

Chemical Analysis Report

WAS-SECT-2018-03-08-01

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

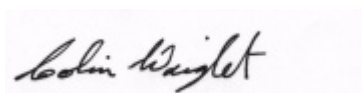
Event Description: **Sand, 8, Godby, Freeman, Big Branch, Wards, Black**
Request ID: **RQ-2018-02-05-35**
Customer: **WAS-SECT**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
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Certified by: Colin Wright, Program Administrator

Date Certified: 19-APR-2018 14:14

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light blue 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: Sand Pond Middle

Collection Date/Time: 03/08/2018 11:00

Field ID: G1WA0044

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973221	EPA 180.1 Rev. 2.0	Turbidity	1.2	A	NTU	P341222	
	EPA 300.0 Rev. 2.1	Chloride	2.3		mg Cl/L	P341900	
		Sulfate	0.58		mg SO4/L	P341903	
	SM 2120 B	Color (true)	27	A	PCU	P341278	
	SM 2320 B-97	Total Alkalinity	1.2	I	mg CaCO3/L	P341623	
	SM 2540 C-97	TDS	15	U	mg/L	P341713	
	SM 2540 D-97	TSS	2	U	mg/L	P341389	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P341627	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P341824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.54		mg N/L	P341432	
1973227	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341397	
	EPA 365.1 Rev. 2.0	Total-P	0.012		mg P/L	P341384	
	SM 5310 B-00	Organic Carbon	5.9		mg C/L	P341971	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P341263	
	dissolved						

Ref. Method and Comment:

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

Sample Location: Big Branch 50 meters upstream of CR67

Collection Date/Time: 03/08/2018 12:06

Field ID: G1WA0001

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973253	EPA 8321B	2,4-D	0.0020	U	ug/L	P341079	
		Sucralose**	0.010	U	ug/L	P341049	
		Bentazon	8.0E-04	U	ug/L	P341079	
		MCP	0.0020	U	ug/L	P341079	
		Triclopyr**	0.0040	U	ug/L	P341079	
		Imidacloprid	0.0020	U	ug/L	P341079	MS
		Diuron	0.0020	U	ug/L	P341079	
		Pyraclostrobin**	0.0020	U	ug/L	P341079	
		Primidone**	0.0040	U	ug/L	P341079	
		Linuron	0.0040	U	ug/L	P341079	
		Acetaminophen**	0.0080	U	ug/L	P341079	
		Fenuron	0.0080	U	ug/L	P341079	
		Imazapyr**	0.0040	U	ug/L	P341079	
		Carbamazepine**	4.0E-04	U	ug/L	P341079	
		Fluridone**	8.0E-04	U	ug/L	P341079	

Sample Location: Eight Mile Pond Middle

Collection Date/Time: 03/08/2018 10:00

Field ID: G1WA0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973222	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P341222	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P341900	
		Sulfate	1.6		mg SO4/L	P341903	

Field ID: G1WA0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973222	SM 2120 B	Color (true)	26		PCU	P341278	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P341623	
	SM 2540 C-97	TDS	55		mg/L	P341713	
	SM 2540 D-97	TSS	3	I	mg/L	P341390	
	SM 4500 F-C-97	Fluoride	0.096	I	mg F/L	P341627	
1973228	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P341824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P341432	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341398	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P341384	
	SM 5310 B-00	Organic Carbon	6.3		mg C/L	P341971	
1973234	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.039		mg P/L	P341263	

Ref. Method and Comment:

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

Sample Location: Eight Mile Pond Middle

Collection Date/Time: 03/08/2018 10:00

Field ID: G1WA0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973257	EPA 200.7 Rev. 4.4	Calcium	12.9		mg/L	P341368	
		Iron	490		ug/L	P341368	
		Magnesium	3.47		mg/L	P341368	
		Potassium	1.6		mg/L	P341368	
		Sodium	2.7		mg/L	P341368	
		Zinc	5.0	U	ug/L	P341368	
	EPA 200.8 Rev. 5.4	Arsenic	0.67		ug/L	P341368	
		Cadmium	0.020	U	ug/L	P341368	
		Chromium	0.40	U	ug/L	P341368	
		Copper	0.77	I	ug/L	P341368	
		Lead	0.67		ug/L	P341368	
		Nickel	0.20	U	ug/L	P341368	
		Silver	0.010	U	ug/L	P341368	

Sample Location: Eight Mile Pond Middle

Collection Date/Time: 03/08/2018 10:00

Field ID: G1WA0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973254	EPA 8321B	2,4-D	0.0029	I	ug/L	P341188	
		Sucralose**	0.093		ug/L	P341275	
		Bentazon	8.0E-04	UJ	ug/L	P341188	MS
		MCP	0.0020	UJ	ug/L	P341188	MS
		Triclopyr**	0.0040	UJ	ug/L	P341188	MS
		Imidacloprid	0.0081		ug/L	P341188	
		Diuron	0.0023	I	ug/L	P341188	
		Pyraclostrobin**	0.0020	U	ug/L	P341188	
		Primidone**	0.0040	U	ug/L	P341188	
		Linuron	0.0040	U	ug/L	P341188	

Field ID: G1WA0024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973254	EPA 8321B	Acetaminophen**	0.0080	U	ug/L	P341188	
		Fenuron	0.0080	U	ug/L	P341188	
		Imazapyr**	0.0040	U	ug/L	P341188	
		Carbamazepine**	4.0E-04	U	ug/L	P341188	
		Fluridone**	8.0E-04	U	ug/L	P341188	

Ref. Method and Comment:
EPA 8321B: Refer to the narrative for an explanation of QC Codes.

