

Chemical Analysis Report

NE-DIST-2019-06-26-01

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

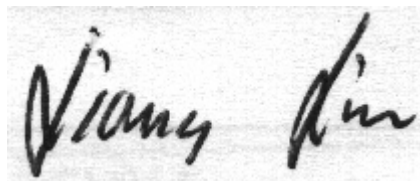
Event Description: **LSJR North Boat**
Request ID: **RQ-2019-06-24-06**
Customer: **NE-DIST**
Project ID: **SMP**

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

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

Certified by: Liang Lin, Environmental Administrator

Date Certified: 18-JUL-2019 14:23

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: RIBAUT RIVER AT US-1

Collection Date/Time: 06/25/2019 09:20

Field ID: 20030133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098522	EPA 180.1 Rev. 2.0	Turbidity	7.7		NTU	P366348	
	EPA 300.0	Bromide	0.14		mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	95		mg CaCO3/L	P366453	
	SM 2540 D-97	TSS	8	IA	mg/L	P366850	
	SM 4500 F-C-97	Fluoride	0.14		mg F/L	P366584	
2098524	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P366758	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P366642	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.081		mg N/L	P366722	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P366399	
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P366462	
2098526	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.067		mg P/L	P366351	
2098567	EPA 8321B	Acesulfame K**	0.19	I	ug/L	P366428	
		2,4-D	0.023		ug/L	P366199	MS
		AMPA**	0.22	I	ug/L	P366428	
		Sucralose**	0.22		ug/L	P366428	
		Acetaminophen**	0.0080	U	ug/L	P366199	
		Endothall**	0.25	U	ug/L	P366428	
		Glufosinate**	0.10	U	ug/L	P366428	
		Glyphosate**	0.36	I	ug/L	P366428	
		Afidopyropen**	0.0020	UJ	ug/L	P366199	
		Bentazon	0.0036		ug/L	P366199	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Clothianidin**	0.031	J	ug/L	P366199	
		Dinotefuran**	0.0020	UJ	ug/L	P366199	
		Diuron	0.014		ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	0.019		ug/L	P366199	
		Imazapyr**	0.36		ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.018		ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCP	0.0075	I	ug/L	P366199	MS
		Naproxen**	0.0080	U	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Thiamethoxam**	0.0020	UJ	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	

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: J- Estimation is due to method validation that is still in progress. Second source was not analyzed.

Sample Location: RIBAUT R MONCRIEF RD BR

Collection Date/Time: 06/25/2019 09:40

Field ID: 20030129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098523	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P366348	
	EPA 300.0	Bromide	1.7		mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	95		mg CaCO3/L	P366453	
	SM 2540 D-97	TSS	17		mg/L	P366849	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P366584	
2098525	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P366758	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P366643	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366722	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P366399	
	SM 5310 B-00	Organic Carbon	9.6		mg C/L	P366462	
2098527	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P366351	
2098568	EPA 8321B	Acesulfame K**	1.0	U	ug/L	P366428	
		2,4-D	0.049		ug/L	P366199	MS
		AMPA**	0.10	U	ug/L	P366428	
		Sucralose**	0.25		ug/L	P366428	
		Acetaminophen**	0.0080	U	ug/L	P366199	
		Endothall**	2.5	U	ug/L	P366428	
		Glufosinate**	0.10	U	ug/L	P366428	
		Glyphosate**	0.10	U	ug/L	P366428	
		Afidopyropen**	0.0020	UJ	ug/L	P366199	
		Bentazon	0.0037		ug/L	P366199	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Clothianidin**	0.020	J	ug/L	P366199	
		Dinotefuran**	0.0020	UJ	ug/L	P366199	
		Diuron	0.019		ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	0.015		ug/L	P366199	
		Imazapyr**	0.51		ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.020		ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCP	0.011		ug/L	P366199	MS
		Naproxen**	0.0080	U	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Thiamethoxam**	0.0020	UJ	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	

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: MDL for some parameters elevated due to matrix interference.

EPA 8321B: J- Estimation is due to method validation that is still in progress. Second source was not analyzed.

Sample Location: MONCRIEF CREEK NEAR MOUTH

Collection Date/Time: 06/25/2019 10:00

Field ID: 20030115

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098516	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P366348	
	EPA 300.0	Bromide	21		mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	109		mg CaCO3/L	P366454	
	SM 2540 D-97	TSS	16		mg/L	P366851	
	SM 4500 F-C-97	Fluoride	0.48		mg F/L	P366674	
2098518	EPA 350.1 Rev. 2.0	Ammonia-N	0.034		mg N/L	P366755	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P366698	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P366595	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P366469	MS
	SM 5310 B-00	Organic Carbon	10		mg C/L	P366424	
2098520	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.10		mg P/L	P366352	
2098565	EPA 8321B	2,4-D	0.010		ug/L	P366199	MS
		Acesulfame K**	0.15	IJ	ug/L	P366428	SUR
		AMPA**	1.0	U	ug/L	P366428	
		Sucralose**	0.92		ug/L	P366428	
		Acetaminophen**	0.056		ug/L	P366199	
		Endothall**	0.25	UJ	ug/L	P366428	SUR
		Glufosinate**	1.0	U	ug/L	P366428	
		Glyphosate**	1.0	U	ug/L	P366428	
		Afidopyropen**	0.0020	UJ	ug/L	P366199	
		Bentazon	0.0084		ug/L	P366199	
		Carbamazepine**	0.0013	I	ug/L	P366199	
		Clothianidin**	0.0020	UJ	ug/L	P366199	
		Dinotefuran**	0.0020	UJ	ug/L	P366199	
		Diuron	0.022		ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	0.0060		ug/L	P366199	
		Imazapyr**	0.16		ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.011		ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCPP	0.0030	I	ug/L	P366199	MS
		Naproxen**	0.022	I	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Thiamethoxam**	0.0020	UJ	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	
2098571	EPA 200.7 Rev. 4.4	Iron	720		ug/L	P366964	
		Manganese	58		ug/L	P366605	
		Zinc	15	U	ug/L	P366605	
	EPA 200.8 Rev. 5.4	Aluminum	635		ug/L	P366964	
		Antimony	0.25	I	ug/L	P366605	

Field ID: 20030115

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098571	EPA 200.8 Rev. 5.4	Arsenic	2.89		ug/L	P366605	
		Cadmium	0.080	U	ug/L	P366605	
		Chromium	1.6	U	ug/L	P366605	
		Copper	9.7		ug/L	P366964	
		Lead	2.0		ug/L	P366605	
		Nickel	2.0	U	ug/L	P366605	
		Selenium	2.0	U	ug/L	P366605	
		Silver	0.040	U	ug/L	P366605	
		Thallium	0.40	U	ug/L	P366605	

Ref. Method and Comment:

EPA 8321B: J- Estimation is due to method validation that is still in progress. Second source was not analyzed.

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

EPA 200.8 Rev. 5.4: The copper result was confirmed on 07/03/2018.

