	RPD
		MCPA	0.0040	U	ug/L	P320727	
		Acetaminophen**	0.0040	U	ug/L	P320727	
		MCPD	0.0040	U	ug/L	P320727	
		Picloram	0.050	U	ug/L	P320727	
		Carbamazepine**	6.4E-04	I	ug/L	P320727	
		Silvex	0.0020	U	ug/L	P320727	
		Triclopyr**	0.062		ug/L	P320727	
		Primidone**	0.0080	U	ug/L	P320727	
		Fluridone**	0.0073		ug/L	P320727	
	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P320728	

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877347	EPA 200.7 Rev. 4.4	Calcium	72.3		mg/L	P321249	
		Iron	59	I	ug/L	P321249	
		Magnesium	11.0		mg/L	P321249	
		Potassium	5.1		mg/L	P321249	
		Sodium	73.2		mg/L	P321249	
		Zinc	5.0	U	ug/L	P321249	
	EPA 200.8 Rev. 5.4	Arsenic	1.60		ug/L	P321249	
		Cadmium	0.020	U	ug/L	P321249	
		Chromium	0.40	U	ug/L	P321249	
		Copper	1.24		ug/L	P321249	
		Lead	0.11	I	ug/L	P321249	
		Nickel	0.45	I	ug/L	P321249	
		Silver	0.010	U	ug/L	P321249	
		Aldrin	0.0020	U	ug/L	P320844	
1877350	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Alpha-BHC	0.0020	U	ug/L	P320844	
		Beta-BHC	0.0020	U	ug/L	P320844	
		Delta-BHC	0.0020	U	ug/L	P320844	
		Gamma-BHC	0.0020	U	ug/L	P320844	
		Carbophenothion	0.0060	U	ug/L	P320844	
		Chlordane	0.020	U	ug/L	P320844	
		Chlorothalonil	0.0081	U	ug/L	P320844	
		Cypermethrin	0.012	U	ug/L	P320844	
		DDD-p,p'	0.0040	U	ug/L	P320844	
		DDE-p,p'	0.0040	U	ug/L	P320844	
		DDT-p,p'	0.0040	U	ug/L	P320844	
		Dicofol	0.024	UJ	ug/L	P320844	CCV
		Dieldrin	0.0020	U	ug/L	P320844	
		Endosulfan I	0.0020	U	ug/L	P320844	
		Endosulfan II	0.0020	U	ug/L	P320844	
		Endosulfan Sulfate	0.0040	U	ug/L	P320844	
		Endrin	0.0040	U	ug/L	P320844	
		Endrin Aldehyde	0.0040	U	ug/L	P320844	
		Heptachlor	0.0020	U	ug/L	P320844	
		Heptachlor Epoxide	0.0020	U	ug/L	P320844	
		Methoxychlor	0.010	U	ug/L	P320844	
		Mirex	0.0040	U	ug/L	P320844	
		Permethrin	0.010	U	ug/L	P320844	
		Toxaphene	0.10	U	ug/L	P320844	
		PCB-1016	0.020	U	ug/L	P320844	MS
		PCB-1221	0.020	U	ug/L	P320844	
		PCB-1232	0.020	U	ug/L	P320844	
		PCB-1242	0.020	U	ug/L	P320844	
		PCB-1248	0.020	U	ug/L	P320844	
		PCB-1254	0.020	U	ug/L	P320844	

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1877350	DEP SOP: GC-011-5 (based on EPA 608 and 617)	PCB-1260	0.020	U	ug/L	P320844	
		Trifluralin	0.0081	U	ug/L	P320844	
1877351	EPA 8270D	Ametryn	16		ng/L	P320776	
		Atrazine	220		ng/L	P320776	
		Chlorpyrifos Ethyl	0.24	U	ng/L	P320776	
		Chlorpyrifos Methyl	0.097	U	ng/L	P320776	
		Disulfoton	0.32	U	ng/L	P320776	
		Ethion	0.15	U	ng/L	P320776	
		Ethoprop	4.8		ng/L	P320776	
		Hexazinone	15		ng/L	P320776	
		Malathion	0.34	I	ng/L	P320776	
		Metribuzin	22	J	ng/L	P320776	LCS, RPD
		Mevinphos	0.48	U	ng/L	P320776	
		Norflurazon	1.8	I	ng/L	P320776	
		Phorate	0.24	U	ng/L	P320776	MS
		Prometryn	0.33	I	ng/L	P320776	
		Simazine	2.3		ng/L	P320776	
		Atrazine Desethyl	20	J	ng/L	P320776	RPD
		Prometon	0.87	U	ng/L	P320776	
		Fipronil	0.35	I	ng/L	P320776	
		Molinate	0.29	U	ng/L	P320776	
		Pendimethalin	1.5	U	ng/L	P320776	
		Terbufos	0.097	U	ng/L	P320776	
		EPTC	1.2	U	ng/L	P320776	
		Terbuthylazine	0.41	U	ng/L	P320776	
		Bromacil	1.8	I	ng/L	P320776	
		Fipronil Sulfide	0.22	I	ng/L	P320776	
		Fipronil Sulfone	0.43	I	ng/L	P320776	
		Alachlor	0.24	U	ng/L	P320776	
		Azinphos Methyl	2.2	U	ng/L	P320776	
		Butylate	0.39	U	ng/L	P320776	
		Demeton	0.97	U	ng/L	P320776	
		Diazinon	0.12	U	ng/L	P320776	
		Fenamiphos	0.24	U	ng/L	P320776	MS
		Fonofos	0.19	U	ng/L	P320776	
		Metalaxyl	1.2		ng/L	P320776	
		Metolachlor	14		ng/L	P320776	
		Acetochlor	0.24	U	ng/L	P320776	
		Cyanazine	0.48	UJ	ng/L	P320776	RPD
		Parathion Ethyl	0.24	U	ng/L	P320776	
		Parathion Methyl	0.24	U	ng/L	P320776	

Field ID: 28010809

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

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

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 8321B: Results confirmed in re-extraction.

DEP SOP: GC-011-5 (based on EPA 608 and 617): PCB Aroclors spike was used for this batch's QC. Refer to the narrative for an explanation of QC Codes.

