

Chemical Analysis Report

SE-DIST-2016-03-02-01

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

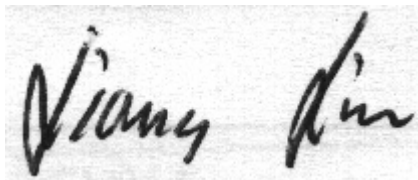
Event Description: **SMP_2016 Green week of 2/29_plus blank**
Request ID: **RQ-2016-02-29-21**
Customer: **SE-DIST**
Project ID: **SMP**

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

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 25-MAR-2016 11:03

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: Popash Slough @ SR 70

Collection Date/Time: 03/01/2016 10:45

Field ID: 26010447_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775857	EPA 180.1 Rev. 2.0	Turbidity	0.95		NTU	P299612	
	EPA 300.0 Rev. 2.1	Chloride	74		mg Cl/L	P299736	
		Sulfate	13		mg SO4/L	P299739	
	SM 2120 B	Color (true)	350		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	42		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	255		mg/L	P300119	
	SM 2540 D-97	TSS	2	I	mg/L	P299999	
	SM 4500 F-C-97	Fluoride	0.090	I	mg F/L	P300257	
1775859	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P300067	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P299864	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.018		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.38		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	33		mg C/L	P299931	
1775861	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.32		mg P/L	P299607	
1775915	EPA 200.7 Rev. 4.4	Calcium	18.4		mg/L	P299847	
		Iron	690		ug/L	P299847	
		Magnesium	7.52		mg/L	P299847	
		Potassium	7.5		mg/L	P299847	
		Sodium	40.0		mg/L	P299847	
		Zinc	5.0	U	ug/L	P299847	
	EPA 200.8 Rev. 5.4	Arsenic	0.86	I	ug/L	P299847	
		Cadmium	0.020	U	ug/L	P299847	
		Chromium	0.61		ug/L	P299847	
		Copper	0.48		ug/L	P299847	
		Lead	0.29		ug/L	P299847	
		Nickel	0.32		ug/L	P299847	
		Silver	0.0050	U	ug/L	P299847	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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 sodium matrix spike recovery data for one of two spiked samples is unavailable due to high analyte concentration in the QC sample.

Sample Location: Henry Creek @ CR 710

Collection Date/Time: 03/01/2016 14:10

Field ID: 26010402_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775858	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P299612	
	EPA 300.0 Rev. 2.1	Chloride	130		mg Cl/L	P299736	
		Sulfate	26		mg SO4/L	P299739	
	SM 2120 B	Color (true)	360		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	49		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	394		mg/L	P300377	
	SM 2540 D-97	TSS	3	I	mg/L	P300024	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P300257	

Field ID: 26010402_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775860	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P299864	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.42		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	37		mg C/L	P299931	
1775862	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.34		mg P/L	P299607	
1775916	EPA 200.7 Rev. 4.4	Calcium	28.2		mg/L	P299847	
		Iron	1.02E+03		ug/L	P299847	
		Magnesium	10.5		mg/L	P299847	
		Potassium	5.6		mg/L	P299847	
		Sodium	72.5		mg/L	P299847	
		Zinc	8.3	I	ug/L	P299847	
	EPA 200.8 Rev. 5.4	Arsenic	1.17		ug/L	P299847	
		Cadmium	0.020	U	ug/L	P299847	
		Chromium	1.36		ug/L	P299847	
		Copper	0.74		ug/L	P299847	
		Lead	0.30		ug/L	P299847	
		Nickel	0.52		ug/L	P299847	
		Silver	0.0057	I	ug/L	P299847	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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 sodium matrix spike recovery data for one of two spiked samples is unavailable due to high analyte concentration in the QC sample.

Sample Location: Mosquito Creek @ CR 710

Collection Date/Time: 03/01/2016 12:00

Field ID: 26010408_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775863	EPA 180.1 Rev. 2.0	Turbidity	1.7	A	NTU	P299613	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P299736	
		Sulfate	49		mg SO4/L	P299739	
	SM 2120 B	Color (true)	190	A	PCU	P299601	
	SM 2320 B-97	Total Alkalinity	85		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	398		mg/L	P300119	
	SM 2540 D-97	TSS	2	I	mg/L	P299999	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P300257	
1775869	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P299864	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.26		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.31		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	30		mg C/L	P299931	
1775875	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.26		mg P/L	P299607	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

Sample Location: L63 @ SE 59th blvd

Collection Date/Time: 03/01/2016 12:30

Field ID: 26013015_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775864	EPA 180.1 Rev. 2.0	Turbidity	2.3		NTU	P299613	
	EPA 300.0 Rev. 2.1	Chloride	69		mg Cl/L	P299736	
		Sulfate	28		mg SO4/L	P299739	
		Color (true)	230		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	78		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	277		mg/L	P300119	
	SM 2540 D-97	TSS	2	I	mg/L	P299999	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P300257	
1775870	EPA 350.1 Rev. 2.0	Ammonia-N	0.094		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P299865	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.46		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	27		mg C/L	P299931	
1775876	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.38		mg P/L	P299607	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: site n Ivobbin Slough

Collection Date/Time: 03/01/2016 13:40

Field ID: G1SE 0004_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775865	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P299613	
	EPA 300.0 Rev. 2.1	Chloride	41	A	mg Cl/L	P299736	
		Sulfate	14	A	mg SO4/L	P299739	
		Color (true)	320		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	37		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	198		mg/L	P300119	
	SM 2540 D-97	TSS	5	I	mg/L	P299999	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P300257	
1775871	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.9		mg N/L	P299865	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.35		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	34		mg C/L	P299931	
1775877	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.30		mg P/L	P299607	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Lettval Creek @ CR 710

Collection Date/Time: 03/01/2016 14:30

Field ID: 26010410_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775866	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P299613	

Field ID: 26010410_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775866	EPA 300.0 Rev. 2.1	Chloride	41		mg Cl/L	P299736	
		Sulfate	11		mg SO4/L	P299739	
	SM 2120 B	Color (true)	400		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	44		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	197		mg/L	P300119	
	SM 2540 D-97	TSS	2	I	mg/L	P299999	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P300257	
1775872	EPA 350.1 Rev. 2.0	Ammonia-N	0.098		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P299865	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.33		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	36		mg C/L	P299931	
1775878	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.27		mg P/L	P299607	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: S-153 basin @ 710

Collection Date/Time: 03/01/2016 15:00

Field ID: 26010492_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775867	EPA 180.1 Rev. 2.0	Turbidity	10		NTU	P299613	
	EPA 300.0 Rev. 2.1	Chloride	160		mg Cl/L	P299736	
		Sulfate	44		mg SO4/L	P299739	
	SM 2120 B	Color (true)	270		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	81		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	436		mg/L	P300119	
	SM 2540 D-97	TSS	17		mg/L	P299999	
1775873	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P300257	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.26		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.3		mg N/L	P299865	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.035		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.63		mg P/L	P299928	
1775879	SM 5310 B-00	Organic Carbon	30		mg C/L	P299915	
		O-Phosphate-P	0.48		mg P/L	P299607	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

SM 2540 C-97: The reported result is consistent with the laboratory conductivity, 760 umhos/cm.

