

Chemical Analysis Report

NE-DIST-2019-04-16-01

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

Event Description: **Bmap 1**
Request ID: **RQ-2019-04-15-16**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 02-MAY-2019 14:05

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular background.

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: NW TRIBUTARY TO OPEN CR AT HODGES

Collection Date/Time: 04/15/2019 10:50

Field ID: 20030848

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078252	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P362260	
	EPA 300.0 Rev. 2.1	Chloride	40		mg Cl/L	P362488	
		Sulfate	73		mg SO4/L	P362490	
	SM 2120 B	Color (true)	36	A	PCU	P362307	
	SM 2320 B-97	Total Alkalinity	75		mg CaCO3/L	P362571	
	SM 2540 C-97	TDS	277		mg/L	P362667	
	SM 2540 D-97	TSS	3	I	mg/L	P362658	
	SM 4500 F-C-97	Fluoride	0.10		mg F/L	P362576	MS
	EPA 350.1 Rev. 2.0	Ammonia-N	0.092		mg N/L	P362712	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P36287	
2078255	EPA 353.2 Rev. 2.0	NO2NO3-N	0.27		mg N/L	P362599	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P362434	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P362399	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.020		mg P/L	P362254	
	dissolved						
2078282	EPA 8321B	2,4-D	0.039		ug/L	P362252	
		Acesulfame K**	0.12	I	ug/L	P362188	MS
		AMPA**	0.14	I	ug/L	P362188	
		Sucralose**	0.18		ug/L	P362188	
		Acetaminophen**	0.0080	U	ug/L	P362252	
		Endothall**	0.25	U	ug/L	P362188	
		Glufosinate**	0.10	U	ug/L	P362188	
		Bentazon	0.079		ug/L	P362252	
		Glyphosate**	0.20	I	ug/L	P362188	
		Carbamazepine**	8.0E-04	U	ug/L	P362252	
		Diuron	0.0020	U	ug/L	P362252	
		Fenuron	0.016	U	ug/L	P362252	
		Fluridone**	0.044		ug/L	P362252	MS
		Imazapyr**	0.049		ug/L	P362252	
		Hydrocodone**	0.0020	U	ug/L	P362252	
		Ibuprofen**	0.020	U	ug/L	P362252	
		Imidacloprid	0.015		ug/L	P362252	MS
		Linuron	0.0040	U	ug/L	P362252	
		MCPP	0.0020	U	ug/L	P362252	
		Naproxen**	0.0080	U	ug/L	P362252	
		Primidone**	0.0040	U	ug/L	P362252	
		Pyraclostrobin**	0.0020	U	ug/L	P362252	
		Triclopyr**	0.0040	U	ug/L	P362252	
2078286	EPA 200.7 Rev. 4.4	Barium	46.0		ug/L	P362361	
		Calcium	52.9		mg/L	P362361	
		Iron	530		ug/L	P362361	
		Magnesium	9.79		mg/L	P362361	
		Potassium	4.3		mg/L	P362361	
		Sodium	21.9		mg/L	P362361	

Field ID: 20030848

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078286	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P362361	
	EPA 200.8 Rev. 5.4	Aluminum	265		ug/L	P362361	
		Antimony	0.092	I	ug/L	P362361	
		Arsenic	1.00		ug/L	P362361	
		Boron**	31.1		ug/L	P362361	
		Cadmium	0.020	U	ug/L	P362361	
		Chromium	0.40	U	ug/L	P362361	
		Copper	3.54		ug/L	P362361	
		Lead	0.20	U	ug/L	P362361	
		Nickel	0.50	U	ug/L	P362361	
		Selenium	0.20	U	ug/L	P362361	
		Silver	0.010	U	ug/L	P362361	
		Thallium	0.10	U	ug/L	P362361	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: TERRAPIN CR @ FAYE RD

Collection Date/Time: 04/15/2019 10:15

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078253	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P362260	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P362488	
		Sulfate	15		mg SO4/L	P362490	
	SM 2120 B	Color (true)	92		PCU	P362307	
	SM 2320 B-97	Total Alkalinity	21		mg CaCO3/L	P362571	
	SM 2540 C-97	TDS	95		mg/L	P362667	
	SM 2540 D-97	TSS	2	I	mg/L	P362658	
	SM 4500 F-C-97	Fluoride	0.066	I	mg F/L	P362576	MS
2078256	EPA 350.1 Rev. 2.0	Ammonia-N	0.079		mg N/L	P362712	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P36287	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.041		mg N/L	P362599	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P362499	
	SM 5310 B-00	Organic Carbon	8.9		mg C/L	P362399	
2078259	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P362255	
2078283	EPA 8321B	2,4-D	0.0020	U	ug/L	P362252	
		Acesulfame K**	0.10	U	ug/L	P362188	MS
		AMPA**	0.10	U	ug/L	P362188	
		Sucralose**	0.021	I	ug/L	P362188	
		Acetaminophen**	0.0080	U	ug/L	P362252	
		Endothall**	0.25	U	ug/L	P362188	
		Glufosinate**	0.10	U	ug/L	P362188	
		Bentazon	8.0E-04	U	ug/L	P362252	
		Glyphosate**	0.10	U	ug/L	P362188	
		Carbamazepine**	8.0E-04	U	ug/L	P362252	
		Diuron	0.0082		ug/L	P362252	
		Fenuron	0.016	U	ug/L	P362252	
		Fluridone**	0.058		ug/L	P362252	MS
		Imazapyr**	0.012	I	ug/L	P362252	
		Hydrocodone**	0.0020	U	ug/L	P362252	
		Ibuprofen**	0.020	U	ug/L	P362252	
		Imidacloprid	0.0020	U	ug/L	P362252	MS
		Linuron	0.0040	U	ug/L	P362252	
		MCPP	0.0020	U	ug/L	P362252	
		Naproxen**	0.0080	U	ug/L	P362252	
		Primidone**	0.0040	U	ug/L	P362252	
		Pyraclostrobin**	0.0020	U	ug/L	P362252	
		Triclopyr**	0.0040	U	ug/L	P362252	
2078287	EPA 200.7 Rev. 4.4	Barium	19.5		ug/L	P362361	
		Calcium	12.3		mg/L	P362361	
		Iron	1.47E+03		ug/L	P362361	
		Magnesium	2.52		mg/L	P362361	
		Potassium	1.1	I	mg/L	P362361	
		Sodium	10.4		mg/L	P362361	

