

Chemical Analysis Report

NE-DIST-2018-10-05-01

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

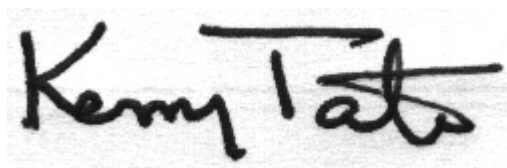
Event Description: **bmap tribs 2**
Request ID: **RQ-2018-10-01-16**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 02-NOV-2018 14:44

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

NON-CONFORMANCE REPORT INCLUDED

Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: OPEN CREEK AT SAN PABLO ROAD

Collection Date/Time: 10/04/2018 09:05

Field ID: 20030695

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031942	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P352917	
	SM 2320 B-97	Total Alkalinity	90	A	mg CaCO3/L	P353268	
	SM 2540 D-97	TSS	3	I	mg/L	P353136	
	SM 4500 F-C-97	Fluoride	0.30		mg F/L	P353272	
2031943	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P353409	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.63		mg N/L	P353184	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.096		mg N/L	P353193	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P353117	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P353425	
2031944	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.036		mg P/L	P352874	
2031977	EPA 8321B	2,4-D	0.17	Y	ug/L	P352859	
		Sucralose**	0.20		ug/L	P353029	
		Bentazon	0.034	Y	ug/L	P352859	
		MCP	0.0020	UY	ug/L	P352859	
		Triclopyr**	0.0040	UY	ug/L	P352859	
		Imidacloprid	0.022	Y	ug/L	P352859	
		Diuron	0.0027	IY	ug/L	P352859	
		Pyraclostrobin**	0.0020	UY	ug/L	P352859	
		Primidone**	0.0040	UY	ug/L	P352859	
		Linuron	0.0040	UY	ug/L	P352859	
		Acetaminophen**	0.0080	UY	ug/L	P352859	
		Fenuron	0.016	UY	ug/L	P352859	
		Imazapyr**	0.14	Y	ug/L	P352859	
		Carbamazepine**	8.0E-04	UY	ug/L	P352859	
		Fluridone**	0.047	Y	ug/L	P352859	
		Hydrocodone**	8.0E-04	UY	ug/L	P352859	
		Naproxen**	0.0080	UY	ug/L	P352859	
		Ibuprofen**	0.020	UY	ug/L	P352859	
		Acesulfame K**	0.10	U	ug/L	P352985	

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: Y- Sample extract stored above six degrees Celsius because of power outage caused by Hurricane Michael. Insufficient sample to perform matrix spikes; see NCR report.

Sample Location: NW TRIBUTARY TO OPEN CR AT HODGES

Collection Date/Time: 10/04/2018 08:35

Field ID: 20030848

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031924	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P352917	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P353436	
		Sulfate	66		mg SO4/L	P353441	
		Color (true)	34		PCU	P352867	
	SM 2120 B	Total Alkalinity	78		mg CaCO3/L	P353317	
	SM 2540 C-97	TDS	297	A	mg/L	P353222	
	SM 2540 D-97	TSS	4	IA	mg/L	P353135	
	SM 4500 F-C-97	Fluoride	0.096	I	mg F/L	P353320	
2031927	EPA 350.1 Rev. 2.0	Ammonia-N	0.078		mg N/L	P353481	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P353608	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.22		mg N/L	P353148	
	EPA 365.1 Rev. 2.0	Total-P	0.058		mg P/L	P353111	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P353395	
2031930	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P352872	
2031971	EPA 8321B	2,4-D	0.019		ug/L	P352686	
		Bentazon	0.021		ug/L	P352686	
		MCP	0.0020	U	ug/L	P352686	
		Triclopyr**	0.0040	U	ug/L	P352686	
		Imidacloprid	0.022		ug/L	P352686	MS
		Diuron	0.0020	U	ug/L	P352686	
		Pyraclostrobin**	0.0020	U	ug/L	P352686	
		Primidone**	0.0040	U	ug/L	P352686	
		Linuron	0.0040	U	ug/L	P352686	
		Acetaminophen**	0.0080	U	ug/L	P352686	
		Fenuron	0.016	U	ug/L	P352686	MS
		Imazapyr**	0.18		ug/L	P352686	
		Carbamazepine**	8.0E-04	U	ug/L	P352686	
		Fluridone**	0.097		ug/L	P352686	
		Hydrocodone**	8.0E-04	U	ug/L	P352686	
		Naproxen**	0.0080	U	ug/L	P352686	
		Ibuprofen**	0.020	U	ug/L	P352686	
		Sucralose**	0.19		ug/L	P352677	
		Acesulfame K**	0.10	U	ug/L	P352677	

Ref. Method and Comment:

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

Sample Location: TERRAPIN CREEK AT FAYE ROAD

Collection Date/Time: 10/04/2018 09:55

Field ID: 20030653

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031925	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P352917	
	EPA 300.0 Rev. 2.1	Chloride	6.2		mg Cl/L	P353436	
		Sulfate	21		mg SO4/L	P353441	
		Color (true)	38		PCU	P352867	
	SM 2320 B-97	Total Alkalinity	17		mg CaCO3/L	P353317	
	SM 2540 C-97	TDS	86		mg/L	P353222	
	SM 2540 D-97	TSS	4	I	mg/L	P353135	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P353320	
2031928	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P353481	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.46		mg N/L	P353608	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P353148	
	EPA 365.1 Rev. 2.0	Total-P	0.079		mg P/L	P353111	
	SM 5310 B-00	Organic Carbon	6.7		mg C/L	P353395	
2031931	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P352872	
2031972	EPA 8321B	2,4-D	0.061		ug/L	P352686	
		Bentazon	8.0E-04	U	ug/L	P352686	
		MCP	0.0020	U	ug/L	P352686	
		Triclopyr**	0.0040	U	ug/L	P352686	
		Imidacloprid	0.0020	U	ug/L	P352686	MS
		Diuron	0.0020	U	ug/L	P352686	
		Pyraclostrobin**	0.0020	U	ug/L	P352686	
		Primidone**	0.0040	U	ug/L	P352686	
		Linuron	0.0040	U	ug/L	P352686	
		Acetaminophen**	0.0080	U	ug/L	P352686	
		Fenuron	0.016	U	ug/L	P352686	MS
		Imazapyr**	0.019		ug/L	P352686	
		Carbamazepine**	8.0E-04	U	ug/L	P352686	
		Fluridone**	0.76	Y	ug/L	P352686	
		Hydrocodone**	8.0E-04	U	ug/L	P352686	
		Naproxen**	0.0080	U	ug/L	P352686	
		Ibuprofen**	0.020	U	ug/L	P352686	
		Sucralose**	0.035	I	ug/L	P352677	
		Acesulfame K**	0.10	U	ug/L	P352677	

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: Y- Sample extract stored above six degrees Celsius because of power outage caused by Hurricane Michael; see NCR report.

