

Chemical Analysis Report

NE-DIST-2019-06-19-01

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-2019-06-17-09**
Customer: **NE-DIST**
Project ID: **SMP**

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Date Certified: 11-JUL-2019 17:21



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: 06/18/2019 10:20

Field ID: 20030848

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096589	EPA 180.1 Rev. 2.0	Turbidity	3.2		NTU	P365991	
	EPA 300.0 Rev. 2.1	Chloride	40		mg Cl/L	P366220	
		Sulfate	74		mg SO4/L	P366222	
	SM 2120 B	Color (true)	30		PCU	P366038	
	SM 2320 B-97	Total Alkalinity	79		mg CaCO3/L	P366157	
	SM 2540 C-97	TDS	265		mg/L	P366542	
	SM 2540 D-97	TSS	2	I	mg/L	P366528	
	SM 4500 F-C-97	Fluoride	0.098	I	mg F/L	P366161	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P366276	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P366480	
2096592	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P366225	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P366116	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P366075	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.019		mg P/L	P365965	
	dissolved						
2096630	EPA 8321B	2,4-D	0.018		ug/L	P365948	
		Acesulfame K**	0.10	U	ug/L	P365987	
		AMPA**	0.10	U	ug/L	P365987	MS
		Sucralose**	0.29		ug/L	P365987	
		Acetaminophen**	0.0080	U	ug/L	P365948	
		Endothall**	0.25	U	ug/L	P365987	
		Glufosinate**	0.10	U	ug/L	P365987	MS
		Glyphosate**	0.10	U	ug/L	P365987	MS
		Bentazon	0.049		ug/L	P365948	
		Carbamazepine**	8.0E-04	U	ug/L	P365948	
		Diuron	0.0020	U	ug/L	P365948	
		Fenuron	0.016	U	ug/L	P365948	
		Fluridone**	0.38		ug/L	P365948	
		Imazapyr**	0.077		ug/L	P365948	
		Hydrocodone**	0.0020	U	ug/L	P365948	
		Ibuprofen**	0.020	U	ug/L	P365948	
		Imidacloprid	0.017		ug/L	P365948	MS
		Linuron	0.0040	U	ug/L	P365948	
		MCP	0.0020	UJ	ug/L	P365948	LCS, MS
		Naproxen**	0.0080	U	ug/L	P365948	
		Primidone**	0.0040	U	ug/L	P365948	
		Pyraclostrobin**	0.0020	U	ug/L	P365948	
		Triclopyr**	0.0040	U	ug/L	P365948	MS

Ref. Method and Comment:

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

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Sample Location: TERRAPIN CR @ Faye Rd

Collection Date/Time: 06/18/2019 11:35

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096590	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P365991	
	EPA 300.0 Rev. 2.1	Chloride	4.3	A	mg Cl/L	P366269	
		Sulfate	41	A	mg SO4/L	P366271	
	SM 2120 B	Color (true)	46		PCU	P366038	
	SM 2320 B-97	Total Alkalinity	7.8		mg CaCO3/L	P366157	
	SM 2540 C-97	TDS	88		mg/L	P366542	
	SM 2540 D-97	TSS	5	I	mg/L	P366528	
	SM 4500 F-C-97	Fluoride	0.069	I	mg F/L	P366161	
2096593	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P366276	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P366480	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P366225	
	EPA 365.1 Rev. 2.0	Total-P	0.068		mg P/L	P366116	
	SM 5310 B-00	Organic Carbon	6.0		mg C/L	P366075	
2096596	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P365965	
2096631	EPA 8321B	2,4-D	0.0020	U	ug/L	P365948	
		Acesulfame K**	0.10	U	ug/L	P365987	
		AMPA**	0.10	U	ug/L	P365987	MS
		Sucralose**	0.035	I	ug/L	P365987	
		Acetaminophen**	0.0080	U	ug/L	P365948	
		Endothall**	0.25	U	ug/L	P365987	
		Glufosinate**	0.10	U	ug/L	P365987	MS
		Glyphosate**	0.10	U	ug/L	P365987	MS
		Bentazon	8.0E-04	U	ug/L	P365948	
		Carbamazepine**	8.0E-04	U	ug/L	P365948	
		Diuron	0.0049	I	ug/L	P365948	
		Fenuron	0.016	U	ug/L	P365948	
		Fluridone**	0.011		ug/L	P365948	
		Imazapyr**	0.0046	I	ug/L	P365948	
		Hydrocodone**	0.0020	U	ug/L	P365948	
		Ibuprofen**	0.020	U	ug/L	P365948	
		Imidacloprid	0.0020	U	ug/L	P365948	MS
		Linuron	0.0040	U	ug/L	P365948	
		MCP	0.0020	UJ	ug/L	P365948	LCS, MS
		Naproxen**	0.0080	U	ug/L	P365948	
		Primidone**	0.0040	U	ug/L	P365948	
		Pyraclostrobin**	0.0020	U	ug/L	P365948	
		Triclopyr**	0.0040	U	ug/L	P365948	MS

Ref. Method and Comment:

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

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Sample Location: CRAIG CR. 100m DOWN FROM FOOTBRIDGE IN PARK **Collection Date/Time: 06/18/2019 13:25**