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078287	EPA 200.7 Rev. 4.4	Zinc	5.0	U	ug/L	P362361	
	EPA 200.8 Rev. 5.4	Aluminum	289		ug/L	P362361	
		Antimony	0.056	I	ug/L	P362361	
		Arsenic	0.38		ug/L	P362361	
		Boron**	19.2		ug/L	P362361	
		Cadmium	0.020	U	ug/L	P362361	
		Chromium	0.48	I	ug/L	P362361	
		Copper	0.53	I	ug/L	P362361	
		Lead	0.20	I	ug/L	P362361	
		Nickel	1.1	I	ug/L	P362361	
		Selenium	0.20	U	ug/L	P362361	
		Silver	0.010	U	ug/L	P362361	
		Thallium	0.10	U	ug/L	P362361	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: GOODBYS CR ABOVE WEST BRANCH AT SAN CLERC **Collection Date/Time: 04/15/2019 14:05**

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078254	EPA 180.1 Rev. 2.0	Turbidity	8.4		NTU	P362260	
	EPA 300.0 Rev. 2.1	Chloride	25	A	mg Cl/L	P362488	
		Sulfate	21	A	mg SO4/L	P362490	
	SM 2120 B	Color (true)	41		PCU	P362307	
	SM 2320 B-97	Total Alkalinity	142		mg CaCO3/L	P362571	
	SM 2540 C-97	TDS	241		mg/L	P362667	
	SM 2540 D-97	TSS	3	I	mg/L	P362658	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P362576	MS
2078257	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P362712	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P36287	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P362599	
	EPA 365.1 Rev. 2.0	Total-P	0.070		mg P/L	P362499	
	SM 5310 B-00	Organic Carbon	9.1		mg C/L	P362399	
2078260	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.025		mg P/L	P362254	
2078284	EPA 8321B	2,4-D	0.0069	I	ug/L	P362252	
		Acesulfame K**	0.25	I	ug/L	P362188	MS
		AMPA**	0.46		ug/L	P362188	
		Sucralose**	0.13		ug/L	P362188	
		Acetaminophen**	0.0080	U	ug/L	P362252	
		Endothall**	0.25	U	ug/L	P362188	
		Glufosinate**	0.10	U	ug/L	P362188	
		Bentazon	0.022		ug/L	P362252	
		Glyphosate**	0.57		ug/L	P362188	
		Carbamazepine**	8.0E-04	U	ug/L	P362252	
		Diuron	0.090		ug/L	P362252	
		Fenuron	0.017	I	ug/L	P362252	
		Fluridone**	0.011		ug/L	P362252	MS
		Imazapyr**	0.67		ug/L	P362252	
		Hydrocodone**	0.0020	U	ug/L	P362252	
		Ibuprofen**	0.020	U	ug/L	P362252	
		Imidacloprid	0.029		ug/L	P362252	MS
		Linuron	0.0040	U	ug/L	P362252	
		MCP	0.0035	I	ug/L	P362252	
		Naproxen**	0.0080	U	ug/L	P362252	
		Primidone**	0.0040	U	ug/L	P362252	
		Pyraclostrobin**	0.0020	U	ug/L	P362252	
		Triclopyr**	0.0040	U	ug/L	P362252	
2078288	EPA 200.7 Rev. 4.4	Barium	39.2		ug/L	P362361	
		Calcium	58.5		mg/L	P362361	
		Iron	1.26E+03		ug/L	P362361	
		Magnesium	7.67		mg/L	P362361	
		Potassium	2.0		mg/L	P362361	

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078288	EPA 200.7 Rev. 4.4	Sodium	18.1		mg/L	P362361	
		Zinc	5.0	U	ug/L	P362361	
	EPA 200.8 Rev. 5.4	Aluminum	49		ug/L	P362361	
		Antimony	0.094	I	ug/L	P362361	
		Arsenic	2.50		ug/L	P362361	
		Boron**	38.2		ug/L	P362361	
		Cadmium	0.020	U	ug/L	P362361	
		Chromium	0.40	U	ug/L	P362361	
		Copper	0.75	I	ug/L	P362361	
		Lead	0.20	U	ug/L	P362361	
		Nickel	0.50	U	ug/L	P362361	
		Selenium	0.20	U	ug/L	P362361	
		Silver	0.010	U	ug/L	P362361	
		Thallium	0.10	U	ug/L	P362361	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: CRAIG CR @ HENDRICKS AVE

Collection Date/Time: 04/15/2019 13:45

Field ID: 20030793

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078285	EPA 8321B	2,4-D	0.0045	I	ug/L	P362252	
		Acesulfame K**	0.37	I	ug/L	P362188	MS
		AMPA**	0.32	I	ug/L	P362188	
		Sucralose**	0.37		ug/L	P362188	
		Acetaminophen**	0.0080	U	ug/L	P362252	
		Endothall**	0.25	U	ug/L	P362188	
		Glufosinate**	0.10	U	ug/L	P362188	
		Bentazon	0.026		ug/L	P362252	
		Glyphosate**	0.45		ug/L	P362188	
		Carbamazepine**	8.0E-04	U	ug/L	P362252	
		Diuron	0.0036	I	ug/L	P362252	
		Fenuron	0.016	U	ug/L	P362252	
		Fluridone**	0.010		ug/L	P362252	MS
		Imazapyr**	0.23		ug/L	P362252	
		Hydrocodone**	0.0020	U	ug/L	P362252	
		Ibuprofen**	0.020	U	ug/L	P362252	
		Imidacloprid	0.012		ug/L	P362252	MS
		Linuron	0.0040	U	ug/L	P362252	
		MCPP	0.0020	U	ug/L	P362252	
		Naproxen**	0.0080	U	ug/L	P362252	
		Primidone**	0.0040	U	ug/L	P362252	
		Pyraclostrobin**	0.0020	U	ug/L	P362252	
		Triclopyr**	0.0040	U	ug/L	P362252	