Sample Location: Eight Mile Pond Middle

Collection Date/Time: 03/08/2018 10:05

Field ID: G1WA0024_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973223	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P341222	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P341900	
		Sulfate	1.6		mg SO4/L	P341903	
	SM 2120 B	Color (true)	27		PCU	P341278	
	SM 2320 B-97	Total Alkalinity	45		mg CaCO3/L	P341623	
	SM 2540 C-97	TDS	56		mg/L	P341713	
	SM 2540 D-97	TSS	2	I	mg/L	P341390	
	SM 4500 F-C-97	Fluoride	0.099	I	mg F/L	P341627	
1973229	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P341824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P341432	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341398	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P341385	
	SM 5310 B-00	Organic Carbon	6.7		mg C/L	P341971	
1973235	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P341263	

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

Sample Location: Eight Mile Pond Middle

Collection Date/Time: 03/08/2018 10:05

Field ID: G1WA0024_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973258	EPA 200.7 Rev. 4.4	Calcium	12.8		mg/L	P341368	
		Iron	510		ug/L	P341368	
		Magnesium	3.44		mg/L	P341368	
		Potassium	1.6		mg/L	P341368	
		Sodium	2.7		mg/L	P341368	
		Zinc	5.0	U	ug/L	P341368	
	EPA 200.8 Rev. 5.4	Arsenic	0.66		ug/L	P341368	
		Cadmium	0.020	U	ug/L	P341368	
		Chromium	0.40	U	ug/L	P341368	
		Copper	0.86		ug/L	P341368	
		Lead	0.65		ug/L	P341368	
		Nickel	0.20	U	ug/L	P341368	
		Silver	0.010	U	ug/L	P341368	

Sample Location: Eight Mile Pond Middle

Collection Date/Time: 03/08/2018 10:05

Field ID: G1WA0024_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973255	EPA 8321B	2,4-D	0.0027	I	ug/L	P341188	
		Sucralose**	0.079		ug/L	P341275	
		Bentazon	8.0E-04	U	ug/L	P341188	MS
		MCPD	0.0020	U	ug/L	P341188	MS
		Triclopyr**	0.0040	U	ug/L	P341188	MS
		Imidacloprid	0.0094		ug/L	P341188	
		Diuron	0.0027	I	ug/L	P341188	
		Pyraclostrobin**	0.0020	U	ug/L	P341188	
		Primidone**	0.0040	U	ug/L	P341188	
		Linuron	0.0040	U	ug/L	P341188	
		Acetaminophen**	0.0080	U	ug/L	P341188	
		Fenuron	0.0080	U	ug/L	P341188	
		Imazapyr**	0.0040	U	ug/L	P341188	
		Carbamazepine**	4.0E-04	U	ug/L	P341188	
		Fluridone**	8.0E-04	U	ug/L	P341188	

Sample Location: QC Field Blank

Collection Date/Time: 03/08/2018 13:30

Field ID: Blank_03082018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973224	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P341222	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P341900	
		Sulfate	0.20	U	mg SO4/L	P341903	
	SM 2120 B	Color (true)	2.5	U	PCU	P341278	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P341623	
	SM 2540 C-97	TDS	15	U	mg/L	P341503	
	SM 2540 D-97	TSS	2	U	mg/L	P341390	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P341627	
1973230	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P341824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P341435	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341397	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P341385	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P341971	
1973236	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.004	U	mg P/L	P341263	
	dissolved						

Ref. Method and Comment:

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

Sample Location: QC Field Blank

Collection Date/Time: 03/08/2018 13:30

Field ID: Blank_03082018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973259	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P341368	
		Iron	30	U	ug/L	P341368	
		Magnesium	0.040	U	mg/L	P341368	

Field ID: Blank_03082018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973259	EPA 200.7 Rev. 4.4	Potassium	0.30	U	mg/L	P341368	
		Sodium	0.50	U	mg/L	P341368	
		Zinc	5.0	U	ug/L	P341368	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P341368	
		Cadmium	0.020	U	ug/L	P341368	
		Chromium	0.40	U	ug/L	P341368	
		Copper	0.20	U	ug/L	P341368	
		Lead	0.050	U	ug/L	P341368	
		Nickel	0.20	U	ug/L	P341368	
		Silver	0.010	U	ug/L	P341368	

Sample Location: QC Field Blank

Collection Date/Time: 03/08/2018 13:30

Field ID: Blank_03082018

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973256	EPA 8321B	2,4-D	0.0020	U	ug/L	P341188	
		Sucralose**	0.010	U	ug/L	P341275	
		Bentazon	8.0E-04	U	ug/L	P341188	MS
		MCP	0.0020	U	ug/L	P341188	MS
		Triclopyr**	0.0040	U	ug/L	P341188	MS
		Imidacloprid	0.0020	U	ug/L	P341188	
		Diuron	0.0020	U	ug/L	P341188	
		Pyraclostrobin**	0.0020	U	ug/L	P341188	
		Primidone**	0.0040	U	ug/L	P341188	
		Linuron	0.0040	U	ug/L	P341188	
		Acetaminophen**	0.0080	U	ug/L	P341188	
		Fenuron	0.0080	U	ug/L	P341188	
		Imazapyr**	0.0040	U	ug/L	P341188	
		Carbamazepine**	4.0E-04	U	ug/L	P341188	
		Fluridone**	8.0E-04	U	ug/L	P341188	