Sample Location: MONCRIEF CREEK NEAR MOUTH DUPLICATE Collection Date/Time: 06/25/2019 10:05

Field ID: 20030115dup

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098517	EPA 180.1 Rev. 2.0	Turbidity	11		NTU	P366348	
	EPA 300.0	Bromide	22		mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	106		mg CaCO3/L	P366454	
	SM 2540 D-97	TSS	16		mg/L	P366851	
	SM 4500 F-C-97	Fluoride	0.49		mg F/L	P366674	
2098519	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P366755	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P366698	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.015		mg N/L	P366595	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P366469	MS
	SM 5310 B-00	Organic Carbon	10		mg C/L	P366424	
2098521	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.098		mg P/L	P366352	
2098566	EPA 8321B	2,4-D	0.0093		ug/L	P366199	MS
		Acesulfame K**	0.17	IJ	ug/L	P366428	SUR
		AMPA**	1.0	U	ug/L	P366428	
		Sucralose**	1.1		ug/L	P366428	
		Acetaminophen**	0.055		ug/L	P366199	
		Endothall**	0.25	UJ	ug/L	P366428	SUR
		Glufosinate**	1.0	U	ug/L	P366428	
		Glyphosate**	1.0	U	ug/L	P366428	
		Afidopyropen**	0.0020	UJ	ug/L	P366199	
		Bentazon	0.0085		ug/L	P366199	
		Carbamazepine**	0.0013	I	ug/L	P366199	
		Clothianidin**	0.0020	UJ	ug/L	P366199	
		Dinotefuran**	0.0020	UJ	ug/L	P366199	
		Diuron	0.023		ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	0.0060		ug/L	P366199	
		Imazapyr**	0.15		ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.012		ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCPP	0.0027	I	ug/L	P366199	MS
		Naproxen**	0.025	I	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Thiamethoxam**	0.0020	UJ	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	
2098572	EPA 200.7 Rev. 4.4	Iron	680		ug/L	P366964	
		Manganese	54		ug/L	P366605	
		Zinc	15	U	ug/L	P366605	
	EPA 200.8 Rev. 5.4	Aluminum	574		ug/L	P366964	
		Antimony	0.22	I	ug/L	P366605	

Field ID: 20030115dup

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098572	EPA 200.8 Rev. 5.4	Arsenic	2.85		ug/L	P366605	
		Cadmium	0.080	U	ug/L	P366605	
		Chromium	1.6	U	ug/L	P366605	
		Copper	2.1	I	ug/L	P366964	
		Lead	1.9		ug/L	P366605	
		Nickel	2.0	U	ug/L	P366605	
		Selenium	2.0	U	ug/L	P366605	
		Silver	0.040	U	ug/L	P366605	
		Thallium	0.40	U	ug/L	P366605	

Ref. Method and Comment:

EPA 8321B: J- Estimation is due to method validation that is still in progress. Second source was not analyzed.

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

EPA 200.8 Rev. 5.4: The copper result was confirmed on 07/03/2018.

Sample Location: MONCRIEF CREEK NEAR MOUTH Field Blank Collection Date/Time: 06/25/2019 10:10

Field ID: FIELDBLANK062419

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098534	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P366348	
	EPA 300.0	Bromide	0.013	U	mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P366453	
	SM 2540 D-97	TSS	2	U	mg/L	P366849	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P366584	
2098535	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P366754	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P366699	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366722	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P366399	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P366726	
2098536	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P366351	
2098570	EPA 8321B	Acesulfame K**	0.10	U	ug/L	P366428	
		2,4-D	0.0020	U	ug/L	P366199	MS
		AMPA**	0.10	U	ug/L	P366428	
		Sucralose**	0.010	U	ug/L	P366428	
		Acetaminophen**	0.0080	U	ug/L	P366199	
		Endothall**	0.25	U	ug/L	P366428	
		Glufosinate**	0.10	U	ug/L	P366428	
		Glyphosate**	0.10	U	ug/L	P366428	
		Afidopyropen**	0.0020	UJ	ug/L	P366199	
		Bentazon	8.0E-04	U	ug/L	P366199	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Clothianidin**	0.0020	UJ	ug/L	P366199	
		Dinotefuran**	0.0020	UJ	ug/L	P366199	
		Diuron	0.0020	U	ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	8.0E-04	U	ug/L	P366199	
		Imazapyr**	0.0040	U	ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.020	U	ug/L	P366199	
		Imidacloprid	0.0020	U	ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCPP	0.0020	U	ug/L	P366199	MS
		Naproxen**	0.0080	U	ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Thiamethoxam**	0.0020	UJ	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	
2098574	EPA 200.7 Rev. 4.4	Iron	30	U	ug/L	P366332	
		Manganese	1.0	U	ug/L	P366332	
		Zinc	5.0	U	ug/L	P366332	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P366332	
		Antimony	0.050	U	ug/L	P366332	

Field ID: FIELDBLANK062419

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098574	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P366332	
		Cadmium	0.020	U	ug/L	P366332	
		Chromium	0.40	U	ug/L	P366332	
		Copper	0.40	U	ug/L	P366332	
		Lead	0.20	U	ug/L	P366332	
		Nickel	0.50	U	ug/L	P366332	
		Selenium	0.20	U	ug/L	P366332	
		Silver	0.010	U	ug/L	P366332	
		Thallium	0.10	U	ug/L	P366332	

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: J- Estimation is due to method validation that is still in progress. Second source was not analyzed.

Sample Location: TROUT R @ I-95 BURT MAXWELL DOCK

Collection Date/Time: 06/25/2019 10:25

Field ID: 20030121

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098528	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P366348	
	EPA 300.0	Bromide	28		mg Br/L	P366634	
	SM 2320 B-97	Total Alkalinity	90		mg CaCO3/L	P366454	
	SM 2540 D-97	TSS	12		mg/L	P366851	
	SM 4500 F-C-97	Fluoride	0.57		mg F/L	P366674	
2098529	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P366755	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P366698	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P366595	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P366469	MS
	SM 5310 B-00	Organic Carbon	9.8		mg C/L	P366424	
2098530	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.071		mg P/L	P366352	
2098573	EPA 200.7 Rev. 4.4	Iron	210	I	ug/L	P366605	
		Manganese	22		ug/L	P366605	
		Zinc	15	U	ug/L	P366605	
		Aluminum	190	I	ug/L	P366605	
	EPA 200.8 Rev. 5.4	Antimony	0.20	U	ug/L	P366605	
		Arsenic	2.63		ug/L	P366605	
		Cadmium	0.080	U	ug/L	P366605	
		Chromium	1.6	U	ug/L	P366605	
		Copper	1.6	U	ug/L	P366605	
		Lead	0.91	I	ug/L	P366605	
		Nickel	2.0	U	ug/L	P366605	
		Selenium	2.0	U	ug/L	P366605	
		Silver	0.040	U	ug/L	P366605	
		Thallium	0.40	U	ug/L	P366605	