Sample Location: BUTCHER PEN CR AT CONFEDERATE

Collection Date/Time: 04/15/2019 12:40

Field ID: 20030082

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078261	EPA 180.1 Rev. 2.0	Turbidity	9.2	A	NTU	P362260	
	EPA 300.0 Rev. 2.1	Chloride	780		mg Cl/L	P362488	
		Sulfate	120		mg SO4/L	P362490	
	SM 2120 B	Color (true)	62		PCU	P362307	
	SM 2320 B-97	Total Alkalinity	106		mg CaCO3/L	P362571	
	SM 2540 C-97	TDS	1.29E+03		mg/L	P362667	
	SM 2540 D-97	TSS	13		mg/L	P362658	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P362576	MS
	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P362712	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P36287	
2078262	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P362599	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P362499	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P362399	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.037		mg P/L	P362254	
	dissolved						
2078289	EPA 200.7 Rev. 4.4	Barium	56.8		ug/L	P362361	
		Calcium	61.7		mg/L	P362361	
		Iron	970		ug/L	P362361	
		Magnesium	54.7		mg/L	P362361	
		Potassium	16.2		mg/L	P362361	
		Sodium	399		mg/L	P362361	
		Zinc	7.9	I	ug/L	P362361	
	EPA 200.8 Rev. 5.4	Aluminum	211		ug/L	P362361	
		Antimony	0.28		ug/L	P362361	
		Arsenic	1.60		ug/L	P362361	
		Boron**	218		ug/L	P362361	
		Cadmium	0.020	U	ug/L	P362361	
		Chromium	0.56	I	ug/L	P362361	
		Copper	1.73		ug/L	P362361	
		Lead	2.28		ug/L	P362361	
		Nickel	0.57	I	ug/L	P362361	
		Selenium	0.20	U	ug/L	P362361	
		Silver	0.010	U	ug/L	P362361	
		Thallium	0.10	U	ug/L	P362361	

Ref. Method and Comment:

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

EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for calcium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

**Sample Location: CRAIG CR. 100M DOWN FROM FOOTBRIDGE
IN PARK**

Collection Date/Time: 04/15/2019 13:25

Field ID: 20030958

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2078249	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P362260	
	EPA 300.0	Bromide	3.9		mg Br/L	P362742	
	SM 2320 B-97	Total Alkalinity	135		mg CaCO3/L	P362571	
	SM 2540 D-97	TSS	21		mg/L	P362659	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P362576	MS
2078250	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P362712	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P36287	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P362598	
	EPA 365.1 Rev. 2.0	Total-P	0.22		mg P/L	P362434	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P362399	
2078251	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.076		mg P/L	P362254	
2078281	EPA 8321B	2,4-D	0.0041	I	ug/L	P362252	
		Acesulfame K**	1.0	U	ug/L	P362188	MS
		AMPA**	0.14	I	ug/L	P362188	
		Sucralose**	0.38		ug/L	P362188	
		Endothall**	2.5	U	ug/L	P362188	
		Acetaminophen**	0.0080	U	ug/L	P362252	
		Glufosinate**	0.10	U	ug/L	P362188	
		Glyphosate**	0.37	I	ug/L	P362188	
		Bentazon	0.022		ug/L	P362252	
		Carbamazepine**	8.0E-04	U	ug/L	P362252	
		Diuron	0.0040	I	ug/L	P362252	
		Fenuron	0.016	U	ug/L	P362252	
		Fluridone**	0.0087		ug/L	P362252	MS
		Imazapyr**	0.14		ug/L	P362252	
		Hydrocodone**	0.0020	U	ug/L	P362252	
		Ibuprofen**	0.020	U	ug/L	P362252	
		Imidacloprid	0.021		ug/L	P362252	MS
		Linuron	0.0040	U	ug/L	P362252	
		MCP	0.0020	U	ug/L	P362252	
		Naproxen**	0.0080	U	ug/L	P362252	
		Primidone**	0.0040	U	ug/L	P362252	
		Pyraclostrobin**	0.0020	U	ug/L	P362252	
		Triclopyr**	0.0040	U	ug/L	P362252	

Ref. Method and Comment:
EPA 8321B: MDL elevated due to matrix interference.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362260

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362361

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362361

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

Reference Method: EPA 300.0
Batch ID: P362742

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362488

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362490

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362712

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P36287

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362598

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362599

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362434

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362499

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362254

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362255

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

Reference Method: EPA 8321B
Batch ID: P362188

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P362188

Component	Result	Code	Units
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P362252

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B
Batch ID: P362307

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P362571

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

Reference Method: SM 2540 C-97
Batch ID: P362667

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P362658

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P362659

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P362576

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P362399

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362361

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	109		P	85 - 115
Calcium	105		P	85 - 115
Iron	105		P	85 - 115
Magnesium	110		P	85 - 115
Potassium	107		P	85 - 115
Sodium	101		P	85 - 115
Zinc	109		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362361

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.1		P	85 - 115
Antimony	98.6		P	85 - 115
Arsenic	103		P	85 - 115
Boron	103		P	85 - 115
Cadmium	99.6		P	85 - 115
Chromium	94.6		P	85 - 115
Copper	102		P	85 - 115
Lead	104		P	85 - 115
Nickel	101		P	85 - 115
Selenium	102		P	85 - 115
Silver	107		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P362742

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362488

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362490

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362712

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P36287

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362598

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362599

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362434

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362499

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362254

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362255

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

Reference Method: EPA 8321B
Batch ID: P362188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	130		P	40 - 150
AMPA	118		P	40 - 150
Endothall	99.8		P	40 - 150
Glufosinate	122		P	40 - 150
Glyphosate	116		P	40 - 140
Sucralose	95.7		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P362252