Sample Location: Wards Creek upstream of CR259

Collection Date/Time: 03/08/2018 08:16

Field ID: G1WA0074

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973225	EPA 180.1 Rev. 2.0	Turbidity	0.45		NTU	P341222	
	EPA 300.0 Rev. 2.1	Chloride	5.4		mg Cl/L	P341900	
		Sulfate	0.20	U	mg SO4/L	P341903	
		Color (true)	130		PCU	P341278	
	SM 2320 B-97	Total Alkalinity	4.9		mg CaCO3/L	P341623	
	SM 2540 C-97	TDS	48		mg/L	P341503	
	SM 2540 D-97	TSS	2	U	mg/L	P341390	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P341627	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P341824	
		Kjeldahl Nitrogen	0.59		mg N/L	P341435	MS

Field ID: G1WA0074

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973231	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341398	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P341385	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P341971	
1973237	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P341344	

Ref. Method and Comment:

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

Sample Location: Godby Drainage at Progress Dr.

Collection Date/Time: 03/08/2018 09:15

Field ID: G1WA0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1973226	EPA 180.1 Rev. 2.0	Turbidity	5.2	A	NTU	P341223	
	EPA 300.0 Rev. 2.1	Chloride	4.4		mg Cl/L	P341900	
		Sulfate	1.2		mg SO4/L	P341903	
	SM 2120 B	Color (true)	30		PCU	P341278	
	SM 2320 B-97	Total Alkalinity	84		mg CaCO3/L	P341623	
	SM 2540 C-97	TDS	98		mg/L	P341503	
	SM 2540 D-97	TSS	2	U	mg/L	P341390	
1973232	SM 4500 F-C-97	Fluoride	0.13		mg F/L	P341627	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P341824	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.31		mg N/L	P341435	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P341398	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P341385	
1973238	SM 5310 B-00	Organic Carbon	5.1		mg C/L	P341971	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P341263	

Ref. Method and Comment:

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: P341222

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P341223

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P341368

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341368

Component	Result	Code	Units
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: P341368

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341900

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341903

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341824

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341432

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341435

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341397

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341398

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341384

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341385

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341263

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341344

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

Reference Method: EPA 8321B
Batch ID: P341049

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P341079

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	0.0080	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
MCP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P341188

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	0.0080	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: P341275

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P341278

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P341623

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

Reference Method: SM 2540 C-97
Batch ID: P341503

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P341713

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341389

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 D-97
Batch ID: P341390

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P341627

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P341971

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: P341368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	98.7		P	85 - 115
Sodium	100		P	85 - 115
Zinc	99.7		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341368

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	101		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	99.6		P	85 - 115
Copper	99.4		P	85 - 115
Lead	106		P	85 - 115
Nickel	98.4		P	85 - 115
Silver	90.7		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341900

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	96.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341903

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.9		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341824

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.3		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341432

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341435

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341397

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341398

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341384

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341385

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: P341263

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.3		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341344

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P341049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	92.2		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P341079

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	67.5		P	40 - 150
Acetaminophen	95.6		P	30 - 150
Bentazon	99.3		P	30 - 150
Carbamazepine	84.7		P	40 - 150
Diuron	66.5		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	66.9		P	40 - 150
Imazapyr	81.0		P	40 - 150
Imidacloprid	98.3		P	40 - 160
Linuron	76.4		P	40 - 150
MCP	75.6		P	40 - 150
Primidone	98.6		P	40 - 150
Pyraclostrobin	68.8		P	40 - 150
Triclopyr	71.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P341188

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.6		P	40 - 150
Acetaminophen	112		P	30 - 150
Bentazon	89.8		P	30 - 150
Carbamazepine	76.0		P	40 - 150
Diuron	64.9		P	40 - 150
Fenuron	110		P	40 - 150
Fluridone	61.8		P	40 - 150
Imazapyr	83.6		P	40 - 150
Imidacloprid	106		P	40 - 160
Linuron	86.9		P	40 - 150
MCP	79.7		P	40 - 150
Primidone	111		P	40 - 150
Pyraclostrobin	57.3		P	40 - 150
Triclopyr	84.5		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P341275

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	99.6		P	40 - 150

Reference Method: SM 2320 B-97

Batch ID: P341623

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.0		P	95 - 108

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P341627

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.8		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P341971

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973258	Calcium	101		P	80 - 120
1973258	Iron	104	106	P/P	80 - 120
1973258	Magnesium	106	109	P/P	80 - 120
1973258	Potassium	101	102	P/P	80 - 120
1973258	Sodium	98.3	101	P/P	80 - 120
1973258	Zinc	96.6	98.9	P/P	80 - 120
1973463	Calcium	103		P	80 - 120
1973463	Iron	104		P	80 - 120
1973463	Magnesium	101		P	80 - 120
1973463	Potassium	102		P	80 - 120
1973463	Sodium	98.9		P	80 - 120
1973463	Zinc	96.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341368