**Sample Location: MONCRIEF CR LEM TURNER RD BR /
NORWOOD AVE**

Collection Date/Time: 06/25/2019 10:55

Field ID: 20030114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098531	EPA 180.1 Rev. 2.0	Turbidity	14	A	NTU	P366348	
	EPA 300.0	Bromide	3.2		mg Br/L	P366634	
	EPA 300.0 Rev. 2.1	Sulfate	140		mg SO4/L	P366641	
	SM 2320 B-97	Total Alkalinity	134		mg CaCO3/L	P366453	
	SM 2540 D-97	TSS	20		mg/L	P366849	
	SM 4500 F-C-97	Fluoride	0.20		mg F/L	P366584	
2098532	EPA 350.1 Rev. 2.0	Ammonia-N	0.26		mg N/L	P366758	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P366696	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P366722	
	EPA 365.1 Rev. 2.0	Total-P	0.34		mg P/L	P366399	
	SM 5310 B-00	Organic Carbon	8.3		mg C/L	P366462	
2098533	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P366351	
2098569	EPA 8321B	Acesulfame K**	1.0	U	ug/L	P366428	
		2,4-D	0.022		ug/L	P366199	MS
		AMPA**	1.0	U	ug/L	P366428	
		Sucralose**	0.80		ug/L	P366428	
		Acetaminophen**	0.52		ug/L	P366199	
		Endothall**	2.5	U	ug/L	P366428	
		Glufosinate**	1.0	U	ug/L	P366428	
		Glyphosate**	1.0	U	ug/L	P366428	
		Afidopyropen**	0.0020	UJ	ug/L	P366199	
		Bentazon	0.0054		ug/L	P366199	
		Carbamazepine**	8.0E-04	U	ug/L	P366199	
		Clothianidin**	0.0028	IJ	ug/L	P366199	
		Dinotefuran**	0.0028	IJ	ug/L	P366199	
		Diuron	0.010		ug/L	P366199	
		Fenuron	0.016	U	ug/L	P366199	
		Fluridone**	0.012		ug/L	P366199	
		Imazapyr**	0.46		ug/L	P366199	MS
		Hydrocodone**	0.0020	U	ug/L	P366199	
		Ibuprofen**	0.19		ug/L	P366199	
		Imidacloprid	0.016		ug/L	P366199	MS
		Linuron	0.0040	U	ug/L	P366199	
		MCPP	0.0052	I	ug/L	P366199	MS
		Naproxen**	0.077		ug/L	P366199	
		Primidone**	0.0040	U	ug/L	P366199	
		Pyraclostrobin**	0.0020	U	ug/L	P366199	
		Thiamethoxam**	0.0020	UJ	ug/L	P366199	
		Triclopyr**	0.0040	U	ug/L	P366199	

Field ID: 20030114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

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

EPA 8321B: MDL for some parameters elevated due to matrix interference.

EPA 8321B: J- Estimation is due to method validation that is still in progress. Second source was not analyzed.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P366348

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366332

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366605

Component	Result	Code	Units
Iron	30	U	ug/L
Manganese	1.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366964

Component	Result	Code	Units
Iron	30	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366332

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

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Component	Result	Code	Units
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366964

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Copper	0.40	U	ug/L

Reference Method: EPA 300.0
Batch ID: P366634

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366641

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366755

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366758

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366642

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366643

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366698

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366699

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366595

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366722

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366399

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366469

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366351

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366352

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: P366199

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	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
Thiamethoxam	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P366428

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 2320 B-97
Batch ID: P366453

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

Reference Method: SM 2320 B-97
Batch ID: P366454

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

Reference Method: SM 2540 D-97
Batch ID: P366849

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P366850

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P366851

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P366584

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P366674

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P366424

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

Reference Method: SM 5310 B-00
Batch ID: P366462

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

Reference Method: SM 5310 B-00
Batch ID: P366726

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: P366332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	105		P	85 - 115
Manganese	101		P	85 - 115
Zinc	97.1		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	105		P	80 - 120
Manganese	102		P	80 - 120
Zinc	99.4		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	106		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366332

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	106		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	102		P	85 - 115
Copper	105		P	85 - 115
Lead	101		P	85 - 115
Nickel	106		P	85 - 115
Selenium	104		P	85 - 115
Silver	109		P	85 - 115
Thallium	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	99.8		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	104		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	106		P	85 - 115
Copper	99.3		P	85 - 115
Lead	99.8		P	85 - 115
Nickel	100		P	85 - 115
Selenium	100		P	85 - 115
Silver	98.0		P	85 - 115
Thallium	102		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366964

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	105		P	80 - 120
Copper	99.7		P	80 - 120

Reference Method: EPA 300.0
Batch ID: P366634

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366641

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

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: P366755

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366758

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366642

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366643

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366698

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366699

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366595

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366722

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: P366399

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366469

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366351

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366352

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

Reference Method: EPA 8321B
Batch ID: P366199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	116		P	40 - 150
Acetaminophen	82.7		P	30 - 150
Afidopyropen	72.2		P	40 - 150
Bentazon	117		P	30 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P366199

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Carbamazepine	82.5		P	40 - 150
Clothianidin	84.1		P	40 - 150
Dinotefuran	93.5		P	40 - 150
Diuron	83.2		P	40 - 150
Fenuron	100		P	40 - 150
Fluridone	93.2		P	40 - 150
Hydrocodone	98.7		P	40 - 150
Ibuprofen	83.5		P	30 - 150
Imazapyr	131		P	40 - 150
Imidacloprid	87.5		P	40 - 150
Linuron	63.2		P	40 - 150
MCPP	137		P	40 - 150
Naproxen	84.5		P	40 - 150
Primidone	79.5		P	40 - 150
Pyraclostrobin	69.4		P	30 - 150
Thiamethoxam	90.7		P	40 - 150
Triclopyr	107		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366428

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	148		P	40 - 150
AMPA	83.9		P	40 - 150
Endothall	94.0		P	40 - 150
Glufosinate	83.2		P	40 - 150
Glyphosate	81.0		P	40 - 140
Sucralose	109		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P366453

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

Reference Method: SM 2320 B-97
Batch ID: P366454

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

Reference Method: SM 4500 F-C-97
Batch ID: P366584

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.0		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P366674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P366424

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

Reference Method: SM 5310 B-00
Batch ID: P366462

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.9		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P366726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098240	Iron	100	104	P/P	80 - 120
2098240	Manganese	97.5	97.6	P/P	80 - 120
2098240	Zinc	99.1	99.1	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2099531	Iron	101		P	70 - 130
2099531	Manganese	92.9		P	70 - 130
2099531	Zinc	98.2		P	70 - 130
2099533	Iron	99.1	105	P/P	70 - 130
2099533	Manganese	95.5	96.9	P/P	70 - 130
2099533	Zinc	101	101	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2100312	Iron	101	102	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366332

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098240	Aluminum	101	98.8	P/P	80 - 120
2098240	Antimony	105	104	P/P	80 - 120
2098240	Arsenic	109	109	P/P	80 - 120
2098240	Cadmium	106	103	P/P	80 - 120
2098240	Chromium	98.7	97.3	P/P	80 - 120
2098240	Copper	102	102	P/P	80 - 120
2098240	Lead	103	101	P/P	80 - 120
2098240	Nickel	100	99.9	P/P	80 - 120
2098240	Selenium	107	105	P/P	80 - 120
2098240	Silver	107	106	P/P	80 - 120
2098240	Thallium	109	108	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2099531	Aluminum	107		P	70 - 130
2099531	Antimony	99.1		P	80 - 120
2099531	Arsenic	103		P	80 - 120
2099531	Cadmium	88.5		P	80 - 120
2099531	Chromium	85.8		P	80 - 120
2099531	Copper	94.3		P	80 - 120
2099531	Lead	105		P	80 - 120
2099531	Nickel	100		P	80 - 120
2099531	Selenium	92.1		P	70 - 130
2099531	Silver	87.6		P	80 - 120
2099531	Thallium	105		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2099533	Aluminum	109	107	P/P	70 - 130
2099533	Antimony	104	102	P/P	80 - 120
2099533	Arsenic	109	108	P/P	80 - 120
2099533	Cadmium	92.2	92.1	P/P	80 - 120
2099533	Chromium	90.0	87.8	P/P	80 - 120
2099533	Copper	88.3	86.3	P/P	80 - 120
2099533	Lead	106	104	P/P	80 - 120
2099533	Nickel	102	100	P/P	80 - 120
2099533	Selenium	98.9	97.7	P/P	70 - 130
2099533	Silver	91.1	90.3	P/P	80 - 120
2099533	Thallium	106	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366964

