

Chemical Analysis Report

WAS-SECT-2018-03-29-01

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

Event Description: **Quincy, Little, Black, Juniper**

Request ID: **RQ-2018-03-26-24**

Customer: **WAS-SECT**

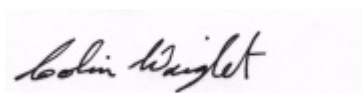
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
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Attn: Curtis Musson

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Certified by: Colin Wright, Program Administrator

Date Certified: 17-MAY-2018 12:53

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

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: LITTLE RIVER 100 METERS UPSTREAM OF US 90 **Collection Date/Time: 03/29/2018 08:28**

Field ID: G1WA0073

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979230	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P342447	
	EPA 300.0 Rev. 2.1	Chloride	7.4		mg Cl/L	P342596	
		Sulfate	1.9		mg SO4/L	P342599	
	SM 2120 B	Color (true)	86		PCU	P342457	
	SM 2320 B-97	Total Alkalinity	23		mg CaCO3/L	P343026	RPD
	SM 2540 C-97	TDS	68		mg/L	P343093	
	SM 2540 D-97	TSS	8	I	mg/L	P342611	
	SM 4500 F-C-97	Fluoride	0.094	I	mg F/L	P343647	
1979236	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P342928	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P342603	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P342847	
	EPA 365.1 Rev. 2.0	Total-P	0.093		mg P/L	P342641	
	SM 5310 B-00	Organic Carbon	6.2		mg C/L	P343082	
1979242	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P342462	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: LITTLE RIVER 100 METERS UPSTREAM OF US 90 **Collection Date/Time: 03/29/2018 08:28**

Field ID: G1WA0073

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979268	EPA 200.7 Rev. 4.4	Calcium	7.54		mg/L	P342557	
		Iron	1.64E+03		ug/L	P342557	
		Magnesium	2.90		mg/L	P342557	
		Potassium	1.1	I	mg/L	P342557	
		Sodium	6.5		mg/L	P342557	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P342557	
		Arsenic	0.75		ug/L	P342557	
		Cadmium	0.020	U	ug/L	P342557	
		Chromium	0.97	I	ug/L	P342557	
		Copper	0.52	I	ug/L	P342557	
		Lead	0.51		ug/L	P342557	
		Nickel	0.35	I	ug/L	P342557	
		Silver	0.010	U	ug/L	P342557	

Sample Location: QUINCY CREEK 100 METERS UPSTREAM OF RALPH STRONG RD **Collection Date/Time: 03/29/2018 09:10**

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979231	EPA 180.1 Rev. 2.0	Turbidity	12		NTU	P342447	
	EPA 300.0 Rev. 2.1	Chloride	5.2		mg Cl/L	P342596	
		Sulfate	0.81		mg SO4/L	P342599	

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979231	SM 2120 B	Color (true)	59		PCU	P342457	
	SM 2320 B-97	Total Alkalinity	24		mg CaCO3/L	P343026	RPD
	SM 2540 C-97	TDS	48		mg/L	P343093	
	SM 2540 D-97	TSS	16		mg/L	P342611	
	SM 4500 F-C-97	Fluoride	0.082	I	mg F/L	P343647	
1979237	EPA 350.1 Rev. 2.0	Ammonia-N	0.044		mg N/L	P342928	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39		mg N/L	P342603	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P342847	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P342650	
	SM 5310 B-00	Organic Carbon	4.4		mg C/L	P343082	
1979243	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.038		mg P/L	P342462	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: QUINCY CREEK 100 METERS UPSTREAM OF RALPH STRONG RD **Collection Date/Time: 03/29/2018 09:10**

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979269	EPA 200.7 Rev. 4.4	Calcium	7.91		mg/L	P342557	
		Iron	2.57E+03		ug/L	P342557	
		Magnesium	2.47		mg/L	P342557	
		Potassium	0.39	I	mg/L	P342557	
		Sodium	3.4		mg/L	P342557	
		Zinc	5.0	U	ug/L	P342557	
	EPA 200.8 Rev. 5.4	Arsenic	0.70		ug/L	P342557	
		Cadmium	0.020	U	ug/L	P342557	
		Chromium	1.2	I	ug/L	P343282	
		Copper	0.33	I	ug/L	P343282	
		Lead	0.63		ug/L	P342557	
		Nickel	0.31	IV	ug/L	P343282	
		Silver	0.010	U	ug/L	P342557	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: V: Nickel was detected in the method blank at a level of 0.37 I ug/L.