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973258	Arsenic	99.8	96.9	P/P	80 - 120
1973258	Cadmium	104	99.7	P/P	80 - 120
1973258	Chromium	100	97.3	P/P	80 - 120
1973258	Copper	97.6	93.8	P/P	80 - 120
1973258	Lead	108	104	P/P	80 - 120
1973258	Nickel	96.6	93.4	P/P	80 - 120
1973258	Silver	92.4	89.1	P/P	80 - 120
1973463	Arsenic	100		P	80 - 120
1973463	Cadmium	99.3		P	80 - 120
1973463	Chromium	93.5		P	80 - 120
1973463	Copper	90.7		P	80 - 120
1973463	Lead	106		P	80 - 120
1973463	Nickel	92.2		P	80 - 120
1973463	Silver	88.0		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341900

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973061	Chloride	97.6		P	90 - 110
1973351	Chloride	97.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341903

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973061	Sulfate	100		P	90 - 110
1973351	Sulfate	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973227	Ammonia-N	100	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341432

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973032	Kjeldahl Nitrogen	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341435

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973294	Kjeldahl Nitrogen	114	114	F/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973013	NO2NO3-N	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341398

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973231	NO2NO3-N	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973013	Total-P	108	109	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973294	Total-P	102	99.6	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P341263

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973017	O-Phosphate-P	94.2	95.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P341344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973298	O-Phosphate-P	96.7	97.0	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P341049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972405	Sucralose	107	101	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P341079

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972737	2,4-D	49.6	48.1	P/P	40 - 150
1972737	Acetaminophen	124	131	P/P	30 - 150
1972737	Bentazon	76.5	81.5	P/P	30 - 150
1972737	Carbamazepine	76.6	77.1	P/P	40 - 150
1972737	Diuron	65.9	63.4	P/P	40 - 150
1972737	Fenuron	81.0	80.5	P/P	40 - 150
1972737	Fluridone	56.3	63.6	P/P	40 - 150
1972737	Imazapyr	57.3	51.2	P/P	40 - 150
1972737	Imidacloprid	179	173	F/F	40 - 160
1972737	Linuron	84.5	77.7	P/P	40 - 150
1972737	MCP	52.0	51.9	P/P	40 - 150
1972737	Primidone	106	116	P/P	40 - 150
1972737	Pyraclostrobin	70.0	62.1	P/P	40 - 150
1972737	Triclopyr	50.9	56.0	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P341188

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973254	2,4-D	40.5	50.2	P/P	40 - 150
1973254	Acetaminophen	130	132	P/P	30 - 150
1973254	Bentazon	25.7	27.3	F/F	30 - 150
1973254	Carbamazepine	82.8	78.6	P/P	40 - 150
1973254	Diuron	54.1	61.5	P/P	40 - 150
1973254	Fenuron	84.6	82.9	P/P	40 - 150
1973254	Fluridone	52.4	55.8	P/P	40 - 150
1973254	Imazapyr	74.0	61.6	P/P	40 - 150
1973254	Imidacloprid	148	152	P/P	40 - 160
1973254	Linuron	79.7	87.7	P/P	40 - 150
1973254	MCP	33.9	39.1	F/F	40 - 150
1973254	Primidone	100	105	P/P	40 - 150
1973254	Pyraclostrobin	60.2	61.3	P/P	40 - 150
1973254	Triclopyr	34.2	40.8	F/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P341275

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973254	Sucralose	91.8	103	P/P	40 - 150

Reference Method: SM 4500 F-C-97
Batch ID: P341627

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973062	Fluoride	93.6	94.7	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P341971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1973013	Organic Carbon	98.4	98.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341222

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973221	Turbidity	2.53	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341223

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973226	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973258	Calcium	0.990	Spike	P	0 - 20
1973258	Iron	1.83	Spike	P	0 - 20
1973258	Magnesium	1.81	Spike	P	0 - 20
1973258	Potassium	0.830	Spike	P	0 - 20
1973258	Sodium	1.40	Spike	P	0 - 20
1973258	Zinc	2.36	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973258	Arsenic	2.89	Spike	P	0 - 20
1973258	Cadmium	4.08	Spike	P	0 - 20
1973258	Chromium	3.11	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341368

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973258	Copper	3.78	Spike	P	0 - 20
1973258	Lead	3.33	Spike	P	0 - 20
1973258	Nickel	3.41	Spike	P	0 - 20
1973258	Silver	3.65	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341900

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973061	Chloride	0.639	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341903

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973061	Sulfate	1.49	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973227	Ammonia-N	0.148	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973032	Kjeldahl Nitrogen	0.0804	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973294	Kjeldahl Nitrogen	0.643	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973013	NO2NO3-N	0.226	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341398

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973231	NO2NO3-N	0.971	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973013	Total-P	0.213	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973294	Total-P	2.35	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341263

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973017	O-Phosphate-P	0.736	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973298	O-Phosphate-P	0.246	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P341049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972405	Sucralose	4.52	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P341079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972737	2,4-D	2.99	Spike	P	0 - 30
1972737	Acetaminophen	5.48	Spike	P	0 - 30
1972737	Bentazon	4.95	Spike	P	0 - 30
1972737	Carbamazepine	0.749	Spike	P	0 - 30
1972737	Diuron	3.39	Spike	P	0 - 30
1972737	Fenuron	0.669	Spike	P	0 - 30
1972737	Fluridone	8.57	Spike	P	0 - 30
1972737	Imazapyr	4.30	Spike	P	0 - 30
1972737	Imidacloprid	3.36	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P341079