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2100312	Aluminum	125	122	P/P	70 - 130
2100312	Copper	100	99.2	P/P	70 - 130

Reference Method: EPA 300.0
Batch ID: P366634

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097263	Bromide	96.6	97.5	P/P	90 - 110
2098522	Bromide	94.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098683	Sulfate	102		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098686	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366755

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098518	Ammonia-N	105	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366758

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098524	Ammonia-N	104	105	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098524	Kjeldahl Nitrogen	99.3	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098525	Kjeldahl Nitrogen	99.5	90.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098751	Kjeldahl Nitrogen	98.0	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366698

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098404	Kjeldahl Nitrogen	99.6	94.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366699

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2099096	Kjeldahl Nitrogen	101	95.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366595

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098404	NO2NO3-N	101	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098524	NO2NO3-N	99.4	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366399

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098387	Total-P	98.4	99.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P366469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098724	Total-P	91.5	89.8	P/F	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098527	O-Phosphate-P	96.2	97.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P366352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098728	O-Phosphate-P	96.8	98.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P366199

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097411	2,4-D	137	161	P/F	40 - 150
2097411	Acetaminophen	101	111	P/P	30 - 150
2097411	Afidopyropen	87.3	90.0	P/P	40 - 150
2097411	Bentazon	101	106	P/P	30 - 150
2097411	Carbamazepine	84.4	85.3	P/P	40 - 150
2097411	Clothianidin	104	106	P/P	40 - 150
2097411	Dinotefuran	122	119	P/P	40 - 150
2097411	Diuron	77.0	78.4	P/P	40 - 150
2097411	Fenuron	93.2	96.6	P/P	40 - 150
2097411	Fluridone	85.2	84.1	P/P	40 - 150
2097411	Hydrocodone	116	117	P/P	40 - 150
2097411	Ibuprofen	83.3	90.6	P/P	30 - 150
2097411	Imazapyr	139	182	P/F	40 - 150
2097411	Imidacloprid	174	198	F/F	40 - 150
2097411	Linuron	55.0	53.0	P/P	40 - 150
2097411	MCP	187	189	F/F	40 - 150
2097411	Naproxen	95.4	81.8	P/P	40 - 150
2097411	Primidone	92.6	99.7	P/P	40 - 150
2097411	Pyraclostrobin	71.8	73.2	P/P	30 - 150
2097411	Thiamethoxam	147	145	P/P	40 - 150
2097411	Triclopyr	122	136	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P366428

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098570	Acesulfame K	148	138	P/P	40 - 150
2098570	AMPA	75.8	78.0	P/P	40 - 150
2098570	Endothall	95.6	94.9	P/P	40 - 150
2098570	Glufosinate	85.6	81.4	P/P	40 - 150
2098570	Glyphosate	76.0	79.3	P/P	40 - 140
2098570	Sucralose	101	105	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P366584

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098685	Fluoride	97.1	97.6	P/P	89 - 106

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P366674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098761	Fluoride	99.7	100	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P366424

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098020	Organic Carbon	91.7	92.2	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P366462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2098686	Organic Carbon	93.4	93.8	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P366726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2099559	Organic Carbon	95.6	95.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P366348

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098531	Turbidity	1.43	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098240	Iron	3.14	Spike	P	0 - 20
2098240	Manganese	0.127	Spike	P	0 - 20
2098240	Zinc	0.0365	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2099533	Iron	5.43	Spike	P	0 - 20
2099533	Manganese	1.32	Spike	P	0 - 20
2099533	Zinc	0.679	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P366964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100312	Iron	0.405	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366332

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098240	Aluminum	1.80	Spike	P	0 - 20
2098240	Antimony	1.54	Spike	P	0 - 20
2098240	Arsenic	0.167	Spike	P	0 - 20
2098240	Cadmium	2.84	Spike	P	0 - 20
2098240	Chromium	1.36	Spike	P	0 - 20
2098240	Copper	0.378	Spike	P	0 - 20
2098240	Lead	1.80	Spike	P	0 - 20
2098240	Nickel	0.187	Spike	P	0 - 20
2098240	Selenium	1.17	Spike	P	0 - 20
2098240	Silver	0.620	Spike	P	0 - 20
2098240	Thallium	1.00	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2099533	Aluminum	1.43	Spike	P	0 - 20
2099533	Antimony	1.99	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2099533	Arsenic	1.25	Spike	P	0 - 20
2099533	Cadmium	0.116	Spike	P	0 - 20
2099533	Chromium	2.51	Spike	P	0 - 20
2099533	Copper	2.07	Spike	P	0 - 20
2099533	Lead	2.10	Spike	P	0 - 20
2099533	Nickel	1.70	Spike	P	0 - 20
2099533	Selenium	1.26	Spike	P	0 - 20
2099533	Silver	0.917	Spike	P	0 - 20
2099533	Thallium	0.762	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P366964

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100312	Aluminum	2.60	Spike	P	0 - 20
2100312	Copper	1.27	Spike	P	0 - 20

Reference Method: EPA 300.0
Batch ID: P366634

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097263	Bromide	0.904	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P366641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098683	Sulfate	3.95	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366754

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098686	Ammonia-N	0.735	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366755

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098518	Ammonia-N	0.266	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366758

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P366758

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098524	Ammonia-N	0.989	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098524	Kjeldahl Nitrogen	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098525	Kjeldahl Nitrogen	5.39	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366696

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098751	Kjeldahl Nitrogen	0.978	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366698

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098404	Kjeldahl Nitrogen	4.35	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P366699

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2099096	Kjeldahl Nitrogen	3.66	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098404	NO2NO3-N	1.50	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P366722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098524	NO2NO3-N	1.08	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366399

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098387	Total-P	0.473	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P366469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098724	Total-P	1.79	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P366351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098527	O-Phosphate-P	0.658	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P366352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098728	O-Phosphate-P	1.94	Spike	P	0 - 20