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	66.6		P	40 - 150
Acetaminophen	88.0		P	30 - 150
Bentazon	99.8		P	30 - 150
Carbamazepine	81.6		P	40 - 150
Diuron	79.2		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	110		P	40 - 150
Hydrocodone	74.3		P	40 - 150
Ibuprofen	79.5		P	40 - 150
Imazapyr	78.4		P	40 - 150
Imidacloprid	89.3		P	40 - 150
Linuron	79.3		P	40 - 150
MCPP	80.4		P	40 - 150
Naproxen	52.3		P	40 - 150
Primidone	81.1		P	40 - 150
Pyraclostrobin	90.5		P	40 - 150
Triclopyr	56.2		P	40 - 150

Reference Method: SM 2120 B
Batch ID: P362307

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	103		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P362571

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.6		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P362576

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P362399

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.9		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078334	Barium	98.6		P	80 - 120
2078334	Iron	106		P	80 - 120
2078334	Magnesium	106		P	80 - 120
2078334	Potassium	101		P	80 - 120
2078334	Sodium	97.1		P	80 - 120
2078334	Zinc	105		P	80 - 120
2078485	Barium	102	103	P/P	80 - 120
2078485	Calcium	107		P	80 - 120
2078485	Iron	108	109	P/P	80 - 120
2078485	Magnesium	114	115	P/P	80 - 120
2078485	Potassium	104	106	P/P	80 - 120
2078485	Sodium	91.2		P	80 - 120
2078485	Zinc	106	107	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362361

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078334	Aluminum	100		P	80 - 120
2078334	Antimony	99.5		P	80 - 120
2078334	Arsenic	103		P	80 - 120
2078334	Boron	108		P	80 - 120
2078334	Cadmium	101		P	80 - 120
2078334	Chromium	93.6		P	80 - 120
2078334	Copper	98.7		P	80 - 120
2078334	Lead	107		P	80 - 120
2078334	Nickel	97.8		P	80 - 120
2078334	Selenium	101		P	80 - 120
2078334	Silver	108		P	80 - 120
2078334	Thallium	107		P	80 - 120
2078485	Aluminum	101	101	P/P	80 - 120
2078485	Antimony	93.8	94.0	P/P	80 - 120
2078485	Arsenic	99.7	98.9	P/P	80 - 120
2078485	Boron	110	109	P/P	80 - 120
2078485	Cadmium	102	100	P/P	80 - 120
2078485	Chromium	96.4	95.4	P/P	80 - 120
2078485	Copper	101	99.8	P/P	80 - 120
2078485	Lead	105	104	P/P	80 - 120
2078485	Nickel	103	102	P/P	80 - 120
2078485	Selenium	96.9	95.5	P/P	80 - 120
2078485	Silver	108	109	P/P	80 - 120
2078485	Thallium	103	103	P/P	80 - 120

Reference Method: EPA 300.0
Batch ID: P362742

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2079290	Bromide	98.4		P	90 - 110
2079303	Bromide	99.0		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078163	Chloride	97.6		P	90 - 110
2078254	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362490

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078163	Sulfate	102		P	90 - 110
2078254	Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362712

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078226	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P36287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078194	Kjeldahl Nitrogen	105	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362598

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078165	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362599

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078255	NO2NO3-N	95.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362434

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078192	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362499

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078257	Total-P	104	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362254

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078170	O-Phosphate-P	95.0	95.2	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078259	O-Phosphate-P	96.5	96.5	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P362188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2077462	Acesulfame K	168	125	F/P	40 - 150
2077462	AMPA	62.2	73.4	P/P	40 - 150
2077462	Endothall	97.8	103	P/P	40 - 150
2077462	Glufosinate	103	110	P/P	40 - 150
2077462	Glyphosate	86.4	84.6	P/P	40 - 140
2077462	Sucralose	104	98.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P362252

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078237	2,4-D	86.5	87.4	P/P	40 - 150
2078237	Acetaminophen	77.5	83.3	P/P	30 - 150
2078237	Bentazon	67.3	66.2	P/P	30 - 150
2078237	Carbamazepine	86.6	94.4	P/P	40 - 150
2078237	Diuron	72.2	70.7	P/P	40 - 150
2078237	Fenuron	96.8	109	P/P	40 - 150
2078237	Fluridone	176	72.4	F/P	40 - 150
2078237	Hydrocodone	93.7	94.9	P/P	40 - 150
2078237	Ibuprofen	65.0	61.0	P/P	40 - 150
2078237	Imazapyr	97.0	55.2	P/P	40 - 150
2078237	Imidacloprid	159	170	F/F	40 - 150
2078237	Linuron	70.9	72.5	P/P	40 - 150
2078237	MCP	101	105	P/P	40 - 150
2078237	Naproxen	69.9	56.9	P/P	40 - 150
2078237	Primidone	67.6	64.2	P/P	40 - 150
2078237	Pyraclostrobin	74.6	80.8	P/P	40 - 150
2078237	Triclopyr	61.2	56.0	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P362576

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2077863	Fluoride	107	105	F/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P362399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2078257	Organic Carbon	98.7	98.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P362260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078261	Turbidity	1.97	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P362361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078485	Barium	0.899	Spike	P	0 - 20
2078485	Calcium	1.27	Spike	P	0 - 20
2078485	Iron	0.875	Spike	P	0 - 20
2078485	Magnesium	0.634	Spike	P	0 - 20
2078485	Potassium	1.51	Spike	P	0 - 20
2078485	Sodium	1.62	Spike	P	0 - 20
2078485	Zinc	0.593	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P362361