Sample Location: QUINCY CREEK 100 METERS UPSTREAM OF RALPH STRONG RD **Collection Date/Time: 03/29/2018 09:10**

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979264	EPA 8321B	2,4-D	0.0020	U	ug/L	P342408	
		Sucralose**	0.010	U	ug/L	P342468	
		Bentazon	8.0E-04	U	ug/L	P342408	
		MCP	0.0020	U	ug/L	P342408	
		Triclopyr**	0.0040	U	ug/L	P342408	
		Imidacloprid	0.0034	I	ug/L	P342408	

Field ID: G1WA0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979264	EPA 8321B	Diuron	0.0020	U	ug/L	P342408	
		Pyraclostrobin**	0.0020	U	ug/L	P342408	
		Primidone**	0.0040	U	ug/L	P342408	
		Linuron	0.0040	U	ug/L	P342408	
		Acetaminophen**	0.0080	U	ug/L	P342408	
		Fenuron	0.016	U	ug/L	P342408	
		Imazapyr**	0.0040	U	ug/L	P342408	
		Carbamazepine**	4.0E-04	U	ug/L	P342408	
		Fluridone**	8.0E-04	U	ug/L	P342408	

Sample Location: QUINCY CREEK UPSTREAM OF SR 267

Collection Date/Time: 03/29/2018 10:08

Field ID: G1WA0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979232	EPA 180.1 Rev. 2.0	Turbidity	6.3		NTU	P342447	
	EPA 300.0 Rev. 2.1	Chloride	4.8		mg Cl/L	P342596	
		Sulfate	0.66		mg SO4/L	P342599	
	SM 2120 B	Color (true)	56	A	PCU	P342459	
	SM 2320 B-97	Total Alkalinity	18		mg CaCO3/L	P343026	RPD
	SM 2540 C-97	TDS	45		mg/L	P343093	
	SM 2540 D-97	TSS	7	I	mg/L	P342611	
	SM 4500 F-C-97	Fluoride	0.070	I	mg F/L	P343647	
1979238	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P342928	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P342603	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.19		mg N/L	P342847	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P342650	
	SM 5310 B-00	Organic Carbon	4.3		mg C/L	P343082	
1979244	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.035		mg P/L	P342462	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: QUINCY CREEK UPSTREAM OF SR 267

Collection Date/Time: 03/29/2018 10:08

Field ID: G1WA0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979270	EPA 200.7 Rev. 4.4	Calcium	6.84		mg/L	P342557	
		Iron	1.44E+03		ug/L	P342557	
		Magnesium	2.04		mg/L	P342557	
		Potassium	0.33	I	mg/L	P342557	
		Sodium	3.3		mg/L	P342557	
		Zinc	5.0	U	ug/L	P342557	
	EPA 200.8 Rev. 5.4	Arsenic	0.57		ug/L	P342557	
		Cadmium	0.020	U	ug/L	P342557	
		Chromium	0.72	I	ug/L	P344929	
		Copper	0.38	I	ug/L	P342557	

Field ID: G1WA0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979270	EPA 200.8 Rev. 5.4	Lead	0.29		ug/L	P342557	
		Nickel	0.22	I	ug/L	P344929	
		Silver	0.010	U	ug/L	P342557	

Sample Location: QUINCY CREEK UPSTREAM OF SR 267

Collection Date/Time: 03/29/2018 10:08

Field ID: G1WA0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979265	EPA 8321B	2,4-D	0.0020	U	ug/L	P342408	
		Sucralose**	0.037	I	ug/L	P342468	
		Bentazon	8.0E-04	U	ug/L	P342408	
		MCP	0.0020	U	ug/L	P342408	
		Triclopyr**	0.0040	U	ug/L	P342408	
		Imidacloprid	0.0051	I	ug/L	P342408	
		Diuron	0.0020	U	ug/L	P342408	
		Pyraclostrobin**	0.0020	U	ug/L	P342408	
		Primidone**	0.0040	U	ug/L	P342408	
		Linuron	0.0040	U	ug/L	P342408	
		Acetaminophen**	0.0080	U	ug/L	P342408	
		Fenuron	0.016	U	ug/L	P342408	
		Imazapyr**	0.0040	U	ug/L	P342408	
		Carbamazepine**	4.0E-04	U	ug/L	P342408	
		Fluridone**	8.0E-04	U	ug/L	P342408	

Sample Location: QUINCY CREEK UPSTREAM OF SR 65

Collection Date/Time: 03/29/2018 09:42

Field ID: G1WA0049

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979233	EPA 180.1 Rev. 2.0	Turbidity	7.1		NTU	P342447	
	EPA 300.0 Rev. 2.1	Chloride	4.9		mg Cl/L	P342596	
		Sulfate	0.73		mg SO4/L	P342599	
	SM 2120 B	Color (true)	54		PCU	P342459	
	SM 2320 B-97	Total Alkalinity	23		mg CaCO3/L	P343026	RPD
	SM 2540 C-97	TDS	48		mg/L	P343093	
	SM 2540 D-97	TSS	8	I	mg/L	P342611	
	SM 4500 F-C-97	Fluoride	0.077	I	mg F/L	P343647	
1979239	EPA 350.1 Rev. 2.0	Ammonia-N	0.032		mg N/L	P342928	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.40		mg N/L	P342604	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.20		mg N/L	P342847	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P342650	
	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P343082	
1979245	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P342462	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: QUINCY CREEK UPSTREAM OF SR 65

