

Chemical Analysis Report

SE-DIST-2016-02-11-02

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

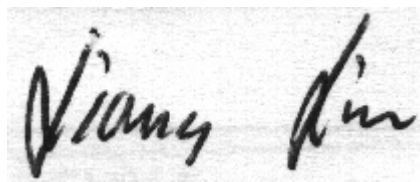
Event Description: **SMP_Blue**
Request ID: **RQ-2016-02-08-61**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs

For additional information please contact
Timothy W. Fitzpatrick
Liang-Tsair Lin, Ph.D.
Colin Wright, Ph.D.
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 07-MAR-2016 17:09

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored 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 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: NORTH NEW RIVER CANAL (NNR-3 SF CANAL STUDY/122 BROWARD) 3277C **Collection Date/Time: 02/10/2016 10:30**

Field ID: G4SENNR3_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770513	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P298474	
	EPA 300.0 Rev. 2.1	Chloride	68		mg Cl/L	P298712	
		Sulfate	5.3		mg SO4/L	P298714	
	SM 2120 B	Color (true)	51		PCU	P298470	
	SM 2320 B-97	Total Alkalinity	220		mg CaCO3/L	P298809	
	SM 2540 C-97	TDS	365		mg/L	P299075	
	SM 2540 D-97	TSS	2	U	mg/L	P298899	
	SM 4500 F-C-97	Fluoride	0.27		mg F/L	P298799	
1770516	EPA 350.1 Rev. 2.0	Ammonia-N	0.45		mg N/L	P299117	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P298763	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P298840	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P298643	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P298681	
1770519	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298457	
1770675	EPA 200.7 Rev. 4.4	Calcium	73.8		mg/L	P298582	
		Iron	150		ug/L	P298582	
		Magnesium	11.5		mg/L	P298582	
		Potassium	3.6		mg/L	P298582	
		Sodium	45.3		mg/L	P298582	
		Zinc	5.0	U	ug/L	P298582	
	EPA 200.8 Rev. 5.4	Arsenic	0.77		ug/L	P298582	
		Cadmium	0.020	U	ug/L	P298582	
		Chromium	0.16	I	ug/L	P298582	
		Copper	0.45		ug/L	P298582	
		Lead	0.12	I	ug/L	P298582	
		Nickel	0.16	I	ug/L	P298582	
		Silver	0.013	I	ug/L	P298582	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recovery data for one of two spiked samples is unavailable due to high analyte concentration in the QC sample.

Sample Location: SUNNY ISLES WEST @ ICW 3226H1

Collection Date/Time: 02/10/2016 12:00

Field ID: 42009053_

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770522	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P298474	
	EPA 300.0 Rev. 2.1	Sulfate	850		mg SO4/L	P298714	
	SM 2320 B-97	Total Alkalinity	173		mg CaCO3/L	P298808	
	SM 2540 C-97	TDS	1.13E+04		mg/L	P299075	
	SM 2540 D-97	TSS	3	U	mg/L	P298906	
	SM 4500 F-C-97	Fluoride	0.58		mg F/L	P298957	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.11		mg N/L	P299124	

Field ID: 42009053_

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770525	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.72		mg N/L	P298649	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.25		mg N/L	P298588	
	EPA 365.1 Rev. 2.0	Total-P	0.009	I	mg P/L	P298639	
	SM 5310 B-00	Organic Carbon	8.3		mg C/L	P298949	
1770528	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298460	
1770678	EPA 200.7 Rev. 4.4	Iron	55	I	ug/L	P298723	
		Zinc	5.0	U	ug/L	P298723	
	EPA 200.8 Rev. 5.4	Arsenic	1.3	I	ug/L	P298723	
		Cadmium	0.25	U	ug/L	P298723	
		Chromium	1.5	U	ug/L	P298723	
		Copper	2.5	U	ug/L	P298723	
		Lead	1.0	U	ug/L	P298723	
		Nickel	1.2	U	ug/L	P298723	
		Silver	0.12	U	ug/L	P298723	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The sample required dilution due to matrix interference.

Sample Location: C-10 CANAL @ STIRLING RD DANI 3282

Collection Date/Time: 02/10/2016 13:30

Field ID: 28030569_

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770523	EPA 180.1 Rev. 2.0	Turbidity	0.80		NTU	P298474	
	EPA 300.0 Rev. 2.1	Sulfate	600		mg SO4/L	P298714	
	SM 2320 B-97	Total Alkalinity	194		mg CaCO3/L	P298808	
	SM 2540 C-97	TDS	7.40E+03		mg/L	P299075	
	SM 2540 D-97	TSS	3	U	mg/L	P298906	
	SM 4500 F-C-97	Fluoride	0.43		mg F/L	P298957	
1770526	EPA 350.1 Rev. 2.0	Ammonia-N	0.18		mg N/L	P299124	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P298649	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.42		mg N/L	P298588	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P298639	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P298949	
1770529	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P298460	
1770679	EPA 200.7 Rev. 4.4	Iron	150	U	ug/L	P298723	
		Zinc	25	U	ug/L	P298723	
	EPA 200.8 Rev. 5.4	Arsenic	1.9	I	ug/L	P298723	
		Cadmium	0.25	U	ug/L	P298723	
		Chromium	1.5	U	ug/L	P298723	
		Copper	2.5	U	ug/L	P298723	
		Lead	1.0	U	ug/L	P298723	
		Nickel	1.2	U	ug/L	P298723	
		Silver	0.12	U	ug/L	P298723	

Field ID: 28030569_

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
Ref. Method and Comment:							
SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 14200 umhos/cm.							
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.							
EPA 200.8 Rev. 5.4: The sample required dilution due to matrix interference.							

Sample Location: NEW RIVER (NORTH FORK) (64 BROWARD) 3276A Collection Date/Time: 02/10/2016 14:00

Field ID: G4SEB064_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770524	EPA 180.1 Rev. 2.0	Turbidity	1.7	A	NTU	P298475	
	EPA 300.0 Rev. 2.1	Sulfate	13		mg SO4/L	P298714	
	SM 2320 B-97	Total Alkalinity	182		mg CaCO3/L	P298809	
	SM 2540 C-97	TDS	299		mg/L	P299075	
	SM 2540 D-97	TSS	4	I	mg/L	P298899	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P298799	
1770527	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P299118	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P298764	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P298840	
	EPA 365.1 Rev. 2.0	Total-P	0.057		mg P/L	P298783	
	SM 5310 B-00	Organic Carbon	6.7		mg C/L	P298681	
1770530	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P298457	
1770680	EPA 200.7 Rev. 4.4	Iron	180		ug/L	P298582	
		Zinc	5.4	I	ug/L	P298582	
	EPA 200.8 Rev. 5.4	Arsenic	1.73		ug/L	P298582	
		Cadmium	0.020	U	ug/L	P298582	
		Chromium	0.43		ug/L	P298582	
		Copper	1.57		ug/L	P298582	
		Lead	0.70		ug/L	P298582	
		Nickel	0.51		ug/L	P298582	
		Silver	0.014	I	ug/L	P298582	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: N FRK NEW-R-NW47 AV FT. LAUD 3276 Collection Date/Time: 02/10/2016 14:30