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078485	Aluminum	0.165	Spike	P	0 - 20
2078485	Antimony	0.155	Spike	P	0 - 20
2078485	Arsenic	0.711	Spike	P	0 - 20
2078485	Boron	1.16	Spike	P	0 - 20
2078485	Cadmium	1.58	Spike	P	0 - 20
2078485	Chromium	1.01	Spike	P	0 - 20
2078485	Copper	0.762	Spike	P	0 - 20
2078485	Lead	0.667	Spike	P	0 - 20
2078485	Nickel	0.813	Spike	P	0 - 20
2078485	Selenium	1.40	Spike	P	0 - 20
2078485	Silver	0.943	Spike	P	0 - 20
2078485	Thallium	0.0120	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P362742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2079290	Bromide	0.988	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078254	Chloride	0.813	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P362490

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078254	Sulfate	1.12	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P362712

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078226	Ammonia-N	0.226	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P36287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078194	Kjeldahl Nitrogen	0.211	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362598

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078165	NO2NO3-N	0.270	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P362599

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078255	NO2NO3-N	0.217	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362434

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078192	Total-P	2.13	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P362499

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078257	Total-P	2.26	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362254

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078170	O-Phosphate-P	0.179	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P362255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078259	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P362188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2077462	Acesulfame K	25.8	Spike	P	0 - 30
2077462	AMPA	4.51	Spike	P	0 - 30
2077462	Endothall	5.45	Spike	P	0 - 30
2077462	Glufosinate	6.91	Spike	P	0 - 30
2077462	Glyphosate	0.537	Spike	P	0 - 30
2077462	Sucralose	4.33	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P362252

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078237	2,4-D	0.554	Spike	P	0 - 30
2078237	Acetaminophen	7.21	Spike	P	0 - 30
2078237	Bentazon	0.814	Spike	P	0 - 30
2078237	Carbamazepine	8.15	Spike	P	0 - 30
2078237	Diuron	2.18	Spike	P	0 - 30
2078237	Fenuron	12.0	Spike	P	0 - 30
2078237	Fluridone	20.4	Spike	P	0 - 30
2078237	Hydrocodone	1.28	Spike	P	0 - 30
2078237	Ibuprofen	6.24	Spike	P	0 - 30
2078237	Imazapyr	24.0	Spike	P	0 - 30
2078237	Imidacloprid	6.54	Spike	P	0 - 30
2078237	Linuron	2.32	Spike	P	0 - 30
2078237	MCPP	4.19	Spike	P	0 - 30
2078237	Naproxen	20.6	Spike	P	0 - 30
2078237	Primidone	4.56	Spike	P	0 - 30
2078237	Pyraclostrobin	8.08	Spike	P	0 - 30
2078237	Triclopyr	8.83	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P362307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078252	Color (true)	2.71	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P362571

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2077863	Total Alkalinity	0.283	Sample	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P362667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078225	TDS	5.51	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P362659

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078351	TSS	7.50	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P362576

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2077863	Fluoride	1.44	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P362399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2078257	Organic Carbon	0.104	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: 2078281
Field Sample ID: 20030958

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	74.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	92.3	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.7	P	30 - 160
EPA 8321B	Diuron-d6	78.3	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Endothall-d6	112	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	74.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	75.4	P	30 - 160
EPA 8321B	Primidone-d5	77.5	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Lab Sample ID: 2078282
Field Sample ID: 20030848

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	62.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	97.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	87.0	P	30 - 160
EPA 8321B	Diuron-d6	77.3	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Ibuprofen-d3	66.0	P	30 - 160
EPA 8321B	Primidone-d5	78.2	P	30 - 160
EPA 8321B	Sucralose-d6	89.7	P	30 - 160
EPA 8321B	Sucralose-d6	89.7	P	30 - 160

Lab Sample ID: 2078283
Field Sample ID: 20030653

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	70.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	81.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.7	P	30 - 160
EPA 8321B	Diuron-d6	81.3	P	30 - 160
EPA 8321B	Endothall-d6	128	P	30 - 160
EPA 8321B	Endothall-d6	128	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	126	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	126	P	30 - 160
EPA 8321B	Ibuprofen-d3	80.6	P	30 - 160
EPA 8321B	Primidone-d5	75.2	P	30 - 160
EPA 8321B	Sucralose-d6	98.7	P	30 - 160
EPA 8321B	Sucralose-d6	98.7	P	30 - 160

Lab Sample ID: 2078284
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	65.5	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2078284
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	92.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.9	P	30 - 160
EPA 8321B	Diuron-d6	71.6	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Endothall-d6	115	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	107	P	30 - 160
EPA 8321B	Ibuprofen-d3	86.9	P	30 - 160
EPA 8321B	Primidone-d5	66.8	P	30 - 160
EPA 8321B	Sucralose-d6	98.8	P	30 - 160
EPA 8321B	Sucralose-d6	98.8	P	30 - 160

Lab Sample ID: 2078285
Field Sample ID: 20030793

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	72.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.5	P	30 - 160
EPA 8321B	Diuron-d6	77.4	P	30 - 160
EPA 8321B	Endothall-d6	123	P	30 - 160
EPA 8321B	Endothall-d6	123	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	102	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.0	P	30 - 160
EPA 8321B	Primidone-d5	79.6	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A90757

Included Lab Sample IDs: 2078251, 2078258, 2078259, 2078260, 2078263

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	98.9	P/P	90 - 110
O-Phosphate-P	98.9	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A90758

Included Lab Sample IDs: 2078249, 2078252, 2078253, 2078254, 2078261

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A90760

Included Lab Sample IDs: 2078252, 2078253, 2078254, 2078261

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

Reference Method: SM 2120 B

Run ID: A90769

Included Lab Sample IDs: 2078252, 2078253, 2078254, 2078261

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	105	103	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A90788

Included Lab Sample IDs: 2078281, 2078282, 2078283, 2078284, 2078285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	96.6	114	P/P	60 - 160
Glufosinate	112	123	P/P	60 - 160
Glyphosate	118	131	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A90810