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

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Martin County Hwy

Collection Date/Time: 03/01/2016 15:30

Field ID: GSSE0036_Blank

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775881	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P299613	

Field ID: GSSE0036_Blank

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775881	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P299736	
		Sulfate	0.20	U	mg SO4/L	P299739	
	SM 2120 B	Color (true)	2.5	U	PCU	P299601	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	15	U	mg/L	P300118	
	SM 2540 D-97	TSS	2	U	mg/L	P299998	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P300257	
1775882	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P299865	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P300139	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P299915	
1775883	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P299607	
1775917	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P299847	
		Iron	30	U	ug/L	P299847	
		Magnesium	0.040	U	mg/L	P299847	
		Potassium	0.30	U	mg/L	P299847	
		Sodium	0.50	U	mg/L	P299847	
		Zinc	5.0	U	ug/L	P299847	
	EPA 200.8 Rev. 5.4	Arsenic	0.25	U	ug/L	P299847	
		Cadmium	0.020	U	ug/L	P299847	
		Chromium	0.050	U	ug/L	P299847	
		Copper	0.10	U	ug/L	P299847	
		Lead	0.050	U	ug/L	P299847	
		Nickel	0.050	U	ug/L	P299847	
		Silver	0.0050	U	ug/L	P299847	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

EPA 351.2 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 sodium matrix spike recovery data for one of two spiked samples is unavailable due to high analyte concentration in the QC sample.

Sample Location: Martin Hwy Canal

Collection Date/Time: 03/01/2016 15:45

Field ID: G5SE0036_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775868	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P299613	
	EPA 300.0 Rev. 2.1	Chloride	47		mg Cl/L	P299736	
		Sulfate	13		mg SO4/L	P299739	
		Color (true)	320		PCU	P299601	
	SM 2320 B-97	Total Alkalinity	81		mg CaCO3/L	P300124	
	SM 2540 C-97	TDS	249		mg/L	P300119	
	SM 2540 D-97	TSS	2	I	mg/L	P299999	
	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P300257	
1775874	EPA 350.1 Rev. 2.0	Ammonia-N	0.056		mg N/L	P300152	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P299865	

Field ID: G5SE0036_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775874	EPA 353.2 Rev. 2.0	NO2NO3-N	0.076		mg N/L	P299800	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P299928	
	SM 5310 B-00	Organic Carbon	36		mg C/L	P299915	
1775880	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.35		mg P/L	P299607	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Chloride: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

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

EPA 351.2 Rev. 2.0: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Martin Hwy Canal

Collection Date/Time: 03/01/2016 15:45

Field ID: G5SE0036_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775913	DEP SOP: LC-001-2 (based on EPA 8321B)	Glyphosate**	10	U	ug/L	P299737	
	DEP SOP: LC-001-2 (based on USGS O-2060-01)	2,4-D	0.0066	I	ug/L	P299754	MS
		Diuron	0.0020	UJ	ug/L	P299754	SUR
		Fenuron	0.0080	UJ	ug/L	P299754	SUR
		2,4,5-T	0.0020	U	ug/L	P299754	
		Acifluorfen	0.0020	U	ug/L	P299754	
		Imidacloprid	0.0040	UJ	ug/L	P299754	SUR
		Bentazon	0.026		ug/L	P299754	
		Linuron	0.0040	UJ	ug/L	P299754	SUR
		Acetaminophen**	0.0040	U	ug/L	P299754	
		Carbamazepine**	4.0E-04	U	ug/L	P299754	
		Silvex	0.0020	U	ug/L	P299754	MS
		Primidone**	0.0080	U	ug/L	P299754	
		Fluridone**	4.0E-04	UJ	ug/L	P299754	SUR
1775914	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P299752	
1775918	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0019	U	ug/L	P299778	
		Alpha-BHC	0.0019	U	ug/L	P299778	
		Beta-BHC	0.0019	U	ug/L	P299778	
		Delta-BHC	0.0019	U	ug/L	P299778	
		Gamma-BHC	0.0019	U	ug/L	P299778	
		Carbophenothion	0.0056	U	ug/L	P299778	
		Chlordane	0.019	U	ug/L	P299778	
		Chlorothalonil	0.0075	U	ug/L	P299778	
		Cypermethrin	0.011	U	ug/L	P299778	
		DDD-p,p'	0.0037	UJ	ug/L	P299778	CCV
		DDE-p,p'	0.0037	U	ug/L	P299778	
		DDT-p,p'	0.0037	UJ	ug/L	P299778	CCV
		Dicofol	0.022	UJ	ug/L	P299778	CCV
		Dieldrin	0.0019	U	ug/L	P299778	
		Endosulfan I	0.0019	U	ug/L	P299778	
		Endosulfan II	0.0019	U	ug/L	P299778	

Field ID: G5SE0036_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775918	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Endosulfan Sulfate	0.0037	U	ug/L	P299778	
		Endrin	0.0037	U	ug/L	P299778	
		Endrin Aldehyde	0.0037	U	ug/L	P299778	
		Heptachlor	0.0019	U	ug/L	P299778	
		Heptachlor Epoxide	0.0019	U	ug/L	P299778	
		Methoxychlor	0.0094	UJ	ug/L	P299778	CCV
		Mirex	0.0037	UJ	ug/L	P299778	CCV
		Permethrin	0.0094	U	ug/L	P299778	
		Toxaphene	0.094	U	ug/L	P299778	
		PCB-1016	0.019	U	ug/L	P299778	
		PCB-1221	0.019	U	ug/L	P299778	
		PCB-1232	0.019	U	ug/L	P299778	
		PCB-1242	0.019	U	ug/L	P299778	
		PCB-1248	0.019	U	ug/L	P299778	
		PCB-1254	0.019	U	ug/L	P299778	
		PCB-1260	0.019	U	ug/L	P299778	
		Trifluralin	0.0075	U	ug/L	P299778	
1775919	EPA 8270D	Ametryn**	0.90	I	ng/L	P299750	
		Atrazine**	9.6		ng/L	P299750	
		Chlorpyrifos Ethyl**	0.095	U	ng/L	P299750	
		Chlorpyrifos Methyl**	0.095	U	ng/L	P299750	
		Disulfoton**	0.31	U	ng/L	P299750	
		Ethion**	0.14	U	ng/L	P299750	
		Ethoprop**	0.095	U	ng/L	P299750	
		Hexazinone**	6.4		ng/L	P299750	
		Malathion**	0.33	U	ng/L	P299750	
		Metribuzin**	1.4		ng/L	P299750	
		Mevinphos**	0.48	U	ng/L	P299750	
		Norflurazon**	0.48	U	ng/L	P299750	
		Phorate**	0.24	U	ng/L	P299750	
		Prometryn**	0.19	U	ng/L	P299750	
		Simazine**	0.48	U	ng/L	P299750	
		Atrazine Desethyl**	1.4	U	ng/L	P299750	
		Prometon**	0.86	U	ng/L	P299750	
		Fipronil**	0.24	U	ng/L	P299750	
		Molinate**	0.29	U	ng/L	P299750	MS
		Pendimethalin**	1.9	U	ng/L	P299750	
		Terbufos**	0.095	U	ng/L	P299750	
		EPTC**	1.2	U	ng/L	P299750	MS
		Terbutylazine**	0.40	U	ng/L	P299750	
		Bromacil**	0.83	I	ng/L	P299750	
		Fipronil Sulfide**	0.14	U	ng/L	P299750	
		Fipronil Sulfone**	0.14	U	ng/L	P299750	
		Alachlor**	0.24	U	ng/L	P299750	

