

Chemical Analysis Report

NE-DIST-2023-11-01-01

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

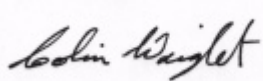
Event Description: **Pellicer Creek 2023**
Request ID: **RQ-2023-09-25-45**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 20-NOV-2023 10:54



Case Narrative

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

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

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

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

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

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: SCHOOLHOUSE BRANCH AT RR TRACKS

Collection Date/Time: 10/31/2023 10:35

Field ID: G5NE0599

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447973	DEP SOP: NU-094-1	Color (true)	270		PCU	P437230	
	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P437242	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P437824	
		Sulfate	5.3		mg SO4/L	P437828	
	SM 2320 B-2011	Total Alkalinity	62		mg CaCO3/L	P437665	
	SM 2540 C-2015	TDS	138		mg/L	P437680	
	SM 2540 D-2015	TSS	2	U	mg/L	P437569	
	SM 4500-F- C-2011	Fluoride	0.048	I	mg F/L	P437401	
2447975	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P437344	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P437408	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P437435	
	EPA 365.1 Rev. 2.0	Total-P	0.056		mg P/L	P437281	
	SM 5310 B-2011	Organic Carbon	21		mg C/L	P437323	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

**Sample Location: PRINGLE BRANCH AT SJRWMD EASEMENT
300M ABV DAVE BRANCH**

Collection Date/Time: 10/31/2023 11:45

Field ID: G5NE0611

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447984	EPA 8321B	2,4-D	0.0020	U	ug/L	P437260	
		Acesulfame K	0.10	U	ug/L	P437132	
		2,4,5-T	0.0040	U	ug/L	P437260	
		AMPA	0.10	U	ug/L	P437132	
		Acetaminophen	0.0080	U	ug/L	P437260	
		Acetamiprid	0.0020	U	ug/L	P437260	
		Endothall	0.25	U	ug/L	P437132	
		Glufosinate	0.10	U	ug/L	P437132	
		Glyphosate	0.10	U	ug/L	P437132	
		Afidopyropen	0.0020	U	ug/L	P437260	
		Bentazon	8.0E-04	U	ug/L	P437260	
		Sucralose	0.010	U	ug/L	P437132	
		Benzovindiflupyr	0.0020	U	ug/L	P437260	
		Carbamazepine	8.0E-04	U	ug/L	P437260	
		Clothianidin	0.0020	U	ug/L	P437260	
		Dinotefuran	0.0020	U	ug/L	P437260	
		Diuron	0.0020	U	ug/L	P437260	
		Fenuron	0.032	U	ug/L	P437260	
		Fluridone	8.0E-04	U	ug/L	P437260	
		Imazapyr	0.036		ug/L	P437260	
		Hydrocodone	0.0020	U	ug/L	P437260	
		Ibuprofen	0.080	U	ug/L	P437260	
		Imidacloprid	0.0020	U	ug/L	P437260	
		Linuron	0.0040	U	ug/L	P437260	
		Mandestrobin	0.0020	U	ug/L	P437260	
		MCPP	0.0020	U	ug/L	P437260	
		Naproxen	0.0080	U	ug/L	P437260	
		Primidone	0.0040	U	ug/L	P437260	
		Pyraclostrobin	0.0020	U	ug/L	P437260	
		Silvex	0.0040	U	ug/L	P437260	
		Thiamethoxam	0.0020	U	ug/L	P437260	
		Tolfenpyrad	0.0020	U	ug/L	P437260	
		Triclopyr	0.0040	U	ug/L	P437260	
2447986	EPA 200.7 Rev. 4.4	Calcium	10.3		mg/L	P437285	
		Iron	1.84E+03		ug/L	P437285	
		Magnesium	1.58		mg/L	P437285	
		Potassium	0.30	U	mg/L	P437285	
		Sodium	9.9		mg/L	P437285	
		Strontium	52.0		ug/L	P437285	
		Tin	3.0	U	ug/L	P437285	
		Titanium	5.5		ug/L	P437285	
		Vanadium	2.0	U	ug/L	P437285	
		Zinc	5.0	U	ug/L	P437285	