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972737	Linuron	8.45	Spike	P	0 - 30
1972737	MCP	0.250	Spike	P	0 - 30
1972737	Primidone	7.83	Spike	P	0 - 30
1972737	Pyraclostrobin	11.9	Spike	P	0 - 30
1972737	Triclopyr	9.43	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P341188

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973254	2,4-D	19.8	Spike	P	0 - 30
1973254	Acetaminophen	1.83	Spike	P	0 - 30
1973254	Bentazon	6.00	Spike	P	0 - 30
1973254	Carbamazepine	5.13	Spike	P	0 - 30
1973254	Diuron	12.1	Spike	P	0 - 30
1973254	Fenuron	2.01	Spike	P	0 - 30
1973254	Fluridone	6.42	Spike	P	0 - 30
1973254	Imazapyr	18.4	Spike	P	0 - 30
1973254	Imidacloprid	2.63	Spike	P	0 - 30
1973254	Linuron	9.57	Spike	P	0 - 30
1973254	MCP	14.3	Spike	P	0 - 30
1973254	Primidone	4.68	Spike	P	0 - 30
1973254	Pyraclostrobin	1.76	Spike	P	0 - 30
1973254	Triclopyr	17.5	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P341275

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973254	Sucralose	10.7	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P341278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973221	Color (true)	4.77	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P341623

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973062	Total Alkalinity	0.0659	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P341503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973287	TDS	1.08	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P341713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973028	TDS	0.0	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P341627

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973062	Fluoride	0.993	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P341971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1973013	Organic Carbon	0.225	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: 1973253
Field Sample ID: G1WA0001

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	80.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	113	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.8	P	30 - 160
EPA 8321B	Diuron-d6	62.8	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	40 - 160

Lab Sample ID: 1973254
Field Sample ID: G1WA0024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	51.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	122	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.4	P	30 - 160
EPA 8321B	Diuron-d6	66.4	P	30 - 160
EPA 8321B	Primidone-d5	109	P	30 - 160
EPA 8321B	Sucralose-d6	107	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1973255
Field Sample ID: G1WA0024_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	50.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	140	P	30 - 160
EPA 8321B	Carbamazepine-d10	99.2	P	30 - 160
EPA 8321B	Diuron-d6	72.2	P	30 - 160
EPA 8321B	Primidone-d5	116	P	30 - 160
EPA 8321B	Sucralose-d6	87.3	P	40 - 160

Lab Sample ID: 1973256
Field Sample ID: Blank_03082018

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	89.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	89.8	P	30 - 160
EPA 8321B	Diuron-d6	72.0	P	30 - 160
EPA 8321B	Primidone-d5	89.0	P	30 - 160
EPA 8321B	Sucralose-d6	96.6	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A82508
Included Lab Sample IDs: 1973221, 1973222, 1973223, 1973224, 1973225, 1973226

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A82516
Included Lab Sample IDs: 1973233, 1973234, 1973235, 1973236, 1973238

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.7	97.1	P/P	90 - 110
O-Phosphate-P	97.9	97.7	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A82522
Included Lab Sample IDs: 1973221, 1973222, 1973223, 1973224, 1973225, 1973226

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.4	98.3	P/P	85 - 115

Reference Method: EPA 8321B
Run ID: A82544
Included Lab Sample IDs: 1973253, 1973254, 1973255, 1973256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	83.3	90.7	P/P	60 - 150
Sucralose	89.8	83.3	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A82544

Included Lab Sample IDs: 1973253, 1973254, 1973255, 1973256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	90.7	91.0	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82545

Included Lab Sample IDs: 1973237

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82555

Included Lab Sample IDs: 1973227, 1973228, 1973229, 1973230, 1973231, 1973232

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82566

Included Lab Sample IDs: 1973228

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82567

Included Lab Sample IDs: 1973229, 1973232

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

Reference Method: EPA 8321B

Run ID: A82580

Included Lab Sample IDs: 1973253

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	101	88.6	P/P	50 - 150
Acetaminophen	100	100	P/P	60 - 150
Bentazon	136	132	P/P	50 - 150
Carbamazepine	101	89.6	P/P	60 - 150
Diuron	98.4	102	P/P	60 - 150
Fenuron	88.5	96.4	P/P	60 - 150
Fluridone	95.1	96.9	P/P	60 - 160
Imazapyr	70.4	87.4	P/P	50 - 150
Imidacloprid	86.7	93.1	P/P	60 - 150
Linuron	98.6	102	P/P	60 - 150
MCPP	105	91.5	P/P	50 - 150
Primidone	105	115	P/P	60 - 150
Pyraclostrobin	88.5	92.8	P/P	60 - 150
Triclopyr	98.2	95.6	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82587

Included Lab Sample IDs: 1973227, 1973230, 1973231

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	98.8	P/P	90 - 110
Total-P	99.2	98.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82589

Included Lab Sample IDs: 1973257, 1973258, 1973259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	98.1	99.0	P/P	95 - 105
Calcium	98.7	98.7	P/P	90 - 110
Iron	101	100	P/P	95 - 105
Iron	99.0	99.8	P/P	90 - 110
Magnesium	101	100	P/P	95 - 105
Magnesium	98.9	100	P/P	90 - 110
Potassium	97.7	96.7	P/P	90 - 110
Potassium	98.3	97.0	P/P	95 - 105
Sodium	95.2	95.6	P/P	95 - 105
Sodium	96.1	94.6	P/P	90 - 110
Zinc	102	98.5	P/P	95 - 105
Zinc	97.3	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82615