Field ID: 20030958

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096586	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P365990	
	EPA 300.0	Bromide	12		mg Br/L	P366331	
	SM 2320 B-97	Total Alkalinity	105	A	mg CaCO3/L	P366362	
	SM 2540 D-97	TSS	6	IA	mg/L	P366532	
	SM 4500 F-C-97	Fluoride	0.32		mg F/L	P366365	
2096587	EPA 350.1 Rev. 2.0	Ammonia-N	0.12		mg N/L	P366173	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.78		mg N/L	P366635	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.036		mg N/L	P366099	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P366179	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P366076	
2096588	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.066		mg P/L	P365966	
2096629	EPA 8321B	2,4-D	0.0087		ug/L	P365948	
		Acesulfame K**	0.10	UJ	ug/L	P365987	SUR
		AMPA**	1.0	U	ug/L	P365987	MS
		Sucralose**	0.58		ug/L	P365987	
		Acetaminophen**	0.025	I	ug/L	P365948	
		Endothall**	0.25	UJ	ug/L	P365987	SUR
		Glufosinate**	1.0	U	ug/L	P365987	MS
		Glyphosate**	1.0	U	ug/L	P365987	MS
		Bentazon	0.012		ug/L	P365948	
		Carbamazepine**	8.0E-04	U	ug/L	P365948	
		Diuron	0.0096		ug/L	P365948	
		Fenuron	0.016	U	ug/L	P365948	
		Fluridone**	0.0034		ug/L	P365948	
		Imazapyr**	0.076		ug/L	P365948	
		Hydrocodone**	0.0020	U	ug/L	P365948	
		Ibuprofen**	0.020	U	ug/L	P365948	
		Imidacloprid	0.078		ug/L	P365948	MS
		Linuron	0.0040	U	ug/L	P365948	
		MCP	0.0028	IJ	ug/L	P365948	LCS, MS
		Naproxen**	0.0080	U	ug/L	P365948	
		Primidone**	0.0040	U	ug/L	P365948	
		Pyraclostrobin**	0.0020	U	ug/L	P365948	
		Triclopyr**	0.0040	U	ug/L	P365948	MS

Ref. Method and Comment:

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

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Surrogate spike recovery exceeding the control limits. Results confirmed in sample duplicate. MDL for some parameters elevated due to matrix interference.

Sample Location: BUTCHER PEN CR AT CONFEDERATE

Collection Date/Time: 06/18/2019 12:45

Field ID: 20030082

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096598	EPA 180.1 Rev. 2.0	Turbidity	8.6		NTU	P365991	
	EPA 300.0 Rev. 2.1	Chloride	3.5E+03		mg Cl/L	P366269	
		Sulfate	510		mg SO4/L	P366271	
		Color (true)	50		PCU	P366038	
	SM 2320 B-97	Total Alkalinity	91		mg CaCO3/L	P366362	
	SM 2540 C-97	TDS	5.20E+03		mg/L	P366542	
	SM 2540 D-97	TSS	11		mg/L	P366528	
	SM 4500 F-C-97	Fluoride	0.33		mg F/L	P366365	
2096599	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P366173	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P366635	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366100	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P366179	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P366075	
2096600	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P365966	
2096633	EPA 200.7 Rev. 4.4	Barium	66.9		ug/L	P365961	
		Calcium	109		mg/L	P365961	
		Iron	300		ug/L	P365961	
		Magnesium	238		mg/L	P365961	
		Manganese	52.7		ug/L	P365961	
		Potassium	68		mg/L	P365961	
		Sodium	1.88E+03		mg/L	P365961	
		Zinc	5.0	U	ug/L	P365961	
	EPA 200.8 Rev. 5.4	Aluminum	220		ug/L	P365961	
		Antimony	0.46	I	ug/L	P365961	
		Arsenic	2.83		ug/L	P365961	
		Boron**	833		ug/L	P365961	
		Cadmium	0.080	U	ug/L	P365961	
		Chromium	1.6	U	ug/L	P365961	
		Copper	1.6	U	ug/L	P365961	
		Lead	1.4	I	ug/L	P365961	
		Nickel	2.0	U	ug/L	P365961	
		Selenium	0.80	U	ug/L	P365961	
		Silver	0.040	U	ug/L	P365961	
		Thallium	0.40	U	ug/L	P365961	

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, magnesium, potassium and sodium are unavailable because of high analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: Batch matrix spike recoveries for boron are unavailable because of high analyte concentration in the QC sample.