Field ID: 28030526_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770514	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P298474	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P298712	
		Sulfate	6.9		mg SO4/L	P298714	
	SM 2120 B	Color (true)	27		PCU	P298470	
	SM 2320 B-97	Total Alkalinity	141		mg CaCO3/L	P298809	
	SM 2540 C-97	TDS	203	A	mg/L	P299075	
	SM 2540 D-97	TSS	2	I	mg/L	P298899	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P298799	
1770517	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P299118	

Field ID: 28030526_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770517	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P298763	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P298840	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P298643	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P298681	
1770520	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298457	
1770676	EPA 200.7 Rev. 4.4	Calcium	57.3		mg/L	P298582	
		Iron	31	I	ug/L	P298582	
		Magnesium	2.61		mg/L	P298582	
		Potassium	1.2		mg/L	P298582	
		Sodium	16.6		mg/L	P298582	
		Zinc	5.0	U	ug/L	P298582	
	EPA 200.8 Rev. 5.4	Arsenic	0.99		ug/L	P298582	
		Cadmium	0.020	U	ug/L	P298582	
		Chromium	0.20		ug/L	P298582	
		Copper	1.92		ug/L	P298582	
		Lead	0.067	I	ug/L	P298582	
		Nickel	0.34		ug/L	P298582	
		Silver	0.0077	I	ug/L	P298582	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recovery data for one of two spiked samples is unavailable due to high analyte concentration in the QC sample.

Sample Location: N FORK NEW RIVER @ 441 3276

Collection Date/Time: 02/10/2016 14:55

Field ID: 42009012_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770515	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P298474	
	EPA 300.0 Rev. 2.1	Chloride	26		mg Cl/L	P298712	
		Sulfate	6.0		mg SO4/L	P298714	
		Color (true)	25	A	PCU	P298470	
	SM 2320 B-97	Total Alkalinity	129	A	mg CaCO3/L	P298809	
	SM 2540 C-97	TDS	186		mg/L	P299075	
	SM 2540 D-97	TSS	2	U	mg/L	P298899	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P298799	
1770518	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P299118	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P298763	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P298840	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P298643	
	SM 5310 B-00	Organic Carbon	7.1		mg C/L	P298681	
1770521	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P298457	
1770677	EPA 200.7 Rev. 4.4	Calcium	51.0		mg/L	P298582	
		Iron	30	U	ug/L	P298582	
		Magnesium	3.00		mg/L	P298582	
		Potassium	1.2		mg/L	P298582	
		Sodium	17.1		mg/L	P298582	

Field ID: 42009012_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770677	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P298582	
	EPA 200.8 Rev. 5.4	Arsenic	0.84		ug/L	P298582	
		Cadmium	0.020	U	ug/L	P298582	
		Chromium	0.19	I	ug/L	P298582	
		Copper	1.89		ug/L	P298582	
		Lead	0.081	I	ug/L	P298582	
		Nickel	0.37		ug/L	P298582	
		Silver	0.0050	U	ug/L	P298582	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 200.7 Rev. 4.4: The calcium matrix spike recovery data for one of two spiked samples is unavailable due to high analyte concentration in the QC sample.

Sample Location: NORTH NEW RIVER CANAL (NNR-3 SF CANAL STUDY/122 BROWARD) 3277C Collection Date/Time: 02/10/2016 10:30

Field ID: G4SENNR3_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770665	DEP SOP: LC-001-2 (based on EPA 8321B)	Glyphosate**	10	U	ug/L	P298583	
	DEP SOP: LC-001-2 (based on USGS O-2060-01)	2,4-D	0.032		ug/L	P298437	
		Diuron	0.0078	I	ug/L	P298437	
		Fenuron	0.0080	U	ug/L	P298437	
		2,4,5-T	0.0020	U	ug/L	P298437	
		Acifluorfen	0.0020	U	ug/L	P298437	MS, RPD
		Imidacloprid	0.023		ug/L	P298437	
		Bentazon	0.035		ug/L	P298437	
		Linuron	0.0040	U	ug/L	P298437	
		Acetaminophen**	0.0040	U	ug/L	P298437	
		Carbamazepine**	4.0E-04	U	ug/L	P298437	
		Silvex	0.0020	U	ug/L	P298437	
		Primidone**	0.0080	U	ug/L	P298437	
		Fluridone**	0.0058		ug/L	P298437	
1770681	EPA 8270D	Dieldrin**	0.40	U	ng/L	P298504	
1770682		Ametryn**	0.32	UJ	ng/L	P298612	MS
		Atrazine**	65		ng/L	P298612	
		Chlorpyrifos Ethyl**	0.10	U	ng/L	P298612	
		Chlorpyrifos Methyl**	0.10	U	ng/L	P298612	
		Disulfoton**	0.32	U	ng/L	P298612	
		Ethion**	0.15	U	ng/L	P298612	
		Ethoprop**	0.10	U	ng/L	P298612	
		Hexazinone**	3.3		ng/L	P298612	
		Malathion**	0.35	U	ng/L	P298612	
		Metribuzin**	0.20	U	ng/L	P298612	
		Mevinphos**	0.50	U	ng/L	P298612	
		Norflurazon**	0.50	UJ	ng/L	P298612	MS
		Phorate**	0.25	U	ng/L	P298612	

Field ID: G4SENNR3_

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1770682	EPA 8270D	Prometryn**	0.20	UJ	ng/L	P298612	MS
		Simazine**	0.50	UJ	ng/L	P298612	CCV, MS
		Atrazine Desethyl**	2.4	I	ng/L	P298612	
		Prometon**	0.90	U	ng/L	P298612	
		Fipronil**	0.25	UJ	ng/L	P298612	MS
		Molinate**	0.30	U	ng/L	P298612	
		Pendimethalin**	0.25	U	ng/L	P298612	
		Terbufos**	0.10	U	ng/L	P298612	
		EPTC**	1.2	U	ng/L	P298612	
		Terbuthylazine**	0.42	U	ng/L	P298612	
		Bromacil**	0.50	U	ng/L	P298612	
		Fipronil Sulfide**	0.15	UJ	ng/L	P298612	MS
		Fipronil Sulfone**	0.22	IJ	ng/L	P298612	MS
		Alachlor**	0.25	U	ng/L	P298612	
		Azinphos Methyl**	2.2	U	ng/L	P298612	
		Butylate**	0.40	U	ng/L	P298612	
		Demeton**	1.0	U	ng/L	P298612	
		Diazinon**	0.12	U	ng/L	P298612	
		Fenamiphos**	0.25	U	ng/L	P298612	
		Fonofos**	0.20	U	ng/L	P298612	
		Metalaxyl**	0.20	U	ng/L	P298612	
		Metolachlor**	0.25	U	ng/L	P298612	
		Acetochlor**	0.25	U	ng/L	P298612	
		Cyanazine**	0.50	UJ	ng/L	P298612	LCS
		Parathion Ethyl**	0.25	U	ng/L	P298612	
		Parathion Methyl**	0.25	U	ng/L	P298612	

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on USGS O-2060-01): Triclopyr = 0.014 l ug/L. Results confirmed in re-extraction.