Field ID: G5SE0036_03012016

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1775919	EPA 8270D	Azinphos Methyl**	2.1	U	ng/L	P299750	
		Butylate**	0.38	U	ng/L	P299750	MS
		Demeton**	0.95	UJ	ng/L	P299750	LCS, MS
		Diazinon**	0.12	U	ng/L	P299750	
		Fenamiphos**	0.24	UJ	ng/L	P299750	LCS
		Fonofos**	0.19	UJ	ng/L	P299750	LCS
		Metalaxyl**	0.19	UJ	ng/L	P299750	LCS
		Metolachlor**	0.94	I	ng/L	P299750	
		Acetochlor**	0.24	U	ng/L	P299750	
		Cyanazine**	0.48	U	ng/L	P299750	
		Parathion Ethyl**	0.24	UJ	ng/L	P299750	LCS
		Parathion Methyl**	0.24	UJ	ng/L	P299750	LCS

Ref. Method and Comment:

DEP SOP: LC-001-2 (based on USGS O-2060-01): Triclopyr = 0.043 ug/L.

DEP SOP: LC-001-2 (based on USGS O-2060-01): Refer to the narrative for an explanation of QC Codes.

EPA 8321B: Results confirmed in re-extraction.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

EPA 8270D: MS accuracy for Atrazine, Bromacil and Metolachlor not assessed due to high content of these parameters in the sample spiked. 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: P299778

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

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P299778

Component	Result	Code	Units
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: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P299737

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
Batch ID: P299754

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
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: P299612

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P299613

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P299847

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P299847

Component	Result	Code	Units
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P299847

Component	Result	Code	Units
Arsenic	0.25	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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299736

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299739

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300067

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300152

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299864

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299865

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P299800

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P299928

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300139

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P299607

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

Reference Method: EPA 8270D
Batch ID: P299750

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	1.0	U	ng/L
Demeton	1.0	U	ng/L
Diazinon	0.12	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
Disulfoton	0.32	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270D
Batch ID: P299750

Component	Result	Code	Units
EPTC	1.2	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.20	U	ng/L
Metalaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	2.0	U	ng/L
Pendimethalin	2.0	U	ng/L
Phorate	0.25	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L
Terbuthylazine	0.42	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P299752

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: SM 2120 B
Batch ID: P299601

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P300124

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

Reference Method: SM 2540 C-97
Batch ID: P300118

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P300119

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P300377

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P299998

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P299999

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P300024

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P300257

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P299915

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

Reference Method: SM 5310 B-00
Batch ID: P299931

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P299778

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Toxaphene	91.2	86.3	P/P	70 - 130

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P299737

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	81.2		P	40 - 140

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
Batch ID: P299754

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	60.0		P	40 - 140
2,4-D	69.6		P	40 - 140
Acetaminophen	41.2		P	40 - 140
Acifluorfen	70.4		P	40 - 140
Bentazon	89.2		P	40 - 140
Carbamazepine	114		P	40 - 140
Diuron	85.6		P	40 - 140
Fenuron	90.4		P	40 - 140
Fluridone	92.0		P	40 - 140
Imidacloprid	90.8		P	40 - 160
Linuron	88.4		P	40 - 140
Primidone	69.6		P	40 - 140
Silvex	68.8		P	40 - 140

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P299847

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P299847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	109		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	104		P	85 - 115
Sodium	106		P	85 - 115
Zinc	100		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P299847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	95.5		P	85 - 115
Cadmium	99.2		P	85 - 115
Chromium	101		P	85 - 115
Copper	94.8		P	85 - 115
Lead	93.0		P	85 - 115
Nickel	96.4		P	85 - 115
Silver	95.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299736

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299739

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300067

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300152

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299864

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299865

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P299800

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P299928

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300139

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P299607

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

Reference Method: EPA 8270D
Batch ID: P299750

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	86.1	84.5	P/P	84 - 119
Alachlor	85.0	84.1	P/P	84 - 121
Ametryn	96.8	103	P/P	66 - 127
Atrazine	91.7	96.4	P/P	72 - 119
Atrazine Desethyl	54.8	64.3	P/P	21 - 111
Azinphos Methyl	91.6	105	P/P	79 - 185
Bromacil	84.0	78.3	P/P	39 - 122
Butylate	51.9	49.0	P/P	36 - 94.0
Chlorpyrifos Ethyl	81.3	80.0	P/P	54 - 101
Chlorpyrifos Methyl	68.6	66.4	P/P	28 - 114
Cyanazine	86.0	89.3	P/P	58 - 201
Demeton	56.5	54.7	F/F	57 - 130
Diazinon	84.5	81.8	P/P	79 - 124
Disulfoton	53.2	58.5	P/P	45 - 140
EPTC	58.2	54.7	P/P	43 - 95.0
Ethion	98.0	94.8	P/P	65 - 125
Ethoprop	72.2	70.3	P/P	69 - 107
Fenamiphos	72.4	61.5	F/F	78 - 129
Fipronil	104	98.9	P/P	62 - 125
Fipronil Sulfide	107	105	P/P	65 - 119
Fipronil Sulfone	105	106	P/P	64 - 122
Fonofos	65.0	63.4	F/F	70 - 112

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P299750

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Hexazinone	74.0	63.3	P/P	44 - 147
Malathion	90.8	86.5	P/P	72 - 125
Metaxyl	16.5	17.2	F/F	83 - 113
Metolachlor	89.4	89.1	P/P	85 - 120
Metribuzin	90.6	93.3	P/P	68 - 129
Mevinphos	53.6	52.0	P/P	35 - 125
Molinate	53.3	51.5	P/P	51 - 100
Norflurazon	107	104	P/P	66 - 127
Parathion Ethyl	89.0	85.7	P/F	86 - 108
Parathion Methyl	77.0	78.4	F/F	87 - 125
Pendimethalin	80.0	81.1	P/P	53 - 136
Phorate	61.7	62.0	P/P	52 - 113
Prometon	94.5	81.4	P/P	67 - 125
Prometryn	94.4	95.2	P/P	73 - 114
Simazine	84.1	74.9	P/P	66 - 123
Terbufos	66.3	62.0	P/P	58 - 116
Terbutylazine	92.3	92.5	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P299752