Reference Method: EPA 8321B
 Batch ID: P366199

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2097411	2,4-D	11.9	Spike	P	0 - 30
2097411	Acetaminophen	8.61	Spike	P	0 - 30
2097411	Afidopyropen	3.05	Spike	P	0 - 30
2097411	Bentazon	2.77	Spike	P	0 - 30
2097411	Carbamazepine	1.14	Spike	P	0 - 30
2097411	Clothianidin	1.55	Spike	P	0 - 30
2097411	Dinotefuran	1.86	Spike	P	0 - 30
2097411	Diuron	1.59	Spike	P	0 - 30
2097411	Fenuron	3.59	Spike	P	0 - 30
2097411	Fluridone	1.25	Spike	P	0 - 30
2097411	Hydrocodone	1.01	Spike	P	0 - 30
2097411	Ibuprofen	8.35	Spike	P	0 - 30
2097411	Imazapyr	20.8	Spike	P	0 - 30
2097411	Imidacloprid	6.52	Spike	P	0 - 30
2097411	Linuron	3.84	Spike	P	0 - 30
2097411	MCPP	1.01	Spike	P	0 - 30
2097411	Naproxen	15.4	Spike	P	0 - 30
2097411	Primidone	7.35	Spike	P	0 - 30
2097411	Pyraclostrobin	1.99	Spike	P	0 - 30
2097411	Thiamethoxam	1.08	Spike	P	0 - 30
2097411	Triclopyr	11.2	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P366428

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098570	Acesulfame K	6.79	Spike	P	0 - 30
2098570	AMPA	2.88	Spike	P	0 - 30
2098570	Endothall	0.764	Spike	P	0 - 30
2098570	Glufosinate	5.01	Spike	P	0 - 30
2098570	Glyphosate	4.26	Spike	P	0 - 30
2098570	Sucralose	4.55	Spike	P	0 - 30

Reference Method: SM 2320 B-97
Batch ID: P366453

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098685	Total Alkalinity	0.691	Sample	P	0 - 2.8

Reference Method: SM 2320 B-97
Batch ID: P366454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098761	Total Alkalinity	0.693	Sample	P	0 - 2.8

Reference Method: SM 2540 D-97
Batch ID: P366851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098720	TSS	3.12	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P366584

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098685	Fluoride	0.519	Spike	P	0 - 2.5

Reference Method: SM 4500 F-C-97
Batch ID: P366674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098761	Fluoride	0.473	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
Batch ID: P366424

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098020	Organic Carbon	0.496	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00
Batch ID: P366462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098686	Organic Carbon	0.450	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P366726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2099559	Organic Carbon	0.0738	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: 2098565
Field Sample ID: 20030115

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	82.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	80.5	P	30 - 160
EPA 8321B	Diuron-d6	69.7	P	30 - 160
EPA 8321B	Endothall-d6	1310	F	30 - 160
EPA 8321B	Endothall-d6	1310	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	49.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	49.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	99.1	P	30 - 160
EPA 8321B	Primidone-d5	87.2	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160
EPA 8321B	Sucralose-d6	132	P	30 - 160

Lab Sample ID: 2098566
Field Sample ID: 20030115dup

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	129	P	30 - 160
EPA 8321B	Acetaminophen-d4	83.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.1	P	30 - 160
EPA 8321B	Diuron-d6	72.7	P	30 - 160
EPA 8321B	Endothall-d6	1310	F	30 - 160
EPA 8321B	Endothall-d6	1310	F	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.0	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.3	P	30 - 160
EPA 8321B	Primidone-d5	86.1	P	30 - 160
EPA 8321B	Sucralose-d6	140	P	30 - 160
EPA 8321B	Sucralose-d6	140	P	30 - 160

Lab Sample ID: 2098567
Field Sample ID: 20030133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	121	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	67.5	P	30 - 160
EPA 8321B	Diuron-d6	60.0	P	30 - 160
EPA 8321B	Endothall-d6	84.6	P	30 - 160
EPA 8321B	Endothall-d6	84.6	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	73.3	P	30 - 160
EPA 8321B	Primidone-d5	77.3	P	30 - 160
EPA 8321B	Sucralose-d6	160	P	30 - 160
EPA 8321B	Sucralose-d6	160	P	30 - 160

Lab Sample ID: 2098568
Field Sample ID: 20030129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	125	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2098568
Field Sample ID: 20030129

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	85.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	70.8	P	30 - 160
EPA 8321B	Diuron-d6	63.6	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Endothall-d6	108	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	76.7	P	30 - 160
EPA 8321B	Primidone-d5	86.0	P	30 - 160
EPA 8321B	Sucralose-d6	130	P	30 - 160
EPA 8321B	Sucralose-d6	130	P	30 - 160

Lab Sample ID: 2098569
Field Sample ID: 20030114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	127	P	30 - 160
EPA 8321B	Acetaminophen-d4	73.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.8	P	30 - 160
EPA 8321B	Diuron-d6	65.9	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	50.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	50.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.5	P	30 - 160
EPA 8321B	Primidone-d5	84.3	P	30 - 160
EPA 8321B	Sucralose-d6	145	P	30 - 160
EPA 8321B	Sucralose-d6	145	P	30 - 160

Lab Sample ID: 2098570
Field Sample ID: FIELDBLANK062419

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	110	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.4	P	30 - 160
EPA 8321B	Diuron-d6	75.5	P	30 - 160
EPA 8321B	Endothall-d6	95.9	P	30 - 160
EPA 8321B	Endothall-d6	95.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	58.2	P	30 - 160
EPA 8321B	Primidone-d5	68.9	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A92374

Included Lab Sample IDs: 2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	97.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92375

Included Lab Sample IDs: 2098520, 2098521, 2098526, 2098527, 2098530, 2098533, 2098536

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.0	P/P	90 - 110
O-Phosphate-P	98.9	98.2	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92399

Included Lab Sample IDs: 2098574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	102	102	P/P	95 - 105
Manganese	102	103	P/P	95 - 105
Zinc	100	99.8	P/P	95 - 105

Reference Method: SM 5310 B-00

Run ID: A92406

Included Lab Sample IDs: 2098518, 2098519, 2098529

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.8	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A92420

Included Lab Sample IDs: 2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110
Total Alkalinity	103	101	P/P	90 - 110
Total Alkalinity	104	99.9	P/P	90 - 110
Total Alkalinity	99.9	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92424

Included Lab Sample IDs: 2098524, 2098525, 2098532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.1	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A92428

Included Lab Sample IDs: 2098524, 2098525, 2098532

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.8	96.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92433

Included Lab Sample IDs: 2098535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	99.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92465

Included Lab Sample IDs: 2098518, 2098519, 2098529

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.8	P/P	90 - 110
Total-P	99.8	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92489

Included Lab Sample IDs: 2098574

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	101	103	P/P	90 - 110
Antimony	96.7	97.0	P/P	90 - 110
Arsenic	103	102	P/P	90 - 110
Cadmium	99.5	100	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Copper	104	104	P/P	90 - 110
Lead	100	99.8	P/P	90 - 110
Nickel	103	102	P/P	90 - 110
Selenium	102	101	P/P	90 - 110
Silver	105	105	P/P	90 - 110
Thallium	96.3	98.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A92490

Included Lab Sample IDs: 2098522, 2098523, 2098531, 2098534

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	99.5	P/P	90 - 110
Fluoride	99.5	99.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92496

Included Lab Sample IDs: 2098518, 2098519, 2098529

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92499

Included Lab Sample IDs: 2098565, 2098566, 2098567, 2098568, 2098569, 2098570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	70.0	79.4	P/P	60 - 160
AMPA	79.4	82.3	P/P	60 - 160
AMPA	81.1	101	P/P	60 - 160
Glufosinate	70.8	72.5	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A92499