Collection Date/Time: 03/29/2018 09:42

Field ID: G1WA0049

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979271	EPA 200.7 Rev. 4.4	Calcium	7.30		mg/L	P342557	
		Iron	1.30E+03		ug/L	P342557	
		Magnesium	2.30		mg/L	P342557	
		Potassium	0.35	I	mg/L	P342557	
		Sodium	3.3		mg/L	P342557	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P342557	
		Arsenic	0.54		ug/L	P342557	
		Cadmium	0.020	U	ug/L	P342557	
		Chromium	0.92	I	ug/L	P342557	
		Copper	0.22	I	ug/L	P342557	
		Lead	0.16	I	ug/L	P342557	
		Nickel	0.38	I	ug/L	P342557	
		Silver	0.010	U	ug/L	P342557	

Sample Location: QUINCY CREEK UPSTREAM OF SR 65

Collection Date/Time: 03/29/2018 09:42

Field ID: G1WA0049

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979266	EPA 8321B	2,4-D	0.0020	U	ug/L	P342408	
		Sucralose**	0.010	U	ug/L	P342468	
		Bentazon	8.0E-04	U	ug/L	P342408	
		MCP	0.0020	U	ug/L	P342408	
		Triclopyr**	0.0040	U	ug/L	P342408	
		Imidacloprid	0.0029	I	ug/L	P342408	
		Diuron	0.0020	U	ug/L	P342408	
		Pyraclostrobin**	0.0020	U	ug/L	P342408	
		Primidone**	0.0040	U	ug/L	P342408	
		Linuron	0.0040	U	ug/L	P342408	
		Acetaminophen**	0.0080	U	ug/L	P342408	
		Fenuron	0.016	U	ug/L	P342408	
		Imazapyr**	0.0040	U	ug/L	P342408	
		Carbamazepine**	4.0E-04	U	ug/L	P342408	
		Fluridone**	8.0E-04	U	ug/L	P342408	

Sample Location: JUNIPER CREEK UPSTREAM OF JUNIPER CREEK RD

Collection Date/Time: 03/29/2018 10:58

Field ID: G1WA0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979234	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P342447	
	EPA 300.0 Rev. 2.1	Chloride	11		mg Cl/L	P342596	
		Sulfate	3.3		mg SO4/L	P342599	
		Color (true)	110		PCU	P342459	
	SM 2320 B-97	Total Alkalinity	5.1		mg CaCO3/L	P343026	RPD
	SM 2540 C-97	TDS	53		mg/L	P343093	
	SM 2540 D-97	TSS	4	IA	mg/L	P342611	

Field ID: G1WA0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979234	SM 4500 F-C-97	Fluoride	0.060	I	mg F/L	P343647	
1979240	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P342928	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P342604	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.57		mg N/L	P342847	
	EPA 365.1 Rev. 2.0	Total-P	0.088		mg P/L	P342650	
	SM 5310 B-00	Organic Carbon	8.3		mg C/L	P343082	
1979246	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P342462	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Sample Location: JUNIPER CREEK UPSTREAM OF JUNIPER CREEK RD

Collection Date/Time: 03/29/2018 10:58

Field ID: G1WA0059

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979267	EPA 8321B	2,4-D	0.0020	U	ug/L	P342408	
		Sucralose**	0.010	U	ug/L	P342469	
		Bentazon	0.0017	I	ug/L	P342408	
		MCP	0.0020	U	ug/L	P342408	
		Triclopyr**	0.0040	U	ug/L	P342408	
		Imidacloprid	0.0097		ug/L	P342408	
		Diuron	0.0020	U	ug/L	P342408	
		Pyraclostrobin**	0.0020	U	ug/L	P342408	
		Primidone**	0.0040	U	ug/L	P342408	
		Linuron	0.0040	U	ug/L	P342408	
		Acetaminophen**	0.0080	U	ug/L	P342408	
		Fenuron	0.016	U	ug/L	P342408	
		Imazapyr**	0.0040	U	ug/L	P342408	
		Carbamazepine**	5.6E-04	I	ug/L	P342408	
		Fluridone**	8.0E-04	U	ug/L	P342408	

Sample Location: BLACK CREEK UPSTREAM OF BLOXHAM CUTOFF

Collection Date/Time: 03/29/2018 12:55

Field ID: G1WA0023

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979235	EPA 180.1 Rev. 2.0	Turbidity	1.6		NTU	P342447	
	EPA 300.0 Rev. 2.1	Chloride	3.4		mg Cl/L	P342596	
		Sulfate	0.20	U	mg SO4/L	P342599	
	SM 2120 B	Color (true)	570		PCU	P342459	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P343026	RPD
	SM 2540 C-97	TDS	87		mg/L	P343093	
	SM 2540 D-97	TSS	2	U	mg/L	P342611	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P343647	
1979241	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P342928	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P342604	

Field ID: G1WA0023

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1979241	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P342847	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P342650	
	SM 5310 B-00	Organic Carbon	46		mg C/L	P343082	
1979247	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P342462	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low 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.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342447

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P342557

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: P342557

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 200.8 Rev. 5.4
Batch ID: P343282

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Copper	0.20	U	ug/L
Nickel	0.37	I	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344929

Component	Result	Code	Units
Chromium	0.40	U	ug/L
Nickel	0.20	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342596

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342599

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342928

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342603

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342604

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342847

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342641

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342650

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342462

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: P342408

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	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	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
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P342468