DEP SOP: LC-001-2 (based on USGS O-2060-01): Results confirmed in re-extraction.

EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the spiked sample. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Batch ID: P298583

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)

Batch ID: P298437

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0040	U	ug/L
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)

Batch ID: P298437

Component	Result	Code	Units
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0020	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
Silvex	0.0020	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P298474

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P298475

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P298582

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 200.7 Rev. 4.4

Batch ID: P298723

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

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P298582

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.050	U	ug/L
Silver	0.0050	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298723

Component	Result	Code	Units
Arsenic	0.25	U	ug/L
Cadmium	0.050	U	ug/L
Chromium	0.30	U	ug/L
Copper	0.50	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.25	U	ug/L
Silver	0.025	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298712

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298714

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299117

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299118

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299124

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298649

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298763

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298764

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298588

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298840

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298639

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298643

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298783

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298457

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298460

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

Reference Method: EPA 8270D
Batch ID: P298504

Component	Result	Code	Units
Dieldrin	0.40	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P298612

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	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
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	0.25	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: SM 2120 B
Batch ID: P298470

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P298808

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P298809

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

Reference Method: SM 2540 C-97
Batch ID: P299075

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P298899

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P298906

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P298799

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P298957

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P298681

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

Reference Method: SM 5310 B-00
Batch ID: P298949

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P298583

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
-----------	---------	---------	-----------	----------------

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P298583

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	103		P	40 - 140

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
Batch ID: P298437

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	78.8		P	40 - 140
2,4-D	90.0		P	40 - 140
Acetaminophen	68.4		P	40 - 140
Acifluorfen	67.6		P	40 - 140
Bentazon	86.4		P	40 - 140
Carbamazepine	103		P	40 - 140
Diuron	80.8		P	40 - 140
Fenuron	85.2		P	40 - 140
Fluridone	84.0		P	40 - 140
Imidacloprid	70.4		P	40 - 160
Linuron	76.0		P	40 - 140
Primidone	110		P	40 - 140
Silvex	88.4		P	40 - 140

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298582

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	109		P	85 - 115
Iron	105		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	106		P	85 - 115
Sodium	105		P	85 - 115
Zinc	98.5		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	111		P	85 - 115
Zinc	108		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298582

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	95.9		P	85 - 115
Cadmium	97.0		P	85 - 115
Chromium	101		P	85 - 115
Copper	92.4		P	85 - 115
Lead	92.0		P	85 - 115
Nickel	94.6		P	85 - 115
Silver	95.8		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298723

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	97.9		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	94.0		P	85 - 115
Copper	91.8		P	85 - 115
Lead	94.9		P	85 - 115
Nickel	89.3		P	85 - 115
Silver	97.7		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298712

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298714

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299117

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299118

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299124

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298649

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298763

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298764

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298588

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298840

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298639

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298643

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298783

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298457

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298460

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

Reference Method: EPA 8270D
Batch ID: P298504

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dieldrin	93.3	95.9	P/P	79 - 121

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P298612

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	99.3	94.7	P/P	84 - 119
Alachlor	98.2	93.6	P/P	84 - 121
Ametryn	121	116	P/P	66 - 127
Atrazine	103	93.1	P/P	72 - 119
Atrazine Desethyl	60.0	60.3	P/P	21 - 111
Azinphos Methyl	128	130	P/P	79 - 185
Bromacil	87.6	84.4	P/P	39 - 122
Butylate	76.7	62.2	P/P	36 - 94.0
Chlorpyrifos Ethyl	92.4	88.3	P/P	54 - 101
Chlorpyrifos Methyl	90.1	88.8	P/P	28 - 114
Cyanazine	218	261	F/F	58 - 201
Demeton	69.5	63.2	P/P	57 - 130
Diazinon	96.9	94.5	P/P	79 - 124
Disulfoton	90.1	90.0	P/P	45 - 140
EPTC	73.2	62.1	P/P	43 - 95.0
Ethion	86.7	79.9	P/P	65 - 125
Ethoprop	84.5	80.2	P/P	69 - 107
Fenamiphos	105	97.3	P/P	78 - 129
Fipronil	88.2	83.7	P/P	62 - 125
Fipronil Sulfide	81.2	74.7	P/P	65 - 119
Fipronil Sulfone	85.9	78.4	P/P	64 - 122
Fonofos	85.4	77.0	P/P	70 - 112
Hexazinone	107	107	P/P	44 - 147
Malathion	95.7	92.9	P/P	72 - 125
Metaxyl	94.1	88.5	P/P	83 - 113
Metolachlor	98.9	94.8	P/P	85 - 120
Metribuzin	98.9	96.1	P/P	68 - 129
Mevinphos	79.3	73.9	P/P	35 - 125
Molinate	79.5	65.9	P/P	51 - 100
Norflurazon	84.5	78.5	P/P	66 - 127
Parathion Ethyl	96.5	91.0	P/P	86 - 108
Parathion Methyl	95.4	90.9	P/P	87 - 125
Pendimethalin	80.7	77.4	P/P	53 - 136
Phorate	88.6	77.9	P/P	52 - 113
Prometon	112	105	P/P	67 - 125
Prometryn	107	104	P/P	73 - 114
Simazine	108	108	P/P	66 - 123
Terbufos	82.0	78.4	P/P	58 - 116
Terbutylazine	96.2	94.3	P/P	77 - 113

Reference Method: SM 2320 B-97
Batch ID: P298808

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	95 - 105

Reference Method: SM 2320 B-97
Batch ID: P298809

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	104		P	95 - 105

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P298799

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.5		P	94 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P298957

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P298681

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.7		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P298949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P298583

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770665	Glyphosate	77.4	73.2	P/P	40 - 140

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
Batch ID: P298437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770303	2,4,5-T	84.4	82.4	P/P	40 - 140
1770303	2,4-D	102	97.2	P/P	40 - 140
1770303	Acetaminophen	61.2	58.0	P/P	40 - 140
1770303	Acifluorfen	70.4	37.8	P/F	40 - 140
1770303	Bentazon	92.4	82.4	P/P	40 - 140
1770303	Carbamazepine	119	108	P/P	40 - 140
1770303	Diuron	68.0	68.8	P/P	40 - 140
1770303	Fenuron	84.8	81.6	P/P	40 - 140
1770303	Fluridone	89.2	83.2	P/P	40 - 140
1770303	Imidacloprid	89.2	91.2	P/P	40 - 160
1770303	Linuron	77.6	69.2	P/P	40 - 140
1770303	Primidone	94.4	90.0	P/P	40 - 140
1770303	Silvex	97.2	97.2	P/P	40 - 140