Sample Location: TROUT RIVER AT OLD KINGS RD

Collection Date/Time: 10/04/2018 10:35

Field ID: 20030753

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031926	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P352917	
	EPA 300.0 Rev. 2.1	Chloride	15		mg Cl/L	P353436	
		Sulfate	9.3		mg SO4/L	P353441	
	SM 2120 B	Color (true)	270		PCU	P352867	
	SM 2320 B-97	Total Alkalinity	22		mg CaCO3/L	P353317	
	SM 2540 C-97	TDS	130		mg/L	P353222	
	SM 2540 D-97	TSS	3	I	mg/L	P353135	
	SM 4500 F-C-97	Fluoride	0.047	I	mg F/L	P353320	
2031929	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P353481	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P353608	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.075		mg N/L	P353148	
	EPA 365.1 Rev. 2.0	Total-P	0.20		mg P/L	P353111	
	SM 5310 B-00	Organic Carbon	23		mg C/L	P353395	
2031932	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P352872	
2031973	EPA 8321B	2,4-D	0.0020	U	ug/L	P352686	
		Bentazon	8.0E-04	U	ug/L	P352686	
		MCP	0.0020	U	ug/L	P352686	
		Triclopyr**	0.0040	U	ug/L	P352686	
		Imidacloprid	0.0020	U	ug/L	P352686	MS
		Diuron	0.0020	U	ug/L	P352686	
		Pyraclostrobin**	0.0020	U	ug/L	P352686	
		Primidone**	0.0040	U	ug/L	P352686	
		Linuron	0.0040	U	ug/L	P352686	
		Acetaminophen**	0.0080	U	ug/L	P352686	
		Fenuron	0.016	U	ug/L	P352686	MS
		Imazapyr**	0.0095	I	ug/L	P352686	
		Carbamazepine**	8.0E-04	U	ug/L	P352686	
		Fluridone**	0.0017		ug/L	P352686	
		Hydrocodone**	8.0E-04	U	ug/L	P352686	
		Naproxen**	0.0080	U	ug/L	P352686	
		Ibuprofen**	0.020	U	ug/L	P352686	
		Sucralose**	0.12		ug/L	P352677	
		Acesulfame K**	0.10	U	ug/L	P352677	

Ref. Method and Comment:

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

Sample Location: NE ROC DI

Collection Date/Time: 10/04/2018 10:50

Field ID: BLANK 10042018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031945	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P352918	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P353437	
		Sulfate	0.20	U	mg SO4/L	P353442	
	SM 2120 B	Color (true)	2.5	U	PCU	P352868	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P353318	
	SM 2540 C-97	TDS	15	U	mg/L	P353220	
	SM 2540 D-97	TSS	2	U	mg/L	P353133	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P353321	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P353702	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P353282	
2031946	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P353149	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P353405	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P353425	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P352873	
	dissolved						
2031947	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P352873	

Ref. Method and Comment:

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

Sample Location: MONCRIEF CR @ 21ST ST

Collection Date/Time: 10/04/2018 12:05

Field ID: 20030897

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031933	EPA 180.1 Rev. 2.0	Turbidity	11	A	NTU	P352917	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P353436	
		Sulfate	40		mg SO4/L	P353441	
	SM 2120 B	Color (true)	18		PCU	P352868	
	SM 2320 B-97	Total Alkalinity	166		mg CaCO3/L	P353317	
	SM 2540 C-97	TDS	292		mg/L	P353222	
	SM 2540 D-97	TSS	4	I	mg/L	P353135	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P353320	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P353481	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P353608	
2031936	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P353148	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P353106	
	SM 5310 B-00	Organic Carbon	5.1		mg C/L	P353395	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.013		mg P/L	P352872	
	dissolved						
2031974	EPA 8321B	2,4-D	0.0076	I	ug/L	P352686	
		Sucralose**	0.12		ug/L	P353029	
		Bentazon	0.0035		ug/L	P352686	
		MCP	0.0086		ug/L	P352686	
		Triclopyr**	0.0040	U	ug/L	P352686	
		Imidacloprid	0.023		ug/L	P352686	MS
		Diuron	0.20		ug/L	P352686	
		Pyraclostrobin**	0.0020	U	ug/L	P352686	
		Primidone**	0.0040	U	ug/L	P352686	
		Linuron	0.0040	U	ug/L	P352686	
		Acetaminophen**	0.0086	I	ug/L	P352686	
		Fenuron	0.016	U	ug/L	P352686	MS
		Imazapyr**	0.17		ug/L	P352686	
		Carbamazepine**	8.0E-04	U	ug/L	P352686	
		Fluridone**	0.0022		ug/L	P352686	
		Hydrocodone**	8.0E-04	U	ug/L	P352686	
		Naproxen**	0.0080	U	ug/L	P352686	
		Ibuprofen**	0.020	U	ug/L	P352686	
		Acesulfame K**	0.10	U	ug/L	P352985	
	EPA 200.7 Rev. 4.4	Calcium	67.6		mg/L	P353226	
		Iron	1.38E+03		ug/L	P353226	
		Magnesium	9.25		mg/L	P353226	
		Potassium	2.8		mg/L	P353226	
		Sodium	20.0		mg/L	P353226	
		Zinc	5.0	U	ug/L	P353226	
	EPA 200.8 Rev. 5.4	Arsenic	1.64		ug/L	P353226	
		Cadmium	0.020	U	ug/L	P353226	
		Chromium	0.40	U	ug/L	P353226	
		Copper	0.40	I	ug/L	P353226	

Field ID: 20030897

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031978	EPA 200.8 Rev. 5.4	Lead	0.17	I	ug/L	P353226	
		Nickel	0.73	I	ug/L	P353226	
		Silver	0.010	U	ug/L	P353226	

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

Sample Location: GOODBYS CR ABOVE WEST BRANCH AT SAN CLERC **Collection Date/Time: 10/04/2018 12:45**

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031934	EPA 180.1 Rev. 2.0	Turbidity	8.8		NTU	P352917	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P353437	
		Sulfate	18		mg SO4/L	P353442	
		Color (true)	73	A	PCU	P352868	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P353317	
	SM 2540 C-97	TDS	210		mg/L	P353222	
	SM 2540 D-97	TSS	4	I	mg/L	P353135	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P353320	
2031937	EPA 350.1 Rev. 2.0	Ammonia-N	0.071		mg N/L	P353481	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P353608	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P353148	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P353106	
	SM 5310 B-00	Organic Carbon	9.1		mg C/L	P353425	
2031940	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.045		mg P/L	P352872	
2031975	EPA 8321B	2,4-D	0.052	Y	ug/L	P352859	
		Sucralose**	0.093		ug/L	P353029	
		Bentazon	0.028	Y	ug/L	P352859	
		MCP	0.0039	IY	ug/L	P352859	
		Triclopyr**	0.0040	UY	ug/L	P352859	
		Imidacloprid	0.035	Y	ug/L	P352859	
		Diuron	0.49	Y	ug/L	P352859	
		Pyraclostrobin**	0.0020	UY	ug/L	P352859	
		Primidone**	0.0040	UY	ug/L	P352859	
		Linuron	0.0040	UY	ug/L	P352859	
		Acetaminophen**	0.019	IY	ug/L	P352859	
		Fenuron	0.020	IY	ug/L	P352859	
		Imazapyr**	0.79	Y	ug/L	P352859	
		Carbamazepine**	8.0E-04	UY	ug/L	P352859	
		Fluridone**	0.017	Y	ug/L	P352859	
		Hydrocodone**	8.0E-04	UY	ug/L	P352859	
		Naproxen**	0.0080	UY	ug/L	P352859	
		Ibuprofen**	0.020	UY	ug/L	P352859	
		Acesulfame K**	0.10	U	ug/L	P352985	
2031979	EPA 200.7 Rev. 4.4	Calcium	50.4		mg/L	P353226	
		Iron	1.50E+03		ug/L	P353226	
		Magnesium	5.96		mg/L	P353226	
		Potassium	3.0		mg/L	P353226	
		Sodium	15.3		mg/L	P353226	
		Zinc	5.0	U	ug/L	P353226	
	EPA 200.8 Rev. 5.4	Arsenic	4.21		ug/L	P353226	
		Cadmium	0.020	U	ug/L	P353226	
		Chromium	0.46	I	ug/L	P353226	

Field ID: 20030891

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031979	EPA 200.8 Rev. 5.4	Copper	0.89		ug/L	P353226	
		Lead	0.28		ug/L	P353226	
		Nickel	0.37	I	ug/L	P353226	
		Silver	0.010	U	ug/L	P353226	

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: Y- Sample extract stored above six degrees Celsius because of power outage caused by Hurricane Michael. Insufficient sample to perform matrix spikes; see NCR report.