EPA 8270D: Matrix spikes recoveries for Atrazine, Ametryn, Metalaxyl and Metolachlor not assessed due to high content of these analytes in the spiked sample. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P320844

Component	Result	Code	Units
Aldrin	0.0020	U	ug/L
Alpha-BHC	0.0020	U	ug/L
Beta-BHC	0.0020	U	ug/L
Carbophenothion	0.0060	U	ug/L
Chlordane	0.020	U	ug/L
Chlorothalonil	0.0080	U	ug/L
Cypermethrin	0.012	U	ug/L
DDD-p,p'	0.0040	U	ug/L
DDE-p,p'	0.0040	U	ug/L
DDT-p,p'	0.0040	U	ug/L
Delta-BHC	0.0020	U	ug/L
Dicofol	0.024	U	ug/L
Dieldrin	0.0020	U	ug/L
Endosulfan I	0.0020	U	ug/L
Endosulfan II	0.0020	U	ug/L
Endosulfan Sulfate	0.0040	U	ug/L
Endrin	0.0040	U	ug/L
Endrin Aldehyde	0.0040	U	ug/L
Gamma-BHC	0.0020	U	ug/L
Heptachlor	0.0020	U	ug/L
Heptachlor Epoxide	0.0020	U	ug/L
Methoxychlor	0.010	U	ug/L
Mirex	0.0040	U	ug/L
PCB-1016	0.020	U	ug/L
PCB-1221	0.020	U	ug/L
PCB-1232	0.020	U	ug/L
PCB-1242	0.020	U	ug/L
PCB-1248	0.020	U	ug/L
PCB-1254	0.020	U	ug/L
PCB-1260	0.020	U	ug/L
Permethrin	0.010	U	ug/L
Toxaphene	0.10	U	ug/L
Trifluralin	0.0080	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P320870

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320871

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P321249

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321249

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.20	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321676

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321677

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321679

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321680

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321261

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321292

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320985

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321352

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321068

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320859

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320860

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

Reference Method: EPA 8270D
Batch ID: P320776

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P320776

Component	Result	Code	Units
Cyanazine	0.50	U	ng/L
Demeton	1.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	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	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8321B
Batch ID: P320640

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: EPA 8321B
Batch ID: P320728

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P320822

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P320877

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P320877

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P321422

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

Reference Method: SM 2540 C-97
Batch ID: P321771

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P321772

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321319

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321557

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P321558

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P321426

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P320953

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

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P320727

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0040	U	ug/L
2,4-DB	0.0020	U	ug/L
Acetaminophen	0.0040	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Dichlorprop	0.0020	U	ug/L
Dinoseb	0.020	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPA	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Picloram	0.050	U	ug/L
Primidone	0.0080	U	ug/L
Silvex	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P320919

Component	Result	Code	Units
Acetaminophen	0.0040	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
Primidone	0.0080	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P320844

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	122	119	P/P	70 - 130
PCB-1260	112	111	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P321249

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	105		P	85 - 115
Magnesium	103		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P321249

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Potassium	101		P	85 - 115
Sodium	102		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P321249

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	102		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	101		P	85 - 115
Copper	101		P	85 - 115
Lead	92.4		P	85 - 115
Nickel	103		P	85 - 115
Silver	96.6		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P321676

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P321677

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P321679

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

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P321680

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P321261

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

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P321292

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320985

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321352

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321068

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320860

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.1		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P320776

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	92.4	93.6	P/P	78 - 118
Alachlor	88.6	92.1	P/P	77 - 119
Ametryn	126	107	P/P	61 - 136
Atrazine	98.2	92.2	P/P	73 - 120
Atrazine Desethyl	94.6	68.6	P/P	16 - 122
Azinphos Methyl	90.1	89.4	P/P	69 - 186
Bromacil	96.6	77.9	P/P	40 - 125
Butylate	54.3	63.8	P/P	32 - 87.0
Chlorpyrifos Ethyl	99.7	94.5	P/P	53 - 110
Chlorpyrifos Methyl	85.4	89.8	P/P	31 - 119
Cyanazine	164	120	P/P	36 - 224
Demeton	94.4	93.8	P/P	39 - 122
Diazinon	100	97.3	P/P	75 - 119
Disulfoton	86.8	85.5	P/P	42 - 139
EPTC	56.4	65.2	P/P	33 - 96.0
Ethion	107	99.6	P/P	63 - 127
Ethoprop	91.9	85.9	P/P	65 - 107
Fenamiphos	126	111	P/P	64 - 137
Fipronil	105	97.5	P/P	60 - 126
Fipronil Sulfide	91.3	99.0	P/P	58 - 124
Fipronil Sulfone	88.9	90.7	P/P	57 - 126
Fonofos	82.1	86.5	P/P	65 - 111

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P320776

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hexazinone	104	101	P/P	46 - 151
Malathion	96.2	98.7	P/P	68 - 132
Metalaxyl	101	93.6	P/P	51 - 132
Metolachlor	95.4	98.3	P/P	78 - 119
Metribuzin	140	98.2	F/P	64 - 138
Mevinphos	93.9	76.8	P/P	34 - 128
Molinate	69.6	71.2	P/P	44 - 101
Norflurazon	95.2	83.8	P/P	63 - 129
Parathion Ethyl	83.4	91.2	P/P	80 - 109
Parathion Methyl	79.6	84.2	P/P	74 - 125
Pendimethalin	90.7	96.5	P/P	48 - 134
Phorate	91.4	91.8	P/P	52 - 119
Prometon	104	90.3	P/P	69 - 124
Prometryn	108	96.1	P/P	66 - 124
Simazine	118	105	P/P	61 - 134
Terbufos	97.2	88.0	P/P	58 - 115
Terbutylazine	99.9	98.2	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P320640

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	88.2		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P320728

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	86.0		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P320822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	92.7		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P321422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P321426