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P342469

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P342457

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P342459

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P343026

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

Reference Method: SM 2540 C-97
Batch ID: P343093

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P342611

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P343647

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P343082

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: P342557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	106		P	85 - 115
Magnesium	109		P	85 - 115
Potassium	102		P	85 - 115
Sodium	104		P	85 - 115
Zinc	101		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.8		P	85 - 115
Cadmium	104		P	85 - 115
Chromium	104		P	85 - 115
Copper	97.3		P	85 - 115
Lead	101		P	85 - 115
Nickel	96.4		P	85 - 115
Silver	97.8		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343282

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	104		P	85 - 115
Copper	96.6		P	85 - 115
Nickel	96.1		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344929

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chromium	101		P	80 - 120
Nickel	99.6		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342596

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.2		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342599

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342928

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.5		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342603

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342604

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342847

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342641

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: P342650

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342462

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

Reference Method: EPA 8321B
Batch ID: P342408

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	60.6		P	40 - 150
Acetaminophen	104		P	30 - 150
Bentazon	66.5		P	30 - 150
Carbamazepine	72.6		P	40 - 150
Diuron	63.1		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	56.1		P	40 - 150
Imazapyr	67.4		P	40 - 150
Imidacloprid	93.7		P	40 - 160
Linuron	75.5		P	40 - 150
MCP	51.7		P	40 - 150
Primidone	108		P	40 - 150
Pyraclostrobin	75.0		P	40 - 150
Triclopyr	50.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342468

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	95.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	83.8		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P343026

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.3		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P343647

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343082

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P342557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979326	Calcium	106		P	80 - 120
1979326	Iron	109		P	80 - 120
1979326	Magnesium	108		P	80 - 120
1979326	Potassium	102		P	80 - 120
1979326	Sodium	107		P	80 - 120
1979326	Zinc	104		P	80 - 120
1979402	Calcium	102		P	80 - 120
1979402	Iron	106	107	P/P	80 - 120
1979402	Magnesium	106	107	P/P	80 - 120
1979402	Potassium	99.0	98.2	P/P	80 - 120
1979402	Sodium	102		P	80 - 120
1979402	Zinc	101	102	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P342557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979326	Arsenic	96.7		P	80 - 120
1979326	Cadmium	105		P	80 - 120
1979326	Chromium	100		P	80 - 120
1979326	Copper	93.4		P	80 - 120
1979326	Lead	98.9		P	80 - 120
1979326	Nickel	92.3		P	80 - 120
1979326	Silver	95.6		P	80 - 120
1979402	Arsenic	97.9	96.1	P/P	80 - 120
1979402	Cadmium	103	99.5	P/P	80 - 120
1979402	Chromium	102	99.5	P/P	80 - 120
1979402	Copper	95.4	93.6	P/P	80 - 120
1979402	Lead	99.7	97.8	P/P	80 - 120
1979402	Nickel	94.5	92.1	P/P	80 - 120
1979402	Silver	95.1	93.5	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P343282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1982123	Chromium	106		P	80 - 120
1982123	Copper	98.2		P	80 - 120
1982123	Nickel	97.8		P	80 - 120
1983042	Chromium	104	104	P/P	80 - 120
1983042	Copper	99.6	99.7	P/P	80 - 120
1983042	Nickel	97.5	97.8	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P344929

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1990446	Chromium	101	89.3	P/P	80 - 120
1990446	Nickel	99.8	88.6	P/P	80 - 120
1990487	Chromium	102		P	80 - 120
1990487	Nickel	100		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342596

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979005	Chloride	97.8		P	90 - 110
1979233	Chloride	94.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342599

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979005	Sulfate	100		P	90 - 110
1979233	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342928

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979070	Ammonia-N	96.6	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342603

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979070	Kjeldahl Nitrogen	89.5	88.9	F/F	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979293	Kjeldahl Nitrogen	99.9	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342847

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979048	NO2NO3-N	107	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342641

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979236	Total-P	97.0	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342650

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979293	Total-P	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342462

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979014	O-Phosphate-P	101	99.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P342408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978945	2,4-D	50.1	48.4	P/P	40 - 150
1978945	Acetaminophen	120	121	P/P	30 - 150
1978945	Bentazon	51.1	50.5	P/P	30 - 150
1978945	Carbamazepine	83.0	84.3	P/P	40 - 150
1978945	Diuron	65.4	63.9	P/P	40 - 150
1978945	Fenuron	96.0	87.5	P/P	40 - 150
1978945	Fluridone	53.5	63.3	P/P	40 - 150
1978945	Imazapyr	63.2	61.3	P/P	40 - 150
1978945	Imidacloprid	134	138	P/P	40 - 160
1978945	Linuron	78.4	79.9	P/P	40 - 150
1978945	MCP	54.0	47.4	P/P	40 - 150
1978945	Primidone	122	109	P/P	40 - 150
1978945	Pyraclostrobin	80.8	72.9	P/P	40 - 150
1978945	Triclopyr	55.3	51.7	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1978560	Sucralose	97.8	128	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P342469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979267	Sucralose	93.4	91.1	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P343647

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979292	Fluoride	96.9	97.5	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P343082

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1979043	Organic Carbon	94.4	97.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P342447