Sample Location: GOODBYS CR @ PLAZA GATE RD

Collection Date/Time: 10/04/2018 13:05

Field ID: 20030537

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031935	EPA 180.1 Rev. 2.0	Turbidity	9.0		NTU	P352917	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P353437	
		Sulfate	8.9		mg SO4/L	P353442	
		Color (true)	86		PCU	P352868	
	SM 2120 B	Total Alkalinity	134		mg CaCO3/L	P353317	
	SM 2540 C-97	TDS	200		mg/L	P353222	
	SM 2540 D-97	TSS	4	I	mg/L	P353135	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P353320	
2031938	EPA 350.1 Rev. 2.0	Ammonia-N	0.15		mg N/L	P353701	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P353608	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.063		mg N/L	P353149	
	EPA 365.1 Rev. 2.0	Total-P	0.096		mg P/L	P353106	
	SM 5310 B-00	Organic Carbon	9.3		mg C/L	P353425	
2031941	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.040		mg P/L	P352873	
2031976	EPA 8321B	2,4-D	0.062	Y	ug/L	P352859	
		Sucralose**	0.12		ug/L	P353029	
		Bentazon	0.036	Y	ug/L	P352859	
		MCP	0.0046	IY	ug/L	P352859	
		Triclopyr**	0.0040	UY	ug/L	P352859	
		Imidacloprid	0.037	Y	ug/L	P352859	
		Diuron	0.90	Y	ug/L	P352859	
		Pyraclostrobin**	0.0020	UY	ug/L	P352859	
		Primidone**	0.0040	UY	ug/L	P352859	
		Linuron	0.0040	UY	ug/L	P352859	
		Acetaminophen**	0.016	IY	ug/L	P352859	
		Fenuron	0.026	IY	ug/L	P352859	
		Imazapyr**	0.84	Y	ug/L	P352859	
		Carbamazepine**	8.0E-04	UY	ug/L	P352859	
		Fluridone**	0.016	Y	ug/L	P352859	
		Hydrocodone**	8.0E-04	UY	ug/L	P352859	
		Naproxen**	0.0080	UY	ug/L	P352859	
		Ibuprofen**	0.020	UY	ug/L	P352859	
		Acesulfame K**	0.10	U	ug/L	P352985	
2031980	EPA 200.7 Rev. 4.4	Calcium	51.8		mg/L	P353226	
		Iron	2.27E+03		ug/L	P353226	
		Magnesium	5.17		mg/L	P353226	
		Potassium	2.9		mg/L	P353226	
		Sodium	16.2		mg/L	P353226	
		Zinc	5.0	U	ug/L	P353226	
	EPA 200.8 Rev. 5.4	Arsenic	4.16		ug/L	P353226	
		Cadmium	0.020	U	ug/L	P353226	
		Chromium	0.40	U	ug/L	P353226	
		Copper	0.57	I	ug/L	P353226	

Field ID: 20030537

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2031980	EPA 200.8 Rev. 5.4	Lead	0.12	I	ug/L	P353226	
		Nickel	0.29	I	ug/L	P353226	
		Silver	0.010	U	ug/L	P353226	

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: Y- Sample extract stored above six degrees Celsius because of power outage caused by Hurricane Michael. Insufficient sample to perform matrix spikes; see NCR report.

Non-Conformance Report

NCR ID: 7299

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
NE-DIST-2018-10-05-01	TLH-2018-10-05-69	2031972	
NE-DIST-2018-10-05-01	TLH-2018-10-05-69	2031975	
NE-DIST-2018-10-05-01	TLH-2018-10-05-69	2031976	
NE-DIST-2018-10-05-01	TLH-2018-10-05-69	2031977	

NCR Type: ANALYSIS

NCR Category: Analytical Measurement

Observation: Sample extract was stored above six degrees Celsius because of power outage caused by Hurricane Michael.

Resolution: Sample results will be appropriately qualified.

Authorized by/Date: Kerry Tate, Ph.D. 11/2/2018

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.

Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P352917

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P352918

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353226

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353226

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353436

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353437

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353441

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353442

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353409

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353481

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353701

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353184

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353282

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353608

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353148

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: P353149

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353106

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353111

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353117

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353405

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352872

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352873

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352874

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P352677

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P352686

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	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	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: EPA 8321B
Batch ID: P352859

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	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	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: EPA 8321B
Batch ID: P352985

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P353029

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P352867

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P352868

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P353268

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

Reference Method: SM 2320 B-97
Batch ID: P353317

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

Reference Method: SM 2320 B-97
Batch ID: P353318

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

Reference Method: SM 2540 C-97
Batch ID: P353220

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P353222

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P353133

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P353135

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P353136

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P353272

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P353320

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P353321

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P353395

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

Reference Method: SM 5310 B-00
Batch ID: P353425

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: P353226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	105		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	104		P	85 - 115
Sodium	102		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	98.9		P	85 - 115
Copper	99.9		P	85 - 115
Lead	96.0		P	85 - 115
Nickel	98.6		P	85 - 115
Silver	98.1		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353436

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353437

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353441

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353442

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353409

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353481

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.1		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353701

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353184

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353282

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353608

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: P353148

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353149

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353106

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353111

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353117

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353405

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352872

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352873

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: P352874

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

Reference Method: EPA 8321B
Batch ID: P352677

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	122		P	40 - 150
Sucralose	97.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P352686

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	90.3		P	40 - 150
Acetaminophen	102		P	30 - 150
Bentazon	91.1		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P352686

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	86.7		P	40 - 150
Diuron	79.5		P	40 - 150
Fenuron	114		P	40 - 150
Fluridone	109		P	40 - 150
Hydrocodone	104		P	40 - 150
Ibuprofen	77.7		P	40 - 150
Imazapyr	84.5		P	40 - 150
Imidacloprid	108		P	40 - 160
Linuron	76.5		P	40 - 150
MCPP	96.8		P	40 - 150
Naproxen	83.7		P	40 - 150
Primidone	92.9		P	40 - 150
Pyraclostrobin	73.0		P	40 - 150
Triclopyr	95.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P352859