Field ID: G5NE0611

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447986	EPA 200.8 Rev. 5.4	Aluminum	644		ug/L	P437285	
		Antimony	0.050	U	ug/L	P437285	
		Arsenic	0.38		ug/L	P437285	
		Barium	11.7		ug/L	P437285	
		Beryllium	0.049		ug/L	P437285	
		Boron	18.3		ug/L	P437285	
		Cadmium	0.020	U	ug/L	P437285	
		Chromium	0.81	I	ug/L	P437285	
		Cobalt	0.360		ug/L	P437285	
		Copper	0.40	U	ug/L	P437285	
		Lead	0.49		ug/L	P437285	
		Manganese	13.6		ug/L	P437285	
		Molybdenum	0.15	U	ug/L	P437285	
		Nickel	0.50	U	ug/L	P437285	
		Selenium	0.20	U	ug/L	P437285	
		Silver	0.010	U	ug/L	P437285	
		Thallium	0.10	U	ug/L	P437285	
	SM 2340 B-2011	Hardness	32.2		mg/L	P437285	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for strontium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: FIELD BLANK

Collection Date/Time: 10/31/2023 11:25

Field ID: FB_10312023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447985	EPA 8321B	2,4-D	0.0020	U	ug/L	P437260	
		Acesulfame K	0.10	U	ug/L	P437132	
		2,4,5-T	0.0040	U	ug/L	P437260	
		AMPA	0.10	U	ug/L	P437132	
		Acetaminophen	0.0080	U	ug/L	P437260	
		Acetamiprid	0.0020	U	ug/L	P437260	
		Endothall	0.25	U	ug/L	P437132	
		Glufosinate	0.10	U	ug/L	P437132	
		Glyphosate	0.10	U	ug/L	P437132	
		Afidopyropen	0.0020	U	ug/L	P437260	
		Bentazon	8.0E-04	U	ug/L	P437260	
		Sucralose	0.010	U	ug/L	P437132	
		Benzovindiflupyr	0.0020	U	ug/L	P437260	
		Carbamazepine	8.0E-04	U	ug/L	P437260	
		Clothianidin	0.0020	U	ug/L	P437260	
		Dinotefuran	0.0020	U	ug/L	P437260	
		Diuron	0.0020	U	ug/L	P437260	
		Fenuron	0.032	U	ug/L	P437260	
		Fluridone	8.0E-04	U	ug/L	P437260	
		Imazapyr	0.0040	U	ug/L	P437260	
		Hydrocodone	0.0020	U	ug/L	P437260	
		Ibuprofen	0.080	U	ug/L	P437260	
		Imidacloprid	0.0020	U	ug/L	P437260	
		Linuron	0.0040	U	ug/L	P437260	
		Mandestrobin	0.0020	U	ug/L	P437260	
		MCPP	0.0020	U	ug/L	P437260	
		Naproxen	0.0080	U	ug/L	P437260	
		Primidone	0.0040	U	ug/L	P437260	
		Pyraclostrobin	0.0020	U	ug/L	P437260	
		Silvex	0.0040	U	ug/L	P437260	
		Thiamethoxam	0.0020	U	ug/L	P437260	
		Tolfenpyrad	0.0020	U	ug/L	P437260	
		Triclopyr	0.0040	U	ug/L	P437260	
2447987	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P437285	
		Iron	30	U	ug/L	P437285	
		Magnesium	0.040	U	mg/L	P437285	
		Potassium	0.30	U	mg/L	P437285	
		Sodium	0.50	U	mg/L	P437285	
		Strontium	2.0	U	ug/L	P437285	
		Tin	3.0	U	ug/L	P437285	
		Titanium	0.75	U	ug/L	P437285	
		Vanadium	2.0	U	ug/L	P437285	
		Zinc	5.0	U	ug/L	P437285	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P437285	