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979081	Turbidity	0.213	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P342557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979402	Calcium	1.16	Spike	P	0 - 20
1979402	Iron	0.502	Spike	P	0 - 20
1979402	Magnesium	0.459	Spike	P	0 - 20
1979402	Potassium	0.464	Spike	P	0 - 20
1979402	Sodium	0.317	Spike	P	0 - 20
1979402	Zinc	0.681	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P342557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979402	Arsenic	1.70	Spike	P	0 - 20
1979402	Cadmium	3.05	Spike	P	0 - 20
1979402	Chromium	2.21	Spike	P	0 - 20
1979402	Copper	1.86	Spike	P	0 - 20
1979402	Lead	1.99	Spike	P	0 - 20
1979402	Nickel	2.51	Spike	P	0 - 20
1979402	Silver	1.71	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P343282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1983042	Chromium	0.255	Spike	P	0 - 20
1983042	Copper	0.0948	Spike	P	0 - 20
1983042	Nickel	0.330	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P344929

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1990446	Chromium	12.5	Spike	P	0 - 20
1990446	Nickel	11.9	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P342596

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979005	Chloride	0.600	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P342928

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979070	Ammonia-N	0.681	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979070	Kjeldahl Nitrogen	0.360	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P342604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979293	Kjeldahl Nitrogen	2.09	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P342847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979048	NO2NO3-N	1.25	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342641

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979236	Total-P	2.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P342650

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979293	Total-P	2.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P342462

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979014	O-Phosphate-P	1.60	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P342408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978945	2,4-D	3.36	Spike	P	0 - 30
1978945	Acetaminophen	0.963	Spike	P	0 - 30
1978945	Bentazon	0.864	Spike	P	0 - 30
1978945	Carbamazepine	1.60	Spike	P	0 - 30
1978945	Diuron	2.40	Spike	P	0 - 30
1978945	Fenuron	9.27	Spike	P	0 - 30
1978945	Fluridone	16.4	Spike	P	0 - 30
1978945	Imazapyr	1.88	Spike	P	0 - 30
1978945	Imidacloprid	2.47	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P342408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978945	Linuron	1.94	Spike	P	0 - 30
1978945	MCPD	13.1	Spike	P	0 - 30
1978945	Primidone	11.6	Spike	P	0 - 30
1978945	Pyraclostrobin	10.3	Spike	P	0 - 30
1978945	Triclopyr	6.63	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P342468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1978560	Sucralose	23.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P342469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979267	Sucralose	2.50	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P342457

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979006	Color (true)	0.487	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P342459

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979232	Color (true)	1.47	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P343026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979292	Total Alkalinity	2.33	Sample	F	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P343093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979292	TDS	6.56	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P343647

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979292	Fluoride	0.477	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P343082

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1979043	Organic Carbon	1.61	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: 1979264
Field Sample ID: G1WA0018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	50.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	127	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.2	P	30 - 160
EPA 8321B	Diuron-d6	75.1	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	97.0	P	40 - 160

Lab Sample ID: 1979265
Field Sample ID: G1WA0050

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	125	P	30 - 160
EPA 8321B	Carbamazepine-d10	91.9	P	30 - 160
EPA 8321B	Diuron-d6	78.3	P	30 - 160
EPA 8321B	Primidone-d5	119	P	30 - 160
EPA 8321B	Sucralose-d6	90.0	P	40 - 160

Lab Sample ID: 1979266
Field Sample ID: G1WA0049

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	53.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	136	P	30 - 160
EPA 8321B	Carbamazepine-d10	100	P	30 - 160
EPA 8321B	Diuron-d6	86.9	P	30 - 160
EPA 8321B	Primidone-d5	137	P	30 - 160
EPA 8321B	Sucralose-d6	97.7	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1979267
Field Sample ID: G1WA0059

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	86.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	140	P	30 - 160
EPA 8321B	Carbamazepine-d10	111	P	30 - 160
EPA 8321B	Diuron-d6	88.2	P	30 - 160
EPA 8321B	Primidone-d5	130	P	30 - 160
EPA 8321B	Sucralose-d6	82.3	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A82892
Included Lab Sample IDs: 1979230, 1979231, 1979232, 1979233, 1979234, 1979235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.0	99.9	P/P	90 - 110
Chloride	99.9	99.6	P/P	90 - 110
Sulfate	100	98.8	P/P	90 - 110
Sulfate	98.8	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82942
Included Lab Sample IDs: 1979230, 1979231, 1979232, 1979233, 1979234, 1979235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	98.5	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82943
Included Lab Sample IDs: 1979242, 1979243, 1979244, 1979245, 1979246, 1979247

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

Reference Method: SM 2120 B
Run ID: A82944
Included Lab Sample IDs: 1979230, 1979231, 1979232, 1979233, 1979234, 1979235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	101	P/P	85 - 115
Color (true)	99.6	102	P/P	85 - 115
Color (true)	99.8	99.6	P/P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A83016
Included Lab Sample IDs: 1979268, 1979269, 1979270, 1979271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	102	P/P	90 - 110
Iron	99.3	100	P/P	90 - 110
Magnesium	99.3	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A83016