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P320953

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: P320953

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

Reference Method: USGS O-2060-01
 Batch ID: P320727

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	89.2		P	40 - 140
2,4-D	98.0		P	40 - 140
2,4-DB	70.4		P	40 - 140
Acetaminophen	122		P	40 - 140
Acifluorfen	102		P	40 - 140
Bentazon	103		P	40 - 140
Carbamazepine	99.2		P	40 - 140
Dichlorprop	104		P	40 - 140
Dinoseb	96.8		P	40 - 140
Diuron	89.6		P	40 - 140
Fenuron	96.0		P	40 - 140
Fluridone	90.8		P	40 - 140
Imidacloprid	80.4		P	40 - 160
Linuron	94.4		P	40 - 140
MCPA	94.8		P	40 - 140
MCPP	98.4		P	40 - 140
Picloram	111		P	40 - 140
Primidone	77.6		P	40 - 140
Silvex	86.0		P	40 - 140
Triclopyr	98.4		P	40 - 140

Reference Method: USGS O-2060-01
 Batch ID: P320919

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetaminophen	119		P	40 - 140
Carbamazepine	122		P	40 - 140
Diuron	84.4		P	40 - 140
Fenuron	97.6		P	40 - 140
Fluridone	72.0		P	40 - 140
Imidacloprid	84.8		P	40 - 160
Linuron	132		P	40 - 140
Primidone	112		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
 Batch ID: P320844

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876093	PCB-1016	126	133	P/F	70 - 130
1876093	PCB-1260	100	109	P/P	70 - 130
1877350	PCB-1016	128		P	70 - 130
1877350	PCB-1260	105		P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P321249

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877139	Calcium	105		P	80 - 120
1877139	Iron	107		P	80 - 120
1877139	Magnesium	105		P	80 - 120
1877139	Potassium	105		P	80 - 120
1877139	Sodium	104		P	80 - 120
1877139	Zinc	101		P	80 - 120
1877187	Calcium	103		P	80 - 120
1877187	Iron	109	107	P/P	80 - 120
1877187	Magnesium	105		P	80 - 120
1877187	Potassium	102		P	80 - 120
1877187	Sodium	103		P	80 - 120
1877187	Zinc	101	100	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321249

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877139	Arsenic	108		P	80 - 120
1877139	Cadmium	104		P	80 - 120
1877139	Chromium	101		P	80 - 120
1877139	Copper	103		P	80 - 120
1877139	Lead	95.1		P	80 - 120
1877139	Nickel	103		P	80 - 120
1877139	Silver	94.4		P	80 - 120
1877187	Arsenic	110	107	P/P	80 - 120
1877187	Cadmium	103	106	P/P	80 - 120
1877187	Chromium	104	102	P/P	80 - 120
1877187	Copper	105	103	P/P	80 - 120
1877187	Lead	97.2	94.9	P/P	80 - 120
1877187	Nickel	104	103	P/P	80 - 120
1877187	Silver	97.1	98.1	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321676

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877152	Chloride	101		P	90 - 110
1877205	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877352	Chloride	104		P	90 - 110
1877490	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877152	Sulfate	98.7		P	90 - 110
1877205	Sulfate	99.9		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321680

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877352	Sulfate	101		P	90 - 110
1877490	Sulfate	92.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877239	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877309	Ammonia-N	103	99.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877240	Kjeldahl Nitrogen	105	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877317	NO2NO3-N	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321068

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877307	Total-P	96.9	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320859

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877310	O-Phosphate-P	94.1	95.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877312	O-Phosphate-P	93.3	96.5	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P320776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875819	Acetochlor	106	98.3	P/P	74 - 123
1875819	Alachlor	105	100	P/P	73 - 124
1875819	Atrazine Desethyl	55.8	55.3	P/P	12 - 103

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P320776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875819	Azinphos Methyl	95.8	95.9	P/P	60 - 202
1875819	Bromacil	65.4	62.8	P/P	42 - 133
1875819	Butylate	64.9	54.1	P/P	10 - 85.0
1875819	Chlorpyrifos Ethyl	70.4	66.2	P/P	53 - 113
1875819	Chlorpyrifos Methyl	101	95.5	P/P	40 - 115
1875819	Cyanazine	133	152	P/P	22 - 210
1875819	Demeton	115	128	P/P	17 - 149
1875819	Diazinon	114	108	P/P	72 - 124
1875819	Disulfoton	104	94.5	P/P	43 - 139
1875819	EPTC	73.5	66.6	P/P	10 - 86.0
1875819	Ethion	108	106	P/P	65 - 131
1875819	Ethoprop	108	105	P/P	59 - 110
1875819	Fenamiphos	113	144	P/F	57 - 138
1875819	Fipronil	96.8	104	P/P	40 - 130
1875819	Fipronil Sulfide	88.2	100	P/P	36 - 128
1875819	Fipronil Sulfone	61.9	76.3	P/P	16 - 145
1875819	Fonofos	102	103	P/P	60 - 112
1875819	Hexazinone	102	99.4	P/P	69 - 142
1875819	Malathion	110	108	P/P	68 - 132
1875819	Metribuzin	130	118	P/P	61 - 140
1875819	Mevinphos	99.1	99.4	P/P	38 - 130
1875819	Molinate	77.0	71.0	P/P	23 - 99.0
1875819	Norflurazon	65.5	71.9	P/P	39 - 139
1875819	Parathion Ethyl	77.4	81.1	P/P	75 - 111
1875819	Parathion Methyl	72.2	75.0	P/P	64 - 130
1875819	Pendimethalin	92.2	97.7	P/P	26 - 173
1875819	Phorate	131	111	F/P	43 - 127
1875819	Prometon	107	104	P/P	50 - 144
1875819	Prometryn	108	101	P/P	69 - 126
1875819	Simazine	95.1	90.6	P/P	51 - 152
1875819	Terbufos	109	106	P/P	54 - 125
1875819	Terbuthylazine	99.8	94.0	P/P	76 - 113

Reference Method: EPA 8321B
Batch ID: P320640

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875816	Glyphosate	49.4	46.0	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P320728

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1875817	Pyraclostrobin	70.9	60.9	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P320822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877330	Sucralose	86.9	80.3	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P321426

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1878119	Fluoride	104	105	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P320953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877214	Organic Carbon	96.6	98.3	P/P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P320727