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	78.8		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P300124

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

Reference Method: SM 4500 F-C-97
Batch ID: P300257

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	94 - 108

Reference Method: SM 5310 B-00
Batch ID: P299915

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.4		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P299931

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	88.6		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
 Batch ID: P299778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777301	Toxaphene	78.4	85.8	P/P	70 - 130

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
 Batch ID: P299737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777261	Glyphosate	67.0	73.2	P/P	40 - 140

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
 Batch ID: P299754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777300	2,4,5-T	92.8	96.8	P/P	40 - 140
1777300	2,4-D	142	148	F/F	40 - 140
1777300	Acetaminophen	55.6	54.8	P/P	40 - 140
1777300	Acifluorfen	77.6	87.2	P/P	40 - 140
1777300	Bentazon	133	132	P/P	40 - 140
1777300	Carbamazepine	64.4	67.2	P/P	40 - 140
1777300	Diuron	45.2	44.4	P/P	40 - 140
1777300	Fenuron	56.0	58.0	P/P	40 - 140
1777300	Fluridone	78.8	77.6	P/P	40 - 140
1777300	Imidacloprid	105	109	P/P	40 - 160
1777300	Linuron	68.0	66.4	P/P	40 - 140
1777300	Primidone	84.8	86.4	P/P	40 - 140
1777300	Silvex	138	149	P/F	40 - 140

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P299847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775499	Calcium	103		P	80 - 120
1775499	Iron	104	101	P/P	80 - 120
1775499	Magnesium	103	99.8	P/P	80 - 120
1775499	Potassium	101	97.7	P/P	80 - 120
1775499	Sodium	107		P	80 - 120
1775499	Zinc	98.2	99.6	P/P	80 - 120
1776077	Calcium	101		P	80 - 120
1776077	Iron	106		P	80 - 120
1776077	Magnesium	105		P	80 - 120
1776077	Potassium	105		P	80 - 120
1776077	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P299847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775499	Arsenic	92.6	95.8	P/P	80 - 120
1775499	Cadmium	102	101	P/P	80 - 120
1775499	Chromium	101	102	P/P	80 - 120
1775499	Copper	94.6	93.5	P/P	80 - 120
1775499	Lead	92.8	93.4	P/P	80 - 120
1775499	Nickel	96.7	96.0	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P299847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775499	Silver	97.6	97.0	P/P	80 - 120
1776077	Arsenic	96.3		P	80 - 120
1776077	Cadmium	101		P	80 - 120
1776077	Chromium	99.0		P	80 - 120
1776077	Copper	94.2		P	80 - 120
1776077	Lead	94.9		P	80 - 120
1776077	Nickel	95.7		P	80 - 120
1776077	Silver	94.2		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299739

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775865	Sulfate	100		P	90 - 110
1775866	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300067

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1774789	Ammonia-N	99.7	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300152

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775860	Ammonia-N	99.2	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299864

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775810	Kjeldahl Nitrogen	95.7	95.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P299800

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775859	NO2NO3-N	97.8	98.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P299928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775859	Total-P	95.2	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1776571	Total-P	99.2	106	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P299607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775905	O-Phosphate-P	101	102	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P299750

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777302	Acetochlor	96.6	96.2	P/P	84 - 119
1777302	Alachlor	97.3	94.1	P/P	84 - 121
1777302	Ametryn	104	106	P/P	66 - 127
1777302	Atrazine Desethyl	52.1	68.8	P/P	21 - 111
1777302	Azinphos Methyl	142	172	P/P	79 - 185
1777302	Butylate	35.6	45.8	F/P	36 - 94.0
1777302	Chlorpyrifos Ethyl	94.1	87.3	P/P	54 - 101
1777302	Chlorpyrifos Methyl	87.4	85.9	P/P	28 - 114
1777302	Cyanazine	115	111	P/P	58 - 201
1777302	Demeton	56.5	64.5	F/P	57 - 130
1777302	Diazinon	94.0	93.8	P/P	79 - 124
1777302	Disulfoton	77.1	79.8	P/P	45 - 140
1777302	EPTC	35.6	45.2	F/P	43 - 95.0
1777302	Ethion	98.4	101	P/P	65 - 125
1777302	Ethoprop	75.2	83.6	P/P	69 - 107
1777302	Fenamiphos	104	103	P/P	78 - 129
1777302	Fipronil	106	107	P/P	62 - 125
1777302	Fipronil Sulfide	107	102	P/P	65 - 119
1777302	Fipronil Sulfone	107	110	P/P	64 - 122
1777302	Fonofos	79.6	86.9	P/P	70 - 112
1777302	Hexazinone	102	98.2	P/P	44 - 147
1777302	Malathion	105	108	P/P	72 - 125
1777302	Metalaxyl	99.5	95.2	P/P	83 - 113
1777302	Metribuzin	105	103	P/P	68 - 129
1777302	Mevinphos	88.9	106	P/P	35 - 125
1777302	Molinate	49.7	58.1	F/P	51 - 100
1777302	Norflurazon	98.7	110	P/P	66 - 127
1777302	Parathion Ethyl	88.1	94.0	P/P	86 - 108
1777302	Parathion Methyl	91.8	104	P/P	87 - 125
1777302	Pendimethalin	79.6	82.0	P/P	53 - 136
1777302	Phorate	78.0	90.8	P/P	52 - 113
1777302	Prometon	110	101	P/P	67 - 125
1777302	Prometryn	92.6	93.3	P/P	73 - 114
1777302	Simazine	98.8	105	P/P	66 - 123
1777302	Terbufos	78.1	88.9	P/P	58 - 116
1777302	Terbuthylazine	95.9	95.5	P/P	77 - 113

Reference Method: EPA 8321B
Batch ID: P299752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1777262	Pyraclostrobin	87.2	96.8	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P300257

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1776099	Fluoride	96.6	99.8	P/P	94 - 107

Reference Method: SM 5310 B-00
Batch ID: P299915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775903	Organic Carbon	97.3	91.3	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P299931

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1775809	Organic Carbon	85.8	87.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P299778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777301	Toxaphene	8.96	Spike	P	0 - 30
LFB	Toxaphene	5.49	LCS	P	0 - 30

Reference Method: DEP SOP: LC-001-2 (based on EPA 8321B)
Batch ID: P299737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777261	Glyphosate	8.84	Spike	P	0 - 30