Included Lab Sample IDs: 1973227, 1973228, 1973229

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	99.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82628

Included Lab Sample IDs: 1973230, 1973231, 1973232

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

Reference Method: SM 2320 B-97

Run ID: A82634

Included Lab Sample IDs: 1973221, 1973222, 1973223, 1973224, 1973225, 1973226

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.0	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82634

Included Lab Sample IDs: 1973221, 1973222, 1973223, 1973224, 1973225, 1973226

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.1	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82643

Included Lab Sample IDs: 1973227, 1973228, 1973229, 1973230, 1973231, 1973232

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

Reference Method: EPA 8321B

Run ID: A82650

Included Lab Sample IDs: 1973254, 1973255, 1973256

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	93.7	P/P	50 - 150
Acetaminophen	109	104	P/P	60 - 150
Acetaminophen	111	120	P/P	60 - 150
Bentazon	115	119	P/P	50 - 150
Carbamazepine	116	93.0	P/P	60 - 150
Carbamazepine	93.0	93.4	P/P	60 - 150
Diuron	109	115	P/P	60 - 150
Diuron	109	111	P/P	60 - 150
Fenuron	103	104	P/P	60 - 150
Fenuron	106	109	P/P	60 - 150
Fluridone	109	118	P/P	60 - 160
Imazapyr	101	98.2	P/P	50 - 150
Imidacloprid	109	117	P/P	60 - 150
Imidacloprid	112	111	P/P	60 - 150
Linuron	114	127	P/P	60 - 150
Linuron	123	130	P/P	60 - 150
MCPP	96.7	99.6	P/P	50 - 150
Primidone	96.8	96.0	P/P	60 - 150
Primidone	99.8	125	P/P	60 - 150
Pyraclostrobin	101	99.5	P/P	60 - 150
Pyraclostrobin	107	106	P/P	60 - 150
Triclopyr	99.8	98.2	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82671

Included Lab Sample IDs: 1973257, 1973258, 1973259

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	100	P/P	90 - 110
Arsenic	98.4	97.1	P/P	90 - 110
Cadmium	97.2	96.9	P/P	90 - 110
Cadmium	97.8	97.2	P/P	90 - 110
Chromium	94.6	96.0	P/P	90 - 110
Chromium	98.3	97.1	P/P	90 - 110
Copper	96.2	96.0	P/P	90 - 110
Copper	98.0	97.6	P/P	90 - 110
Lead	103	104	P/P	90 - 110
Lead	104	103	P/P	90 - 110
Nickel	96.5	95.6	P/P	90 - 110
Nickel	97.8	97.7	P/P	90 - 110
Silver	100	100	P/P	90 - 110
Silver	101	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82750

Included Lab Sample IDs: 1973221, 1973222, 1973223, 1973224, 1973225, 1973226

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.7	98.3	P/P	90 - 110
Sulfate	99.9	98.1	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A82777

Included Lab Sample IDs: 1973227, 1973228, 1973229, 1973230, 1973231, 1973232

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	97.7	P/P	90 - 110
Organic Carbon	97.7	98.3	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							2.53	
	Turbidity							1.94	
EPA 200.7 Rev. 4.4	Calcium	103		103	101				0.990
	Iron	104		104	106	104			1.83
	Magnesium	107		106	109	101			1.81
	Potassium	98.7		101	102	102			0.830
	Sodium	100		98.3	101	98.9			1.40
	Zinc	99.7		96.6	98.9	96.9			2.36
EPA 200.8 Rev. 5.4	Arsenic	101		99.8	96.9	100			2.89
	Cadmium	101		104	99.7	99.3			4.08
	Chromium	99.6		100	97.3	93.5			3.11
	Copper	99.4		97.6	93.8	90.7			3.78
	Lead	106		108	104	106			3.33
	Nickel	98.4		96.6	93.4	92.2			3.41
	Silver	90.7		92.4	89.1	88.0			3.65
EPA 300.0 Rev. 2.1	Chloride	96.3		97.6	97.3			0.639	
	Sulfate	97.9		100	98.9			1.49	
EPA 350.1 Rev. 2.0	Ammonia-N	99.3		100	100				0.148
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.6		102	102				0.0804
	Kjeldahl Nitrogen	105		114	114				0.643
EPA 353.2 Rev. 2.0	NO2NO3-N	103		104					0.226
	NO2NO3-N	104		104	102				0.971
EPA 365.1 Rev. 2.0	Total-P	103		108	109				0.213
	Total-P	101		102	99.6				2.35
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.3		94.2	95.1				0.736
	O-Phosphate-P	96.8		96.7	97.0				0.246
EPA 8321B	2,4-D	67.5		49.6	48.1				2.99
	2,4-D	81.6		40.5	50.2				19.8
	Acetaminophen	95.6		124	131				5.48
	Acetaminophen	112		130	132				1.83