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1876081	2,4,5-T	98.8	106	P/P	40 - 140
1876081	2,4-D	113	134	P/P	40 - 140
1876081	2,4-DB	66.4	78.4	P/P	40 - 140
1876081	Acetaminophen	49.6	53.6	P/P	40 - 140
1876081	Acifluorfen	99.2	123	P/P	40 - 140
1876081	Bentazon	203	222	F/F	40 - 140
1876081	Carbamazepine	44.4	54.4	P/P	40 - 140
1876081	Dichlorprop	98.8	117	P/P	40 - 140
1876081	Dinoseb	71.6	119	P/P	40 - 140
1876081	Diuron	42.4	45.2	P/P	40 - 140
1876081	Fenuron	40.4	47.6	P/P	40 - 140
1876081	Fluridone	52.1	55.3	P/P	40 - 140
1876081	Imidacloprid	75.6	82.4	P/P	40 - 160
1876081	Linuron	74.0	68.0	P/P	40 - 140
1876081	MCPA	107	116	P/P	40 - 140
1876081	MCPP	116	124	P/P	40 - 140
1876081	Picloram	64.0	63.2	P/P	40 - 140
1876081	Primidone	42.4	41.6	P/P	40 - 140
1876081	Silvex	115	138	P/P	40 - 140
1876081	Triclopyr	101	111	P/P	40 - 140

Reference Method: USGS O-2060-01
Batch ID: P320919

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1877342	Acetaminophen	61.2	61.2	P/P	40 - 140
1877342	Carbamazepine	49.3	56.5	P/P	40 - 140
1877342	Diuron	40.2	40.6	P/P	40 - 140
1877342	Fenuron	50.8	52.0	P/P	40 - 140
1877342	Fluridone	31.7	30.9	F/F	40 - 140
1877342	Imidacloprid	77.8	83.4	P/P	40 - 160
1877342	Linuron	54.0	67.6	P/P	40 - 140
1877342	Primidone	60.4	72.4	P/P	40 - 140

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P320844

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876093	PCB-1016	5.94	Spike	P	0 - 30
1876093	PCB-1260	9.65	Spike	P	0 - 30
LFB	PCB-1016	2.27	LCS	P	0 - 30
LFB	PCB-1260	0.0953	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320870

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877235	Turbidity	4.88	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P320871

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877316	Turbidity	4.15	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P321249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877187	Calcium	0.229	Spike	P	0 - 20
1877187	Iron	1.96	Spike	P	0 - 20
1877187	Magnesium	1.59	Spike	P	0 - 20
1877187	Potassium	0.442	Spike	P	0 - 20
1877187	Sodium	0.0256	Spike	P	0 - 20
1877187	Zinc	0.253	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P321249

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877187	Arsenic	2.31	Spike	P	0 - 20
1877187	Cadmium	3.42	Spike	P	0 - 20
1877187	Chromium	1.33	Spike	P	0 - 20
1877187	Copper	2.13	Spike	P	0 - 20
1877187	Lead	2.43	Spike	P	0 - 20
1877187	Nickel	1.11	Spike	P	0 - 20
1877187	Silver	0.988	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321676

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877205	Chloride	0.171	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877490	Chloride	1.24	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P321679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877205	Sulfate	0.430	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877239	Ammonia-N	0.642	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P321292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877309	Ammonia-N	2.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P320985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877240	Kjeldahl Nitrogen	3.60	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P321352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877317	NO2NO3-N	0.957	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P321068

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877307	Total-P	3.54	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877310	O-Phosphate-P	1.51	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P320860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877312	O-Phosphate-P	3.37	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P320776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875819	Acetochlor	7.35	Spike	P	0 - 30
1875819	Alachlor	4.17	Spike	P	0 - 30
1875819	Ametryn	1.55	Spike	P	0 - 30
1875819	Atrazine	6.45	Spike	P	0 - 30
1875819	Atrazine Desethyl	0.486	Spike	P	0 - 30
1875819	Azinphos Methyl	0.0873	Spike	P	0 - 30
1875819	Bromacil	3.43	Spike	P	0 - 30
1875819	Butylate	14.1	Spike	P	0 - 30
1875819	Chlorpyrifos Ethyl	4.68	Spike	P	0 - 30
1875819	Chlorpyrifos Methyl	5.90	Spike	P	0 - 30
1875819	Cyanazine	13.7	Spike	P	0 - 30
1875819	Demeton	11.0	Spike	P	0 - 30
1875819	Diazinon	6.08	Spike	P	0 - 30
1875819	Disulfoton	9.91	Spike	P	0 - 30
1875819	EPTC	9.91	Spike	P	0 - 30
1875819	Ethion	1.41	Spike	P	0 - 30
1875819	Ethoprop	2.83	Spike	P	0 - 30
1875819	Fenamiphos	23.5	Spike	P	0 - 30
1875819	Fipronil	7.06	Spike	P	0 - 30
1875819	Fipronil Sulfide	12.8	Spike	P	0 - 30
1875819	Fipronil Sulfone	17.2	Spike	P	0 - 30
1875819	Fonofos	0.456	Spike	P	0 - 30
1875819	Hexazinone	1.89	Spike	P	0 - 30
1875819	Malathion	1.58	Spike	P	0 - 30
1875819	Metalaxyl	0.574	Spike	P	0 - 30
1875819	Metolachlor	14.0	Spike	P	0 - 30
1875819	Metribuzin	7.08	Spike	P	0 - 30
1875819	Mevinphos	0.283	Spike	P	0 - 30
1875819	Molinate	8.07	Spike	P	0 - 30
1875819	Norflurazon	8.59	Spike	P	0 - 30
1875819	Parathion Ethyl	4.61	Spike	P	0 - 30
1875819	Parathion Methyl	3.76	Spike	P	0 - 30
1875819	Pendimethalin	5.82	Spike	P	0 - 30
1875819	Phorate	16.0	Spike	P	0 - 30
1875819	Prometon	2.80	Spike	P	0 - 30
1875819	Prometryn	6.38	Spike	P	0 - 30
1875819	Simazine	4.13	Spike	P	0 - 30
1875819	Terbufos	3.57	Spike	P	0 - 30
1875819	Terbutylazine	5.95	Spike	P	0 - 30
LFB	Acetochlor	1.21	LCS	P	0 - 30
LFB	Alachlor	3.96	LCS	P	0 - 30
LFB	Ametryn	16.2	LCS	P	0 - 30
LFB	Atrazine	6.32	LCS	P	0 - 30
LFB	Atrazine Desethyl	31.8	LCS	F	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P320776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Azinphos Methyl	0.804	LCS	P	0 - 30
LFB	Bromacil	21.5	LCS	P	0 - 30
LFB	Butylate	16.1	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	5.34	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.08	LCS	P	0 - 30
LFB	Cyanazine	30.7	LCS	F	0 - 30
LFB	Demeton	0.690	LCS	P	0 - 30
LFB	Diazinon	3.03	LCS	P	0 - 30
LFB	Disulfoton	1.55	LCS	P	0 - 30
LFB	EPTC	14.4	LCS	P	0 - 30
LFB	Ethion	6.94	LCS	P	0 - 30
LFB	Ethoprop	6.82	LCS	P	0 - 30
LFB	Fenamiphos	12.8	LCS	P	0 - 30
LFB	Fipronil	6.99	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.15	LCS	P	0 - 30
LFB	Fipronil Sulfone	1.97	LCS	P	0 - 30
LFB	Fonofos	5.18	LCS	P	0 - 30
LFB	Hexazinone	3.09	LCS	P	0 - 30
LFB	Malathion	2.52	LCS	P	0 - 30
LFB	Metalaxyl	7.53	LCS	P	0 - 30
LFB	Metolachlor	3.01	LCS	P	0 - 30
LFB	Metribuzin	35.3	LCS	F	0 - 30
LFB	Mevinphos	20.0	LCS	P	0 - 30
LFB	Molinate	2.22	LCS	P	0 - 30
LFB	Norflurazon	12.7	LCS	P	0 - 30
LFB	Parathion Ethyl	8.90	LCS	P	0 - 30
LFB	Parathion Methyl	5.68	LCS	P	0 - 30
LFB	Pendimethalin	6.25	LCS	P	0 - 30
LFB	Phorate	0.374	LCS	P	0 - 30
LFB	Prometon	14.6	LCS	P	0 - 30
LFB	Prometryn	11.5	LCS	P	0 - 30
LFB	Simazine	11.5	LCS	P	0 - 30
LFB	Terbufos	9.95	LCS	P	0 - 30
LFB	Terbutylazine	1.76	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P320640