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
---------------	-----------	---------	---------	-----------	----------------

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770451	Calcium	105		P	80 - 120
1770451	Iron	107	108	P/P	80 - 120
1770451	Magnesium	103		P	80 - 120
1770451	Potassium	105	106	P/P	80 - 120
1770451	Sodium	105		P	80 - 120
1770451	Zinc	97.3	96.6	P/P	80 - 120
1770509	Iron	104		P	80 - 120
1770509	Magnesium	107		P	80 - 120
1770509	Potassium	109		P	80 - 120
1770509	Sodium	104		P	80 - 120
1770509	Zinc	100		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770678	Iron	103	102	P/P	70 - 130
1770678	Zinc	111	113	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770451	Arsenic	97.6	98.8	P/P	80 - 120
1770451	Cadmium	98.7	100	P/P	80 - 120
1770451	Chromium	100	100	P/P	80 - 120
1770451	Copper	90.4	90.9	P/P	80 - 120
1770451	Lead	92.1	92.5	P/P	80 - 120
1770451	Nickel	93.5	93.4	P/P	80 - 120
1770451	Silver	96.9	97.1	P/P	80 - 120
1770509	Arsenic	99.3		P	80 - 120
1770509	Cadmium	102		P	80 - 120
1770509	Chromium	101		P	80 - 120
1770509	Copper	90.3		P	80 - 120
1770509	Lead	93.9		P	80 - 120
1770509	Nickel	94.0		P	80 - 120
1770509	Silver	97.5		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298723

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770678	Arsenic	97.8	96.8	P/P	70 - 130
1770678	Cadmium	92.9	88.2	P/P	70 - 130
1770678	Chromium	90.2	90.1	P/P	70 - 130
1770678	Copper	92.4	95.3	P/P	70 - 130
1770678	Lead	96.6	98.0	P/P	70 - 130
1770678	Nickel	89.4	95.0	P/P	70 - 130
1770678	Silver	86.9	87.0	P/P	70 - 130

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770565	Chloride	103		P	90 - 110
1770567	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298714

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770565	Sulfate	96.4		P	90 - 110
1770567	Sulfate	95.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299118

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770574	Ammonia-N	95.0	94.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299124

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770897	Ammonia-N	94.8	96.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298649

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770206	Kjeldahl Nitrogen	104	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298763

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770466	Kjeldahl Nitrogen	101	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298764

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770527	Kjeldahl Nitrogen	106	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770525	NO2NO3-N	94.5	93.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298840

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770518	NO2NO3-N	108	108	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298639

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770206	Total-P	102	95.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770467	Total-P	98.2	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298783

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770527	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298457

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770502	O-Phosphate-P	99.6	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770547	O-Phosphate-P	102	103	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P298504

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770715	Dieldrin	100		P	79 - 121
1770761	Dieldrin	96.9	95.2	P/P	79 - 121

Reference Method: EPA 8270D
Batch ID: P298612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770682	Acetochlor	98.8	104	P/P	84 - 119
1770682	Alachlor	103	102	P/P	84 - 121
1770682	Ametryn	129	133	F/F	66 - 127
1770682	Atrazine Desethyl	47.9	35.1	P/P	21 - 111
1770682	Azinphos Methyl	94.0	81.1	P/P	79 - 185
1770682	Bromacil	81.6	72.7	P/P	39 - 122
1770682	Butylate	47.7	52.6	P/P	36 - 94.0
1770682	Chlorpyrifos Ethyl	89.5	91.9	P/P	54 - 101
1770682	Chlorpyrifos Methyl	80.2	85.8	P/P	28 - 114
1770682	Cyanazine	97.3	93.2	P/P	58 - 201
1770682	Demeton	63.6	64.4	P/P	57 - 130
1770682	Diazinon	98.5	102	P/P	79 - 124
1770682	Disulfoton	85.5	83.7	P/P	45 - 140
1770682	EPTC	48.1	46.9	P/P	43 - 95.0
1770682	Ethion	91.4	96.5	P/P	65 - 125

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P298612

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770682	Ethoprop	75.6	75.8	P/P	69 - 107
1770682	Fenamiphos	86.0	85.0	P/P	78 - 129
1770682	Fipronil	75.8	61.8	P/F	62 - 125
1770682	Fipronil Sulfide	58.6	44.4	F/F	65 - 119
1770682	Fipronil Sulfone	47.2	34.4	F/F	64 - 122
1770682	Fonofos	82.2	78.5	P/P	70 - 112
1770682	Hexazinone	98.3	75.0	P/P	44 - 147
1770682	Malathion	97.2	98.0	P/P	72 - 125
1770682	Metalaxyl	88.0	93.0	P/P	83 - 113
1770682	Metolachlor	104	104	P/P	85 - 120
1770682	Metribuzin	95.4	87.2	P/P	68 - 129
1770682	Mevinphos	62.1	68.9	P/P	35 - 125
1770682	Molinate	58.7	64.7	P/P	51 - 100
1770682	Norflurazon	71.6	57.0	P/F	66 - 127
1770682	Parathion Ethyl	101	97.1	P/P	86 - 108
1770682	Parathion Methyl	95.7	98.3	P/P	87 - 125
1770682	Pendimethalin	88.7	101	P/P	53 - 136
1770682	Phorate	75.7	84.3	P/P	52 - 113
1770682	Prometon	102	117	P/P	67 - 125
1770682	Prometryn	109	115	P/F	73 - 114
1770682	Simazine	133	120	F/P	66 - 123
1770682	Terbufos	77.0	81.5	P/P	58 - 116
1770682	Terbutylazine	87.8	90.1	P/P	77 - 113

Reference Method: SM 4500 F-C-97
Batch ID: P298799

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770515	Fluoride	98.2	99.5	P/P	94 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P298957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771810	Fluoride	97.7	100	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P298681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1770465	Organic Carbon	94.5	95.0	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P298949

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1771900	Organic Carbon	93.5	92.3	P/P	85 - 115

Quality Assurance Report Precision

Quality Assurance Report Precision

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P298583

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770665	Glyphosate	5.58	Spike	P	0 - 30

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
Batch ID: P298437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770303	2,4,5-T	2.40	Spike	P	0 - 30
1770303	2,4-D	4.82	Spike	P	0 - 30
1770303	Acetaminophen	5.37	Spike	P	0 - 30
1770303	Acifluorfen	60.4	Spike	F	0 - 30
1770303	Bentazon	11.4	Spike	P	0 - 30
1770303	Carbamazepine	9.49	Spike	P	0 - 30
1770303	Diuron	1.17	Spike	P	0 - 30
1770303	Fenuron	3.85	Spike	P	0 - 30
1770303	Fluridone	6.96	Spike	P	0 - 30
1770303	Imidacloprid	2.22	Spike	P	0 - 30
1770303	Linuron	11.4	Spike	P	0 - 30
1770303	Primidone	4.77	Spike	P	0 - 30
1770303	Silvex	0.0	Spike	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P298474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770464	Turbidity	0.816	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P298475