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Bentazon	99.3	76.5	81.5		4.95
	Bentazon	89.8	25.7	27.3		6.00
	Carbamazepine	84.7	76.6	77.1		0.749
	Carbamazepine	76.0	82.8	78.6		5.13
	Diuron	66.5	65.9	63.4		3.39
	Diuron	64.9	54.1	61.5		12.1
	Fenuron	103	81.0	80.5		0.669
	Fenuron	110	84.6	82.9		2.01
	Fluridone	66.9	56.3	63.6		8.57
	Fluridone	61.8	52.4	55.8		6.42
	Imazapyr	81.0	57.3	51.2		4.30
	Imazapyr	83.6	74.0	61.6		18.4
	Imidacloprid	98.3	179	173		3.36
	Imidacloprid	106	148	152		2.63
	Linuron	76.4	84.5	77.7		8.45
	Linuron	86.9	79.7	87.7		9.57
	MCPP	75.6	52.0	51.9		0.250
	MCPP	79.7	39.1	33.9		14.3
	Primidone	98.6	106	116		7.83
	Primidone	111	100	105		4.68
	Pyraclostrobin	68.8	70.0	62.1		11.9
	Pyraclostrobin	57.3	60.2	61.3		1.76
	Sucralose	92.2	107	101		4.52
	Sucralose	99.6	91.8	103		10.7
	Triclopyr	71.5	50.9	56.0		9.43
	Triclopyr	84.5	34.2	40.8		17.5
SM 2120 B	Color (true)				4.77	
SM 2320 B-97	Total Alkalinity	99.0			0.0659	
SM 2540 C-97	TDS				1.08	
	TDS				0.0	
SM 4500 F-C-97	Fluoride	95.8	93.6	94.7		0.993
SM 5310 B-00	Organic Carbon	97.4	98.4	98.0		0.225

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1973257, 1973258, 1973259
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1973257, 1973258, 1973259
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1973227, 1973228, 1973229, 1973230, 1973231, 1973232
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1973227, 1973228, 1973229, 1973230, 1973231, 1973232
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1973227, 1973228, 1973229, 1973230, 1973231, 1973232
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1973227, 1973228, 1973229, 1973230, 1973231, 1973232

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1973233, 1973234, 1973235, 1973236, 1973237, 1973238
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1973253, 1973254, 1973255, 1973256
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1973253, 1973254, 1973255, 1973256
SM 2120 B / E31780	True Color measured at 450 nm	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1973227, 1973228, 1973229, 1973230, 1973231, 1973232

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	03/08/2018			03/08/2018 15:14	DeAsia Armster	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
EPA 200.7 Rev. 4.4	03/08/2018	03/12/2018 12:15	Vijayalakshmi Reddy	03/13/2018 16:34	Betina Topolski	1973259
	03/08/2018	03/12/2018 12:15	Vijayalakshmi Reddy	03/13/2018 19:02	Betina Topolski	1973257
	03/08/2018	03/12/2018 12:15	Vijayalakshmi Reddy	03/13/2018 19:10	Betina Topolski	1973258
EPA 200.8 Rev. 5.4	03/08/2018	03/12/2018 12:15	Vijayalakshmi Reddy	03/16/2018 13:20	Nadine Brooks	1973259
	03/08/2018	03/12/2018 12:15	Vijayalakshmi Reddy	03/16/2018 16:26	Nadine Brooks	1973257
	03/08/2018	03/12/2018 12:15	Vijayalakshmi Reddy	03/16/2018 16:35	Nadine Brooks	1973258
EPA 300.0 Rev. 2.1	03/08/2018			03/20/2018 18:00	Julia Storbeck	1973221
	03/08/2018			03/20/2018 18:12	Julia Storbeck	1973222
	03/08/2018			03/20/2018 18:23	Julia Storbeck	1973223
	03/08/2018			03/20/2018 18:35	Julia Storbeck	1973224
	03/08/2018			03/20/2018 18:47	Julia Storbeck	1973225
	03/08/2018			03/20/2018 18:59	Julia Storbeck	1973226
EPA 350.1 Rev. 2.0	03/08/2018			03/14/2018 18:10	Ping Hua	1973227
	03/08/2018			03/14/2018 18:16	Ping Hua	1973228
	03/08/2018			03/14/2018 18:18	Ping Hua	1973229
	03/08/2018			03/14/2018 18:20	Ping Hua	1973231
	03/08/2018			03/14/2018 18:21	Ping Hua	1973230
	03/08/2018			03/14/2018 18:23	Ping Hua	1973232
EPA 351.2 Rev. 2.0	03/08/2018	03/13/2018 10:30	Adrian Shelby	03/14/2018 15:21	Joseph Suarez	1973227
	03/08/2018	03/13/2018 10:30	Adrian Shelby	03/14/2018 15:22	Joseph Suarez	1973228
	03/08/2018	03/13/2018 10:30	Adrian Shelby	03/14/2018 15:24	Joseph Suarez	1973229
	03/08/2018	03/13/2018 10:30	Adrian Shelby	03/15/2018 11:36	Joseph Suarez	1973230
	03/08/2018	03/13/2018 10:30	Adrian Shelby	03/15/2018 11:37	Joseph Suarez	1973231
	03/08/2018	03/13/2018 10:30	Adrian Shelby	03/15/2018 11:42	Joseph Suarez	1973232
EPA 353.2 Rev. 2.0	03/08/2018			03/12/2018 13:49	Lauren Bottorf	1973230
	03/08/2018			03/12/2018 13:57	Lauren Bottorf	1973227
	03/08/2018			03/12/2018 14:04	Lauren Bottorf	1973231
	03/08/2018			03/12/2018 14:11	Lauren Bottorf	1973228
	03/08/2018			03/12/2018 14:13	Lauren Bottorf	1973229
	03/08/2018			03/12/2018 14:14	Lauren Bottorf	1973232
EPA 365.1 Rev. 2.0	03/08/2018	03/12/2018 01:30	Lipi Saha	03/13/2018 09:48	Beverly Y. Sanders	1973228
	03/08/2018	03/12/2018 01:30	Lipi Saha	03/13/2018 11:49	Beverly Y. Sanders	1973229
	03/08/2018	03/12/2018 01:30	Lipi Saha	03/13/2018 11:51	Beverly Y. Sanders	1973232
	03/08/2018	03/12/2018 01:30	Lipi Saha	03/13/2018 12:37	Beverly Y. Sanders	1973227
	03/08/2018	03/12/2018 01:30	Lipi Saha	03/13/2018 13:11	Beverly Y. Sanders	1973230
	03/08/2018	03/12/2018 01:30	Lipi Saha	03/13/2018 13:12	Beverly Y. Sanders	1973231
EPA 365.1 Rev. 2.0 dissolved	03/08/2018			03/08/2018 15:47	Megan Treadwell	1973233
	03/08/2018			03/08/2018 15:50	Megan Treadwell	1973236