Included Lab Sample IDs: 1979268, 1979269, 1979270, 1979271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	98.8	98.3	P/P	90 - 110
Sodium	103	103	P/P	90 - 110
Zinc	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83020

Included Lab Sample IDs: 1979236, 1979237, 1979238, 1979239, 1979240

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A83025

Included Lab Sample IDs: 1979236, 1979237, 1979238, 1979239, 1979240, 1979241

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A83030

Included Lab Sample IDs: 1979241

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

Reference Method: EPA 8321B

Run ID: A83031

Included Lab Sample IDs: 1979267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	81.9	84.3	P/P	60 - 150

Reference Method: EPA 8321B

Run ID: A83032

Included Lab Sample IDs: 1979264, 1979265, 1979266

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	92.9	100	P/P	60 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83040

Included Lab Sample IDs: 1979268, 1979269, 1979270, 1979271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	96.1	96.2	P/P	90 - 110
Cadmium	98.9	99.6	P/P	90 - 110
Chromium	97.9	98.1	P/P	90 - 110
Copper	94.6	91.8	P/P	90 - 110
Lead	97.2	97.4	P/P	90 - 110
Nickel	94.3	91.2	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83040

Included Lab Sample IDs: 1979268, 1979269, 1979270, 1979271

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	99.7	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A83062

Included Lab Sample IDs: 1979236, 1979237, 1979238, 1979239, 1979240, 1979241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110
NO2NO3-N	106	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A83082

Included Lab Sample IDs: 1979236, 1979237, 1979238, 1979239, 1979240, 1979241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	99.5	P/P	90 - 110
Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A83110

Included Lab Sample IDs: 1979264, 1979265, 1979266, 1979267

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	92.7	92.9	P/P	50 - 150
2,4-D	92.9	94.8	P/P	50 - 150
Acetaminophen	106	111	P/P	60 - 150
Acetaminophen	112	106	P/P	60 - 150
Bentazon	95.1	106	P/P	50 - 150
Bentazon	99.8	95.1	P/P	50 - 150
Carbamazepine	106	107	P/P	60 - 150
Carbamazepine	107	107	P/P	60 - 150
Diuron	105	111	P/P	60 - 150
Diuron	119	105	P/P	60 - 150
Fenuron	106	106	P/P	60 - 150
Fenuron	106	109	P/P	60 - 150
Fluridone	113	116	P/P	60 - 160
Fluridone	118	113	P/P	60 - 160
Imazapyr	91.2	87.5	P/P	50 - 150
Imazapyr	93.2	91.2	P/P	50 - 150
Imidacloprid	106	112	P/P	60 - 150
Imidacloprid	112	112	P/P	60 - 150
Linuron	118	122	P/P	60 - 150
Linuron	121	118	P/P	60 - 150
MCPP	90.7	95.7	P/P	50 - 150
MCPP	95.7	102	P/P	50 - 150
Primidone	102	121	P/P	60 - 150
Primidone	96.5	102	P/P	60 - 150
Pyraclostrobin	114	118	P/P	60 - 150
Pyraclostrobin	119	114	P/P	60 - 150
Triclopyr	83.3	94.9	P/P	50 - 150
Triclopyr	90.5	83.3	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A83116

Included Lab Sample IDs: 1979230, 1979231, 1979232, 1979233, 1979234, 1979235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.3	100	P/P	90 - 110
Total Alkalinity	98.9	97.3	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A83136

Included Lab Sample IDs: 1979236, 1979237, 1979238, 1979239, 1979240, 1979241

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.0	P/P	90 - 110
Organic Carbon	99.2	97.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83248

Included Lab Sample IDs: 1979269

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	102	101	P/P	90 - 110
Copper	97.8	98.2	P/P	90 - 110
Nickel	97.9	98.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A83315

Included Lab Sample IDs: 1979230, 1979231, 1979232, 1979233, 1979234, 1979235

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	102	99.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A83836

Included Lab Sample IDs: 1979270

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	103	105	P/P	90 - 110
Nickel	99.7	99.6	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			Precision
			LCS			SMP
EPA 180.1 Rev. 2.0	Turbidity					0.213
EPA 200.7 Rev. 4.4	Calcium	105	106	102		1.16
	Iron	106	109	106	107	0.502
	Magnesium	109	108	106	107	0.459
	Potassium	102	102	99.0	98.2	0.464
	Sodium	104	107	102		0.317