Field ID: FB_10312023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447987	EPA 200.8 Rev. 5.4	Antimony	0.050	U	ug/L	P437285	
		Arsenic	0.050	U	ug/L	P437285	
		Barium	0.20	U	ug/L	P437285	
		Beryllium	0.010	U	ug/L	P437285	
		Boron	2.0	U	ug/L	P437285	
		Cadmium	0.020	U	ug/L	P437285	
		Chromium	0.40	U	ug/L	P437285	
		Cobalt	0.020	U	ug/L	P437285	
		Copper	0.40	U	ug/L	P437285	
		Lead	0.20	U	ug/L	P437285	
		Manganese	0.10	U	ug/L	P437285	
		Molybdenum	0.15	U	ug/L	P437285	
		Nickel	0.50	U	ug/L	P437285	
		Selenium	0.20	U	ug/L	P437285	
		Silver	0.010	U	ug/L	P437285	
		Thallium	0.10	U	ug/L	P437285	
	SM 2340 B-2011	Hardness	0.35	U	mg/L	P437285	

Ref. Method and Comment:
 EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.
 EPA 200.7 Rev. 4.4: Batch matrix spike recoveries for strontium are unavailable for one of two spiked samples because of high analyte concentration in the QC sample.

Sample Location: UNNAMED DRAIN AT EAGLES NEST RD

Collection Date/Time: 10/31/2023 12:40

Field ID: 27010079

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447974	DEP SOP: NU-094-1	Color (true)	380		PCU	P437230	
	EPA 180.1 Rev. 2.0	Turbidity	3.8	A	NTU	P437242	
	EPA 300.0 Rev. 2.1	Chloride	3.2E+03		mg Cl/L	P437824	
		Sulfate	430		mg SO4/L	P437828	
	SM 2320 B-2011	Total Alkalinity	68		mg CaCO3/L	P437665	
	SM 2540 C-2015	TDS	5.66E+03		mg/L	P437681	
	SM 2540 D-2015	TSS	3	IA	mg/L	P437572	
	SM 4500-F- C-2011	Fluoride	0.27		mg F/L	P437405	
2447976	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P437343	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P437234	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P437836	
	EPA 365.1 Rev. 2.0	Total-P	0.072		mg P/L	P437278	
	SM 5310 B-2011	Organic Carbon	33		mg C/L	P437324	

Ref. Method and Comment:

SM 2540 C-2015: The reported result is consistent with the conductivity measured in the laboratory, 10290 umhos/cm.

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: FB

Collection Date/Time: 10/31/2023 12:45

Field ID: FB_10312023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2448003	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P437230	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P437242	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P437824	
		Sulfate	0.20	U	mg SO4/L	P437828	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P437665	
	SM 2540 C-2015	TDS	15	U	mg/L	P437680	
	SM 2540 D-2015	TSS	2	U	mg/L	P437569	
2448004	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P437344	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P437408	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P437435	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P437657	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P437323	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 350.1 Rev. 2.0: The result was confirmed on 11/03/2023.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437230

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437242

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P437285

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
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437285

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437824

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437828

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437343

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437344

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437234

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437435

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437836

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437278

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437281

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437657

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

Reference Method: EPA 8321B
Batch ID: P437132

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

Reference Method: EPA 8321B
Batch ID: P437260

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P437665

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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2540 C-2015
Batch ID: P437680

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2015
Batch ID: P437681

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437569

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P437572

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P437401

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P437405

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P437323

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

Reference Method: SM 5310 B-2011
Batch ID: P437324

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P437230

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.5		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437242

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P437285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	105		P	85 - 115
Iron	111		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	102		P	85 - 115
Sodium	109		P	85 - 115
Strontium	100		P	85 - 115
Tin	96.4		P	85 - 115
Titanium	100		P	85 - 115
Vanadium	99.2		P	85 - 115
Zinc	97.3		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437285