Included Lab Sample IDs: 2078250, 2078255, 2078256, 2078257, 2078262

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

Reference Method: EPA 8321B

Run ID: A90825

Included Lab Sample IDs: 2078281, 2078282, 2078283, 2078284, 2078285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	113	134	P/P	60 - 160
Acesulfame K	128	132	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A90825

Included Lab Sample IDs: 2078281, 2078282, 2078283, 2078284, 2078285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Endothall	105	114	P/P	60 - 160
Endothall	107	114	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90847

Included Lab Sample IDs: 2078250, 2078255

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	99.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A90848

Included Lab Sample IDs: 2078281, 2078282, 2078283, 2078284, 2078285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	107	88.3	P/P	50 - 150
2,4-D	88.3	89.9	P/P	50 - 150
Acetaminophen	95.1	99.9	P/P	60 - 160
Acetaminophen	99.9	84.5	P/P	60 - 160
Bentazon	110	114	P/P	50 - 160
Bentazon	114	113	P/P	50 - 160
Carbamazepine	103	99.0	P/P	60 - 150
Carbamazepine	99.0	103	P/P	60 - 150
Diuron	102	100	P/P	60 - 150
Diuron	95.5	102	P/P	60 - 150
Fenuron	96.9	99.0	P/P	60 - 150
Fenuron	99.0	100	P/P	60 - 150
Fluridone	113	63.3	P/P	60 - 160
Fluridone	63.3	62.6	P/P	60 - 160
Hydrocodone	95.5	97.8	P/P	60 - 150
Hydrocodone	97.8	91.3	P/P	60 - 150
Ibuprofen	111	111	P/P	50 - 160
Ibuprofen	151	111	P/P	50 - 160
Imazapyr	101	95.4	P/P	50 - 150
Imazapyr	95.4	102	P/P	50 - 150
Imidacloprid	104	93.9	P/P	60 - 150
Imidacloprid	93.9	87.8	P/P	60 - 150
Linuron	80.6	96.8	P/P	60 - 150
Linuron	96.8	93.3	P/P	60 - 150
MCP	90.3	92.7	P/P	50 - 150
MCP	92.7	90.3	P/P	50 - 150
Naproxen	69.0	82.0	P/P	50 - 160
Naproxen	81.3	69.0	P/P	50 - 160
Primidone	78.6	88.5	P/P	60 - 150
Primidone	88.5	89.2	P/P	60 - 150
Pyraclostrobin	101	136	P/P	60 - 150
Pyraclostrobin	102	101	P/P	60 - 150
Triclopyr	101	101	P/P	50 - 150
Triclopyr	95.2	101	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A90871

Included Lab Sample IDs: 2078249, 2078252, 2078253, 2078254, 2078261

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

Reference Method: SM 4500 F-C-97

Run ID: A90871

Included Lab Sample IDs: 2078249, 2078252, 2078253, 2078254, 2078261

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A90880

Included Lab Sample IDs: 2078250, 2078255, 2078256, 2078257, 2078262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	98.0	P/P	90 - 110
NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A90895

Included Lab Sample IDs: 2078286, 2078287, 2078288, 2078289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	103	P/P	95 - 105
Barium	103	103	P/P	90 - 110
Calcium	104	104	P/P	95 - 105
Calcium	104	107	P/P	90 - 110
Iron	102	102	P/P	95 - 105
Iron	102	102	P/P	90 - 110
Magnesium	103	105	P/P	95 - 105
Magnesium	105	106	P/P	90 - 110
Potassium	101	101	P/P	95 - 105
Potassium	101	102	P/P	90 - 110
Sodium	100	96.4	P/P	90 - 110
Sodium	101	100	P/P	95 - 105
Zinc	103	104	P/P	95 - 105
Zinc	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A90896

Included Lab Sample IDs: 2078256, 2078257, 2078262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.9	P/P	90 - 110
Total-P	99.9	102	P/P	90 - 110

Reference Method: EPA 300.0

Run ID: A90903

Included Lab Sample IDs: 2078249

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	98.0	98.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A90919

Included Lab Sample IDs: 2078250, 2078255, 2078256, 2078257, 2078262

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	108	P/P	90 - 110
Kjeldahl Nitrogen	108	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A90946

Included Lab Sample IDs: 2078250, 2078255, 2078256, 2078257, 2078262

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

Reference Method: EPA 8321B

Run ID: A90984

Included Lab Sample IDs: 2078281, 2078282, 2078283, 2078284, 2078285

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	99.9	P/P	60 - 160
Sucralose	99.9	97.9	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A91006