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770524	Turbidity	5.99	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770451	Calcium	1.59	Spike	P	0 - 20
1770451	Iron	0.351	Spike	P	0 - 20
1770451	Magnesium	1.02	Spike	P	0 - 20
1770451	Potassium	0.672	Spike	P	0 - 20
1770451	Sodium	0.464	Spike	P	0 - 20
1770451	Zinc	0.805	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P298723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770678	Iron	1.80	Spike	P	0 - 20
1770678	Zinc	1.62	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770451	Arsenic	1.20	Spike	P	0 - 20
1770451	Cadmium	1.62	Spike	P	0 - 20
1770451	Chromium	0.187	Spike	P	0 - 20
1770451	Copper	0.453	Spike	P	0 - 20
1770451	Lead	0.441	Spike	P	0 - 20
1770451	Nickel	0.161	Spike	P	0 - 20
1770451	Silver	0.266	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P298723

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770678	Arsenic	0.898	Spike	P	0 - 20
1770678	Cadmium	5.18	Spike	P	0 - 20
1770678	Chromium	0.120	Spike	P	0 - 20
1770678	Copper	3.10	Spike	P	0 - 20
1770678	Lead	1.47	Spike	P	0 - 20
1770678	Nickel	6.06	Spike	P	0 - 20
1770678	Silver	0.0972	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770565	Chloride	0.110	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P298714

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770565	Sulfate	0.254	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770468	Ammonia-N	0.0441	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770574	Ammonia-N	0.429	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P299124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770897	Ammonia-N	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298649

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770206	Kjeldahl Nitrogen	1.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298763

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770466	Kjeldahl Nitrogen	2.52	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P298764

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770527	Kjeldahl Nitrogen	2.06	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770525	NO2NO3-N	0.454	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P298840

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770518	NO2NO3-N	0.462	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298639

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770206	Total-P	5.77	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770467	Total-P	3.98	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P298783

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770527	Total-P	2.17	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770502	O-Phosphate-P	1.30	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P298460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770547	O-Phosphate-P	0.783	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P298504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770761	Dieldrin	1.76	Spike	P	0 - 30
LFB	Dieldrin	2.81	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P298612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770682	Acetochlor	4.81	Spike	P	0 - 30
1770682	Alachlor	1.49	Spike	P	0 - 30
1770682	Ametryn	2.82	Spike	P	0 - 30
1770682	Atrazine	5.17	Spike	P	0 - 30
1770682	Atrazine Desethyl	24.0	Spike	P	0 - 30
1770682	Azinphos Methyl	14.8	Spike	P	0 - 30
1770682	Bromacil	11.5	Spike	P	0 - 30
1770682	Butylate	9.79	Spike	P	0 - 30
1770682	Chlorpyrifos Ethyl	2.63	Spike	P	0 - 30
1770682	Chlorpyrifos Methyl	6.80	Spike	P	0 - 30
1770682	Cyanazine	4.29	Spike	P	0 - 30
1770682	Demeton	1.25	Spike	P	0 - 30
1770682	Diazinon	3.19	Spike	P	0 - 30
1770682	Disulfoton	2.08	Spike	P	0 - 30
1770682	EPTC	2.68	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P298612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770682	Ethion	5.42	Spike	P	0 - 30
1770682	Ethoprop	0.196	Spike	P	0 - 30
1770682	Fenamiphos	1.18	Spike	P	0 - 30
1770682	Fipronil	20.3	Spike	P	0 - 30
1770682	Fipronil Sulfide	27.5	Spike	P	0 - 30
1770682	Fipronil Sulfone	28.4	Spike	P	0 - 30
1770682	Fonofos	4.61	Spike	P	0 - 30
1770682	Hexazinone	21.4	Spike	P	0 - 30
1770682	Malathion	0.772	Spike	P	0 - 30
1770682	Metalaxyl	5.54	Spike	P	0 - 30
1770682	Metolachlor	0.115	Spike	P	0 - 30
1770682	Metribuzin	8.96	Spike	P	0 - 30
1770682	Mevinphos	10.4	Spike	P	0 - 30
1770682	Molinate	9.74	Spike	P	0 - 30
1770682	Norflurazon	22.7	Spike	P	0 - 30
1770682	Parathion Ethyl	3.53	Spike	P	0 - 30
1770682	Parathion Methyl	2.70	Spike	P	0 - 30
1770682	Pendimethalin	13.0	Spike	P	0 - 30
1770682	Phorate	10.7	Spike	P	0 - 30
1770682	Prometon	13.9	Spike	P	0 - 30
1770682	Prometryn	5.22	Spike	P	0 - 30
1770682	Simazine	9.75	Spike	P	0 - 30
1770682	Terbufos	5.66	Spike	P	0 - 30
1770682	Terbuthylazine	2.61	Spike	P	0 - 30
LFB	Acetochlor	4.79	LCS	P	0 - 30
LFB	Alachlor	4.80	LCS	P	0 - 30
LFB	Ametryn	4.06	LCS	P	0 - 30
LFB	Atrazine	9.95	LCS	P	0 - 30
LFB	Atrazine Desethyl	0.406	LCS	P	0 - 30
LFB	Azinphos Methyl	1.33	LCS	P	0 - 30
LFB	Bromacil	3.70	LCS	P	0 - 30
LFB	Butylate	20.9	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	4.55	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.49	LCS	P	0 - 30
LFB	Cyanazine	17.6	LCS	P	0 - 30
LFB	Demeton	9.41	LCS	P	0 - 30
LFB	Diazinon	2.48	LCS	P	0 - 30
LFB	Disulfoton	0.189	LCS	P	0 - 30
LFB	EPTC	16.5	LCS	P	0 - 30
LFB	Ethion	8.19	LCS	P	0 - 30
LFB	Ethoprop	5.26	LCS	P	0 - 30
LFB	Fenamiphos	7.78	LCS	P	0 - 30
LFB	Fipronil	5.30	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.34	LCS	P	0 - 30
LFB	Fipronil Sulfone	9.08	LCS	P	0 - 30
LFB	Fonofos	10.4	LCS	P	0 - 30
LFB	Hexazinone	0.0193	LCS	P	0 - 30
LFB	Malathion	2.99	LCS	P	0 - 30
LFB	Metalaxyl	6.10	LCS	P	0 - 30
LFB	Metolachlor	4.25	LCS	P	0 - 30
LFB	Metribuzin	2.85	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P298612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mevinphos	7.06	LCS	P	0 - 30
LFB	Molinate	18.8	LCS	P	0 - 30
LFB	Norflurazon	7.35	LCS	P	0 - 30
LFB	Parathion Ethyl	5.88	LCS	P	0 - 30
LFB	Parathion Methyl	4.87	LCS	P	0 - 30
LFB	Pendimethalin	4.19	LCS	P	0 - 30
LFB	Phorate	12.9	LCS	P	0 - 30
LFB	Prometon	5.64	LCS	P	0 - 30
LFB	Prometryn	2.54	LCS	P	0 - 30
LFB	Simazine	0.360	LCS	P	0 - 30
LFB	Terbufos	4.49	LCS	P	0 - 30
LFB	Terbutylazine	2.01	LCS	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P298470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770515	Color (true)	1.84	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P298808