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875816	Glyphosate	4.80	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P320728

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1875817	Pyraclostrobin	9.86	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P320822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877330	Sucralose	7.22	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P320877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877306	Color (true)	0.973	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P321422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1878119	Total Alkalinity	1.47	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P321771

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877304	TDS	1.44	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P321772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877316	TDS	1.98	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P321426

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1878119	Fluoride	0.476	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P320953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877214	Organic Carbon	0.985	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P320727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876081	2,4,5-T	7.03	Spike	P	0 - 30
1876081	2,4-D	8.93	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: USGS O-2060-01
Batch ID: P320727

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1876081	2,4-DB	16.6	Spike	P	0 - 30
1876081	Acetaminophen	7.75	Spike	P	0 - 30
1876081	Acifluorfen	21.3	Spike	P	0 - 30
1876081	Bentazon	6.44	Spike	P	0 - 30
1876081	Carbamazepine	20.2	Spike	P	0 - 30
1876081	Dichlorprop	16.7	Spike	P	0 - 30
1876081	Dinoseb	49.6	Spike	F	0 - 30
1876081	Diuron	6.39	Spike	P	0 - 30
1876081	Fenuron	16.4	Spike	P	0 - 30
1876081	Fluridone	5.67	Spike	P	0 - 30
1876081	Imidacloprid	8.61	Spike	P	0 - 30
1876081	Linuron	8.45	Spike	P	0 - 30
1876081	MCPA	7.91	Spike	P	0 - 30
1876081	MCPP	6.32	Spike	P	0 - 30
1876081	Picloram	1.26	Spike	P	0 - 30
1876081	Primidone	1.90	Spike	P	0 - 30
1876081	Silvex	18.1	Spike	P	0 - 30
1876081	Triclopyr	9.42	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P320919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1877342	Acetaminophen	0.0	Spike	P	0 - 30
1877342	Carbamazepine	13.3	Spike	P	0 - 30
1877342	Diuron	0.881	Spike	P	0 - 30
1877342	Fenuron	2.33	Spike	P	0 - 30
1877342	Fluridone	1.74	Spike	P	0 - 30
1877342	Imidacloprid	5.74	Spike	P	0 - 30
1877342	Linuron	22.4	Spike	P	0 - 30
1877342	Primidone	18.1	Spike	P	0 - 30

* 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: 1877342
Field Sample ID: G3SE0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	68.5	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	75.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	60.0	P	40 - 160
USGS O-2060-01	Diuron-d6	44.4	P	40 - 150
USGS O-2060-01	Primidone-d5	69.4	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1877343
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	58.6	P	50 - 150
EPA 8321B	Sucralose-d6	93.5	P	40 - 150
USGS O-2060-01	2,4-D-d3	104	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	60.0	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	64.0	P	40 - 160
USGS O-2060-01	Diuron-d6	52.6	P	40 - 150
USGS O-2060-01	Primidone-d5	71.8	P	40 - 150

Lab Sample ID: 1877344
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	77.6	P	40 - 150

Lab Sample ID: 1877350
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	83.8	P	41 - 134

Lab Sample ID: 1877351
Field Sample ID: 28010809

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	96.7	P	62 - 132
EPA 8270D	Simazine-d10	123	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A74855
Included Lab Sample IDs: 1877310, 1877311, 1877312, 1877315, 1877318, 1877321

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.3	99.4	P/P	90 - 110
O-Phosphate-P	98.4	98.4	P/P	90 - 110
O-Phosphate-P	99.4	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A74856
Included Lab Sample IDs: 1877304, 1877305, 1877306, 1877313, 1877316, 1877319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A74857

Included Lab Sample IDs: 1877304, 1877305, 1877306, 1877313, 1877316, 1877319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	95.3	94.5	P/P	85 - 115

Reference Method: SM 5310 B-00

Run ID: A74891

Included Lab Sample IDs: 1877307, 1877308, 1877309, 1877314, 1877317, 1877320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.4	100	P/P	90 - 110
Organic Carbon	99.5	99.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A74896

Included Lab Sample IDs: 1877343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	95.6	97.4	P/P	70 - 130