Included Lab Sample IDs: 2098565, 2098566, 2098567, 2098568, 2098569, 2098570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glufosinate	72.5	86.0	P/P	60 - 160
Glufosinate	75.6	104	P/P	60 - 160
Glyphosate	71.4	79.4	P/P	60 - 160
Glyphosate	79.4	89.0	P/P	60 - 160
Glyphosate	80.7	104	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A92500

Included Lab Sample IDs: 2098565, 2098566, 2098568, 2098569, 2098570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	136	138	P/P	60 - 160
Acesulfame K	69.8	138	P/P	60 - 160
Endothall	101	103	P/P	60 - 160
Endothall	104	99.3	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A92505

Included Lab Sample IDs: 2098567

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	69.8	138	P/P	60 - 160
Endothall	104	99.3	P/P	60 - 160

Reference Method: EPA 300.0

Run ID: A92511

Included Lab Sample IDs: 2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A92512

Included Lab Sample IDs: 2098531

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

Reference Method: SM 4500 F-C-97

Run ID: A92529

Included Lab Sample IDs: 2098516, 2098517, 2098528

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92534

Included Lab Sample IDs: 2098524, 2098525

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: A92534

Included Lab Sample IDs: 2098524, 2098525

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.0	98.0	P/P	90 - 110
Kjeldahl Nitrogen	98.0	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92556

Included Lab Sample IDs: 2098524, 2098525, 2098532, 2098535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A92558

Included Lab Sample IDs: 2098535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	96.6	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92569

Included Lab Sample IDs: 2098565, 2098566, 2098567, 2098568, 2098569, 2098570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	79.9	83.5	P/P	50 - 150
2,4-D	81.7	79.9	P/P	50 - 150
Acetaminophen	101	103	P/P	60 - 160
Acetaminophen	103	101	P/P	60 - 160
Afidopyropen	89.2	98.8	P/P	50 - 150
Afidopyropen	92.4	89.2	P/P	50 - 150
Bentazon	112	114	P/P	50 - 160
Bentazon	114	106	P/P	50 - 160
Carbamazepine	102	101	P/P	60 - 150
Carbamazepine	104	102	P/P	60 - 150
Clothianidin	93.5	98.0	P/P	60 - 150
Clothianidin	98.0	89.7	P/P	60 - 150
Dinotefuran	90.6	99.3	P/P	50 - 150
Dinotefuran	99.3	106	P/P	50 - 150
Diuron	103	103	P/P	60 - 150
Diuron	106	103	P/P	60 - 150
Fenuron	104	107	P/P	60 - 150
Fenuron	107	104	P/P	60 - 150
Fluridone	102	112	P/P	60 - 160
Fluridone	112	109	P/P	60 - 160
Hydrocodone	102	99.4	P/P	60 - 150
Hydrocodone	94.6	102	P/P	60 - 150
Ibuprofen	82.6	90.0	P/P	50 - 160
Ibuprofen	90.0	81.5	P/P	50 - 160
Imazapyr	112	122	P/P	50 - 150
Imazapyr	122	112	P/P	50 - 150
Imidacloprid	84.8	87.8	P/P	60 - 150
Imidacloprid	88.9	84.8	P/P	60 - 150
Linuron	88.0	90.9	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A92569

Included Lab Sample IDs: 2098565, 2098566, 2098567, 2098568, 2098569, 2098570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	91.4	88.0	P/P	60 - 150
MCP	80.0	89.4	P/P	50 - 150
MCP	81.6	80.0	P/P	50 - 150
Naproxen	101	117	P/P	50 - 160
Naproxen	132	101	P/P	50 - 160
Primidone	100	95.2	P/P	60 - 150
Primidone	95.2	88.9	P/P	60 - 150
Pyraclostrobin	78.6	80.7	P/P	60 - 150
Pyraclostrobin	80.7	82.9	P/P	60 - 150
Thiamethoxam	94.2	96.9	P/P	50 - 150
Thiamethoxam	98.0	94.2	P/P	50 - 150
Triclopyr	79.3	85.3	P/P	50 - 150
Triclopyr	80.8	79.3	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92572

Included Lab Sample IDs: 2098518, 2098519, 2098524, 2098525, 2098529, 2098532, 2098535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	104	P/P	90 - 110
Ammonia-N	104	105	P/P	90 - 110
Ammonia-N	106	107	P/P	90 - 110
Ammonia-N	107	107	P/P	90 - 110
Ammonia-N	108	108	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92582

Included Lab Sample IDs: 2098571, 2098572, 2098573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	101	102	P/P	95 - 105
Manganese	103	102	P/P	95 - 105
Zinc	101	100	P/P	95 - 105

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92586

Included Lab Sample IDs: 2098571, 2098572, 2098573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Antimony	99.1	101	P/P	90 - 110
Arsenic	102	103	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Chromium	104	102	P/P	90 - 110
Copper	99.4	99.7	P/P	90 - 110
Lead	98.4	98.0	P/P	90 - 110
Nickel	99.2	99.7	P/P	90 - 110
Silver	95.3	95.3	P/P	90 - 110
Thallium	95.4	94.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92598

Included Lab Sample IDs: 2098518, 2098519, 2098529, 2098532, 2098535

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	98.6	P/P	90 - 110
Kjeldahl Nitrogen	102	99.7	P/P	90 - 110
Kjeldahl Nitrogen	99.7	96.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92625

Included Lab Sample IDs: 2098565, 2098566, 2098567, 2098568, 2098569, 2098570

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	102	101	P/P	60 - 160
Sucralose	109	102	P/P	60 - 160