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	80.3	73.0	P/P	40 - 150
Acetaminophen	95.1	94.4	P/P	30 - 150
Bentazon	101	109	P/P	30 - 150
Carbamazepine	83.3	81.5	P/P	40 - 150
Diuron	83.5	82.4	P/P	40 - 150
Fenuron	99.8	103	P/P	40 - 150
Fluridone	66.8	67.7	P/P	40 - 150
Hydrocodone	88.6	88.1	P/P	40 - 150
Ibuprofen	66.6	78.6	P/P	40 - 150
Imazapyr	79.1	71.5	P/P	40 - 150
Imidacloprid	90.9	91.0	P/P	40 - 160
Linuron	68.4	67.6	P/P	40 - 150
MCPP	77.2	82.4	P/P	40 - 150
Naproxen	64.1	77.0	P/P	40 - 150
Primidone	82.2	90.9	P/P	40 - 150
Pyraclostrobin	72.2	67.5	P/P	40 - 150
Triclopyr	80.6	81.1	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P352985

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	97.8		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353029

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	108		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2120 B
Batch ID: P352867

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	102		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P352868

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	104		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P353268

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P353317

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 2320 B-97
Batch ID: P353318

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P353272

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	94.2		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353320

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353321

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.4		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353395

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.0		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P353425

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031978	Calcium	103		P	80 - 120
2031978	Iron	106		P	80 - 120
2031978	Magnesium	102		P	80 - 120
2031978	Potassium	100		P	80 - 120
2031978	Sodium	102		P	80 - 120
2031978	Zinc	100		P	80 - 120
2032011	Calcium	104		P	80 - 120
2032011	Iron	107	105	P/P	80 - 120
2032011	Magnesium	104		P	80 - 120
2032011	Potassium	106	105	P/P	80 - 120
2032011	Sodium	102		P	80 - 120
2032011	Zinc	98.3	98.9	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031978	Arsenic	103		P	80 - 120
2031978	Cadmium	106		P	80 - 120
2031978	Chromium	98.8		P	80 - 120
2031978	Copper	96.9		P	80 - 120
2031978	Lead	97.2		P	80 - 120
2031978	Nickel	96.8		P	80 - 120
2031978	Silver	99.1		P	80 - 120
2032011	Arsenic	98.3	98.4	P/P	80 - 120
2032011	Cadmium	102	105	P/P	80 - 120
2032011	Chromium	96.7	97.7	P/P	80 - 120
2032011	Copper	95.8	95.1	P/P	80 - 120
2032011	Lead	94.3	96.2	P/P	80 - 120
2032011	Nickel	94.5	96.8	P/P	80 - 120
2032011	Silver	98.2	99.3	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031782	Chloride	102		P	90 - 110
2031899	Chloride	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353437

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032005	Chloride	104		P	90 - 110
2032381	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353441

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031782	Sulfate	101		P	90 - 110
2031899	Sulfate	101		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353442

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032005	Sulfate	103		P	90 - 110
2032381	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353409

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2030619	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353481

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031928	Ammonia-N	92.4	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032456	Ammonia-N	96.5	97.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032383	Ammonia-N	98.3	97.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031295	Kjeldahl Nitrogen	101	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032385	Kjeldahl Nitrogen	95.3	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353608

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031937	Kjeldahl Nitrogen	103	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031927	NO2NO3-N	100		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353149

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031938	NO2NO3-N	99.2	99.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031943	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353106

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031937	Total-P	103	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032383	Total-P	103	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353117

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031438	Total-P	93.8	93.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033974	Total-P	97.8	95.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352872

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031939	O-Phosphate-P	98.0	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352873

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031941	O-Phosphate-P	98.1	98.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031944	O-Phosphate-P	98.6	99.4	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P352677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2030560	Acesulfame K	130	119	P/P	40 - 150
2030560	Sucralose	98.2	97.4	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P352686

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031728	2,4-D	129	124	P/P	40 - 150
2031728	Acetaminophen	130	131	P/P	30 - 150
2031728	Bentazon	47.0	44.0	P/P	30 - 150
2031728	Carbamazepine	70.5	71.8	P/P	40 - 150
2031728	Diuron	51.6	63.1	P/P	40 - 150
2031728	Fenuron	38.4	41.6	F/P	40 - 150
2031728	Fluridone	109	115	P/P	40 - 150
2031728	Hydrocodone	113	109	P/P	40 - 150
2031728	Ibuprofen	74.7	81.3	P/P	40 - 150
2031728	Imazapyr	93.3	101	P/P	40 - 150
2031728	Imidacloprid	182	183	F/F	40 - 160
2031728	Linuron	67.0	68.1	P/P	40 - 150
2031728	MCP	140	136	P/P	40 - 150
2031728	Naproxen	90.6	78.0	P/P	40 - 150
2031728	Primidone	89.7	92.7	P/P	40 - 150
2031728	Pyraclostrobin	74.5	74.3	P/P	40 - 150
2031728	Triclopyr	122	134	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P352985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031974	Acesulfame K	94.7	105	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031974	Sucralose	103	105	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P353272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031014	Fluoride	94.3	94.9	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P353320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032610	Fluoride	98.9	98.2	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P353321

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032005	Fluoride	98.4	98.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P353395

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031810	Organic Carbon	95.3	89.8	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P353425

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031937	Organic Carbon	97.5	96.9	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P352917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031933	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P352918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031989	Turbidity	3.56	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P353226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032011	Calcium	2.85	Spike	P	0 - 20
2032011	Iron	1.93	Spike	P	0 - 20
2032011	Magnesium	0.0298	Spike	P	0 - 20
2032011	Potassium	0.480	Spike	P	0 - 20
2032011	Sodium	1.52	Spike	P	0 - 20
2032011	Zinc	0.538	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P353226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032011	Arsenic	0.163	Spike	P	0 - 20
2032011	Cadmium	2.33	Spike	P	0 - 20
2032011	Chromium	1.11	Spike	P	0 - 20
2032011	Copper	0.728	Spike	P	0 - 20
2032011	Lead	2.00	Spike	P	0 - 20
2032011	Nickel	2.39	Spike	P	0 - 20
2032011	Silver	1.19	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031782	Chloride	1.73	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353437

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032005	Chloride	3.78	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031782	Sulfate	1.37	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P353442

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032005	Sulfate	5.36	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353409

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2030619	Ammonia-N	0.837	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353481

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031928	Ammonia-N	6.13	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032456	Ammonia-N	1.19	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032383	Ammonia-N	0.291	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031295	Kjeldahl Nitrogen	2.08	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032385	Kjeldahl Nitrogen	5.53	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353608

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031937	Kjeldahl Nitrogen	1.46	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031927	NO2NO3-N	0.477	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353149

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031938	NO2NO3-N	0.382	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031943	NO2NO3-N	0.336	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353106

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031937	Total-P	3.77	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032383	Total-P	3.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353117

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031438	Total-P	0.279	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353405

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033974	Total-P	2.84	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352872

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031939	O-Phosphate-P	0.719	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352873

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031941	O-Phosphate-P	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P352874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031944	O-Phosphate-P	0.591	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P352677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2030560	Acesulfame K	8.26	Spike	P	0 - 30
2030560	Sucralose	0.735	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P352686