Sample Location: GOODBYS CR ABOVE WEST BRANCH AT SAN CLERC **Collection Date/Time: 06/18/2019 14:05**

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096591	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P365991	
	EPA 300.0 Rev. 2.1	Chloride	23		mg Cl/L	P366269	
		Sulfate	25		mg SO4/L	P366271	
	SM 2120 B	Color (true)	56		PCU	P366038	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P366157	
	SM 2540 C-97	TDS	225		mg/L	P366542	
	SM 2540 D-97	TSS	4	I	mg/L	P366528	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P366161	
2096594	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P366276	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P366480	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.17		mg N/L	P366225	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P366116	
	SM 5310 B-00	Organic Carbon	8.7		mg C/L	P366075	
2096597	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P365967	
2096632	EPA 8321B	2,4-D	0.023		ug/L	P365948	
		Acesulfame K**	0.10	U	ug/L	P365987	
		AMPA**	0.37	I	ug/L	P365987	MS
		Sucralose**	0.086		ug/L	P365987	
		Acetaminophen**	0.0080	U	ug/L	P365948	
		Endothall**	0.25	U	ug/L	P365987	
		Glufosinate**	0.10	U	ug/L	P365987	MS
		Glyphosate**	0.88		ug/L	P365987	MS
		Bentazon	0.0078		ug/L	P365948	
		Carbamazepine**	8.0E-04	U	ug/L	P365948	
		Diuron	0.046		ug/L	P365948	
		Fenuron	0.016	U	ug/L	P365948	
		Fluridone**	0.018		ug/L	P365948	
		Imazapyr**	0.58		ug/L	P365948	
		Hydrocodone**	0.0020	U	ug/L	P365948	
		Ibuprofen**	0.020	U	ug/L	P365948	
		Imidacloprid	0.035		ug/L	P365948	MS
		Linuron	0.0040	U	ug/L	P365948	
		MCPP	0.0047	IJ	ug/L	P365948	LCS, MS
		Naproxen**	0.0080	U	ug/L	P365948	
		Primidone**	0.0040	U	ug/L	P365948	
		Pyraclostrobin**	0.0020	U	ug/L	P365948	
		Triclopyr**	0.0040	U	ug/L	P365948	MS

Ref. Method and Comment:

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

EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365990

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365991

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365961

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
Manganese	1.0	U	ug/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: P365961

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	0.031	I	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: P366331

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366220

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366222

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366269

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366271

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366173

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366276

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366480

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366635

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366099

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366100

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P366225

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366116

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

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366179

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365965

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365966

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P365967

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

Reference Method: EPA 8321B
 Batch ID: P365948

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P365948

Component	Result	Code	Units
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P365987

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

Reference Method: SM 2120 B
Batch ID: P366038

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P366157

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

Reference Method: SM 2320 B-97
Batch ID: P366362

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

Reference Method: SM 2540 C-97
Batch ID: P366542

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366528

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366532

Component	Result	Code	Units
TSS	3	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P366161

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P366075

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

Reference Method: SM 5310 B-00
Batch ID: P366076

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: P365961

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	102		P	85 - 115
Calcium	105		P	85 - 115
Iron	108		P	85 - 115
Magnesium	109		P	85 - 115
Manganese	102		P	85 - 115
Potassium	101		P	85 - 115
Sodium	103		P	85 - 115
Zinc	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365961

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	89.6		P	85 - 115
Antimony	98.1		P	85 - 115
Arsenic	98.6		P	85 - 115
Boron	105		P	85 - 115
Cadmium	98.0		P	85 - 115
Chromium	101		P	85 - 115
Copper	94.0		P	85 - 115
Lead	97.2		P	85 - 115
Nickel	95.2		P	85 - 115
Selenium	96.3		P	85 - 115
Silver	96.7		P	85 - 115
Thallium	106		P	85 - 115

Reference Method: EPA 300.0
Batch ID: P366331

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366220

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366222

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366269

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.5		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366271

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366173

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366276

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366480

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366635

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366099

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366100

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366225

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366116

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366179

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365965

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.6		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365966

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365967

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

Reference Method: EPA 8321B
Batch ID: P365948

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	113		P	40 - 150
Acetaminophen	125		P	30 - 150
Bentazon	87.9		P	30 - 150
Carbamazepine	102		P	40 - 150
Diuron	94.7		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	112		P	40 - 150
Hydrocodone	100		P	40 - 150
Ibuprofen	71.7		P	30 - 150
Imazapyr	72.3		P	40 - 150
Imidacloprid	101		P	40 - 150
Linuron	71.0		P	40 - 150
MCPP	151		F	40 - 150
Naproxen	102		P	40 - 150
Primidone	93.2		P	40 - 150
Pyraclostrobin	85.9		P	30 - 150
Triclopyr	98.5		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P365987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	118		P	40 - 150
AMPA	101		P	40 - 150
Endothall	107		P	40 - 150
Glufosinate	98.5		P	40 - 150
Glyphosate	100		P	40 - 140
Sucralose	94.8		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P366038

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P366157

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	105		P	98 - 106

Reference Method: SM 2320 B-97
Batch ID: P366362

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366161

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.1		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.9		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P366075

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P366076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365961

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096633	Barium	95.5	94.8	P/P	70 - 130
2096633	Iron	103	101	P/P	70 - 130
2096633	Manganese	95.3	94.5	P/P	70 - 130
2096633	Zinc	103	101	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365961

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096633	Aluminum	94.8	96.2	P/P	70 - 130
2096633	Antimony	99.2	100	P/P	70 - 130
2096633	Arsenic	107	108	P/P	70 - 130
2096633	Cadmium	98.8	96.6	P/P	70 - 130
2096633	Chromium	90.8	90.3	P/P	70 - 130
2096633	Copper	97.9	98.7	P/P	70 - 130
2096633	Lead	99.0	99.4	P/P	70 - 130
2096633	Nickel	97.5	99.1	P/P	70 - 130
2096633	Selenium	101	104	P/P	70 - 130
2096633	Silver	91.3	93.4	P/P	70 - 130
2096633	Thallium	106	105	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P366331