Included Lab Sample IDs: 2078286, 2078287, 2078288, 2078289

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	99.2	99.3	P/P	90 - 110
Aluminum	99.3	99.3	P/P	90 - 110
Antimony	96.8	96.5	P/P	90 - 110
Antimony	98.6	96.8	P/P	90 - 110
Arsenic	101	97.6	P/P	90 - 110
Arsenic	97.6	97.6	P/P	90 - 110
Boron	101	107	P/P	90 - 110
Boron	107	107	P/P	90 - 110
Cadmium	98.7	98.9	P/P	90 - 110
Cadmium	99.6	98.7	P/P	90 - 110
Chromium	99.0	99.8	P/P	90 - 110
Chromium	99.8	99.1	P/P	90 - 110
Copper	102	99.4	P/P	90 - 110
Copper	99.4	100	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Lead	105	104	P/P	90 - 110
Nickel	100	98.6	P/P	90 - 110
Nickel	98.6	98.9	P/P	90 - 110
Selenium	96.5	97.1	P/P	90 - 110
Selenium	98.8	96.5	P/P	90 - 110
Silver	108	107	P/P	90 - 110
Silver	108	108	P/P	90 - 110
Thallium	96.2	94.5	P/P	90 - 110
Thallium	96.3	96.2	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
EPA 180.1 Rev. 2.0	Turbidity								1.97	
EPA 200.7 Rev. 4.4	Barium	109			98.6	102	103			0.899
	Calcium	105			107					1.27
	Iron	105			106	108	109			0.875
	Magnesium	110			106	114	115			0.634
	Potassium	107			101	104	106			1.51
	Sodium	101			97.1	91.2				1.62
	Zinc	109			105	106	107			0.593
EPA 200.8 Rev. 5.4	Aluminum	99.1			100	101	101			0.165
	Antimony	98.6			99.5	93.8	94.0			0.155
	Arsenic	103			103	99.7	98.9			0.711
	Boron	103			108	110	109			1.16
	Cadmium	99.6			101	102	100			1.58
	Chromium	94.6			93.6	96.4	95.4			1.01
	Copper	102			98.7	101	99.8			0.762
	Lead	104			107	105	104			0.667
	Nickel	101			97.8	103	102			0.813
	Selenium	102			101	96.9	95.5			1.40
	Silver	107			108	108	109			0.943
	Thallium	103			107	103	103			0.0120
EPA 300.0	Bromide	101			98.4	99.0			0.988	
EPA 300.0 Rev. 2.1	Chloride	102			99.1	97.6			0.813	
	Sulfate	102			99.7	102			1.12	
EPA 350.1 Rev. 2.0	Ammonia-N	101			101	101				0.226
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102			105	105				0.211
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0			98.0	98.5				0.270
	NO2NO3-N	97.0			95.2					0.217
EPA 365.1 Rev. 2.0	Total-P	103			104	106				2.13
	Total-P	102			104	101				2.26
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.4			95.0	95.2				0.179
	O-Phosphate-P	101			96.5	96.5				0.0
EPA 8321B	2,4-D	66.6			86.5	87.4				0.554
	Acesulfame K	130			168	125				25.8
	Acetaminophen	88.0			77.5	83.3				7.21
	AMPA	118			62.2	73.4				4.51
	Bentazon	99.8			67.3	66.2				0.814
	Carbamazepine	81.6			86.6	94.4				8.15
	Diuron	79.2			72.2	70.7				2.18
	Endothall	99.8			97.8	103				5.45
	Fenuron	103			96.8	109				12.0
	Fluridone	110			176	72.4				20.4
	Glufosinate	122			103	110				6.91
	Glyphosate	116			86.4	84.6				0.537
	Hydrocodone	74.3			93.7	94.9				1.28
	Ibuprofen	79.5			65.0	61.0				6.24
	Imazapyr	78.4			97.0	55.2				24.0
	Imidacloprid	89.3			159	170				6.54
	Linuron	79.3			70.9	72.5				2.32
	MCPP	80.4			101	105				4.19
	Naproxen	52.3			69.9	56.9				20.6
	Primidone	81.1			67.6	64.2				4.56
	Pyraclostrobin	90.5			74.6	80.8				8.08
	Sucralose	95.7			104	98.0				4.33
	Triclopyr	56.2			61.2	56.0				8.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
SM 2120 B	Color (true)	103			2.71	
SM 2320 B-97	Total Alkalinity	99.6			0.283	
SM 2540 C-97	TDS				5.51	
SM 2540 D-97	TSS				7.50	
SM 4500 F-C-97	Fluoride	97.8	107	105		1.44
SM 5310 B-00	Organic Carbon	99.9	98.7	98.5		0.104

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2078249, 2078252, 2078253, 2078254, 2078261
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2078286, 2078287, 2078288, 2078289
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2078286, 2078287, 2078288, 2078289
EPA 300.0 / E31780	Bromide in aqueous matrices	2078249
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2078252, 2078253, 2078254, 2078261
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2078252, 2078253, 2078254, 2078261
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2078250, 2078255, 2078256, 2078257, 2078262
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2078250, 2078255, 2078256, 2078257, 2078262
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2078250, 2078255, 2078256, 2078257, 2078262
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2078250, 2078255, 2078256, 2078257, 2078262
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2078251, 2078258, 2078259, 2078260, 2078263
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2078281, 2078282, 2078283, 2078284, 2078285
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2078281, 2078282, 2078283, 2078284, 2078285
SM 2120 B / E31780	True Color measured at 450 nm	2078252, 2078253, 2078254, 2078261
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2078249, 2078252, 2078253, 2078254, 2078261
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2078252, 2078253, 2078254, 2078261
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2078249, 2078252, 2078253, 2078254, 2078261
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2078249, 2078252, 2078253, 2078254, 2078261
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2078250, 2078255, 2078256, 2078257, 2078262