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.3		P	85 - 115
Antimony	97.7		P	85 - 115
Arsenic	99.3		P	85 - 115
Barium	102		P	85 - 115
Beryllium	94.3		P	85 - 115
Boron	96.3		P	85 - 115
Cadmium	96.5		P	85 - 115
Chromium	94.9		P	85 - 115
Cobalt	101		P	85 - 115
Copper	95.7		P	85 - 115
Lead	104		P	85 - 115
Manganese	96.6		P	85 - 115
Molybdenum	95.0		P	85 - 115
Nickel	96.2		P	85 - 115
Selenium	99.1		P	85 - 115
Silver	106		P	85 - 115
Thallium	106		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437824

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437828

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437343

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437344

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437234

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.4		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437435

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437836

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437278

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437281

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

Batch ID: P437657

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

Reference Method: EPA 8321B

Batch ID: P437132

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	108		P	40 - 150
AMPA	84.3		P	40 - 150
Endothall	98.2		P	40 - 150
Glufosinate	99.9		P	40 - 150
Glyphosate	93.3		P	40 - 150
Sucralose	96.4		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P437260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	69.7		P	40 - 150
2,4,5-T	77.3		P	40 - 150
Acetaminophen	86.5		P	30 - 150
Acetamiprid	77.3		P	40 - 150
Afidopyropen	59.1		P	30 - 150
Bentazon	74.8		P	30 - 150
Benzovindiflupyr	80.4		P	40 - 150
Carbamazepine	75.1		P	40 - 150
Clothianidin	87.6		P	40 - 150
Dinotefuran	102		P	40 - 150
Diuron	85.6		P	40 - 150
Fenuron	89.2		P	40 - 150
Fluridone	78.4		P	40 - 150
Hydrocodone	89.3		P	40 - 150
Ibuprofen	65.4		P	40 - 150
Imazapyr	75.3		P	40 - 150
Imidacloprid	81.6		P	40 - 150
Linuron	81.3		P	40 - 150
Mandestrobin	79.3		P	40 - 150
MCPP	73.4		P	40 - 150
Naproxen	61.0		P	40 - 150
Primidone	84.3		P	40 - 150
Pyraclostrobin	75.6		P	40 - 150
Silvex	68.8		P	40 - 150
Thiamethoxam	86.8		P	40 - 150
Tolfenpyrad	51.7		P	30 - 150
Triclopyr	82.8		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P437665

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.1		P	92 - 105

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 C-2015
Batch ID: P437680

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	107		P	85 - 115

Reference Method: SM 2540 C-2015
Batch ID: P437681

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	93.6		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437569