Reference Method: DEP SOP: LC-001-2 (based on USGS O-2060-01)
Batch ID: P299754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777300	2,4,5-T	4.22	Spike	P	0 - 30
1777300	2,4-D	3.25	Spike	P	0 - 30
1777300	Acetaminophen	1.45	Spike	P	0 - 30
1777300	Acifluorfen	11.7	Spike	P	0 - 30
1777300	Bentazon	0.782	Spike	P	0 - 30
1777300	Carbamazepine	4.26	Spike	P	0 - 30
1777300	Diuron	1.79	Spike	P	0 - 30
1777300	Fenuron	3.51	Spike	P	0 - 30
1777300	Fluridone	1.37	Spike	P	0 - 30
1777300	Imidacloprid	3.47	Spike	P	0 - 30
1777300	Linuron	2.38	Spike	P	0 - 30
1777300	Primidone	1.87	Spike	P	0 - 30
1777300	Silvex	7.53	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P299612

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775801	Turbidity	5.41	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P299613

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775863	Turbidity	6.41	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P299847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775499	Calcium	0.347	Spike	P	0 - 20
1775499	Iron	1.56	Spike	P	0 - 20
1775499	Magnesium	2.14	Spike	P	0 - 20
1775499	Potassium	2.28	Spike	P	0 - 20
1775499	Sodium	1.72	Spike	P	0 - 20
1775499	Zinc	1.33	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P299847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775499	Arsenic	3.33	Spike	P	0 - 20
1775499	Cadmium	0.367	Spike	P	0 - 20
1775499	Chromium	0.831	Spike	P	0 - 20
1775499	Copper	1.08	Spike	P	0 - 20
1775499	Lead	0.654	Spike	P	0 - 20
1775499	Nickel	0.720	Spike	P	0 - 20
1775499	Silver	0.633	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299736

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775865	Chloride	0.00811	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P299739

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775865	Sulfate	0.137	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1774789	Ammonia-N	1.02	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P300152

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775860	Ammonia-N	0.329	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299864

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775810	Kjeldahl Nitrogen	0.331	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P299865

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775874	Kjeldahl Nitrogen	0.311	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P299800

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775859	NO2NO3-N	0.466	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P299928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775859	Total-P	2.89	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P300139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1776571	Total-P	6.38	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P299607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775905	O-Phosphate-P	1.28	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P299750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777302	Acetochlor	0.423	Spike	P	0 - 30
1777302	Alachlor	3.42	Spike	P	0 - 30
1777302	Ametryn	2.21	Spike	P	0 - 30
1777302	Atrazine	0.267	Spike	P	0 - 30
1777302	Atrazine Desethyl	24.2	Spike	P	0 - 30
1777302	Azinphos Methyl	19.1	Spike	P	0 - 30
1777302	Bromacil	6.00	Spike	P	0 - 30
1777302	Butylate	25.2	Spike	P	0 - 30
1777302	Chlorpyrifos Ethyl	7.48	Spike	P	0 - 30
1777302	Chlorpyrifos Methyl	1.72	Spike	P	0 - 30
1777302	Cyanazine	4.16	Spike	P	0 - 30
1777302	Demeton	13.2	Spike	P	0 - 30
1777302	Diazinon	0.284	Spike	P	0 - 30
1777302	Disulfoton	3.52	Spike	P	0 - 30
1777302	EPTC	23.8	Spike	P	0 - 30
1777302	Ethion	2.67	Spike	P	0 - 30
1777302	Ethoprop	10.6	Spike	P	0 - 30
1777302	Fenamiphos	0.670	Spike	P	0 - 30
1777302	Fipronil	1.40	Spike	P	0 - 30
1777302	Fipronil Sulfide	5.25	Spike	P	0 - 30
1777302	Fipronil Sulfone	2.18	Spike	P	0 - 30
1777302	Fonofos	8.79	Spike	P	0 - 30
1777302	Hexazinone	2.71	Spike	P	0 - 30
1777302	Malathion	2.23	Spike	P	0 - 30
1777302	Metaxyl	4.04	Spike	P	0 - 30
1777302	Metolachlor	3.14	Spike	P	0 - 30
1777302	Metribuzin	1.97	Spike	P	0 - 30
1777302	Mevinphos	17.6	Spike	P	0 - 30
1777302	Molinate	15.6	Spike	P	0 - 30
1777302	Norflurazon	9.32	Spike	P	0 - 30
1777302	Parathion Ethyl	6.49	Spike	P	0 - 30
1777302	Parathion Methyl	12.3	Spike	P	0 - 30
1777302	Pendimethalin	2.89	Spike	P	0 - 30
1777302	Phorate	15.2	Spike	P	0 - 30
1777302	Prometon	8.09	Spike	P	0 - 30
1777302	Prometryn	0.816	Spike	P	0 - 30
1777302	Simazine	5.65	Spike	P	0 - 30
1777302	Terbufos	12.9	Spike	P	0 - 30
1777302	Terbutylazine	0.362	Spike	P	0 - 30
LFB	Acetochlor	1.82	LCS	P	0 - 30
LFB	Alachlor	1.15	LCS	P	0 - 30
LFB	Ametryn	6.43	LCS	P	0 - 30
LFB	Atrazine	4.98	LCS	P	0 - 30
LFB	Atrazine Desethyl	15.8	LCS	P	0 - 30
LFB	Azinphos Methyl	13.6	LCS	P	0 - 30
LFB	Bromacil	7.02	LCS	P	0 - 30
LFB	Butylate	5.70	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.68	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	3.24	LCS	P	0 - 30
LFB	Cyanazine	3.76	LCS	P	0 - 30
LFB	Demeton	3.11	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P299750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Diazinon	3.19	LCS	P	0 - 30
LFB	Disulfoton	9.42	LCS	P	0 - 30
LFB	EPTC	6.24	LCS	P	0 - 30
LFB	Ethion	3.28	LCS	P	0 - 30
LFB	Ethoprop	2.65	LCS	P	0 - 30
LFB	Fenamiphos	16.4	LCS	P	0 - 30
LFB	Fipronil	4.75	LCS	P	0 - 30
LFB	Fipronil Sulfide	2.34	LCS	P	0 - 30
LFB	Fipronil Sulfone	0.958	LCS	P	0 - 30
LFB	Fonofos	2.37	LCS	P	0 - 30
LFB	Hexazinone	15.5	LCS	P	0 - 30
LFB	Malathion	4.95	LCS	P	0 - 30
LFB	Metalaxyl	3.82	LCS	P	0 - 30
LFB	Metolachlor	0.321	LCS	P	0 - 30
LFB	Metribuzin	2.89	LCS	P	0 - 30
LFB	Mevinphos	2.99	LCS	P	0 - 30
LFB	Molinate	3.45	LCS	P	0 - 30
LFB	Norflurazon	2.90	LCS	P	0 - 30
LFB	Parathion Ethyl	3.86	LCS	P	0 - 30
LFB	Parathion Methyl	1.79	LCS	P	0 - 30
LFB	Pendimethalin	1.36	LCS	P	0 - 30
LFB	Phorate	0.498	LCS	P	0 - 30
LFB	Prometon	14.9	LCS	P	0 - 30
LFB	Prometryn	0.789	LCS	P	0 - 30
LFB	Simazine	11.5	LCS	P	0 - 30
LFB	Terbufos	6.71	LCS	P	0 - 30
LFB	Terbutylazine	0.244	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P299752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777262	Pyraclostrobin	10.4	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P299601