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031728	2,4-D	3.36	Spike	P	0 - 30
2031728	Acetaminophen	0.832	Spike	P	0 - 30
2031728	Bentazon	6.44	Spike	P	0 - 30
2031728	Carbamazepine	1.78	Spike	P	0 - 30
2031728	Diuron	20.1	Spike	P	0 - 30
2031728	Fenuron	3.39	Spike	P	0 - 30
2031728	Fluridone	5.27	Spike	P	0 - 30
2031728	Hydrocodone	3.92	Spike	P	0 - 30
2031728	Ibuprofen	8.40	Spike	P	0 - 30
2031728	Imazapyr	8.23	Spike	P	0 - 30
2031728	Imidacloprid	0.486	Spike	P	0 - 30
2031728	Linuron	1.62	Spike	P	0 - 30
2031728	MCPP	2.89	Spike	P	0 - 30
2031728	Naproxen	14.9	Spike	P	0 - 30
2031728	Primidone	3.23	Spike	P	0 - 30
2031728	Pyraclostrobin	0.274	Spike	P	0 - 30
2031728	Triclopyr	9.32	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P352859

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	2,4-D	9.55	LCS	P	0 - 30
LFB	Acetaminophen	0.667	LCS	P	0 - 30
LFB	Bentazon	7.65	LCS	P	0 - 30
LFB	Carbamazepine	2.18	LCS	P	0 - 30
LFB	Diuron	1.26	LCS	P	0 - 30
LFB	Fenuron	2.74	LCS	P	0 - 30
LFB	Fluridone	1.39	LCS	P	0 - 30
LFB	Hydrocodone	0.576	LCS	P	0 - 30
LFB	Ibuprofen	16.5	LCS	P	0 - 30
LFB	Imazapyr	10.1	LCS	P	0 - 30
LFB	Imidacloprid	0.107	LCS	P	0 - 30
LFB	Linuron	1.18	LCS	P	0 - 30
LFB	MCPP	6.57	LCS	P	0 - 30
LFB	Naproxen	18.2	LCS	P	0 - 30
LFB	Primidone	10.0	LCS	P	0 - 30
LFB	Pyraclostrobin	6.84	LCS	P	0 - 30
LFB	Triclopyr	0.654	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P352985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031974	Acesulfame K	9.94	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031974	Sucralose	1.67	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P352867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031825	Color (true)	2.48	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P352868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031934	Color (true)	2.52	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P353268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: SM 2320 B-97
Batch ID: P353268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031942	Total Alkalinity	0.538	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P353317

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032610	Total Alkalinity	0.438	Sample	P	0 - 1.6

Reference Method: SM 2320 B-97
Batch ID: P353318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032005	Total Alkalinity	0.713	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P353220

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031687	TDS	5.66	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P353222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031924	TDS	2.02	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P353272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031014	Fluoride	0.513	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P353320

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032610	Fluoride	0.509	Spike	P	0 - 3.5

Reference Method: SM 4500 F-C-97
Batch ID: P353321

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032005	Fluoride	0.0	Spike	P	0 - 3.5

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P353395

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031810	Organic Carbon	3.32	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P353425

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031937	Organic Carbon	0.385	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: 2031971
Field Sample ID: 20030848

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	100	P	30 - 160
EPA 8321B	Acetaminophen-d4	114	P	30 - 160
EPA 8321B	Carbamazepine-d10	62.5	P	30 - 160
EPA 8321B	Diuron-d6	53.7	P	30 - 160
EPA 8321B	Endothall-d6	118	P	40 - 160
EPA 8321B	Ibuprofen-d3	84.3	P	30 - 160
EPA 8321B	Primidone-d5	78.9	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160

Lab Sample ID: 2031972
Field Sample ID: 20030653

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	132	P	30 - 160
EPA 8321B	Acetaminophen-d4	124	P	30 - 160
EPA 8321B	Carbamazepine-d10	73.2	P	30 - 160
EPA 8321B	Diuron-d6	65.9	P	30 - 160
EPA 8321B	Endothall-d6	114	P	40 - 160
EPA 8321B	Ibuprofen-d3	72.9	P	30 - 160
EPA 8321B	Primidone-d5	90.7	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	40 - 160

Lab Sample ID: 2031973
Field Sample ID: 20030753

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	90.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	60.9	P	30 - 160
EPA 8321B	Diuron-d6	54.2	P	30 - 160
EPA 8321B	Endothall-d6	130	P	40 - 160
EPA 8321B	Ibuprofen-d3	83.1	P	30 - 160
EPA 8321B	Primidone-d5	70.4	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160

Lab Sample ID: 2031974
Field Sample ID: 20030897

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	99.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	156	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.9	P	30 - 160
EPA 8321B	Diuron-d6	61.4	P	30 - 160
EPA 8321B	Endothall-d6	93.1	P	40 - 160
EPA 8321B	Endothall-d6	93.1	P	40 - 160
EPA 8321B	Ibuprofen-d3	72.7	P	30 - 160
EPA 8321B	Primidone-d5	97.6	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	40 - 160
EPA 8321B	Sucralose-d6	101	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2031975
Field Sample ID: 20030891

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	124	P	30 - 160
EPA 8321B	Acetaminophen-d4	93.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	61.2	P	30 - 160
EPA 8321B	Diuron-d6	55.4	P	30 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Endothall-d6	105	P	40 - 160
EPA 8321B	Ibuprofen-d3	65.3	P	30 - 160
EPA 8321B	Primidone-d5	96.4	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	40 - 160
EPA 8321B	Sucralose-d6	105	P	40 - 160

Lab Sample ID: 2031976
Field Sample ID: 20030537

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	59.3	P	30 - 160
EPA 8321B	Diuron-d6	47.7	P	30 - 160
EPA 8321B	Endothall-d6	93.3	P	40 - 160
EPA 8321B	Endothall-d6	93.3	P	40 - 160
EPA 8321B	Ibuprofen-d3	63.2	P	30 - 160
EPA 8321B	Primidone-d5	89.2	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	40 - 160
EPA 8321B	Sucralose-d6	107	P	40 - 160

Lab Sample ID: 2031977
Field Sample ID: 20030695

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160
EPA 8321B	Acetaminophen-d4	95.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	66.8	P	30 - 160
EPA 8321B	Diuron-d6	59.5	P	30 - 160
EPA 8321B	Endothall-d6	96.9	P	40 - 160
EPA 8321B	Endothall-d6	96.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	66.0	P	30 - 160
EPA 8321B	Primidone-d5	86.9	P	30 - 160
EPA 8321B	Sucralose-d6	122	P	40 - 160
EPA 8321B	Sucralose-d6	122	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A86953

Included Lab Sample IDs: 2031971, 2031972, 2031973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	88.3	104	P/P	60 - 160

Reference Method: SM 2120 B

Run ID: A86954

Included Lab Sample IDs: 2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 115
Color (true)	103	102	P/P	90 - 115
Color (true)	103	103	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A86955

Included Lab Sample IDs: 2031930, 2031931, 2031932, 2031939, 2031940, 2031941, 2031944, 2031947

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.1	99.2	P/P	90 - 110
O-Phosphate-P	99.2	99.4	P/P	90 - 110
O-Phosphate-P	99.4	99.5	P/P	90 - 110
O-Phosphate-P	99.7	99.1	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A86965

Included Lab Sample IDs: 2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945

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

Reference Method: EPA 8321B

Run ID: A86996

Included Lab Sample IDs: 2031971, 2031972, 2031973

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	98.8	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87007

Included Lab Sample IDs: 2031974, 2031975, 2031976, 2031977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	116	124	P/P	60 - 160
Acesulfame K	118	116	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87036