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

Reference Method: SM 2540 D-2015
Batch ID: P437572

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

Reference Method: SM 4500-F- C-2011
Batch ID: P437401

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P437405

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437323

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P437324

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P437285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447578	Calcium	103		P	80 - 120
2447578	Iron	110	110	P/P	80 - 120
2447578	Magnesium	104		P	80 - 120
2447578	Potassium	102	103	P/P	80 - 120
2447578	Sodium	108	109	P/P	80 - 120
2447578	Tin	95.4	96.2	P/P	80 - 120
2447578	Titanium	100	101	P/P	80 - 120
2447578	Vanadium	99.9	101	P/P	80 - 120
2447578	Zinc	95.3	95.6	P/P	80 - 120
2447933	Calcium	104		P	80 - 120
2447933	Iron	109		P	80 - 120
2447933	Magnesium	108		P	80 - 120
2447933	Potassium	101		P	80 - 120
2447933	Sodium	103		P	80 - 120
2447933	Strontium	99.2		P	80 - 120
2447933	Tin	95.1		P	80 - 120
2447933	Titanium	101		P	80 - 120
2447933	Vanadium	99.3		P	80 - 120
2447933	Zinc	96.4		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P437285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447578	Aluminum	98.8	97.9	P/P	80 - 120
2447578	Antimony	100	99.9	P/P	80 - 120
2447578	Arsenic	100	99.5	P/P	80 - 120
2447578	Barium	101	101	P/P	80 - 120
2447578	Beryllium	93.4	94.5	P/P	80 - 120
2447578	Boron	103	103	P/P	80 - 120
2447578	Cadmium	101	98.9	P/P	80 - 120
2447578	Chromium	95.9	95.6	P/P	80 - 120
2447578	Cobalt	98.7	99.2	P/P	80 - 120
2447578	Copper	95.2	94.6	P/P	80 - 120
2447578	Lead	105	105	P/P	80 - 120
2447578	Manganese	99.0	98.3	P/P	80 - 120
2447578	Molybdenum	98.0	98.3	P/P	80 - 120
2447578	Nickel	96.2	95.0	P/P	80 - 120
2447578	Selenium	98.1	96.4	P/P	80 - 120
2447578	Silver	107	107	P/P	80 - 120
2447578	Thallium	109	108	P/P	80 - 120
2447933	Aluminum	98.5		P	80 - 120
2447933	Antimony	98.5		P	80 - 120
2447933	Arsenic	98.8		P	80 - 120
2447933	Barium	100		P	80 - 120
2447933	Beryllium	92.3		P	80 - 120
2447933	Boron	100		P	80 - 120
2447933	Cadmium	99.1		P	80 - 120
2447933	Chromium	95.0		P	80 - 120
2447933	Cobalt	98.9		P	80 - 120
2447933	Copper	95.1		P	80 - 120
2447933	Lead	104		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437285

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447933	Manganese	98.8		P	80 - 120
2447933	Molybdenum	96.9		P	80 - 120
2447933	Nickel	94.4		P	80 - 120
2447933	Selenium	99.0		P	80 - 120
2447933	Silver	107		P	80 - 120
2447933	Thallium	106		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437824

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447763	Chloride	101		P	90 - 110
2447881	Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447763	Sulfate	100		P	90 - 110
2447881	Sulfate	94.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437343

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448035	Ammonia-N	98.4	98.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437344

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447956	Ammonia-N	96.0	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447356	Kjeldahl Nitrogen	102	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448030	Kjeldahl Nitrogen	101	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437435

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447928	NO2NO3-N	102	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437836

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448777	NO2NO3-N	98.7	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437278

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447837	Total-P	97.8	96.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447963	Total-P	104	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448757	Total-P	105	103	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437132

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447822	Acesulfame K	118	123	P/P	40 - 150
2447822	AMPA	79.5	90.2	P/P	40 - 150
2447822	Endothall	102	103	P/P	40 - 150
2447822	Glufosinate	92.1	87.3	P/P	40 - 150
2447822	Glyphosate	67.0	64.8	P/P	40 - 150
2447822	Sucralose	90.6	93.3	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437260

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447822	2,4-D	80.4	79.2	P/P	40 - 150
2447822	2,4,5-T	76.0	74.6	P/P	40 - 150
2447822	Acetaminophen	85.2	82.1	P/P	30 - 150
2447822	Acetamiprid	54.7	58.5	P/P	40 - 150
2447822	Afidopyropen	63.0	59.6	P/P	30 - 150
2447822	Bentazon	46.5	43.8	P/P	30 - 150
2447822	Benzovindiflupyr	82.9	78.2	P/P	40 - 150
2447822	Carbamazepine	56.9	54.8	P/P	40 - 150
2447822	Clothianidin	67.5	65.9	P/P	40 - 150
2447822	Dinotefuran	60.2	58.5	P/P	40 - 150
2447822	Fluridone	65.4	57.5	P/P	40 - 150
2447822	Hydrocodone	54.4	53.2	P/P	40 - 150
2447822	Ibuprofen	48.7	57.7	P/P	40 - 150
2447822	Imazapyr	87.4	82.6	P/P	40 - 150
2447822	Imidacloprid	89.8	91.7	P/P	40 - 150
2447822	Linuron	66.4	60.4	P/P	40 - 150
2447822	Mandestrobin	73.6	73.3	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P437260