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 dissolved	03/08/2018			03/08/2018 15:58	Megan Treadwell	1973238
	03/08/2018			03/08/2018 16:03	Megan Treadwell	1973234
	03/08/2018			03/08/2018 16:04	Megan Treadwell	1973235
	03/08/2018			03/09/2018 16:59	Megan Treadwell	1973237
EPA 8321B	03/08/2018	03/09/2018 12:00	Hoor Shaik	03/10/2018 07:06	Julie Michelle Frank	1973253
	03/08/2018	03/09/2018 12:00	Hoor Shaik	03/10/2018 23:49	Julie Michelle Frank	1973253
	03/08/2018	03/09/2018 14:00	Julie Michelle Frank	03/09/2018 21:17	Juyoung Kim	1973253
	03/08/2018	03/09/2018 14:00	Julie Michelle Frank	03/09/2018 22:52	Juyoung Kim	1973254
	03/08/2018	03/09/2018 14:00	Julie Michelle Frank	03/09/2018 23:07	Juyoung Kim	1973255
	03/08/2018	03/09/2018 14:00	Julie Michelle Frank	03/09/2018 23:39	Juyoung Kim	1973256
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/13/2018 15:55	Julie Michelle Frank	1973254
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/13/2018 16:29	Julie Michelle Frank	1973255
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/13/2018 17:04	Julie Michelle Frank	1973256
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/14/2018 04:01	Julie Michelle Frank	1973254
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/14/2018 04:36	Julie Michelle Frank	1973255
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/14/2018 05:11	Julie Michelle Frank	1973256
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/14/2018 16:43	Julie Michelle Frank	1973254
	03/08/2018	03/13/2018 12:00	Hoor Shaik	03/14/2018 17:18	Julie Michelle Frank	1973255
SM 2120 B	03/08/2018			03/09/2018 11:18	Tanya Welborn	1973221, 1973222
	03/08/2018			03/09/2018 11:19	Tanya Welborn	1973223
	03/08/2018			03/09/2018 11:20	Tanya Welborn	1973224
	03/08/2018			03/09/2018 11:21	Tanya Welborn	1973225, 1973226
SM 2320 B-97	03/08/2018			03/15/2018 01:08	Dale L. Simmons	1973221
	03/08/2018			03/15/2018 01:18	Dale L. Simmons	1973222
	03/08/2018			03/15/2018 01:28	Dale L. Simmons	1973223
	03/08/2018			03/15/2018 01:41	Dale L. Simmons	1973224
	03/08/2018			03/15/2018 01:52	Dale L. Simmons	1973225
SM 2540 C-97	03/08/2018			03/15/2018 02:02	Dale L. Simmons	1973226
	03/08/2018			03/09/2018 13:45	DeAsia Armster	1973224, 1973225, 1973226
	03/08/2018			03/12/2018 16:30	DeAsia Armster	1973221, 1973222, 1973223
SM 2540 D-97	03/08/2018			03/09/2018 13:45	DeAsia Armster	1973221, 1973222, 1973223, 1973224, 1973225, 1973226
SM 4500 F-C-97	03/08/2018			03/15/2018 01:08	Dale L. Simmons	1973221
	03/08/2018			03/15/2018 01:18	Dale L. Simmons	1973222
	03/08/2018			03/15/2018 01:28	Dale L. Simmons	1973223
	03/08/2018			03/15/2018 01:41	Dale L. Simmons	1973224
	03/08/2018			03/15/2018 01:52	Dale L. Simmons	1973225
	03/08/2018			03/15/2018 02:02	Dale L. Simmons	1973226
SM 5310 B-00	03/08/2018			03/20/2018 20:40	Megan Treadwell	1973227
	03/08/2018			03/20/2018 20:55	Megan Treadwell	1973228

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	03/08/2018			03/20/2018 21:42	Megan Treadwell	1973229
	03/08/2018			03/20/2018 21:56	Megan Treadwell	1973230
	03/08/2018			03/20/2018 22:10	Megan Treadwell	1973231
	03/08/2018			03/20/2018 22:25	Megan Treadwell	1973232