Included Lab Sample IDs: 2031974, 2031975, 2031976, 2031977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	105	P/P	60 - 160
Sucralose	105	101	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87067

Included Lab Sample IDs: 2031927, 2031928, 2031929, 2031936, 2031937, 2031938, 2031946

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: A87087

Included Lab Sample IDs: 2031927, 2031928, 2031929, 2031936, 2031937, 2031938

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87090

Included Lab Sample IDs: 2031943

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87096

Included Lab Sample IDs: 2031943

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A87105

Included Lab Sample IDs: 2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945

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

Reference Method: SM 2320 B-97

Run ID: A87109

Included Lab Sample IDs: 2031942

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	103	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A87109

Included Lab Sample IDs: 2031942

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	97.1	98.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87112

Included Lab Sample IDs: 2031943

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

Reference Method: EPA 8321B

Run ID: A87116

Included Lab Sample IDs: 2031975, 2031976, 2031977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	109	107	P/P	60 - 150
Carbamazepine	103	105	P/P	60 - 150
Diuron	120	124	P/P	60 - 150
Fenuron	106	104	P/P	60 - 150
Fluridone	108	108	P/P	60 - 160
Hydrocodone	108	111	P/P	60 - 150
Imazapyr	102	90.4	P/P	50 - 150
Imidacloprid	101	102	P/P	60 - 150
Linuron	107	103	P/P	60 - 150
Primidone	101	94.6	P/P	60 - 150
Pyraclostrobin	101	104	P/P	60 - 150

Reference Method: EPA 8321B

Run ID: A87117

Included Lab Sample IDs: 2031971, 2031972, 2031973, 2031974

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.4	101	P/P	50 - 150
Bentazon	95.9	85.2	P/P	50 - 160
Ibuprofen	89.3	101	P/P	50 - 160
MCP	86.5	96.0	P/P	50 - 150
Naproxen	83.1	85.4	P/P	50 - 160
Triclopyr	95.0	107	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A87121

Included Lab Sample IDs: 2031971, 2031972, 2031973, 2031974

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	126	98.5	P/P	60 - 160
Carbamazepine	106	111	P/P	60 - 160
Diuron	114	117	P/P	60 - 150
Fenuron	106	111	P/P	60 - 150
Fluridone	117	115	P/P	60 - 160
Hydrocodone	112	118	P/P	60 - 150
Imazapyr	101	96.1	P/P	50 - 150
Imidacloprid	99.5	92.3	P/P	60 - 150
Linuron	112	110	P/P	60 - 150
Primidone	102	113	P/P	60 - 150
Pyraclostrobin	103	102	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A87130

Included Lab Sample IDs: 2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945

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

Reference Method: SM 4500 F-C-97

Run ID: A87130

Included Lab Sample IDs: 2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945

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

Reference Method: EPA 8321B

Run ID: A87143

Included Lab Sample IDs: 2031972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluridone	104	114	P/P	60 - 160

Reference Method: SM 5310 B-00

Run ID: A87167

Included Lab Sample IDs: 2031927, 2031928, 2031929, 2031936

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.0	95.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A87172

Included Lab Sample IDs: 2031975, 2031976, 2031977

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.1	95.9	P/P	50 - 150
Bentazon	142	133	P/P	50 - 160
Ibuprofen	89.4	75.3	P/P	50 - 160
MCP	87.0	91.5	P/P	50 - 150
Naproxen	102	92.0	P/P	50 - 160
Triclopyr	96.6	90.7	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87185

Included Lab Sample IDs: 2031943

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

Reference Method: SM 5310 B-00

Run ID: A87189

Included Lab Sample IDs: 2031937, 2031938, 2031943, 2031946

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	93.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87205

Included Lab Sample IDs: 2031927, 2031928, 2031929, 2031936, 2031937

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87206

Included Lab Sample IDs: 2031946

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87220

Included Lab Sample IDs: 2031946

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87281

Included Lab Sample IDs: 2031927, 2031928, 2031929, 2031936, 2031937, 2031938

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	104	P/P	90 - 110
Kjeldahl Nitrogen	104	105	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A87292

Included Lab Sample IDs: 2031978, 2031979, 2031980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	95 - 105
Calcium	102	103	P/P	90 - 110
Iron	101	101	P/P	95 - 105
Iron	101	101	P/P	90 - 110
Magnesium	102	102	P/P	95 - 105
Magnesium	102	103	P/P	90 - 110
Potassium	104	102	P/P	90 - 110
Potassium	104	104	P/P	95 - 105
Sodium	101	102	P/P	95 - 105
Sodium	102	103	P/P	90 - 110
Zinc	101	99.3	P/P	90 - 110
Zinc	99.3	101	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87296

Included Lab Sample IDs: 2031938, 2031946

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.7	P/P	90 - 110
Ammonia-N	99.7	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A87372

Included Lab Sample IDs: 2031978, 2031979, 2031980

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.5	95.4	P/P	90 - 110
Cadmium	98.7	98.4	P/P	90 - 110
Chromium	98.4	97.4	P/P	90 - 110
Copper	99.5	97.3	P/P	90 - 110
Lead	96.7	95.6	P/P	90 - 110
Nickel	98.9	96.3	P/P	90 - 110
Silver	94.9	93.8	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						0.0	
	Turbidity						3.56	
EPA 200.7 Rev. 4.4	Calcium	102		103	104			2.85
	Iron	105		106	107	105		1.93
	Magnesium	104		102	104			0.0298
	Potassium	104		100	106	105		0.480
	Sodium	102		102	102			1.52
	Zinc	101		100	98.3	98.9		0.538
EPA 200.8 Rev. 5.4	Arsenic	101		103	98.3	98.4		0.163
	Cadmium	101		106	102	105		2.33
	Chromium	98.9		98.8	96.7	97.7		1.11
	Copper	99.9		96.9	95.8	95.1		0.728
	Lead	96.0		97.2	94.3	96.2		2.00
	Nickel	98.6		96.8	94.5	96.8		2.39
	Silver	98.1		99.1	98.2	99.3		1.19
EPA 300.0 Rev. 2.1	Chloride	103		102	99.4		1.73	
	Chloride	105		104	101		3.78	
	Sulfate	104		101	101		1.37	
	Sulfate	105		103	103		5.36	
EPA 350.1 Rev. 2.0	Ammonia-N	98.5		103	102			0.837
	Ammonia-N	98.1		92.4	99.6			6.13
	Ammonia-N	101		96.5	97.9			1.19
	Ammonia-N	99.0		98.3	97.9			0.291
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104		101	98.6			2.08
	Kjeldahl Nitrogen	102		95.3	102			5.53
	Kjeldahl Nitrogen	100		103	101			1.46
EPA 353.2 Rev. 2.0	NO2NO3-N	100		100				0.477
	NO2NO3-N	100		99.2	99.6			0.382
	NO2NO3-N	99.0		100	101			0.336
EPA 365.1 Rev. 2.0	Total-P	99.9		103	98.6			3.77
	Total-P	102		103	100			3.01
	Total-P	99.8		93.8	93.6			0.279
	Total-P	103		97.8	95.0			2.84
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104		98.0	98.8			0.719
	O-Phosphate-P	100		98.1	98.1			0.0
	O-Phosphate-P	103		98.6	99.4			0.591
EPA 8321B	2,4-D	90.3		129	124			3.36
	2,4-D	80.3	73.0			9.55		
	Acesulfame K	122		130	119			8.26
	Acesulfame K	97.8		94.7	105			9.94
	Acetaminophen	102		131	130			0.832
	Acetaminophen	95.1	94.4			0.667		
	Bentazon	91.1		47.0	44.0			6.44
	Bentazon	101	109			7.65		
	Carbamazepine	86.7		70.5	71.8			1.78
	Carbamazepine	83.3	81.5			2.18		
	Diuron	79.5		51.6	63.1			20.1
	Diuron	83.5	82.4			1.26		
	Fenuron	114		41.6	38.4			3.39
	Fenuron	99.8	103			2.74		
	Fluridone	109		109	115			5.27
	Fluridone	66.8	67.7			1.39		
	Hydrocodone	104		109	113			3.92
	Hydrocodone	88.6	88.1			0.576		