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447822	MCP	84.4	80.4	P/P	40 - 150
2447822	Naproxen	65.2	77.9	P/P	40 - 150
2447822	Primidone	72.9	71.5	P/P	40 - 150
2447822	Pyraclostrobin	77.6	79.2	P/P	40 - 150
2447822	Silvex	74.6	69.9	P/P	40 - 150
2447822	Thiamethoxam	61.3	61.9	P/P	40 - 150
2447822	Tolfenpyrad	57.4	53.2	P/P	30 - 150
2447822	Triclopyr	77.2	80.4	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P437401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448552	Fluoride	100	100	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P437405

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448603	Fluoride	102	100	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437323

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447811	Organic Carbon	94.9	95.6	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P437324

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447356	Organic Carbon	93.1	92.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448029	Color (true)	7.26	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437242

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447974	Turbidity	5.76	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P437285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447578	Calcium	0.880	Spike	P	0 - 20
2447578	Iron	0.356	Spike	P	0 - 20
2447578	Magnesium	0.741	Spike	P	0 - 20
2447578	Potassium	0.528	Spike	P	0 - 20
2447578	Sodium	0.736	Spike	P	0 - 20
2447578	Strontium	1.85	Spike	P	0 - 20
2447578	Tin	0.846	Spike	P	0 - 20
2447578	Titanium	0.352	Spike	P	0 - 20
2447578	Vanadium	0.641	Spike	P	0 - 20
2447578	Zinc	0.364	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P437285

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447578	Aluminum	0.681	Spike	P	0 - 20
2447578	Antimony	0.381	Spike	P	0 - 20
2447578	Arsenic	0.523	Spike	P	0 - 20
2447578	Barium	0.263	Spike	P	0 - 20
2447578	Beryllium	1.18	Spike	P	0 - 20
2447578	Boron	0.436	Spike	P	0 - 20
2447578	Cadmium	1.67	Spike	P	0 - 20
2447578	Chromium	0.241	Spike	P	0 - 20
2447578	Cobalt	0.426	Spike	P	0 - 20
2447578	Copper	0.619	Spike	P	0 - 20
2447578	Lead	0.651	Spike	P	0 - 20
2447578	Manganese	0.683	Spike	P	0 - 20
2447578	Molybdenum	0.120	Spike	P	0 - 20
2447578	Nickel	1.22	Spike	P	0 - 20
2447578	Selenium	1.76	Spike	P	0 - 20
2447578	Silver	0.430	Spike	P	0 - 20
2447578	Thallium	0.192	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437824

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447763	Chloride	0.363	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447763	Sulfate	12.0	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437343

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448035	Ammonia-N	0.129	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437344

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447956	Ammonia-N	1.42	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447356	Kjeldahl Nitrogen	0.666	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448030	Kjeldahl Nitrogen	1.44	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447928	NO2NO3-N	1.97	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437836

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448777	NO2NO3-N	2.50	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447837	Total-P	0.993	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447963	Total-P	0.191	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448757	Total-P	1.87	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P437132