Reference Method: EPA 8321B

Run ID: A74898

Included Lab Sample IDs: 1877342, 1877343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	82.7	114	P/P	60 - 150

Reference Method: EPA 8321B

Run ID: A74928

Included Lab Sample IDs: 1877344

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	119	104	P/P	60 - 150

Reference Method: USGS O-2060-01

Run ID: A74928

Included Lab Sample IDs: 1877342

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	102	125	P/P	60 - 150
Carbamazepine	108	124	P/P	60 - 150
Diuron	114	122	P/P	60 - 150
Fenuron	107	115	P/P	60 - 150
Fluridone	104	108	P/P	60 - 150
Imidacloprid	86.8	100	P/P	60 - 150
Linuron	123	138	P/P	60 - 150
Primidone	116	116	P/P	60 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74948

Included Lab Sample IDs: 1877307, 1877308, 1877309, 1877314, 1877317, 1877320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.4	97.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A74948

Included Lab Sample IDs: 1877307, 1877308, 1877309, 1877314, 1877317, 1877320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.9	95.3	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A74966

Included Lab Sample IDs: 1877343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	96.0	96.2	P/P	50 - 150
2,4-D	128	125	P/P	50 - 150
2,4-DB	109	113	P/P	50 - 150
Acifluorfen	106	106	P/P	50 - 150
Bentazon	112	115	P/P	50 - 150
Dichlorprop	121	121	P/P	50 - 150
Dinoseb	134	135	P/P	50 - 150
MCPA	115	121	P/P	50 - 150
MCPP	122	129	P/P	50 - 150
Picloram	94.0	119	P/P	50 - 150
Silvex	88.8	84.4	P/P	50 - 150
Triclopyr	95.4	119	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74986

Included Lab Sample IDs: 1877307, 1877308

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74987

Included Lab Sample IDs: 1877309

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	98.2	P/P	90 - 110

Reference Method: USGS O-2060-01

Run ID: A74995

Included Lab Sample IDs: 1877343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	126	119	P/P	60 - 150
Carbamazepine	116	125	P/P	60 - 150
Diuron	136	125	P/P	60 - 150
Fenuron	118	122	P/P	60 - 150
Fluridone	115	112	P/P	60 - 150
Imidacloprid	98.4	107	P/P	60 - 150
Linuron	142	126	P/P	60 - 150
Primidone	94.0	82.8	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A74996

Included Lab Sample IDs: 1877307, 1877308, 1877314, 1877317, 1877320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	97.6	P/P	90 - 110
Total-P	98.2	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A74999

Included Lab Sample IDs: 1877309, 1877314, 1877317, 1877320

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A75018

Included Lab Sample IDs: 1877307, 1877308, 1877309, 1877314, 1877317, 1877320

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A75043

Included Lab Sample IDs: 1877351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	99.5		P	80 - 120
Alachlor	99.8		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine Desethyl	95.9		P	80 - 120
Azinphos Methyl	91.7		P	80 - 120
Bromacil	101		P	80 - 120
Butylate	97.1		P	80 - 120
Chlorpyrifos Ethyl	98.1		P	80 - 120
Chlorpyrifos Methyl	97.1		P	80 - 120
Cyanazine	94.6		P	80 - 120
Demeton	93.2		P	80 - 120
Diazinon	100		P	80 - 120
Disulfoton	93.1		P	80 - 120
EPTC	101		P	80 - 120
Ethion	95.4		P	80 - 120
Ethoprop	98.9		P	80 - 120
Fenamiphos	98.1		P	80 - 120
Fipronil	97.2		P	80 - 120
Fipronil Sulfide	98.3		P	80 - 120
Fipronil Sulfone	99.9		P	80 - 120
Fonofos	96.2		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	94.9		P	80 - 120
Metalaxyl	98.7		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	87.4		P	80 - 120
Mevinphos	102		P	80 - 120
Molinate	100		P	80 - 120
Norflurazon	98.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A75043

Included Lab Sample IDs: 1877351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Parathion Ethyl	94.0		P	80 - 120
Parathion Methyl	95.7		P	80 - 120
Pendimethalin	89.8		P	80 - 120
Phorate	97.3		P	80 - 120
Prometon	98.1		P	80 - 120
Prometryn	99.4		P	80 - 120
Simazine	98.9		P	80 - 120
Terbufos	94.3		P	80 - 120
Terbuthylazine	100		P	80 - 120

Reference Method: EPA 8270D

Run ID: A75049

Included Lab Sample IDs: 1877351

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	100		P	80 - 120

Reference Method: SM 2320 B-97

Run ID: A75050

Included Lab Sample IDs: 1877304, 1877305, 1877306, 1877313, 1877316, 1877319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	104	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A75050

Included Lab Sample IDs: 1877304, 1877305, 1877306, 1877313, 1877316, 1877319

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A75069

Included Lab Sample IDs: 1877345, 1877346, 1877347

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	102	P/P	90 - 110
Cadmium	98.5	99.2	P/P	90 - 110
Chromium	101	100	P/P	90 - 110
Copper	103	103	P/P	90 - 110
Lead	90.9	91.1	P/P	90 - 110
Nickel	103	104	P/P	90 - 110
Silver	94.1	94.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75083

Included Lab Sample IDs: 1877345, 1877346, 1877347

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	103	103	P/P	90 - 110
Iron	103	104	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A75083

Included Lab Sample IDs: 1877345, 1877346, 1877347

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Magnesium	103	104	P/P	90 - 110
Potassium	103	103	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Zinc	103	103	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A75123

Included Lab Sample IDs: 1877304, 1877305, 1877306, 1877313, 1877316, 1877319

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Chloride	103	104	P/P	90 - 110
Chloride	104	103	P/P	90 - 110
Sulfate	100	102	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110
Sulfate	102	100	P/P	90 - 110