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
EPA 8321B	Ibuprofen	77.7		74.7	81.3		8.40
	Ibuprofen	66.6	78.6			16.5	
	Imazapyr	84.5		93.3	101		8.23
	Imazapyr	79.1	71.5			10.1	
	Imidacloprid	108		183	182		0.486
	Imidacloprid	90.9	91.0			0.107	
	Linuron	76.5		67.0	68.1		1.62
	Linuron	68.4	67.6			1.18	
	MCPP	96.8		140	136		2.89
	MCPP	77.2	82.4			6.57	
	Naproxen	83.7		90.6	78.0		14.9
	Naproxen	64.1	77.0			18.2	
	Primidone	92.9		92.7	89.7		3.23
	Primidone	82.2	90.9			10.0	
	Pyraclostrobin	73.0		74.5	74.3		0.274
	Pyraclostrobin	72.2	67.5			6.84	
	Sucralose	97.2		98.2	97.4		0.735
	Sucralose	108		103	105		1.67
	Triclopyr	95.6		122	134		9.32
	Triclopyr	80.6	81.1			0.654	
SM 2120 B	Color (true)	102					2.48
	Color (true)	104					2.52
SM 2320 B-97	Total Alkalinity	102					0.538
	Total Alkalinity	102					0.438
	Total Alkalinity	102					0.713
SM 2540 C-97	TDS						5.66
	TDS						2.02
SM 4500 F-C-97	Fluoride	94.2		94.3	94.9		0.513
	Fluoride	98.4		98.9	98.2		0.509
	Fluoride	98.4		98.4	98.4		0.0
SM 5310 B-00	Organic Carbon	93.0		95.3	89.8		3.32
	Organic Carbon	98.8		97.5	96.9		0.385

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2031978, 2031979, 2031980
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2031978, 2031979, 2031980
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2031927, 2031928, 2031929, 2031936, 2031937, 2031938, 2031943, 2031946
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2031927, 2031928, 2031929, 2031936, 2031937, 2031938, 2031943, 2031946
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2031927, 2031928, 2031929, 2031936, 2031937, 2031938, 2031943, 2031946
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2031927, 2031928, 2031929, 2031936, 2031937, 2031938, 2031943, 2031946

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2031930, 2031931, 2031932, 2031939, 2031940, 2031941, 2031944, 2031947
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2031971, 2031972, 2031973, 2031974, 2031975, 2031976, 2031977
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2031974, 2031975, 2031976, 2031977
SM 2120 B / E31780	True Color measured at 450 nm	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2031927, 2031928, 2031929, 2031936, 2031937, 2031938, 2031943, 2031946

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	10/05/2018			10/05/2018 17:34	Megan Treadwell	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945
EPA 200.7 Rev. 4.4	10/05/2018	10/17/2018 15:30	Elliott D. Healy	10/25/2018 14:08	Betina Topolski	2031978
	10/05/2018	10/17/2018 15:30	Elliott D. Healy	10/25/2018 14:20	Betina Topolski	2031979
	10/05/2018	10/17/2018 15:30	Elliott D. Healy	10/25/2018 14:38	Betina Topolski	2031980
EPA 200.8 Rev. 5.4	10/05/2018	10/17/2018 15:30	Elliott D. Healy	10/29/2018 14:02	Robert K Palmer	2031978
	10/05/2018	10/17/2018 15:30	Elliott D. Healy	10/29/2018 14:21	Robert K Palmer	2031979
	10/05/2018	10/17/2018 15:30	Elliott D. Healy	10/29/2018 14:31	Robert K Palmer	2031980
EPA 300.0 Rev. 2.1	10/05/2018			10/20/2018 12:31	Lipi Saha	2031924
	10/05/2018			10/20/2018 13:07	Lipi Saha	2031925
	10/05/2018			10/20/2018 13:19	Lipi Saha	2031926
	10/05/2018			10/20/2018 13:31	Lipi Saha	2031933
	10/05/2018			10/20/2018 15:44	Lipi Saha	2031934
	10/05/2018			10/20/2018 15:56	Lipi Saha	2031935
	10/05/2018			10/20/2018 16:08	Lipi Saha	2031945
EPA 350.1 Rev. 2.0	10/05/2018			10/18/2018 14:05	Ping Hua	2031943
	10/05/2018			10/22/2018 13:25	Ping Hua	2031927
	10/05/2018			10/22/2018 13:40	Ping Hua	2031928
	10/05/2018			10/22/2018 13:42	Ping Hua	2031929
	10/05/2018			10/22/2018 13:43	Ping Hua	2031936
	10/05/2018			10/22/2018 13:45	Ping Hua	2031937
	10/05/2018			10/25/2018 14:55	Ping Hua	2031938
EPA 351.2 Rev. 2.0	10/05/2018	10/17/2018 11:30	Adrian Shelby	10/18/2018 10:46	Joseph Suarez	2031943
	10/05/2018	10/18/2018 11:30	Adrian Shelby	10/22/2018 12:43	Joseph Suarez	2031946
	10/05/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 09:32	Joseph Suarez	2031927
	10/05/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 09:33	Joseph Suarez	2031928
	10/05/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 09:38	Joseph Suarez	2031929
	10/05/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 09:40	Joseph Suarez	2031936
	10/05/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 09:41	Joseph Suarez	2031937
EPA 353.2 Rev. 2.0	10/05/2018	10/24/2018 11:00	Adrian Shelby	10/25/2018 09:46	Joseph Suarez	2031938
	10/05/2018			10/16/2018 13:20	Lauren Bottorf	2031927
	10/05/2018			10/16/2018 13:27	Lauren Bottorf	2031928
	10/05/2018			10/16/2018 13:28	Lauren Bottorf	2031929
	10/05/2018			10/16/2018 13:29	Lauren Bottorf	2031936
	10/05/2018			10/16/2018 13:30	Lauren Bottorf	2031937
	10/05/2018			10/16/2018 13:42	Lauren Bottorf	2031938
EPA 365.1 Rev. 2.0	10/05/2018			10/16/2018 13:48	Lauren Bottorf	2031946
	10/05/2018			10/17/2018 11:01	Lauren Bottorf	2031943
	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 11:01	Beverly Y. Sanders	2031937