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770204	Total Alkalinity	0.452	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P298809

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770515	Total Alkalinity	0.440	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P299075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770514	TDS	1.97	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P298799

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770515	Fluoride	0.986	Spike	P	0 - 3.7

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P298957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771810	Fluoride	0.987	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P298681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1770465	Organic Carbon	0.361	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P298949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1771900	Organic Carbon	1.15	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: 1770665
Field Sample ID: G4SENNR3_

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Glyphosate 13C 15N	71.2	P	50 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	2,4-D-d3	73.4	P	40 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Acetaminophen-d4	34.2	P	30 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Carbamazepine-d10	70.2	P	40 - 160
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Diuron-d6	61.6	P	40 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Primidone-d5	85.2	P	40 - 150

Lab Sample ID: 1770681
Field Sample ID: G4SENNR3_

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	87.8	P	58 - 128
EPA 8270D	Tetrachloro-m-xylene	67.7	P	51 - 93.0

Lab Sample ID: 1770682
Field Sample ID: G4SENNR3_

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	95.7	P	67 - 131
EPA 8270D	Simazine-d10	90.3	P	75 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A67573

Included Lab Sample IDs: 1770519, 1770520, 1770521, 1770528, 1770529, 1770530

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	99.3	P/P	90 - 110
O-Phosphate-P	99.3	99.3	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A67575

Included Lab Sample IDs: 1770513, 1770514, 1770515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.7	98.6	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A67576

Included Lab Sample IDs: 1770513, 1770514, 1770515, 1770522, 1770523, 1770524

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A67606

Included Lab Sample IDs: 1770525, 1770526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	96.0	P/P	90 - 110

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)

Run ID: A67609

Included Lab Sample IDs: 1770665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	84.8	96.4	P/P	60 - 150
Carbamazepine	95.2	96.8	P/P	60 - 150
Diuron	80.0	98.8	P/P	60 - 150
Fenuron	92.0	96.8	P/P	60 - 150
Fluridone	77.2	86.0	P/P	60 - 150
Imidacloprid	91.6	84.0	P/P	60 - 150
Linuron	93.2	116	P/P	60 - 150
Primidone	101	73.2	P/P	60 - 150

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)

Run ID: A67624

Included Lab Sample IDs: 1770665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	89.8	90.0	P/P	70 - 130

Reference Method: SM 5310 B-00

Run ID: A67629

Included Lab Sample IDs: 1770516, 1770517, 1770518, 1770527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
-----------	---------	---------	------------	----------------

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A67629

Included Lab Sample IDs: 1770516, 1770517, 1770518, 1770527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	93.4	94.2	P/P	90 - 110
Organic Carbon	94.2	94.4	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67638

Included Lab Sample IDs: 1770513, 1770514, 1770515

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.5	P/P	90 - 110
Sulfate	97.9	94.2	P/P	90 - 110

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)

Run ID: A67643

Included Lab Sample IDs: 1770665

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	91.2	88.4	P/P	50 - 150
2,4-D	95.4	101	P/P	50 - 150
Acifluorfen	112	103	P/P	50 - 150
Bentazon	95.0	98.0	P/P	50 - 150
Silvex	107	108	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A67645

Included Lab Sample IDs: 1770516, 1770517, 1770518, 1770525, 1770526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	98.2	P/P	90 - 110
Total-P	98.5	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67651

Included Lab Sample IDs: 1770525, 1770526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.7	95.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A67660

Included Lab Sample IDs: 1770513, 1770514, 1770515, 1770524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.0	99.5	P/P	90 - 110
Fluoride	99.5	98.5	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A67665

Included Lab Sample IDs: 1770513, 1770514, 1770515, 1770522, 1770523, 1770524

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A67665

Included Lab Sample IDs: 1770513, 1770514, 1770515, 1770522, 1770523, 1770524

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	100	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A67667

Included Lab Sample IDs: 1770681

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Dieldrin	98.7		P	80 - 120

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A67672

Included Lab Sample IDs: 1770516, 1770517, 1770518, 1770527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A67679

Included Lab Sample IDs: 1770516, 1770517, 1770518, 1770527

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67685

Included Lab Sample IDs: 1770675, 1770676, 1770677, 1770680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Calcium	102	100	P/P	90 - 110
Iron	99.0	97.9	P/P	90 - 110
Iron	99.7	99.0	P/P	90 - 110
Magnesium	101	99.2	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	101	100	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	101	98.3	P/P	90 - 110
Sodium	99.6	101	P/P	90 - 110
Zinc	101	102	P/P	90 - 110
Zinc	102	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A67686

Included Lab Sample IDs: 1770527

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

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A67710

Included Lab Sample IDs: 1770525, 1770526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	95.0	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A67712

Included Lab Sample IDs: 1770522, 1770523

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A67725

Included Lab Sample IDs: 1770675, 1770676, 1770677, 1770680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	100	98.6	P/P	90 - 110
Arsenic	98.6	100	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Cadmium	102	101	P/P	90 - 110
Chromium	104	103	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Copper	97.2	98.1	P/P	90 - 110
Copper	99.2	97.2	P/P	90 - 110
Lead	96.5	96.6	P/P	90 - 110
Lead	97.6	96.5	P/P	90 - 110
Silver	96.7	97.3	P/P	90 - 110
Silver	98.1	96.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A67751

Included Lab Sample IDs: 1770676

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	95.5	94.1	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A67770

Included Lab Sample IDs: 1770516, 1770517, 1770518, 1770525, 1770526, 1770527

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.5	98.2	P/P	90 - 110
Ammonia-N	98.9	99.6	P/P	90 - 110
Ammonia-N	99.6	99.8	P/P	90 - 110
Ammonia-N	99.8	99.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A67780

Included Lab Sample IDs: 1770675, 1770677, 1770680

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	96.1	96.3	P/P	90 - 110
Nickel	98.0	96.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A67816

Included Lab Sample IDs: 1770678, 1770679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	102	104	P/P	90 - 110
Iron	104	103	P/P	90 - 110
Zinc	106	107	P/P	90 - 110
Zinc	107	108	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A67894