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Run ID: A75226

Included Lab Sample IDs: 1877350

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	97.8	99.7	P/P	85 - 115
Alpha-BHC	99.6	102	P/P	85 - 115
Beta-BHC	94.7	96.4	P/P	85 - 115
Carbophenothion	95.7	99.2	P/P	90 - 110
Chlordane	111	100	P/P	85 - 115
Chlorothalonil	95.5	93.8	P/P	90 - 110
Cypermethrin	98.0	101	P/P	85 - 115
DDD-p,p'	94.2	94.4	P/P	85 - 115
DDE-p,p'	91.0	91.7	P/P	85 - 115
DDT-p,p'	97.7	99.7	P/P	85 - 115
Delta-BHC	99.8	102	P/P	85 - 115
Dicofol	117*	108	F/P	90 - 110
Dieldrin	91.3	93.1	P/P	85 - 115
Endosulfan I	92.6	94.6	P/P	85 - 115
Endosulfan II	94.0	95.1	P/P	85 - 115
Endosulfan Sulfate	97.9	100	P/P	85 - 115
Endrin	92.0	92.9	P/P	85 - 115
Endrin Aldehyde	97.2	98.1	P/P	85 - 115
Gamma-BHC	99.0	102	P/P	85 - 115
Heptachlor	93.5	98.9	P/P	85 - 115
Heptachlor Epoxide	92.0	94.3	P/P	85 - 115
Methoxychlor	98.4	101	P/P	90 - 110
Mirex	95.8	95.7	P/P	90 - 110
PCB-1016	98.2	98.1	P/P	85 - 115
PCB-1260	97.4	96.8	P/P	85 - 115
Permethrin	96.7	91.2	P/P	90 - 110
Toxaphene	94.3	104	P/P	85 - 115
Trifluralin	95.0	93.1	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
DEP SOP: GC-011-5 (based on EPA 608 and 617)	PCB-1016	122	119	126	133	128	2.27		5.94
	PCB-1260	112	111	100	109	105	0.0953		9.65
EPA 180.1 Rev. 2.0	Turbidity							4.88	
	Turbidity							4.15	
EPA 200.7 Rev. 4.4	Calcium	104		105	103				0.229
	Iron	105		107	109	107			1.96
	Magnesium	103		105	105				1.59
	Potassium	101		105	102				0.442
	Sodium	102		104	103				0.0256
	Zinc	101		101	101	100			0.253
EPA 200.8 Rev. 5.4	Arsenic	102		108	110	107			2.31
	Cadmium	101		104	103	106			3.42
	Chromium	101		101	104	102			1.33
	Copper	101		103	105	103			2.13
	Lead	92.4		95.1	97.2	94.9			2.43
	Nickel	103		103	104	103			1.11
	Silver	96.6		94.4	97.1	98.1			0.988
EPA 300.0 Rev. 2.1	Chloride	103		101	101			0.171	
	Chloride	104		100	104			1.24	
	Sulfate	100		99.9	98.7			0.430	
	Sulfate	102		92.9	101				
EPA 350.1 Rev. 2.0	Ammonia-N	102		101	100				0.642
	Ammonia-N	100		103	99.3				2.60
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		105	99.1				3.60
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	105		104	105				0.957
EPA 365.1 Rev. 2.0	Total-P	97.0		96.9	101				3.54
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9		94.1	95.8				1.51
	O-Phosphate-P	99.1		93.3	96.5				3.37
EPA 8270D	Acetochlor	92.4	93.6	106	98.3		1.21		7.35
	Alachlor	88.6	92.1	105	100		3.96		4.17
	Ametryn	126	107				16.2		1.55
	Atrazine	98.2	92.2				6.32		6.45
	Atrazine Desethyl	94.6	68.6	55.8	55.3		31.8		0.486
	Azinphos Methyl	90.1	89.4	95.8	95.9		0.804		0.0873
	Bromacil	96.6	77.9	65.4	62.8		21.5		3.43
	Butylate	54.3	63.8	64.9	54.1		16.1		14.1
	Chlorpyrifos Ethyl	99.7	94.5	70.4	66.2		5.34		4.68
	Chlorpyrifos Methyl	85.4	89.8	101	95.5		5.08		5.90
	Cyanazine	164	120	133	152		30.7		13.7
	Demeton	94.4	93.8	115	128		0.690		11.0
	Diazinon	100	97.3	114	108		3.03		6.08
	Disulfoton	86.8	85.5	104	94.5		1.55		9.91
	EPTC	56.4	65.2	73.5	66.6		14.4		9.91
	Ethion	107	99.6	108	106		6.94		1.41
	Ethoprop	91.9	85.9	108	105		6.82		2.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270D	Fenamiphos	126	111	113	144	12.8		23.5
	Fipronil	105	97.5	96.8	104	6.99		7.06
	Fipronil Sulfide	91.3	99.0	88.2	100	8.15		12.8
	Fipronil Sulfone	88.9	90.7	61.9	76.3	1.97		17.2
	Fonofos	82.1	86.5	102	103	5.18		0.456
	Hexazinone	104	101	102	99.4	3.09		1.89
	Malathion	96.2	98.7	110	108	2.52		1.58
	Metalaxyl	101	93.6			7.53		0.574
	Metolachlor	95.4	98.3			3.01		14.0
	Metribuzin	140	98.2	130	118	35.3		7.08
	Mevinphos	93.9	76.8	99.1	99.4	20.0		0.283
	Molinate	69.6	71.2	77.0	71.0	2.22		8.07
	Norflurazon	95.2	83.8	65.5	71.9	12.7		8.59
	Parathion Ethyl	83.4	91.2	77.4	81.1	8.90		4.61
	Parathion Methyl	79.6	84.2	72.2	75.0	5.68		3.76
	Pendimethalin	90.7	96.5	92.2	97.7	6.25		5.82
	Phorate	91.4	91.8	131	111	0.374		16.0
	Prometon	104	90.3	107	104	14.6		2.80
	Prometryn	108	96.1	108	101	11.5		6.38
	Simazine	118	105	95.1	90.6	11.5		4.13
	Terbufos	97.2	88.0	109	106	9.95		3.57
	Terbutylazine	99.9	98.2	99.8	94.0	1.76		5.95
EPA 8321B	Glyphosate	88.2		49.4	46.0			4.80
	Pyraclostrobin	86.0		70.9	60.9			9.86
	Sucralose	92.7		86.9	80.3			7.22
	Color (true)						0.973	
SM 2120 B	Total Alkalinity	103					1.47	
SM 2320 B-97	TDS						1.44	
SM 2540 C-97	TDS						1.98	
SM 4500 F-C-97	Fluoride	101		104	105			0.476
SM 5310 B-00	Organic Carbon	102		96.6	98.3			0.985
USGS O-2060-01	2,4,5-T	89.2		98.8	106			7.03
	2,4-D	98.0		113	134			8.93
	2,4-DB	70.4		66.4	78.4			16.6
	Acetaminophen	122		49.6	53.6			7.75
	Acetaminophen	119		61.2	61.2			0.0
	Acifluorfen	102		99.2	123			21.3
	Bentazon	103		203	222			6.44
	Carbamazepine	99.2		44.4	54.4			20.2
	Carbamazepine	122		49.3	56.5			13.3
	Dichlorprop	104		98.8	117			16.7
	Dinoseb	96.8		71.6	119			49.6
	Diuron	89.6		42.4	45.2			6.39
	Diuron	84.4		40.2	40.6			0.881
	Fenuron	96.0		40.4	47.6			16.4
	Fenuron	97.6		50.8	52.0			2.33
	Fluridone	90.8		52.1	55.3			5.67
	Fluridone	72.0		31.7	30.9			1.74
	Imidacloprid	80.4		75.6	82.4			8.61
	Imidacloprid	84.8		77.8	83.4			5.74
	Linuron	94.4		74.0	68.0			8.45
	Linuron	132		54.0	67.6			22.4
	MCPA	94.8		107	116			7.91
	MCPA	98.4		116	124			6.32