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92668

Included Lab Sample IDs: 2098571, 2098572, 2098573

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A92720

Included Lab Sample IDs: 2098571, 2098572

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A92748

Included Lab Sample IDs: 2098571, 2098572

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	105	108	P/P	90 - 110
Copper	100	103	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						1.43	
EPA 200.7 Rev. 4.4	Iron	105	100	104				3.14
	Iron	105	101	99.1	105			5.43
	Iron	106	101	102				0.405
	Manganese	101	97.5	97.6				0.127
	Manganese	102	92.9	95.5	96.9			1.32
	Zinc	97.1	99.1	99.1				0.0365
	Zinc	99.4	98.2	101	101			0.679
EPA 200.8 Rev. 5.4	Aluminum	103	101	98.8				1.80
	Aluminum	99.8	107	109	107			1.43
	Aluminum	105	125	122				2.60
	Antimony	102	105	104				1.54
	Antimony	101	99.1	104	102			1.99
	Arsenic	106	109	109				0.167
	Arsenic	104	103	109	108			1.25
	Cadmium	103	106	103				2.84
	Cadmium	102	92.2	92.1	88.5			0.116
	Chromium	102	98.7	97.3				1.36
	Chromium	106	85.8	90.0	87.8			2.51
	Copper	105	102	102				0.378
	Copper	99.3	94.3	88.3	86.3			2.07
	Copper	99.7	100	99.2				1.27
	Lead	101	103	101				1.80
	Lead	99.8	105	106	104			2.10
	Nickel	106	100	99.9				0.187
	Nickel	100	100	102	100			1.70
	Selenium	104	107	105				1.17
	Selenium	100	92.1	98.9	97.7			1.26
	Silver	109	107	106				0.620
	Silver	98.0	91.1	90.3	87.6			0.917
	Thallium	104	109	108				1.00
	Thallium	102	105	106	105			0.762
EPA 300.0	Bromide	98.2	96.6	97.5	94.4			0.904
EPA 300.0 Rev. 2.1	Sulfate	102	102				3.95	
EPA 350.1 Rev. 2.0	Ammonia-N	102	103	102				0.735
	Ammonia-N	103	105	106				0.266
	Ammonia-N	109	104	105				0.989
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	99.3	96.4				1.66
	Kjeldahl Nitrogen	100	99.5	90.4				5.39
	Kjeldahl Nitrogen	98.8	98.0	99.2				0.978
	Kjeldahl Nitrogen	95.7	99.6	94.8				4.35
	Kjeldahl Nitrogen	104	101	95.4				3.66
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	101	99.1				1.50
	NO2NO3-N	102	99.4	97.8				1.08
EPA 365.1 Rev. 2.0	Total-P	98.5	98.4	99.2				0.473
	Total-P	101	91.5	89.8				1.79
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.7	96.2	97.2				0.658
	O-Phosphate-P	97.7	96.8	98.7				1.94
EPA 8321B	2,4-D	116	137	161				11.9
	Acesulfame K	148	148	138				6.79
	Acetaminophen	82.7	101	111				8.61
	Afidopyropen	72.2	87.3	90.0				3.05
	AMPA	83.9	75.8	78.0				2.88
	Bentazon	117	101	106				2.77

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	
						SMP	MS
EPA 8321B	Carbamazepine	82.5	84.4	85.3			1.14
	Clothianidin	84.1	104	106			1.55
	Dinotefuran	93.5	122	119			1.86
	Diuron	83.2	77.0	78.4			1.59
	Endothall	94.0	95.6	94.9			0.764
	Fenuron	100	93.2	96.6			3.59
	Fluridone	93.2	85.2	84.1			1.25
	Glufosinate	83.2	85.6	81.4			5.01
	Glyphosate	81.0	76.0	79.3			4.26
	Hydrocodone	98.7	116	117			1.01
	Ibuprofen	83.5	83.3	90.6			8.35
	Imazapyr	131	139	182			20.8
	Imidacloprid	87.5	174	198			6.52
	Linuron	63.2	55.0	53.0			3.84
	MCP	137	187	189			1.01
	Naproxen	84.5	95.4	81.8			15.4
	Primidone	79.5	92.6	99.7			7.35
	Pyraclostrobin	69.4	71.8	73.2			1.99
	Sucralose	109	101	105			4.55
	Thiamethoxam	90.7	147	145			1.08
	Triclopyr	107	122	136			11.2
SM 2320 B-97	Total Alkalinity	103				0.691	
	Total Alkalinity	103				0.693	
SM 2540 D-97	TSS					3.12	
SM 4500 F-C-97	Fluoride	98.0	97.1	97.6			0.519
	Fluoride	101	99.7	100			0.473
SM 5310 B-00	Organic Carbon	95.2	91.7	92.2			0.496
	Organic Carbon	95.9	93.4	93.8			0.450
	Organic Carbon	97.0	95.6	95.5			0.0738

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2098571, 2098572, 2098573, 2098574
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2098571, 2098572, 2098573, 2098574
EPA 300.0 / E31780	Bromide in aqueous matrices	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2098531
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2098518, 2098519, 2098524, 2098525, 2098529, 2098532, 2098535
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2098518, 2098519, 2098524, 2098525, 2098529, 2098532, 2098535
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2098518, 2098519, 2098524, 2098525, 2098529, 2098532, 2098535
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2098518, 2098519, 2098524, 2098525, 2098529, 2098532, 2098535
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2098520, 2098521, 2098526, 2098527, 2098530, 2098533, 2098536
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2098565, 2098566, 2098567, 2098568, 2098569, 2098570

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2098565, 2098566, 2098567, 2098568, 2098569, 2098570
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2098518, 2098519, 2098524, 2098525, 2098529, 2098532, 2098535

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	06/26/2019			06/26/2019 16:53	Adrian Shelby	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
EPA 200.7 Rev. 4.4	06/26/2019	06/26/2019 14:10	Elliott D. Healy	06/27/2019 12:32	Betina Topolski	2098574
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/05/2019 11:52	Vijayalakshmi Reddy	2098571
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/05/2019 11:59	Vijayalakshmi Reddy	2098572
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/05/2019 12:07	Vijayalakshmi Reddy	2098573
	06/26/2019	07/10/2019 16:15	Elliott D. Healy	07/11/2019 13:49	Vijayalakshmi Reddy	2098571
	06/26/2019	07/10/2019 16:15	Elliott D. Healy	07/11/2019 13:57	Vijayalakshmi Reddy	2098572
EPA 200.8 Rev. 5.4	06/26/2019	06/26/2019 14:10	Elliott D. Healy	07/01/2019 17:31	Robert K Palmer	2098574
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/04/2019 05:55	Robert K Palmer	2098571
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/04/2019 06:04	Robert K Palmer	2098572
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/04/2019 06:14	Robert K Palmer	2098573
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/09/2019 13:44	Robert K Palmer	2098571
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/09/2019 13:51	Robert K Palmer	2098572
	06/26/2019	07/02/2019 13:45	Elliott D. Healy	07/09/2019 13:58	Robert K Palmer	2098573
	06/26/2019	07/10/2019 16:15	Elliott D. Healy	07/12/2019 19:59	Robert K Palmer	2098571
	06/26/2019	07/10/2019 16:15	Elliott D. Healy	07/12/2019 20:06	Robert K Palmer	2098572
EPA 300.0	06/26/2019			07/01/2019 23:23	Jhamieka S. Greenwood	2098522
	06/26/2019			07/02/2019 00:31	Jhamieka S. Greenwood	2098516
	06/26/2019			07/02/2019 00:48	Jhamieka S. Greenwood	2098517
	06/26/2019			07/02/2019 01:40	Jhamieka S. Greenwood	2098523
	06/26/2019			07/02/2019 01:57	Jhamieka S. Greenwood	2098528
	06/26/2019			07/02/2019 02:14	Jhamieka S. Greenwood	2098531
	06/26/2019			07/02/2019 02:31	Jhamieka S. Greenwood	2098534
EPA 300.0 Rev. 2.1	06/26/2019			07/02/2019 08:34	Jhamieka S. Greenwood	2098531
EPA 350.1 Rev. 2.0	06/26/2019			07/03/2019 11:24	Ping Hua	2098535
	06/26/2019			07/03/2019 11:35	Ping Hua	2098518
	06/26/2019			07/03/2019 11:39	Ping Hua	2098519
	06/26/2019			07/03/2019 11:41	Ping Hua	2098529
	06/26/2019			07/03/2019 13:02	Ping Hua	2098524
	06/26/2019			07/03/2019 13:20	Ping Hua	2098525
	06/26/2019			07/03/2019 14:15	Ping Hua	2098532
EPA 351.2 Rev. 2.0	06/26/2019	07/02/2019 12:30	Adrian Shelby	07/03/2019 11:59	Joseph Suarez	2098524
	06/26/2019	07/02/2019 12:30	Adrian Shelby	07/03/2019 12:24	Joseph Suarez	2098525
	06/26/2019	07/03/2019 12:30	Adrian Shelby	07/05/2019 10:24	Joseph Suarez	2098532
	06/26/2019	07/03/2019 12:30	Adrian Shelby	07/05/2019 11:07	Joseph Suarez	2098518
	06/26/2019	07/03/2019 12:30	Adrian Shelby	07/05/2019 11:09	Joseph Suarez	2098519
	06/26/2019	07/03/2019 12:30	Adrian Shelby	07/05/2019 11:10	Joseph Suarez	2098529
	06/26/2019	07/03/2019 12:30	Adrian Shelby	07/05/2019 11:23	Joseph Suarez	2098535
EPA 353.2 Rev. 2.0	06/26/2019			07/02/2019 10:16	Beverly Y. Sanders	2098518