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096377	Bromide	94.8	94.6	P/P	90 - 110
2096414	Bromide	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366220

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096411	Chloride	96.8		P	90 - 110
2096442	Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366222

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096411	Sulfate	96.0		P	90 - 110
2096442	Sulfate	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366269

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096590	Chloride	99.7		P	90 - 110
2096718	Chloride	99.6		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366271

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096590	Sulfate	99.9		P	90 - 110
2096718	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096728	Ammonia-N	105	105	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366276

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096557	Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366480

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096556	Kjeldahl Nitrogen	110	94.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366635

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096499	Kjeldahl Nitrogen	97.6	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096508	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096599	NO2NO3-N	97.6	96.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366225

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096592	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096556	Total-P	101	97.7	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096509	Total-P	93.9	95.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096596	O-Phosphate-P	94.6	96.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365966

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096606	O-Phosphate-P	95.9	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365967

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096734	O-Phosphate-P	95.9	97.0	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P365948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096571	2,4-D	93.1	117	P/P	40 - 150
2096571	Acetaminophen	98.9	101	P/P	30 - 150
2096571	Bentazon	45.8	94.5	P/P	30 - 150
2096571	Carbamazepine	72.2	80.2	P/P	40 - 150
2096571	Diuron	63.8	71.6	P/P	40 - 150
2096571	Fenuron	78.3	87.3	P/P	40 - 150
2096571	Fluridone	70.0	81.4	P/P	40 - 150
2096571	Hydrocodone	96.0	101	P/P	40 - 150
2096571	Ibuprofen	63.0	70.3	P/P	30 - 150
2096571	Imazapyr	97.5	115	P/P	40 - 150
2096571	Imidacloprid	136	164	P/F	40 - 150
2096571	Linuron	60.7	59.7	P/P	40 - 150
2096571	MCPD	144	176	P/F	40 - 150
2096571	Naproxen	62.1	55.0	P/P	40 - 150
2096571	Primidone	77.4	78.5	P/P	40 - 150
2096571	Pyraclostrobin	87.1	90.1	P/P	30 - 150
2096571	Triclopyr	130	154	P/F	30 - 150

Reference Method: EPA 8321B
Batch ID: P365987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096084	Acesulfame K	83.1	82.1	P/P	40 - 150
2096084	AMPA	18.2	28.7	F/F	40 - 150
2096084	Endothall	77.0	74.5	P/P	40 - 150
2096084	Glufosinate	39.1	39.5	F/F	40 - 150
2096084	Glyphosate	14.7	32.0	F/F	40 - 140
2096084	Sucralose	52.8	50.2	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P366161

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096415	Fluoride	97.8	97.8	P/P	89 - 106

Reference Method: SM 4500 F-C-97
Batch ID: P366365

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096586	Fluoride	97.1	97.8	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P366075

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096592	Organic Carbon	95.8	94.8	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P366076

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096587	Organic Carbon	95.2	95.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096445	Turbidity	7.78	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P365991

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096654	Turbidity	1.12	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P365961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096633	Barium	0.637	Spike	P	0 - 20
2096633	Calcium	0.626	Spike	P	0 - 20
2096633	Iron	1.59	Spike	P	0 - 20
2096633	Magnesium	2.80	Spike	P	0 - 20
2096633	Manganese	0.654	Spike	P	0 - 20
2096633	Potassium	1.02	Spike	P	0 - 20
2096633	Sodium	1.68	Spike	P	0 - 20
2096633	Zinc	1.81	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P365961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096633	Aluminum	1.29	Spike	P	0 - 20
2096633	Antimony	1.25	Spike	P	0 - 20
2096633	Arsenic	0.903	Spike	P	0 - 20
2096633	Boron	0.832	Spike	P	0 - 20
2096633	Cadmium	2.30	Spike	P	0 - 20
2096633	Chromium	0.574	Spike	P	0 - 20
2096633	Copper	0.802	Spike	P	0 - 20
2096633	Lead	0.309	Spike	P	0 - 20
2096633	Nickel	1.54	Spike	P	0 - 20
2096633	Selenium	2.74	Spike	P	0 - 20
2096633	Silver	2.26	Spike	P	0 - 20
2096633	Thallium	0.359	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P366331

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096377	Bromide	0.133	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096442	Chloride	0.480	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096442	Sulfate	1.42	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366269

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096590	Chloride	0.369	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366271

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096590	Sulfate	0.566	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096728	Ammonia-N	0.348	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366276

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096557	Ammonia-N	0.862	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366480

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096556	Kjeldahl Nitrogen	8.82	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366635

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096499	Kjeldahl Nitrogen	4.07	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366099

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096508	NO2NO3-N	0.487	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096599	NO2NO3-N	1.55	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366225

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096592	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096556	Total-P	3.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096509	Total-P	1.74	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096596	O-Phosphate-P	1.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365966