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
USGS O-2060-01	Picloram	111	64.0	63.2		1.26
	Primidone	77.6	42.4	41.6		1.90
	Primidone	112	60.4	72.4		18.1
	Silvex	86.0	115	138		18.1
	Triclopyr	98.4	101	111		9.42

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617) / E31780	Organochlorine pesticides (low levels) in water matrices by GC/ECD.	1877350
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1877345, 1877346, 1877347
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1877345, 1877346, 1877347
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1877310, 1877311, 1877312, 1877315, 1877318, 1877321
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1877351
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1877343
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1877344
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1877342, 1877343
SM 2120 B / E31780	True Color measured at 450 nm	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1877343
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1877342, 1877343

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617)	03/02/2017	03/02/2017	Rasheda Ghaffari	03/09/2017	Vandana T. Nagar	1877350
EPA 180.1 Rev. 2.0	03/02/2017			03/02/2017 15:50	Sima Feizi	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
EPA 200.7 Rev. 4.4	03/02/2017	03/09/2017	Elliott D. Healy	03/13/2017	Martin Acosta	1877345, 1877346, 1877347
EPA 200.8 Rev. 5.4	03/02/2017	03/09/2017	Elliott D. Healy	03/14/2017	Betina Topolski	1877345, 1877346, 1877347
EPA 300.0 Rev. 2.1	03/02/2017			03/16/2017	Elisa J Lutz	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
EPA 350.1 Rev. 2.0	03/02/2017			03/08/2017	Sofia Elnemr	1877307, 1877308
	03/02/2017			03/09/2017	Sofia Elnemr	1877309, 1877314, 1877317, 1877320
EPA 351.2 Rev. 2.0	03/02/2017	03/06/2017	Adrian Shelby	03/07/2017	Joseph Suarez	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
EPA 353.2 Rev. 2.0	03/02/2017			03/10/2017	Beverly Y. Sanders	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
EPA 365.1 Rev. 2.0	03/02/2017	03/07/2017	Adrian Shelby	03/08/2017	Lipi Saha	1877307, 1877308, 1877314, 1877317, 1877320
	03/02/2017	03/07/2017	Adrian Shelby	03/09/2017	Lipi Saha	1877309
EPA 365.1 Rev. 2.0 dissolved	03/02/2017			03/02/2017 14:36	Julia Storbeck	1877310
	03/02/2017			03/02/2017 14:44	Julia Storbeck	1877312
	03/02/2017			03/02/2017 15:25	Julia Storbeck	1877311
	03/02/2017			03/02/2017 15:26	Julia Storbeck	1877315
	03/02/2017			03/02/2017 15:27	Julia Storbeck	1877318, 1877321
EPA 8270D	03/02/2017	03/02/2017	Fe-Val Siddell	03/07/2017	Marek Topolski	1877351
	03/02/2017	03/02/2017	Fe-Val Siddell	03/09/2017	Marek Topolski	1877351
EPA 8321B	03/02/2017	03/03/2017	Mohammad Ghaffari	03/03/2017	Mohammad Ghaffari	1877343
	03/02/2017	03/06/2017	Hoor Shaik	03/06/2017	Juyoung Kim	1877344
SM 2120 B	03/02/2017			03/02/2017 17:35	Julie Michelle Frank	1877304
	03/02/2017			03/02/2017 17:36	Julie Michelle Frank	1877305
	03/02/2017			03/02/2017 17:37	Julie Michelle Frank	1877306
	03/02/2017			03/02/2017 17:38	Julie Michelle Frank	1877313
	03/02/2017			03/02/2017 17:39	Julie Michelle Frank	1877316
	03/02/2017			03/02/2017 17:40	Julie Michelle Frank	1877319
SM 2320 B-97	03/02/2017			03/11/2017	Dale L. Simmons	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 2540 C-97	03/02/2017			03/07/2017	Sima Feizi	1877304, 1877305, 1877306, 1877313, 1877316, 1877319
SM 2540 D-97	03/02/2017			03/06/2017	Sima Feizi	1877304
	03/02/2017			03/07/2017	Sima Feizi	1877305, 1877306, 1877313, 1877316, 1877319
SM 4500 F-C-97	03/02/2017			03/11/2017	Dale L. Simmons	1877304, 1877305, 1877306, 1877313, 1877316, 1877319

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	03/02/2017			03/03/2017	Julie Michelle Frank	1877307, 1877308, 1877309, 1877314, 1877317, 1877320
USGS O-2060-01	03/02/2017	03/03/2017	Hoor Shaik	03/04/2017	Juyoung Kim	1877343
	03/02/2017	03/03/2017	Hoor Shaik	03/05/2017	Juyoung Kim	1877343
	03/02/2017	03/06/2017	Hoor Shaik	03/07/2017	Juyoung Kim	1877342