Included Lab Sample IDs: 1770682

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	105		P	80 - 120
Alachlor	102		P	80 - 120
Ametryn	109		P	80 - 120
Atrazine Desethyl	108		P	80 - 120
Azinphos Methyl	97.3		P	80 - 120
Bromacil	106		P	80 - 120
Butylate	98.5		P	80 - 120
Chlorpyrifos Ethyl	94.8		P	80 - 120
Chlorpyrifos Methyl	93.9		P	80 - 120
Cyanazine	100		P	80 - 120
Demeton	91.9		P	80 - 120
Diazinon	95.7		P	80 - 120
Disulfoton	89.0		P	80 - 120
EPTC	101		P	80 - 120
Ethion	95.8		P	80 - 120
Ethoprop	102		P	80 - 120
Fenamiphos	98.7		P	80 - 120
Fipronil	108		P	80 - 120
Fipronil Sulfide	100		P	80 - 120
Fipronil Sulfone	99.7		P	80 - 120
Fonofos	95.8		P	80 - 120
Hexazinone	97.7		P	80 - 120
Malathion	94.8		P	80 - 120
Metaxyl	101		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	102		P	80 - 120
Mevinphos	94.9		P	80 - 120
Molinate	102		P	80 - 120
Norflurazon	103		P	80 - 120
Parathion Ethyl	105		P	80 - 120
Parathion Methyl	108		P	80 - 120
Pendimethalin	99.0		P	80 - 120
Phorate	96.6		P	80 - 120
Prometon	115		P	80 - 120
Prometryn	104		P	80 - 120
Simazine	127*		F	80 - 120
Terbufos	93.9		P	80 - 120
Terbuthylazine	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A67896
Included Lab Sample IDs: 1770682

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Atrazine	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A67934
Included Lab Sample IDs: 1770678, 1770679

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	104	99.5	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	101	95.7	P/P	90 - 110
Copper	106	94.9	P/P	90 - 110
Lead	103	101	P/P	90 - 110
Nickel	105	95.8	P/P	90 - 110
Silver	98.4	95.1	P/P	90 - 110

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

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
DEP SOP: LC-001-2 (based on EPA 8321B)	Glyphosate	103	77.4 73.2			5.58
DEP SOP: LC-001-2 (based on USGS O-2060-01)	2,4,5-T	78.8	84.4 82.4			2.40
	2,4-D	90.0	102 97.2			4.82
	Acetaminophen	68.4	61.2 58.0			5.37
	Acifluorfen	67.6	70.4 37.8			60.4
	Bentazon	86.4	92.4 82.4			11.4
	Carbamazepine	103	119 108			9.49
	Diuron	80.8	68.0 68.8			1.17
	Fenuron	85.2	84.8 81.6			3.85
	Fluridone	84.0	89.2 83.2			6.96
	Imidacloprid	70.4	89.2 91.2			2.22
	Linuron	76.0	77.6 69.2			11.4
	Primidone	110	94.4 90.0			4.77
	Silvex	88.4	97.2 97.2			0.0
EPA 180.1 Rev. 2.0	Turbidity				0.816	
	Turbidity				5.99	
EPA 200.7 Rev. 4.4	Calcium	109	105			1.59
	Iron	105	107 108 104			0.351
	Iron	111	103 102			1.80
	Magnesium	107	103 107			1.02
	Potassium	106	105 106 109			0.672
	Sodium	105	105 104			0.464
	Zinc	98.5	97.3 96.6 100			0.805
	Zinc	108	111 113			1.62
EPA 200.8 Rev. 5.4	Arsenic	95.9	97.6 98.8 99.3			1.20

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 200.8 Rev. 5.4	Arsenic	97.9		97.8	96.8			0.898
	Cadmium	97.0		98.7	100	102		1.62
	Cadmium	102		92.9	88.2			5.18
	Chromium	101		100	100	101		0.187
	Chromium	94.0		90.2	90.1			0.120
	Copper	92.4		90.4	90.9	90.3		0.453
	Copper	91.8		92.4	95.3			3.10
	Lead	92.0		92.1	92.5	93.9		0.441
	Lead	94.9		96.6	98.0			1.47
	Nickel	94.6		93.5	93.4	94.0		0.161
	Nickel	89.3		89.4	95.0			6.06
	Silver	95.8		96.9	97.1	97.5		0.266
	Silver	97.7		86.9	87.0			0.0972
EPA 300.0 Rev. 2.1	Chloride	103		103	102		0.110	
	Sulfate	97.3		96.4	95.6		0.254	
EPA 350.1 Rev. 2.0	Ammonia-N	94.6						0.0441
	Ammonia-N	95.2		95.0	94.6			0.429
	Ammonia-N	96.1		94.8	96.6			1.66
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.9		104	107			1.60
	Kjeldahl Nitrogen	100		101	105			2.52
	Kjeldahl Nitrogen	95.2		106	103			2.06
EPA 353.2 Rev. 2.0	NO2NO3-N	95.5		94.5	93.5			0.454
	NO2NO3-N	104		108	108			0.462
EPA 365.1 Rev. 2.0	Total-P	104		102	95.9			5.77
	Total-P	102		98.2	102			3.98
	Total-P	101		104	102			2.17
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		99.6	101			1.30
	O-Phosphate-P	102		102	103			0.783
EPA 8270D	Acetochlor	99.3	94.7	98.8	104	4.79		4.81
	Alachlor	98.2	93.6	103	102	4.80		1.49
	Ametryn	121	116	129	133	4.06		2.82
	Atrazine	103	93.1			9.95		5.17
	Atrazine Desethyl	60.0	60.3	47.9	35.1	0.406		24.0
	Azinphos Methyl	128	130	94.0	81.1	1.33		14.8
	Bromacil	87.6	84.4	81.6	72.7	3.70		11.5
	Butylate	76.7	62.2	47.7	52.6	20.9		9.79
	Chlorpyrifos Ethyl	92.4	88.3	89.5	91.9	4.55		2.63
	Chlorpyrifos Methyl	90.1	88.8	80.2	85.8	1.49		6.80
	Cyanazine	218	261	97.3	93.2	17.6		4.29
	Demeton	69.5	63.2	63.6	64.4	9.41		1.25
	Diazinon	96.9	94.5	98.5	102	2.48		3.19
	Dieldrin	93.3	95.9	96.9	95.2	100	2.81	1.76
	Disulfoton	90.1	90.0	85.5	83.7	0.189		2.08
	EPTC	73.2	62.1	48.1	46.9	16.5		2.68
	Ethion	86.7	79.9	91.4	96.5	8.19		5.42
	Ethoprop	84.5	80.2	75.6	75.8	5.26		0.196
	Fenamiphos	105	97.3	86.0	85.0	7.78		1.18
	Fipronil	88.2	83.7	75.8	61.8	5.30		20.3
	Fipronil Sulfide	81.2	74.7	58.6	44.4	8.34		27.5
	Fipronil Sulfone	85.9	78.4	47.2	34.4	9.08		28.4
	Fonofos	85.4	77.0	82.2	78.5	10.4		4.61
	Hexazinone	107	107	98.3	75.0	0.0193		21.4
	Malathion	95.7	92.9	97.2	98.0	2.99		0.772
	Metalaxyl	94.1	88.5	88.0	93.0	6.10		5.54