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775863	Color (true)	0.454	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P300124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1776099	Total Alkalinity	0.212	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P300118

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775802	TDS	4.21	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P300119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775849	TDS	7.62	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P300377

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1777323	TDS	5.36	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P300257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1776099	Fluoride	2.28	Spike	P	0 - 3.7

Reference Method: SM 5310 B-00
Batch ID: P299915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775903	Organic Carbon	5.15	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P299931

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1775809	Organic Carbon	1.51	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: 1775913
Field Sample ID: G5SE0036_03012016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on EPA 8321B)	Glyphosate 13C 15N	61.6	P	50 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	2,4-D-d3	78.0	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1775913

Field Sample ID: G5SE0036_03012016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Acetaminophen-d4	44.2	P	30 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Carbamazepine-d10	53.8	P	40 - 160
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Diuron-d6	34.8	F	40 - 150
DEP SOP: LC-001-2 (based on USGS O-2060-01)	Primidone-d5	80.6	P	40 - 150

Lab Sample ID: 1775914

Field Sample ID: G5SE0036_03012016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	74.2	P	40 - 150

Lab Sample ID: 1775918

Field Sample ID: G5SE0036_03012016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	57.6	P	44 - 128

Lab Sample ID: 1775919

Field Sample ID: G5SE0036_03012016

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	89.4	P	67 - 131
EPA 8270D	Simazine-d10	86.2	P	75 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A67933

Included Lab Sample IDs: 1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	102	P/P	90 - 110
Chloride	101	102	P/P	90 - 110
Chloride	102	101	P/P	90 - 110
Chloride	103	103	P/P	90 - 110
Sulfate	100	96.1	P/P	90 - 110
Sulfate	96.1	100	P/P	90 - 110
Sulfate	97.2	100	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A67948

Included Lab Sample IDs: 1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.3	99.1	P/P	90 - 115
Color (true)	99.1	97.5	P/P	90 - 115

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A67950

Included Lab Sample IDs: 1775861, 1775862, 1775875, 1775876, 1775877, 1775878, 1775879, 1775880, 1775883

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	98.2	P/P	90 - 110
O-Phosphate-P	99.1	99.4	P/P	90 - 110
O-Phosphate-P	99.5	98.6	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A67951

Included Lab Sample IDs: 1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	99.0	100	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68011

Included Lab Sample IDs: 1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882

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

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

Run ID: A68030

Included Lab Sample IDs: 1775913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	80.2	113	P/P	70 - 130

Reference Method: SM 5310 B-00

Run ID: A68073

Included Lab Sample IDs: 1775873, 1775874, 1775882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	94.6	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A68077

Included Lab Sample IDs: 1775859, 1775860, 1775869, 1775870, 1775871, 1775872

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.4	95.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A68088

Included Lab Sample IDs: 1775915, 1775916, 1775917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	100	100	P/P	90 - 110
Calcium	100	98.3	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Iron	103	98.9	P/P	90 - 110
Magnesium	101	99.0	P/P	90 - 110
Magnesium	98.8	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A68088

Included Lab Sample IDs: 1775915, 1775916, 1775917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	100	99.6	P/P	90 - 110
Potassium	96.9	100	P/P	90 - 110
Sodium	97.9	99.8	P/P	90 - 110
Sodium	99.8	100	P/P	90 - 110
Zinc	102	102	P/P	90 - 110
Zinc	105	102	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68103

Included Lab Sample IDs: 1775915, 1775916, 1775917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cadmium	102	104	P/P	90 - 110
Cadmium	104	103	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Chromium	104	104	P/P	90 - 110
Copper	101	99.0	P/P	90 - 110
Copper	99.0	98.9	P/P	90 - 110
Lead	97.9	99.4	P/P	90 - 110
Lead	98.3	97.9	P/P	90 - 110
Nickel	100	99.6	P/P	90 - 110
Nickel	102	100	P/P	90 - 110
Silver	98.0	98.3	P/P	90 - 110
Silver	98.3	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68108

Included Lab Sample IDs: 1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68112

Included Lab Sample IDs: 1775859

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A68122

Included Lab Sample IDs: 1775914

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	89.2	90.4	P/P	60 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68124

Included Lab Sample IDs: 1775915, 1775916, 1775917

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A68124

Included Lab Sample IDs: 1775915, 1775916, 1775917

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	91.9	94.7	P/P	90 - 110
Arsenic	99.1	91.9	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A68136

Included Lab Sample IDs: 1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	98.2	P/P	90 - 110
Total Alkalinity	98.2	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68144

Included Lab Sample IDs: 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.8	98.6	P/P	90 - 110
Ammonia-N	99.7	99.9	P/P	90 - 110
Ammonia-N	99.9	101	P/P	90 - 110

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

Run ID: A68157

Included Lab Sample IDs: 1775913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	101	92.2	P/P	50 - 150
2,4-D	106	118	P/P	50 - 150
Acifluorfen	115	116	P/P	50 - 150
Bentazon	117	96.0	P/P	50 - 150
Silvex	106	109	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68170

Included Lab Sample IDs: 1775882

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

Reference Method: SM 4500 F-C-97

Run ID: A68180

Included Lab Sample IDs: 1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	99.6	P/P	90 - 110

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

Run ID: A68195

Included Lab Sample IDs: 1775918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	98.3	97.1	P/P	85 - 115

Quality Assurance Report Calibration Verification

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

Run ID: A68195

Included Lab Sample IDs: 1775918

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	97.1	98.2	P/P	85 - 115
Beta-BHC	100	99.2	P/P	85 - 115
Carbophenothion	93.0	97.5	P/P	90 - 110
Chlordane	101	102	P/P	85 - 115
Chlorothalonil	92.1	109	P/P	90 - 110
Cypermethrin	88.9	99.9	P/P	85 - 115
DDD-p,p'	96.9	77.2*	P/F	85 - 115
DDE-p,p'	99.7	91.7	P/P	85 - 115
DDT-p,p'	100	83.6*	P/F	85 - 115
Delta-BHC	97.7	97.2	P/P	85 - 115
Dicofol	116*	75.5*	F/F	90 - 110
Dieldrin	100	93.9	P/P	85 - 115
Endosulfan I	99.9	96.0	P/P	85 - 115
Endosulfan II	101	92.0	P/P	85 - 115
Endosulfan Sulfate	100	86.4	P/P	85 - 115
Endrin	99.3	90.3	P/P	85 - 115
Endrin Aldehyde	101	92.0	P/P	85 - 115
Gamma-BHC	98.1	97.8	P/P	85 - 115
Heptachlor	99.3	98.3	P/P	85 - 115
Heptachlor Epoxide	101	97.1	P/P	85 - 115
Methoxychlor	104	85.2*	P/F	90 - 110
Mirex	89.8*	92.7	F/P	90 - 110
Permethrin	91.6	94.0	P/P	90 - 110
Toxaphene	106	103	P/P	85 - 115
Trifluralin	96.3	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A68247