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 11:07	Beverly Y. Sanders	2031936
	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 11:08	Beverly Y. Sanders	2031938
	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 11:19	Beverly Y. Sanders	2031927
	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 11:20	Beverly Y. Sanders	2031928
	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 11:21	Beverly Y. Sanders	2031929
	10/05/2018	10/16/2018 13:46	Sima Feizi	10/17/2018 14:20	Beverly Y. Sanders	2031943
	10/05/2018	10/22/2018 13:00	Sima Feizi	10/23/2018 12:00	Beverly Y. Sanders	2031946
	10/05/2018			10/05/2018 17:03	Julia Storbeck	2031939
EPA 365.1 Rev. 2.0 dissolved	10/05/2018			10/05/2018 17:12	Julia Storbeck	2031941
	10/05/2018			10/05/2018 17:16	Julia Storbeck	2031944
	10/05/2018			10/05/2018 17:25	Julia Storbeck	2031947
	10/05/2018			10/05/2018 17:26	Julia Storbeck	2031932
	10/05/2018			10/05/2018 17:41	Julia Storbeck	2031930
	10/05/2018			10/05/2018 17:42	Julia Storbeck	2031931
	10/05/2018			10/05/2018 17:43	Julia Storbeck	2031940
	10/05/2018					
EPA 8321B	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/06/2018 20:29	Juyoung Kim	2031971
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/06/2018 21:03	Juyoung Kim	2031972
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/06/2018 21:38	Juyoung Kim	2031973
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/06/2018 22:13	Juyoung Kim	2031974
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/08/2018 01:20	Juyoung Kim	2031971
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/08/2018 01:54	Juyoung Kim	2031972
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/08/2018 02:29	Juyoung Kim	2031973
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/08/2018 03:03	Juyoung Kim	2031974
	10/05/2018	10/05/2018 13:00	Hoor Shaik	10/18/2018 22:29	Juyoung Kim	2031972
	10/05/2018	10/05/2018 16:45	Mohammad Ghaffari	10/05/2018 18:43	Mohammad Ghaffari	2031971
	10/05/2018	10/05/2018 16:45	Mohammad Ghaffari	10/05/2018 18:58	Mohammad Ghaffari	2031972
	10/05/2018	10/05/2018 16:45	Mohammad Ghaffari	10/05/2018 19:13	Mohammad Ghaffari	2031973
	10/05/2018	10/05/2018 16:45	Mohammad Ghaffari	10/08/2018 21:43	Mohammad Ghaffari	2031971
	10/05/2018	10/05/2018 16:45	Mohammad Ghaffari	10/08/2018 21:58	Mohammad Ghaffari	2031972
	10/05/2018	10/05/2018 16:45	Mohammad Ghaffari	10/08/2018 22:13	Mohammad Ghaffari	2031973
	10/05/2018	10/09/2018 10:00	Hoor Shaik	10/18/2018 10:03	Juyoung Kim	2031975
	10/05/2018	10/09/2018 10:00	Hoor Shaik	10/18/2018 10:38	Juyoung Kim	2031976
	10/05/2018	10/09/2018 10:00	Hoor Shaik	10/18/2018 11:13	Juyoung Kim	2031977
	10/05/2018	10/09/2018 10:00	Hoor Shaik	10/20/2018 02:34	Juyoung Kim	2031975
	10/05/2018	10/09/2018 10:00	Hoor Shaik	10/20/2018 03:09	Juyoung Kim	2031976
	10/05/2018	10/09/2018 10:00	Hoor Shaik	10/20/2018 03:43	Juyoung Kim	2031977
	10/05/2018	10/09/2018 11:15	Mohammad Ghaffari	10/09/2018 14:43	Mohammad Ghaffari	2031974
	10/05/2018	10/09/2018 11:15	Mohammad Ghaffari	10/09/2018 15:12	Mohammad Ghaffari	2031975
	10/05/2018	10/09/2018 11:15	Mohammad Ghaffari	10/09/2018 15:27	Mohammad Ghaffari	2031976
	10/05/2018	10/09/2018 11:15	Mohammad Ghaffari	10/09/2018 15:41	Mohammad Ghaffari	2031977

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/05/2018	10/15/2018 12:00	Rebecca Ware	10/15/2018 17:02	Rebecca Ware	2031974
	10/05/2018	10/15/2018 12:00	Rebecca Ware	10/15/2018 17:32	Rebecca Ware	2031975
	10/05/2018	10/15/2018 12:00	Rebecca Ware	10/15/2018 17:46	Rebecca Ware	2031976
	10/05/2018	10/15/2018 12:00	Rebecca Ware	10/15/2018 18:01	Rebecca Ware	2031977
SM 2120 B	10/05/2018			10/05/2018 16:57	Chelsea Hernandez	2031924
	10/05/2018			10/05/2018 16:58	Chelsea Hernandez	2031925
	10/05/2018			10/05/2018 17:03	Chelsea Hernandez	2031933
	10/05/2018			10/05/2018 17:04	Chelsea Hernandez	2031934
	10/05/2018			10/05/2018 17:05	Chelsea Hernandez	2031935
	10/05/2018			10/05/2018 17:06	Chelsea Hernandez	2031945
SM 2320 B-97	10/05/2018			10/05/2018 17:15	Chelsea Hernandez	2031926
	10/05/2018			10/16/2018 12:33	Dale L. Simmons	2031942
	10/05/2018			10/17/2018 22:53	Dale L. Simmons	2031924
	10/05/2018			10/17/2018 23:04	Dale L. Simmons	2031925
	10/05/2018			10/17/2018 23:14	Dale L. Simmons	2031926
	10/05/2018			10/17/2018 23:25	Dale L. Simmons	2031933
	10/05/2018			10/17/2018 23:35	Dale L. Simmons	2031934
	10/05/2018			10/17/2018 23:46	Dale L. Simmons	2031935
SM 2540 C-97	10/05/2018			10/18/2018 01:21	Dale L. Simmons	2031945
	10/05/2018			10/09/2018 15:15	Yijie Li	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031945
SM 2540 D-97	10/05/2018			10/09/2018 15:15	Yijie Li	2031924, 2031925, 2031926, 2031933, 2031934, 2031935, 2031942, 2031945
SM 4500 F-C-97	10/05/2018			10/16/2018 14:07	Dale L. Simmons	2031942
	10/05/2018			10/17/2018 22:53	Dale L. Simmons	2031924
	10/05/2018			10/17/2018 23:04	Dale L. Simmons	2031925
	10/05/2018			10/17/2018 23:14	Dale L. Simmons	2031926
	10/05/2018			10/17/2018 23:25	Dale L. Simmons	2031933
	10/05/2018			10/17/2018 23:35	Dale L. Simmons	2031934
	10/05/2018			10/17/2018 23:46	Dale L. Simmons	2031935
	10/05/2018			10/18/2018 01:21	Dale L. Simmons	2031945
SM 5310 B-00	10/05/2018			10/19/2018 06:44	Megan Treadwell	2031937
	10/05/2018			10/19/2018 07:33	Megan Treadwell	2031938
	10/05/2018			10/19/2018 07:58	Megan Treadwell	2031943
	10/05/2018			10/19/2018 08:10	Megan Treadwell	2031946
	10/05/2018			10/19/2018 09:05	Megan Treadwell	2031927
	10/05/2018			10/19/2018 09:26	Megan Treadwell	2031928
	10/05/2018			10/19/2018 09:40	Megan Treadwell	2031929
	10/05/2018			10/19/2018 09:52	Megan Treadwell	2031936