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096606	O-Phosphate-P	1.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P365967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096734	O-Phosphate-P	1.14	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P365948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096571	2,4-D	14.2	Spike	P	0 - 30
2096571	Acetaminophen	2.31	Spike	P	0 - 30
2096571	Bentazon	6.06	Spike	P	0 - 30
2096571	Carbamazepine	9.76	Spike	P	0 - 30
2096571	Diuron	9.91	Spike	P	0 - 30
2096571	Fenuron	10.9	Spike	P	0 - 30
2096571	Fluridone	3.44	Spike	P	0 - 30
2096571	Hydrocodone	4.84	Spike	P	0 - 30
2096571	Ibuprofen	11.0	Spike	P	0 - 30
2096571	Imazapyr	10.3	Spike	P	0 - 30
2096571	Imidacloprid	2.49	Spike	P	0 - 30
2096571	Linuron	1.71	Spike	P	0 - 30
2096571	MCP	19.1	Spike	P	0 - 30
2096571	Naproxen	12.1	Spike	P	0 - 30
2096571	Primidone	1.16	Spike	P	0 - 30
2096571	Pyraclostrobin	3.35	Spike	P	0 - 30
2096571	Triclopyr	17.1	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P365987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096084	Acesulfame K	1.17	Spike	P	0 - 30
2096084	AMPA	8.78	Spike	P	0 - 30
2096084	Endothall	3.36	Spike	P	0 - 30
2096084	Glufosinate	1.10	Spike	P	0 - 30
2096084	Glyphosate	10.5	Spike	P	0 - 30
2096084	Sucralose	5.07	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P366038

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096553	Color (true)	0.584	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P366157

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096415	Total Alkalinity	0.361	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P366362

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096586	Total Alkalinity	0.299	Sample	P	0 - 2.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
 Batch ID: P366542

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096553	TDS	2.71	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P366161

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096415	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
 Batch ID: P366365

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096586	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P366075

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096592	Organic Carbon	0.677	Spike	P	0 - 20

Reference Method: SM 5310 B-00
 Batch ID: P366076

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096587	Organic Carbon	0.368	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: 2096629
Field Sample ID: 20030958

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	105	P	30 - 160
EPA 8321B	Acetaminophen-d4	77.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	58.8	P	30 - 160
EPA 8321B	Diuron-d6	53.7	P	30 - 160
EPA 8321B	Endothall-d6	221	F	30 - 160
EPA 8321B	Endothall-d6	221	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	59.6	P	30 - 160
EPA 8321B	Primidone-d5	83.4	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160

Lab Sample ID: 2096630
Field Sample ID: 20030848

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	79.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.3	P	30 - 160
EPA 8321B	Diuron-d6	59.8	P	30 - 160
EPA 8321B	Endothall-d6	86.3	P	30 - 160
EPA 8321B	Endothall-d6	86.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	71.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.8	P	30 - 160
EPA 8321B	Primidone-d5	78.7	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2096631
Field Sample ID: 20030653

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	125	P	30 - 160
EPA 8321B	Acetaminophen-d4	88.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.3	P	30 - 160
EPA 8321B	Diuron-d6	66.8	P	30 - 160
EPA 8321B	Endothall-d6	98.5	P	30 - 160
EPA 8321B	Endothall-d6	98.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	113	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	113	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.7	P	30 - 160
EPA 8321B	Primidone-d5	89.7	P	30 - 160
EPA 8321B	Sucralose-d6	92.7	P	30 - 160
EPA 8321B	Sucralose-d6	92.7	P	30 - 160

Lab Sample ID: 2096632
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.3	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2096632
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	79.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.6	P	30 - 160
EPA 8321B	Diuron-d6	55.8	P	30 - 160
EPA 8321B	Endothall-d6	86.0	P	30 - 160
EPA 8321B	Endothall-d6	86.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	78.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	78.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	63.9	P	30 - 160
EPA 8321B	Primidone-d5	88.9	P	30 - 160
EPA 8321B	Sucralose-d6	91.5	P	30 - 160
EPA 8321B	Sucralose-d6	91.5	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92171

Included Lab Sample IDs: 2096589

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92215

Included Lab Sample IDs: 2096588, 2096595, 2096596, 2096597, 2096600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.2	P/P	90 - 110
O-Phosphate-P	98.1	98.8	P/P	90 - 110
O-Phosphate-P	98.2	97.4	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A92222

Included Lab Sample IDs: 2096586, 2096589, 2096590, 2096591, 2096598

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

Reference Method: SM 2120 B

Run ID: A92249

Included Lab Sample IDs: 2096589, 2096590, 2096591, 2096598

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	98.7	P/P	90 - 115

Reference Method: EPA 8321B

Run ID: A92259

Included Lab Sample IDs: 2096629, 2096630, 2096631, 2096632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	112	110	P/P	60 - 160
Endothall	103	105	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A92261

Included Lab Sample IDs: 2096587, 2096592, 2096593, 2096594, 2096599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.2	98.2	P/P	90 - 110
Organic Carbon	97.2	96.8	P/P	90 - 110
Organic Carbon	98.2	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92272

Included Lab Sample IDs: 2096587, 2096599

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A92278

Included Lab Sample IDs: 2096629, 2096630, 2096631, 2096632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	93.7	90.4	P/P	60 - 160
AMPA	98.1	93.7	P/P	60 - 160
Glufosinate	92.7	93.5	P/P	60 - 160
Glufosinate	93.5	95.5	P/P	60 - 160
Glyphosate	106	96.5	P/P	60 - 160
Glyphosate	96.5	103	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92283