Included Lab Sample IDs: 1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	106	105	P/P	90 - 110
Kjeldahl Nitrogen	107	106	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A68339

Included Lab Sample IDs: 1775919

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	98.9		P	80 - 120
Ametryn	106		P	80 - 120
Atrazine	105		P	80 - 120
Atrazine Desethyl	101		P	80 - 120
Azinphos Methyl	80.2		P	80 - 120
Bromacil	99.7		P	80 - 120
Butylate	95.7		P	80 - 120
Chlorpyrifos Ethyl	97.3		P	80 - 120
Chlorpyrifos Methyl	93.4		P	80 - 120
Cyanazine	89.7		P	80 - 120
Demeton	93.5		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A68339

Included Lab Sample IDs: 1775919

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Diazinon	102		P	80 - 120
Disulfoton	96.1		P	80 - 120
EPTC	100		P	80 - 120
Ethion	89.7		P	80 - 120
Ethoprop	96.3		P	80 - 120
Fenamiphos	93.9		P	80 - 120
Fipronil	95.9		P	80 - 120
Fipronil Sulfide	99.3		P	80 - 120
Fipronil Sulfone	100		P	80 - 120
Fonofos	93.3		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	85.0		P	80 - 120
Metalaxyl	98.4		P	80 - 120
Metolachlor	97.9		P	80 - 120
Metribuzin	98.1		P	80 - 120
Mevinphos	91.0		P	80 - 120
Molinate	98.9		P	80 - 120
Norflurazon	96.3		P	80 - 120
Parathion Ethyl	106		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	105		P	80 - 120
Phorate	95.4		P	80 - 120
Prometon	109		P	80 - 120
Prometryn	100		P	80 - 120
Simazine	106		P	80 - 120
Terbufos	92.3		P	80 - 120
Terbutylazine	100		P	80 - 120

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

Run ID: P68122

Included Lab Sample IDs: 1775913

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	106	113	P/P	60 - 150
Carbamazepine	112	120	P/P	60 - 150
Diuron	98.4	102	P/P	60 - 150
Fenuron	105	108	P/P	60 - 150
Fluridone	90.8	102	P/P	60 - 150
Imidacloprid	93.6	95.2	P/P	60 - 150
Linuron	115	113	P/P	60 - 150
Primidone	99.6	69.6	P/P	60 - 150

* 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)	Toxaphene	91.2	86.3	78.4	85.8	5.49		8.96
DEP SOP: LC-001-2 (based on EPA 8321B)	Glyphosate	81.2		67.0	73.2			8.84
DEP SOP: LC-001-2 (based on USGS O-2060-01)	2,4,5-T	60.0		92.8	96.8			4.22
	2,4-D	69.6		142	148			3.25
	Acetaminophen	41.2		55.6	54.8			1.45
	Acifluorfen	70.4		77.6	87.2			11.7
	Bentazon	89.2		133	132			0.782
	Carbamazepine	114		64.4	67.2			4.26
	Diuron	85.6		45.2	44.4			1.79
	Fenuron	90.4		56.0	58.0			3.51
	Fluridone	92.0		78.8	77.6			1.37
	Imidacloprid	90.8		105	109			3.47
	Linuron	88.4		68.0	66.4			2.38
	Primidone	69.6		84.8	86.4			1.87
	Silvex	68.8		138	149			7.53
EPA 180.1 Rev. 2.0	Turbidity						5.41	
	Turbidity						6.41	
EPA 200.7 Rev. 4.4	Calcium	100		103	101			0.347
	Iron	109		104	101	106		1.56
	Magnesium	107		103	99.8	105		2.14
	Potassium	104		101	97.7	105		2.28
	Sodium	106		107				1.72
	Zinc	100		98.2	99.6	103		1.33
EPA 200.8 Rev. 5.4	Arsenic	95.5		92.6	95.8	96.3		3.33
	Cadmium	99.2		102	101	101		0.367
	Chromium	101		101	102	99.0		0.831
	Copper	94.8		94.6	93.5	94.2		1.08
	Lead	93.0		92.8	93.4	94.9		0.654
	Nickel	96.4		96.7	96.0	95.7		0.720
	Silver	95.8		97.6	97.0	94.2		0.633
EPA 300.0 Rev. 2.1	Chloride	103					0.0081	
	Sulfate	101		100	101		0.137	
EPA 350.1 Rev. 2.0	Ammonia-N	97.7		99.7	98.6			1.02
	Ammonia-N	98.8		99.2	98.6			0.329
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101		95.7	95.2			0.331
	Kjeldahl Nitrogen	99.9						0.311
EPA 353.2 Rev. 2.0	NO2NO3-N	103		97.8	98.4			0.466
EPA 365.1 Rev. 2.0	Total-P	100		95.2	101			2.89
	Total-P	98.2		99.2	106			6.38
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100		101	102			1.28
EPA 8270D	Acetochlor	86.1	84.5	96.6	96.2	1.82		0.423
	Alachlor	85.0	84.1	97.3	94.1	1.15		3.42
	Ametryn	96.8	103	104	106	6.43		2.21
	Atrazine	91.7	96.4			4.98		0.267
	Atrazine Desethyl	54.8	64.3	52.1	68.8	15.8		24.2
	Azinphos Methyl	91.6	105	142	172	13.6		19.1
	Bromacil	84.0	78.3			7.02		6.00
	Butylate	51.9	49.0	35.6	45.8	5.70		25.2
	Chlorpyrifos Ethyl	81.3	80.0	94.1	87.3	1.68		7.48
	Chlorpyrifos Methyl	68.6	66.4	87.4	85.9	3.24		1.72
	Cyanazine	86.0	89.3	115	111	3.76		4.16