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			LCS	Precision SMP	MS
EPA 200.7 Rev. 4.4	Zinc	101	104	101	102			0.681
EPA 200.8 Rev. 5.4	Arsenic	98.8	97.9	96.1	96.7			1.70
	Cadmium	104	103	99.5	105			3.05
	Chromium	104	102	99.5	100			2.21
	Chromium	104	106	104	104			0.255
	Chromium	101	101	89.3	102			12.5
	Copper	97.3	95.4	93.6	93.4			1.86
	Copper	96.6	98.2	99.6	99.7			0.0948
	Lead	101	99.7	97.8	98.9			1.99
	Nickel	96.4	94.5	92.1	92.3			2.51
	Nickel	96.1	97.8	97.5	97.8			0.330
	Nickel	99.6	99.8	88.6	100			11.9
	Silver	97.8	95.1	93.5	95.6			1.71
EPA 300.0 Rev. 2.1	Chloride	97.2	97.8	94.4			0.600	
	Sulfate	98.8	100	101				
EPA 350.1 Rev. 2.0	Ammonia-N	97.5	96.6	97.8				0.681
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	89.5	88.9				0.360
	Kjeldahl Nitrogen	110	99.9	103				2.09
EPA 353.2 Rev. 2.0	NO2NO3-N	106	107	109				1.25
EPA 365.1 Rev. 2.0	Total-P	102	97.0	99.7				2.24
	Total-P	102	102	104				2.01
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	101	99.0				1.60
EPA 8321B	2,4-D	60.6	50.1	48.4				3.36
	Acetaminophen	104	120	121				0.963
	Bentazon	66.5	51.1	50.5				0.864
	Carbamazepine	72.6	83.0	84.3				1.60
	Diuron	63.1	65.4	63.9				2.40
	Fenuron	107	96.0	87.5				9.27
	Fluridone	56.1	53.5	63.3				16.4
	Imazapyr	67.4	61.3	63.2				1.88
	Imidacloprid	93.7	134	138				2.47
	Linuron	75.5	78.4	79.9				1.94
	MCP	51.7	54.0	47.4				13.1
	Primidone	108	122	109				11.6
	Pyraclostrobin	75.0	80.8	72.9				10.3
	Sucralose	95.4	97.8	128				23.9
	Sucralose	83.8	93.4	91.1				2.50
	Triclopyr	50.4	55.3	51.7				6.63
SM 2120 B	Color (true)						0.487	
	Color (true)						1.47	
SM 2320 B-97	Total Alkalinity	98.3					2.33	
SM 2540 C-97	TDS						6.56	
SM 4500 F-C-97	Fluoride	96.2	96.9	97.5				0.477
SM 5310 B-00	Organic Carbon	96.0	94.4	97.0				1.61

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1979268, 1979269, 1979270, 1979271

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1979268, 1979269, 1979270, 1979271
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1979236, 1979237, 1979238, 1979239, 1979240, 1979241
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1979236, 1979237, 1979238, 1979239, 1979240, 1979241
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1979236, 1979237, 1979238, 1979239, 1979240, 1979241
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1979236, 1979237, 1979238, 1979239, 1979240, 1979241
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1979242, 1979243, 1979244, 1979245, 1979246, 1979247
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1979264, 1979265, 1979266, 1979267
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1979264, 1979265, 1979266, 1979267
SM 2120 B / E31780	True Color measured at 450 nm	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1979236, 1979237, 1979238, 1979239, 1979240, 1979241

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	03/29/2018			03/29/2018 16:28	DeAsia Armster	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
EPA 200.7 Rev. 4.4	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/03/2018 18:27	Betina Topolski	1979268
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/03/2018 18:35	Betina Topolski	1979269
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/03/2018 18:41	Betina Topolski	1979270
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/03/2018 18:48	Betina Topolski	1979271
EPA 200.8 Rev. 5.4	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/04/2018 21:54	Nadine Brooks	1979268
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/04/2018 22:04	Nadine Brooks	1979269
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/04/2018 22:14	Nadine Brooks	1979270
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/04/2018 22:23	Nadine Brooks	1979271
	03/29/2018	04/02/2018 13:15	Elliott D. Healy	04/13/2018 21:07	Nadine Brooks	1979269
	03/29/2018	04/12/2018 14:50	Elliott D. Healy	04/13/2018 21:07	Nadine Brooks	1979269
	03/29/2018	05/09/2018 12:06	Allison Taylor	05/11/2018 20:29	Nadine Brooks	1979270
EPA 300.0 Rev. 2.1	03/29/2018			03/30/2018 23:07	Lipi Saha	1979233
	03/29/2018			03/31/2018 01:31	Lipi Saha	1979230
	03/29/2018			03/31/2018 01:43	Lipi Saha	1979231
	03/29/2018			03/31/2018 01:55	Lipi Saha	1979232
	03/29/2018			03/31/2018 02:07	Lipi Saha	1979234
	03/29/2018			03/31/2018 02:18	Lipi Saha	1979235
EPA 350.1 Rev. 2.0	03/29/2018			04/05/2018 12:46	Ping Hua	1979237
	03/29/2018			04/05/2018 12:47	Ping Hua	1979238
	03/29/2018			04/05/2018 12:49	Ping Hua	1979239
	03/29/2018			04/05/2018 12:58	Ping Hua	1979240
	03/29/2018			04/05/2018 12:59	Ping Hua	1979241
	03/29/2018			04/05/2018 13:04	Ping Hua	1979236
EPA 351.2 Rev. 2.0	03/29/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 10:31	Joseph Suarez	1979236
	03/29/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 10:32	Joseph Suarez	1979237
	03/29/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 10:34	Joseph Suarez	1979238
	03/29/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 10:38	Joseph Suarez	1979239
	03/29/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 10:40	Joseph Suarez	1979240
	03/29/2018	04/03/2018 09:50	Adrian Shelby	04/04/2018 10:41	Joseph Suarez	1979241
EPA 353.2 Rev. 2.0	03/29/2018			04/05/2018 13:11	Lauren Bottorf	1979238
	03/29/2018			04/05/2018 13:12	Lauren Bottorf	1979239
	03/29/2018			04/05/2018 13:13	Lauren Bottorf	1979240
	03/29/2018			04/05/2018 13:14	Lauren Bottorf	1979241
	03/29/2018			04/05/2018 14:43	Lauren Bottorf	1979236
	03/29/2018			04/05/2018 14:44	Lauren Bottorf	1979237
EPA 365.1 Rev. 2.0	03/29/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 08:26	Beverly Y. Sanders	1979236
	03/29/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 09:03	Beverly Y. Sanders	1979237
	03/29/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 09:05	Beverly Y. Sanders	1979238