Included Lab Sample IDs: 2096633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	90.9	91.9	P/P	90 - 110
Arsenic	96.9	96.1	P/P	90 - 110
Cadmium	97.1	95.1	P/P	90 - 110
Chromium	102	96.1	P/P	90 - 110
Copper	95.4	94.1	P/P	90 - 110
Nickel	95.5	93.9	P/P	90 - 110
Selenium	96.1	95.7	P/P	90 - 110
Silver	94.0	92.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92284

Included Lab Sample IDs: 2096633

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

Reference Method: SM 2320 B-97

Run ID: A92292

Included Lab Sample IDs: 2096589, 2096590, 2096591

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A92292

Included Lab Sample IDs: 2096589, 2096590, 2096591

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92297

Included Lab Sample IDs: 2096587, 2096599

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92301

Included Lab Sample IDs: 2096592, 2096593, 2096594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92309

Included Lab Sample IDs: 2096592, 2096593, 2096594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	103	P/P	90 - 110
Total-P	103	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92329

Included Lab Sample IDs: 2096633

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	97.4	96.7	P/P	90 - 110
Boron	101	98.3	P/P	90 - 110
Lead	97.5	97.1	P/P	90 - 110
Thallium	95.4	92.8	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92336

Included Lab Sample IDs: 2096590, 2096591, 2096598

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92337

Included Lab Sample IDs: 2096592, 2096593, 2096594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92339

Included Lab Sample IDs: 2096587, 2096599

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0

Run ID: A92370

Included Lab Sample IDs: 2096586

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	104	105	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A92380

Included Lab Sample IDs: 2096586, 2096598

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

Reference Method: SM 4500 F-C-97

Run ID: A92380

Included Lab Sample IDs: 2096586, 2096598

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

Reference Method: EPA 8321B

Run ID: A92430

Included Lab Sample IDs: 2096629, 2096630, 2096631, 2096632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	104	103	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A92463

Included Lab Sample IDs: 2096629, 2096630, 2096631, 2096632

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	60.5	87.7	P/P	50 - 150
Acetaminophen	137	131	P/P	60 - 160
Bentazon	96.7	91.9	P/P	50 - 160
Carbamazepine	105	71.3	P/P	60 - 150
Diuron	107	107	P/P	60 - 150
Fenuron	102	98.3	P/P	60 - 150
Fluridone	114	120	P/P	60 - 160
Hydrocodone	109	91.9	P/P	60 - 150
Ibuprofen	83.0	86.4	P/P	50 - 160
Imazapyr	92.8	81.3	P/P	50 - 150
Imidacloprid	91.5	91.8	P/P	60 - 150
Linuron	93.8	90.5	P/P	60 - 150
MCPP	92.1	92.5	P/P	50 - 150
Naproxen	67.9	82.5	P/P	50 - 160
Primidone	98.0	102	P/P	60 - 150
Pyraclostrobin	96.8	104	P/P	60 - 150
Triclopyr	101	85.6	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92486

Included Lab Sample IDs: 2096592, 2096593, 2096594

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92486

Included Lab Sample IDs: 2096592, 2096593, 2096594

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.7	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92534

Included Lab Sample IDs: 2096587, 2096599

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.4	98.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92555

Included Lab Sample IDs: 2096630

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	109	99.9	P/P	60 - 160

* 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						7.78	
	Turbidity						1.12	
EPA 200.7 Rev. 4.4	Barium	102		95.5	94.8			0.637
	Calcium	105						0.626
	Iron	108		103	101			1.59
	Magnesium	109						2.80
	Manganese	102		95.3	94.5			0.654
	Potassium	101						1.02
	Sodium	103						1.68
	Zinc	106		103	101			1.81
EPA 200.8 Rev. 5.4	Aluminum	89.6		94.8	96.2			1.29
	Antimony	98.1		99.2	100			1.25
	Arsenic	98.6		107	108			0.903
	Boron	105						0.832
	Cadmium	98.0		98.8	96.6			2.30
	Chromium	101		90.8	90.3			0.574
	Copper	94.0		97.9	98.7			0.802
	Lead	97.2		99.0	99.4			0.309
	Nickel	95.2		97.5	99.1			1.54
	Selenium	96.3		101	104			2.74
	Silver	96.7		91.3	93.4			2.26
	Thallium	106		106	105			0.359
EPA 300.0	Bromide	99.6		94.8	94.6	96.6		0.133
EPA 300.0 Rev. 2.1	Chloride	96.4		97.6	96.8		0.480	
	Chloride	99.5		99.7	99.6		0.369	
	Sulfate	96.8		97.3	96.0		1.42	
	Sulfate	99.8		99.9	100		0.566	
EPA 350.1 Rev. 2.0	Ammonia-N	102		105	105			0.348
	Ammonia-N	102		99.2	100			0.862
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109		110	94.8			8.82
	Kjeldahl Nitrogen	100		97.6	103			4.07
EPA 353.2 Rev. 2.0	NO2NO3-N	102		102	103			0.487
	NO2NO3-N	102		97.6	96.2			1.55
	NO2NO3-N	102		101	101			0.0
EPA 365.1 Rev. 2.0	Total-P	103		101	97.7			3.23
	Total-P	99.7		93.9	95.6			1.74
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.6		94.6	96.1			1.22
	O-Phosphate-P	100		95.9	97.2			1.35
	O-Phosphate-P	97.7		95.9	97.0			1.14
EPA 8321B	2,4-D	113		93.1	117			14.2
	Acesulfame K	118		83.1	82.1			1.17
	Acetaminophen	125		98.9	101			2.31
	AMPA	101		18.2	28.7			8.78
	Bentazon	87.9		45.8	94.5			6.06
	Carbamazepine	102		72.2	80.2			9.76
	Diuron	94.7		63.8	71.6			9.91
	Endothall	107		77.0	74.5			3.36
	Fenuron	103		78.3	87.3			10.9
	Fluridone	112		70.0	81.4			3.44
	Glufosinate	98.5		39.1	39.5			1.10
	Glyphosate	100		14.7	32.0			10.5
	Hydrocodone	100		96.0	101			4.84
	Ibuprofen	71.7		63.0	70.3			11.0
	Imazapyr	72.3		97.5	115			10.3