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EPA 180.1 Rev. 2.0	04/16/2019			04/16/2019 16:28	Adrian Shelby	2078249, 2078252, 2078253, 2078254, 2078261
EPA 200.7 Rev. 4.4	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/22/2019 12:51	Betina Topolski	2078286
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/22/2019 13:11	Betina Topolski	2078287
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/22/2019 13:16	Betina Topolski	2078288
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/22/2019 13:21	Betina Topolski	2078289
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/22/2019 13:26	Betina Topolski	2078289
EPA 200.8 Rev. 5.4	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/25/2019 16:53	Robert K Palmer	2078286
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/25/2019 17:03	Robert K Palmer	2078287
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/25/2019 17:33	Robert K Palmer	2078288
	04/16/2019	04/17/2019 16:40	Elliott D. Healy	04/25/2019 17:42	Robert K Palmer	2078289
EPA 300.0	04/16/2019			04/23/2019 15:57	Lipi Saha	2078249
EPA 300.0 Rev. 2.1	04/16/2019			04/18/2019 16:49	Lipi Saha	2078254
	04/16/2019			04/18/2019 19:26	Lipi Saha	2078252
	04/16/2019			04/18/2019 19:39	Lipi Saha	2078253
	04/16/2019			04/18/2019 19:51	Lipi Saha	2078261
EPA 350.1 Rev. 2.0	04/16/2019			04/22/2019 11:34	Ping Hua	2078250
	04/16/2019			04/22/2019 11:36	Ping Hua	2078255
	04/16/2019			04/22/2019 11:37	Ping Hua	2078256
	04/16/2019			04/22/2019 11:39	Ping Hua	2078257
	04/16/2019			04/22/2019 11:40	Ping Hua	2078262
EPA 351.2 Rev. 2.0	04/16/2019	04/22/2019 11:45	Adrian Shelby	04/23/2019 11:34	Joseph Suarez	2078250
	04/16/2019	04/22/2019 11:45	Adrian Shelby	04/23/2019 11:36	Joseph Suarez	2078255
	04/16/2019	04/22/2019 11:45	Adrian Shelby	04/23/2019 11:40	Joseph Suarez	2078256
	04/16/2019	04/22/2019 11:45	Adrian Shelby	04/23/2019 11:42	Joseph Suarez	2078257
	04/16/2019	04/22/2019 11:45	Adrian Shelby	04/23/2019 11:44	Joseph Suarez	2078262
EPA 353.2 Rev. 2.0	04/16/2019			04/22/2019 10:02	Beverly Y. Sanders	2078255
	04/16/2019			04/22/2019 10:08	Beverly Y. Sanders	2078256
	04/16/2019			04/22/2019 10:09	Beverly Y. Sanders	2078257
	04/16/2019			04/22/2019 10:11	Beverly Y. Sanders	2078262
	04/16/2019			04/22/2019 11:58	Beverly Y. Sanders	2078250
EPA 365.1 Rev. 2.0	04/16/2019	04/18/2019 13:40	Sima Feizi	04/19/2019 14:05	Rosalyn Ballman	2078250
	04/16/2019	04/18/2019 13:40	Sima Feizi	04/19/2019 14:06	Rosalyn Ballman	2078255
	04/16/2019	04/19/2019 15:05	Sima Feizi	04/22/2019 14:10	Rosalyn Ballman	2078257
	04/16/2019	04/19/2019 15:05	Sima Feizi	04/22/2019 14:15	Rosalyn Ballman	2078256
	04/16/2019	04/19/2019 15:05	Sima Feizi	04/22/2019 14:18	Rosalyn Ballman	2078262
EPA 365.1 Rev. 2.0 dissolved	04/16/2019			04/16/2019 15:13	Jhamieka S. Greenwood	2078259
	04/16/2019			04/16/2019 15:20	Jhamieka S. Greenwood	2078251
	04/16/2019			04/16/2019 15:24	Jhamieka S. Greenwood	2078260
	04/16/2019			04/16/2019 15:25	Jhamieka S. Greenwood	2078263

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EPA 365.1 Rev. 2.0 dissolved	04/16/2019			04/16/2019 15:27	Jhamieka S. Greenwood	2078258
EPA 8321B	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/16/2019 19:33	Rebecca Ware	2078282
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/16/2019 19:47	Rebecca Ware	2078283
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/16/2019 20:01	Rebecca Ware	2078284
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/16/2019 20:15	Rebecca Ware	2078285
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/17/2019 12:01	Rebecca Ware	2078281
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/17/2019 12:10	Rebecca Ware	2078282
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/17/2019 12:18	Rebecca Ware	2078283
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/17/2019 12:26	Rebecca Ware	2078284
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/17/2019 12:34	Rebecca Ware	2078285
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/17/2019 16:58	Rebecca Ware	2078281
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/25/2019 04:30	Rebecca Ware	2078281
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/25/2019 04:42	Rebecca Ware	2078282
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/25/2019 04:54	Rebecca Ware	2078283
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/25/2019 05:29	Rebecca Ware	2078284
	04/16/2019	04/16/2019 14:30	Rebecca Ware	04/25/2019 05:41	Rebecca Ware	2078285
	04/16/2019	04/18/2019 12:00	Hoor Shaik	04/21/2019 20:23	Juyoung Kim	2078281
	04/16/2019	04/18/2019 12:00	Hoor Shaik	04/21/2019 20:58	Juyoung Kim	2078282
	04/16/2019	04/18/2019 12:00	Hoor Shaik	04/21/2019 22:42	Juyoung Kim	2078283
	04/16/2019	04/18/2019 12:00	Hoor Shaik	04/21/2019 23:16	Juyoung Kim	2078284
	04/16/2019	04/18/2019 12:00	Hoor Shaik	04/21/2019 23:51	Juyoung Kim	2078285
SM 2120 B	04/16/2019			04/16/2019 16:21	Mariam Hanna	2078252
	04/16/2019			04/16/2019 16:22	Mariam Hanna	2078253
	04/16/2019			04/16/2019 16:23	Mariam Hanna	2078254
	04/16/2019			04/16/2019 16:24	Mariam Hanna	2078261
SM 2320 B-97	04/16/2019			04/19/2019 06:15	Samantha Davila	2078249
	04/16/2019			04/19/2019 06:27	Samantha Davila	2078252
	04/16/2019			04/19/2019 06:38	Samantha Davila	2078253
	04/16/2019			04/19/2019 06:51	Samantha Davila	2078254
	04/16/2019			04/19/2019 07:04	Samantha Davila	2078261
SM 2540 C-97	04/16/2019			04/17/2019 15:19	Yijie Li	2078252, 2078253, 2078254, 2078261
SM 2540 D-97	04/16/2019			04/17/2019 15:19	Yijie Li	2078249, 2078252, 2078253, 2078254, 2078261
SM 4500 F-C-97	04/16/2019			04/19/2019 06:15	Samantha Davila	2078249
	04/16/2019			04/19/2019 06:27	Samantha Davila	2078252
	04/16/2019			04/19/2019 06:38	Samantha Davila	2078253
	04/16/2019			04/19/2019 06:51	Samantha Davila	2078254
	04/16/2019			04/19/2019 07:04	Samantha Davila	2078261
SM 5310 B-00	04/16/2019			04/17/2019 21:01	Julia Storbeck	2078257
	04/16/2019			04/17/2019 22:26	Julia Storbeck	2078250

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	04/16/2019			04/17/2019 22:39	Julia Storbeck	2078255
	04/16/2019			04/17/2019 22:51	Julia Storbeck	2078256
	04/16/2019			04/17/2019 23:03	Julia Storbeck	2078262