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	03/29/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 09:06	Beverly Y. Sanders	1979239
	03/29/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 09:07	Beverly Y. Sanders	1979240
	03/29/2018	04/03/2018 13:07	Sima Feizi	04/04/2018 11:40	Beverly Y. Sanders	1979241
EPA 365.1 Rev. 2.0 dissolved	03/29/2018			03/29/2018 15:40	Megan Treadwell	1979242
	03/29/2018			03/29/2018 15:41	Megan Treadwell	1979243
	03/29/2018			03/29/2018 15:42	Megan Treadwell	1979244
	03/29/2018			03/29/2018 15:43	Megan Treadwell	1979245
	03/29/2018			03/29/2018 15:44	Megan Treadwell	1979246
	03/29/2018			03/29/2018 15:45	Megan Treadwell	1979247
	03/29/2018			03/29/2018 15:45	Megan Treadwell	1979247
EPA 8321B	03/29/2018	03/30/2018 08:30	Julie Michelle Frank	03/31/2018 00:44	Mohammad Ghaffari	1979264
	03/29/2018	03/30/2018 08:30	Julie Michelle Frank	03/31/2018 01:00	Mohammad Ghaffari	1979265
	03/29/2018	03/30/2018 08:30	Julie Michelle Frank	03/31/2018 01:15	Mohammad Ghaffari	1979266
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 04:09	Julie Michelle Frank	1979264
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 04:43	Julie Michelle Frank	1979265
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 05:18	Julie Michelle Frank	1979266
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 06:27	Julie Michelle Frank	1979267
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 16:50	Julie Michelle Frank	1979264
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 17:25	Julie Michelle Frank	1979265
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 17:59	Julie Michelle Frank	1979266
	03/29/2018	04/02/2018 11:00	Hoor Shaik	04/04/2018 19:09	Julie Michelle Frank	1979267
	03/29/2018	04/03/2018 09:00	Julie Michelle Frank	04/03/2018 14:38	Mohammad Ghaffari	1979267
	03/29/2018			03/29/2018 17:05	Tanya Welborn	1979230
	03/29/2018			03/29/2018 17:06	Tanya Welborn	1979231
SM 2120 B	03/29/2018			03/29/2018 17:10	Tanya Welborn	1979232, 1979233
	03/29/2018			03/29/2018 17:11	Tanya Welborn	1979234
	03/29/2018			03/29/2018 17:22	Tanya Welborn	1979235
	03/29/2018			04/07/2018 01:21	Dale L. Simmons	1979230
	03/29/2018			04/07/2018 01:35	Dale L. Simmons	1979231
SM 2320 B-97	03/29/2018			04/07/2018 01:49	Dale L. Simmons	1979232
	03/29/2018			04/07/2018 02:31	Dale L. Simmons	1979233
	03/29/2018			04/07/2018 02:46	Dale L. Simmons	1979234
	03/29/2018			04/07/2018 02:56	Dale L. Simmons	1979235
	03/29/2018			03/30/2018 11:35	DeAsia Armster	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 2540 C-97	03/29/2018			03/30/2018 11:35	DeAsia Armster	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 2540 D-97	03/29/2018			03/30/2018 11:35	DeAsia Armster	1979230, 1979231, 1979232, 1979233, 1979234, 1979235
SM 4500 F-C-97	03/29/2018			04/17/2018 17:38	Dale L. Simmons	1979230
	03/29/2018			04/17/2018 17:42	Dale L. Simmons	1979231
	03/29/2018			04/17/2018 17:46	Dale L. Simmons	1979232
	03/29/2018			04/17/2018 17:49	Dale L. Simmons	1979233

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	03/29/2018			04/17/2018 17:53	Dale L. Simmons	1979234
	03/29/2018			04/17/2018 17:59	Dale L. Simmons	1979235
SM 5310 B-00	03/29/2018			04/06/2018 18:02	Julia Storbeck	1979237
	03/29/2018			04/06/2018 19:56	Julia Storbeck	1979236
	03/29/2018			04/06/2018 20:09	Julia Storbeck	1979238
	03/29/2018			04/06/2018 20:21	Julia Storbeck	1979239
	03/29/2018			04/06/2018 20:33	Julia Storbeck	1979240
	03/29/2018			04/06/2018 20:45	Julia Storbeck	1979241