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Imidacloprid	101	136	164		2.49
	Linuron	71.0	60.7	59.7		1.71
	MCPD	151	144	176		19.1
	Naproxen	102	62.1	55.0		12.1
	Primidone	93.2	77.4	78.5		1.16
	Pyraclostrobin	85.9	87.1	90.1		3.35
	Sucralose	94.8	52.8	50.2		5.07
	Triclopyr	98.5	130	154		17.1
SM 2120 B	Color (true)	100			0.584	
SM 2320 B-97	Total Alkalinity	105			0.361	
	Total Alkalinity	103			0.299	
SM 2540 C-97	TDS				2.71	
SM 4500 F-C-97	Fluoride	98.1	97.8	97.8		0.0
	Fluoride	97.9	97.1	97.8		0.473
SM 5310 B-00	Organic Carbon	97.2	95.8	94.8		0.677
	Organic Carbon	98.2	95.2	95.6		0.368

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2096586, 2096589, 2096590, 2096591, 2096598
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2096633
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2096633
EPA 300.0 / E31780	Bromide in aqueous matrices	2096586
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2096589, 2096590, 2096591, 2096598
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2096589, 2096590, 2096591, 2096598
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2096587, 2096592, 2096593, 2096594, 2096599
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2096587, 2096592, 2096593, 2096594, 2096599
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2096587, 2096592, 2096593, 2096594, 2096599
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2096587, 2096592, 2096593, 2096594, 2096599
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2096588, 2096595, 2096596, 2096597, 2096600
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2096629, 2096630, 2096631, 2096632
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2096629, 2096630, 2096631, 2096632
SM 2120 B / E31780	True Color measured at 450 nm	2096589, 2096590, 2096591, 2096598
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2096586, 2096589, 2096590, 2096591, 2096598
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2096589, 2096590, 2096591, 2096598
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2096586, 2096589, 2096590, 2096591, 2096598
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2096586, 2096589, 2096590, 2096591, 2096598
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2096587, 2096592, 2096593, 2096594, 2096599