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Demeton	56.5	54.7	56.5	64.5	3.11	13.2
	Diazinon	84.5	81.8	94.0	93.8	3.19	0.284
	Disulfoton	53.2	58.5	77.1	79.8	9.42	3.52
	EPTC	58.2	54.7	35.6	45.2	6.24	23.8
	Ethion	98.0	94.8	98.4	101	3.28	2.67
	Ethoprop	72.2	70.3	75.2	83.6	2.65	10.6
	Fenamiphos	72.4	61.5	104	103	16.4	0.670
	Fipronil	104	98.9	106	107	4.75	1.40
	Fipronil Sulfide	107	105	107	102	2.34	5.25
	Fipronil Sulfone	105	106	107	110	0.958	2.18
	Fonofos	65.0	63.4	79.6	86.9	2.37	8.79
	Hexazinone	74.0	63.3	102	98.2	15.5	2.71
	Malathion	90.8	86.5	105	108	4.95	2.23
	Metaxyl	16.5	17.2	99.5	95.2	3.82	4.04
	Metolachlor	89.4	89.1			0.321	3.14
	Metribuzin	90.6	93.3	105	103	2.89	1.97
	Mevinphos	53.6	52.0	88.9	106	2.99	17.6
	Molinate	53.3	51.5	49.7	58.1	3.45	15.6
	Norflurazon	107	104	98.7	110	2.90	9.32
	Parathion Ethyl	89.0	85.7	88.1	94.0	3.86	6.49
	Parathion Methyl	77.0	78.4	91.8	104	1.79	12.3
	Pendimethalin	80.0	81.1	79.6	82.0	1.36	2.89
	Phorate	61.7	62.0	78.0	90.8	0.498	15.2
	Prometon	94.5	81.4	110	101	14.9	8.09
	Prometryn	94.4	95.2	92.6	93.3	0.789	0.816
	Simazine	84.1	74.9	98.8	105	11.5	5.65
	Terbufos	66.3	62.0	78.1	88.9	6.71	12.9
	Terbutylazine	92.3	92.5	95.9	95.5	0.244	0.362
EPA 8321B	Pyraclostrobin	78.8		87.2	96.8		10.4
SM 2120 B	Color (true)					0.454	
SM 2320 B-97	Total Alkalinity	101				0.212	
SM 2540 C-97	TDS					4.21	
	TDS					7.62	
	TDS					5.36	
SM 4500 F-C-97	Fluoride	100		96.6	99.8		2.28
SM 5310 B-00	Organic Carbon	94.4		97.3	91.3		5.15
	Organic Carbon	88.6		85.8	87.2		1.51

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.	1775918
DEP SOP: LC-001-2 (based on EPA 8321B) / E31780	Glyphosate in water matrices by HPLC/MS/MS	1775913
DEP SOP: LC-001-2 (based on USGS O-2060-01) / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1775913
DEP SOP: LC-001-2 (based on USGS O-2060-01) / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1775913

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1775915, 1775916, 1775917
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1775915, 1775916, 1775917
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1775861, 1775862, 1775875, 1775876, 1775877, 1775878, 1775879, 1775880, 1775883
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1775919
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1775914
SM 2120 B / E31780	True Color measured at 450 nm	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882

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)	03/02/2016	03/04/2016	Rasheda Ghaffari	03/10/2016	Vandana T. Nagar	1775918
DEP SOP: LC-001-2 (based on EPA 8321B)	03/02/2016	03/07/2016	Mohammad Ghaffari	03/07/2016	Mohammad Ghaffari	1775913
DEP SOP: LC-001-2 (based on USGS O-2060-01)	03/02/2016	03/08/2016	Hoor Shaik	03/09/2016	Juyoung Kim	1775913
	03/02/2016	03/08/2016	Hoor Shaik	03/10/2016	Juyoung Kim	1775913
EPA 180.1 Rev. 2.0	03/02/2016			03/02/2016 15:05	Sima Feizi	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
EPA 200.7 Rev. 4.4	03/02/2016	03/07/2016	Elliott D. Healy	03/08/2016	Joshua Ayres	1775915, 1775916, 1775917
EPA 200.8 Rev. 5.4	03/02/2016	03/07/2016	Elliott D. Healy	03/09/2016	Charles J. Peterson	1775915, 1775916, 1775917
	03/02/2016	03/07/2016	Elliott D. Healy	03/09/2016	Robert K Palmer	1775915, 1775916, 1775917
EPA 300.0 Rev. 2.1	03/02/2016			03/03/2016	Ping Hua	1775865, 1775866
	03/02/2016			03/04/2016	Ping Hua	1775857, 1775858, 1775863, 1775864, 1775867, 1775868, 1775881
EPA 350.1 Rev. 2.0	03/02/2016			03/09/2016	Diana M. Turner	1775859
	03/02/2016			03/10/2016	Diana M. Turner	1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 351.2 Rev. 2.0	03/02/2016	03/07/2016	Sofia Elnemr	03/08/2016	Rochelle Y Jackson	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 353.2 Rev. 2.0	03/02/2016			03/04/2016	Virginia P. Brown	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874, 1775882
EPA 365.1 Rev. 2.0	03/02/2016	03/08/2016	Lipi Saha	03/09/2016	Lipi Saha	1775859, 1775860, 1775869, 1775870, 1775871, 1775872, 1775873, 1775874
	03/02/2016	03/10/2016	Christopher Armour	03/11/2016	Lipi Saha	1775882
EPA 365.1 Rev. 2.0 dissolved	03/02/2016			03/02/2016 14:23	Julia Storbeck	1775883
	03/02/2016			03/02/2016 15:14	Julia Storbeck	1775861
	03/02/2016			03/02/2016 15:15	Julia Storbeck	1775862
	03/02/2016			03/02/2016 15:16	Julia Storbeck	1775875
	03/02/2016			03/02/2016 15:17	Julia Storbeck	1775876
	03/02/2016			03/02/2016 15:24	Julia Storbeck	1775877
	03/02/2016			03/02/2016 15:25	Julia Storbeck	1775878, 1775879
	03/02/2016			03/02/2016 15:26	Julia Storbeck	1775880
EPA 8270D	03/02/2016	03/04/2016	Fe-Val Siddell	03/08/2016	Irina Carbone	1775919
EPA 8321B	03/02/2016	03/08/2016	Hoor Shaik	03/09/2016	Juyoung Kim	1775914
SM 2120 B	03/02/2016			03/02/2016 13:59	Rochelle Y Jackson	1775881
	03/02/2016			03/02/2016 14:01	Rochelle Y Jackson	1775857
	03/02/2016			03/02/2016 14:02	Rochelle Y Jackson	1775858
	03/02/2016			03/02/2016 14:04	Rochelle Y Jackson	1775863, 1775864

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	03/02/2016			03/02/2016 14:05	Rochelle Y Jackson	1775865
	03/02/2016			03/02/2016 14:06	Rochelle Y Jackson	1775866
	03/02/2016			03/02/2016 14:07	Rochelle Y Jackson	1775867, 1775868
SM 2320 B-97	03/02/2016			03/08/2016	Dale L. Simmons	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
SM 2540 C-97	03/02/2016			03/04/2016	Yijie Li	1775857, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
	03/02/2016			03/07/2016	Yijie Li	1775858
SM 2540 D-97	03/02/2016			03/04/2016	Yijie Li	1775857, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
	03/02/2016			03/07/2016	Yijie Li	1775858
SM 4500 F-C-97	03/02/2016			03/11/2016	Dale L. Simmons	1775857, 1775858, 1775863, 1775864, 1775865, 1775866, 1775867, 1775868, 1775881
	03/02/2016					
SM 5310 B-00	03/02/2016			03/04/2016	Sofia Elnemr	1775873, 1775874, 1775882
	03/02/2016			03/07/2016	Sofia Elnemr	1775859, 1775860
	03/02/2016			03/08/2016	Sofia Elnemr	1775869, 1775870, 1775871, 1775872