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	06/26/2019			07/02/2019 10:17	Beverly Y. Sanders	2098519
	06/26/2019			07/02/2019 10:18	Beverly Y. Sanders	2098529
	06/26/2019			07/03/2019 17:30	Lauren Lees	2098524
	06/26/2019			07/03/2019 17:35	Lauren Lees	2098525
	06/26/2019			07/03/2019 17:36	Lauren Lees	2098532
	06/26/2019			07/03/2019 17:38	Lauren Lees	2098535
EPA 365.1 Rev. 2.0	06/26/2019	06/27/2019 13:40	Sima Feizi	06/28/2019 11:29	Lipi Saha	2098524
	06/26/2019	06/27/2019 13:40	Sima Feizi	06/28/2019 11:30	Lipi Saha	2098525
	06/26/2019	06/27/2019 13:40	Sima Feizi	06/28/2019 11:31	Lipi Saha	2098532
	06/26/2019	06/27/2019 13:40	Sima Feizi	06/28/2019 12:59	Lipi Saha	2098535
	06/26/2019	06/28/2019 12:40	Sima Feizi	07/01/2019 11:55	Beverly Y. Sanders	2098518
	06/26/2019	06/28/2019 12:40	Sima Feizi	07/01/2019 11:56	Beverly Y. Sanders	2098519
EPA 365.1 Rev. 2.0 dissolved	06/26/2019	06/28/2019 12:40	Sima Feizi	07/01/2019 11:59	Beverly Y. Sanders	2098529
	06/26/2019			06/26/2019 16:10	Jhamieka S. Greenwood	2098527
	06/26/2019			06/26/2019 16:29	Jhamieka S. Greenwood	2098536
	06/26/2019			06/26/2019 16:30	Jhamieka S. Greenwood	2098526
	06/26/2019			06/26/2019 16:31	Jhamieka S. Greenwood	2098533
	06/26/2019			06/26/2019 16:34	Jhamieka S. Greenwood	2098520
EPA 8321B	06/26/2019			06/26/2019 16:35	Jhamieka S. Greenwood	2098521, 2098530
	06/26/2019	06/27/2019 09:00	Hoor Shaik	07/06/2019 01:32	Juyoung Kim	2098565
	06/26/2019	06/27/2019 09:00	Hoor Shaik	07/06/2019 02:07	Juyoung Kim	2098566
	06/26/2019	06/27/2019 09:00	Hoor Shaik	07/06/2019 02:41	Juyoung Kim	2098567
	06/26/2019	06/27/2019 09:00	Hoor Shaik	07/06/2019 03:51	Juyoung Kim	2098568
	06/26/2019	06/27/2019 09:00	Hoor Shaik	07/06/2019 04:25	Juyoung Kim	2098569
	06/26/2019	06/27/2019 09:00	Hoor Shaik	07/06/2019 05:00	Juyoung Kim	2098570
	06/26/2019	06/28/2019 10:30	Rebecca Ware	06/28/2019 11:39	Rebecca Ware	2098570
	06/26/2019	06/28/2019 10:30	Rebecca Ware	06/28/2019 12:11	Rebecca Ware	2098567
	06/26/2019	06/28/2019 10:30	Rebecca Ware	06/28/2019 12:35	Rebecca Ware	2098568
	06/26/2019	06/28/2019 10:30	Rebecca Ware	06/28/2019 16:17	Rebecca Ware	2098565
	06/26/2019	06/28/2019 10:30	Rebecca Ware	06/28/2019 16:28	Rebecca Ware	2098566
	06/26/2019	06/28/2019 10:30	Rebecca Ware	06/28/2019 17:11	Rebecca Ware	2098569
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/01/2019 13:48	Rebecca Ware	2098570
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/01/2019 14:02	Rebecca Ware	2098565
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/01/2019 14:16	Rebecca Ware	2098566
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/01/2019 14:30	Rebecca Ware	2098567
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/01/2019 21:28	Rebecca Ware	2098569
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/01/2019 21:56	Rebecca Ware	2098568
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/08/2019 14:46	Rebecca Ware	2098570
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/08/2019 14:58	Rebecca Ware	2098565
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/08/2019 15:10	Rebecca Ware	2098566

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Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/08/2019 15:21	Rebecca Ware	2098567
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/08/2019 15:57	Rebecca Ware	2098568
	06/26/2019	06/28/2019 10:30	Rebecca Ware	07/08/2019 16:08	Rebecca Ware	2098569
SM 2320 B-97	06/26/2019			06/27/2019 19:42	Dale L. Simmons	2098522
	06/26/2019			06/27/2019 19:56	Dale L. Simmons	2098534
	06/26/2019			06/27/2019 22:22	Dale L. Simmons	2098523
	06/26/2019			06/27/2019 22:34	Dale L. Simmons	2098531
	06/26/2019			06/28/2019 02:14	Dale L. Simmons	2098528
	06/26/2019			06/28/2019 03:36	Dale L. Simmons	2098516
	06/26/2019			06/28/2019 03:48	Dale L. Simmons	2098517
SM 2540 D-97	06/26/2019			07/01/2019 10:41	Yijie Li	2098516, 2098517, 2098522, 2098523, 2098528, 2098531, 2098534
SM 4500 F-C-97	06/26/2019			07/02/2019 00:11	Dale L. Simmons	2098522
	06/26/2019			07/02/2019 00:19	Dale L. Simmons	2098534
	06/26/2019			07/02/2019 01:12	Dale L. Simmons	2098523
	06/26/2019			07/02/2019 01:17	Dale L. Simmons	2098531
	06/26/2019			07/03/2019 03:37	Dale L. Simmons	2098516
	06/26/2019			07/03/2019 03:41	Dale L. Simmons	2098517
	06/26/2019			07/03/2019 03:49	Dale L. Simmons	2098528
SM 5310 B-00	06/26/2019			06/27/2019 10:39	Madeline Funaro	2098524
	06/26/2019			06/27/2019 10:52	Madeline Funaro	2098525
	06/26/2019			06/27/2019 11:05	Julia Storbeck	2098518
	06/26/2019			06/27/2019 11:05	Madeline Funaro	2098532
	06/26/2019			06/27/2019 11:20	Julia Storbeck	2098519
	06/26/2019			06/27/2019 11:33	Julia Storbeck	2098529
	06/26/2019			07/03/2019 05:32	Madeline Funaro	2098535