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8270D	Metolachlor	98.9	94.8	104	104	4.25	0.115
	Metribuzin	98.9	96.1	95.4	87.2	2.85	8.96
	Mevinphos	79.3	73.9	62.1	68.9	7.06	10.4
	Molinate	79.5	65.9	58.7	64.7	18.8	9.74
	Norflurazon	84.5	78.5	71.6	57.0	7.35	22.7
	Parathion Ethyl	96.5	91.0	101	97.1	5.88	3.53
	Parathion Methyl	95.4	90.9	95.7	98.3	4.87	2.70
	Pendimethalin	80.7	77.4	88.7	101	4.19	13.0
	Phorate	88.6	77.9	75.7	84.3	12.9	10.7
	Prometon	112	105	102	117	5.64	13.9
	Prometryn	107	104	109	115	2.54	5.22
	Simazine	108	108	133	120	0.360	9.75
	Terbufos	82.0	78.4	77.0	81.5	4.49	5.66
	Terbutylazine	96.2	94.3	87.8	90.1	2.01	2.61
SM 2120 B	Color (true)						1.84
SM 2320 B-97	Total Alkalinity	100					0.452
	Total Alkalinity	104					0.440
SM 2540 C-97	TDS						1.97
SM 4500 F-C-97	Fluoride	97.5		98.2	99.5		0.986
	Fluoride	97.9		97.7	100		0.987
SM 5310 B-00	Organic Carbon	93.7		94.5	95.0		0.361
	Organic Carbon	95.3		93.5	92.3		1.15

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B) / E31780	Glyphosate in water matrices by HPLC/MS/MS	1770665
DEP SOP: LC-001-2 (based on USGS O-2060-01) / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1770665
DEP SOP: LC-001-2 (based on USGS O-2060-01) / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1770665
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1770675, 1770676, 1770677, 1770678, 1770679, 1770680
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1770675, 1770676, 1770677, 1770678, 1770679, 1770680
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1770513, 1770514, 1770515
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1770516, 1770517, 1770518, 1770525, 1770526, 1770527
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1770516, 1770517, 1770518, 1770525, 1770526, 1770527
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1770516, 1770517, 1770518, 1770525, 1770526, 1770527
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1770516, 1770517, 1770518, 1770525, 1770526, 1770527
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1770519, 1770520, 1770521, 1770528, 1770529, 1770530
EPA 8270D / E31780	Organochlorine pesticides (ultra low level) in water matrices by GC/MS/MS	1770681

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1770682
SM 2120 B / E31780	True Color measured at 450 nm	1770513, 1770514, 1770515
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1770516, 1770517, 1770518, 1770525, 1770526, 1770527

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: LC-001-2 (based on EPA 8321B)	02/11/2016	02/16/2016	Mohammad Ghaffari	02/16/2016	Mohammad Ghaffari	1770665
DEP SOP: LC-001-2 (based on USGS O-2060-01)	02/11/2016	02/15/2016	Hoor Shaik	02/15/2016	Juyoung Kim	1770665
	02/11/2016	02/15/2016	Hoor Shaik	02/17/2016	Juyoung Kim	1770665
EPA 180.1 Rev. 2.0	02/11/2016			02/11/2016 13:28	Sima Feizi	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
EPA 200.7 Rev. 4.4	02/11/2016	02/15/2016	Elliott D. Healy	02/18/2016	Joshua Ayres	1770675, 1770676, 1770677, 1770680
	02/11/2016	02/17/2016	Elliott D. Healy	02/23/2016	Joshua Ayres	1770678, 1770679
EPA 200.8 Rev. 5.4	02/11/2016	02/15/2016	Elliott D. Healy	02/19/2016	Charles J. Peterson	1770675, 1770676, 1770677, 1770680
	02/11/2016	02/15/2016	Elliott D. Healy	02/23/2016	Charles J. Peterson	1770676
	02/11/2016	02/15/2016	Elliott D. Healy	02/24/2016	Charles J. Peterson	1770675, 1770677, 1770680
	02/11/2016	02/17/2016	Elliott D. Healy	03/01/2016	Robert K Palmer	1770678, 1770679
EPA 300.0 Rev. 2.1	02/11/2016			02/16/2016	Ping Hua	1770513, 1770514, 1770515
EPA 350.1 Rev. 2.0	02/11/2016			02/23/2016	Diana M. Turner	1770516, 1770517, 1770518, 1770525, 1770526, 1770527
EPA 351.2 Rev. 2.0	02/11/2016	02/16/2016	Sofia Elnemr	02/17/2016	Bryan A. Werth	1770525, 1770526
	02/11/2016	02/17/2016	Sofia Elnemr	02/18/2016	Bryan A. Werth	1770516, 1770517, 1770518, 1770527
EPA 353.2 Rev. 2.0	02/11/2016			02/15/2016	Diana M. Turner	1770525, 1770526
	02/11/2016			02/18/2016	Peter D. Kaus	1770516, 1770517, 1770518, 1770527
EPA 365.1 Rev. 2.0	02/11/2016	02/16/2016	Christopher Armour	02/17/2016	Lipi Saha	1770516, 1770517, 1770518, 1770525, 1770526
	02/11/2016	02/18/2016	Christopher Armour	02/18/2016	Lipi Saha	1770527
EPA 365.1 Rev. 2.0 dissolved	02/11/2016			02/11/2016 13:07	Julia Storbeck	1770528
	02/11/2016			02/11/2016 13:08	Julia Storbeck	1770529
	02/11/2016			02/11/2016 13:09	Julia Storbeck	1770519
	02/11/2016			02/11/2016 13:18	Julia Storbeck	1770520
	02/11/2016			02/11/2016 13:19	Julia Storbeck	1770521
	02/11/2016			02/11/2016 13:20	Julia Storbeck	1770530
EPA 8270D	02/11/2016	02/12/2016	Rasheda Ghaffari	02/16/2016	Vandana T. Nagar	1770681
	02/11/2016	02/16/2016	John Kaba	02/19/2016	Irina Carbone	1770682
	02/11/2016	02/16/2016	John Kaba	02/25/2016	Irina Carbone	1770682
SM 2120 B	02/11/2016			02/11/2016 14:22	Rochelle Y Jackson	1770513
	02/11/2016			02/11/2016 14:23	Rochelle Y Jackson	1770514
	02/11/2016			02/11/2016 14:25	Rochelle Y Jackson	1770515
SM 2320 B-97	02/11/2016			02/15/2016	Dale L. Simmons	1770522, 1770523
	02/11/2016			02/16/2016	Dale L. Simmons	1770513, 1770514, 1770515, 1770524
SM 2540 C-97	02/11/2016			02/15/2016	Sima Feizi	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
SM 2540 D-97	02/11/2016			02/15/2016	Sima Feizi	1770513, 1770514, 1770515, 1770522, 1770523, 1770524
SM 4500 F-C-97	02/11/2016			02/15/2016	Dale L. Simmons	1770513, 1770514, 1770515, 1770524

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	02/11/2016			02/19/2016	Dale L. Simmons	1770522, 1770523
SM 5310 B-00	02/11/2016			02/16/2016	Sofia Elnemr	1770516, 1770517, 1770518, 1770527
	02/11/2016			02/20/2016	Diana M. Turner	1770525, 1770526