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	06/19/2019			06/19/2019 17:04	Adrian Shelby	2096586, 2096589, 2096590, 2096591, 2096598
EPA 200.7 Rev. 4.4	06/19/2019	06/19/2019 16:40	Elliott D. Healy	06/21/2019 14:19	Betina Topolski	2096633
	06/19/2019	06/19/2019 16:40	Elliott D. Healy	06/21/2019 15:20	Betina Topolski	2096633
EPA 200.8 Rev. 5.4	06/19/2019	06/19/2019 16:40	Elliott D. Healy	06/22/2019 15:45	Robert K Palmer	2096633
	06/19/2019	06/19/2019 16:40	Elliott D. Healy	06/24/2019 20:03	Robert K Palmer	2096633
EPA 300.0	06/19/2019			06/24/2019 22:52	Lipi Saha	2096586
EPA 300.0 Rev. 2.1	06/19/2019			06/21/2019 16:28	Jhamieka S. Greenwood	2096589
	06/19/2019			06/24/2019 17:25	Lipi Saha	2096590
	06/19/2019			06/24/2019 18:13	Lipi Saha	2096591
	06/19/2019			06/24/2019 18:25	Lipi Saha	2096598
EPA 350.1 Rev. 2.0	06/19/2019			06/21/2019 13:50	Ping Hua	2096599
	06/19/2019			06/21/2019 14:00	Ping Hua	2096587
	06/19/2019			06/25/2019 11:59	Ping Hua	2096592
	06/19/2019			06/25/2019 12:00	Ping Hua	2096593
	06/19/2019			06/25/2019 12:08	Ping Hua	2096594
EPA 351.2 Rev. 2.0	06/19/2019	06/28/2019 16:00	Adrian Shelby	07/01/2019 15:16	Joseph Suarez	2096592
	06/19/2019	06/28/2019 16:00	Adrian Shelby	07/01/2019 15:18	Joseph Suarez	2096593
	06/19/2019	06/28/2019 16:00	Adrian Shelby	07/01/2019 15:19	Joseph Suarez	2096594
	06/19/2019	07/02/2019 11:30	Adrian Shelby	07/03/2019 10:35	Joseph Suarez	2096587
	06/19/2019	07/02/2019 11:30	Adrian Shelby	07/03/2019 10:36	Joseph Suarez	2096599
EPA 353.2 Rev. 2.0	06/19/2019			06/21/2019 10:51	Beverly Y. Sanders	2096587
	06/19/2019			06/21/2019 10:58	Beverly Y. Sanders	2096599
	06/19/2019			06/24/2019 10:11	Beverly Y. Sanders	2096592
	06/19/2019			06/24/2019 10:18	Beverly Y. Sanders	2096593
	06/19/2019			06/24/2019 10:19	Beverly Y. Sanders	2096594
EPA 365.1 Rev. 2.0	06/19/2019	06/21/2019 12:55	Sima Feizi	06/24/2019 14:16	Julia Storbeck	2096592
	06/19/2019	06/21/2019 12:55	Sima Feizi	06/24/2019 14:18	Julia Storbeck	2096593
	06/19/2019	06/21/2019 12:55	Sima Feizi	06/24/2019 14:21	Julia Storbeck	2096594
	06/19/2019	06/24/2019 12:20	Sima Feizi	06/25/2019 13:02	Rosalyn Ballman	2096587
	06/19/2019	06/24/2019 12:20	Sima Feizi	06/25/2019 13:04	Rosalyn Ballman	2096599
EPA 365.1 Rev. 2.0 dissolved	06/19/2019			06/19/2019 15:39	Jhamieka S. Greenwood	2096596
	06/19/2019			06/19/2019 16:05	Jhamieka S. Greenwood	2096595
	06/19/2019			06/19/2019 16:08	Jhamieka S. Greenwood	2096588
	06/19/2019			06/19/2019 16:09	Jhamieka S. Greenwood	2096600
	06/19/2019			06/19/2019 16:29	Jhamieka S. Greenwood	2096597
EPA 8321B	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 13:40	Rebecca Ware	2096629
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 13:54	Rebecca Ware	2096630
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 14:08	Rebecca Ware	2096631
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/20/2019 14:21	Rebecca Ware	2096632

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 12:32	Rebecca Ware	2096630
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 12:43	Rebecca Ware	2096631
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 12:53	Rebecca Ware	2096632
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/21/2019 14:53	Rebecca Ware	2096629
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/26/2019 23:52	Rebecca Ware	2096629
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/27/2019 00:03	Rebecca Ware	2096630
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/27/2019 00:15	Rebecca Ware	2096631
	06/19/2019	06/20/2019 10:45	Rebecca Ware	06/27/2019 00:27	Rebecca Ware	2096632
	06/19/2019	06/21/2019 12:30	Hoor Shaik	06/22/2019 06:01	Juyoung Kim	2096629
	06/19/2019	06/21/2019 12:30	Hoor Shaik	06/22/2019 06:36	Juyoung Kim	2096630
	06/19/2019	06/21/2019 12:30	Hoor Shaik	06/22/2019 07:11	Juyoung Kim	2096631
	06/19/2019	06/21/2019 12:30	Hoor Shaik	06/22/2019 07:45	Juyoung Kim	2096632
	06/19/2019	06/21/2019 12:30	Hoor Shaik	07/02/2019 20:55	Juyoung Kim	2096630
SM 2120 B	06/19/2019			06/19/2019 17:03	Madeline Funaro	2096589, 2096590
	06/19/2019			06/19/2019 17:04	Madeline Funaro	2096591
	06/19/2019			06/19/2019 17:05	Madeline Funaro	2096598
SM 2320 B-97	06/19/2019			06/22/2019 17:37	Dale L. Simmons	2096589
	06/19/2019			06/22/2019 17:48	Dale L. Simmons	2096590
	06/19/2019			06/22/2019 18:01	Dale L. Simmons	2096591
	06/19/2019			06/26/2019 05:52	Dale L. Simmons	2096586
	06/19/2019			06/26/2019 06:05	Dale L. Simmons	2096598
SM 2540 C-97	06/19/2019			06/24/2019 14:22	Yijie Li	2096589, 2096590, 2096591, 2096598
SM 2540 D-97	06/19/2019			06/24/2019 14:22	Yijie Li	2096586, 2096589, 2096590, 2096591, 2096598
SM 4500 F-C-97	06/19/2019			06/22/2019 17:37	Dale L. Simmons	2096589
	06/19/2019			06/22/2019 17:48	Dale L. Simmons	2096590
	06/19/2019			06/22/2019 18:01	Dale L. Simmons	2096591
	06/19/2019			06/26/2019 04:04	Dale L. Simmons	2096586
	06/19/2019			06/26/2019 04:16	Dale L. Simmons	2096598
SM 5310 B-00	06/19/2019			06/20/2019 09:52	Madeline Funaro	2096592
	06/19/2019			06/20/2019 11:40	Madeline Funaro	2096593
	06/19/2019			06/20/2019 11:53	Madeline Funaro	2096594
	06/19/2019			06/21/2019 04:50	Madeline Funaro	2096587
	06/19/2019			06/21/2019 12:06	Madeline Funaro	2096599