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447822	Acesulfame K	4.01	Spike	P	0 - 30
2447822	AMPA	12.6	Spike	P	0 - 30
2447822	Endothall	1.38	Spike	P	0 - 30
2447822	Glufosinate	5.37	Spike	P	0 - 30
2447822	Glyphosate	3.37	Spike	P	0 - 30
2447822	Sucralose	2.83	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P437260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447822	2,4-D	1.47	Spike	P	0 - 30
2447822	2,4,5-T	1.94	Spike	P	0 - 30
2447822	Acetaminophen	3.64	Spike	P	0 - 30
2447822	Acetamiprid	6.62	Spike	P	0 - 30
2447822	Afidopyropen	5.67	Spike	P	0 - 30
2447822	Bentazon	5.99	Spike	P	0 - 30
2447822	Benzovindiflupyr	5.87	Spike	P	0 - 30
2447822	Carbamazepine	3.64	Spike	P	0 - 30
2447822	Clothianidin	2.46	Spike	P	0 - 30
2447822	Dinotefuran	2.81	Spike	P	0 - 30
2447822	Diuron	1.55	Spike	P	0 - 30
2447822	Fenuron	2.49	Spike	P	0 - 30
2447822	Fluridone	7.99	Spike	P	0 - 30
2447822	Hydrocodone	2.06	Spike	P	0 - 30
2447822	Ibuprofen	16.9	Spike	P	0 - 30
2447822	Imazapyr	5.74	Spike	P	0 - 30
2447822	Imidacloprid	2.05	Spike	P	0 - 30
2447822	Linuron	9.57	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P437260

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447822	Mandestrobin	0.371	Spike	P	0 - 30
2447822	MCCP	4.90	Spike	P	0 - 30
2447822	Naproxen	17.8	Spike	P	0 - 30
2447822	Primidone	1.96	Spike	P	0 - 30
2447822	Pyraclostrobin	2.01	Spike	P	0 - 30
2447822	Silvex	6.55	Spike	P	0 - 30
2447822	Thiamethoxam	0.921	Spike	P	0 - 30
2447822	Tolfenpyrad	7.48	Spike	P	0 - 30
2447822	Triclopyr	4.06	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P437665

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449657	Total Alkalinity	0.358	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015

Batch ID: P437680

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447881	TDS	5.45	Sample	P	0 - 10

Reference Method: SM 2540 C-2015

Batch ID: P437681

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447864	TDS	4.13	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P437401

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448552	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011

Batch ID: P437405

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448603	Fluoride	0.992	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011

Batch ID: P437323

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447811	Organic Carbon	0.548	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P437324

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447356	Organic Carbon	0.542	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2447984

Field Sample ID: G5NE0611

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	55.5	P	30 - 160
EPA 8321B	Acetaminophen-d4	53.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.6	P	30 - 160
EPA 8321B	Diuron-d6	37.0	P	30 - 160
EPA 8321B	Endothall-d6	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	49.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.4	P	30 - 160
EPA 8321B	Primidone-d5	34.6	P	30 - 160
EPA 8321B	Sucralose-d6	87.4	P	30 - 160

Lab Sample ID: 2447985

Field Sample ID: FB_10312023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	73.6	P	30 - 160
EPA 8321B	Acetaminophen-d4	87.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	85.8	P	30 - 160
EPA 8321B	Diuron-d6	75.7	P	30 - 160
EPA 8321B	Endothall-d6	84.9	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	98.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	57.5	P	30 - 160
EPA 8321B	Primidone-d5	83.1	P	30 - 160
EPA 8321B	Sucralose-d6	88.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122485

Included Lab Sample IDs: 2447973, 2447974, 2448003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.4	98.3	P/P	90 - 110
Color (true)	98.3	98.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122495

Included Lab Sample IDs: 2447973, 2447974, 2448003

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122525

Included Lab Sample IDs: 2447976

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	108	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122535

Included Lab Sample IDs: 2447984, 2447985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	128	119	P/P	60 - 160
Sucralose	86.4	94.1	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A122540

Included Lab Sample IDs: 2447975, 2447976, 2448004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	99.0	P/P	90 - 110
Organic Carbon	98.3	99.4	P/P	90 - 110
Organic Carbon	99.0	98.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122542

Included Lab Sample IDs: 2447984, 2447985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	99.3	103	P/P	60 - 160
Endothall	109	84.8	P/P	60 - 160
Glufosinate	98.6	92.0	P/P	60 - 160
Glyphosate	95.5	99.0	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122548

Included Lab Sample IDs: 2447975

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	98.9	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122551

Included Lab Sample IDs: 2447975, 2447976, 2448004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.4	99.6	P/P	90 - 110
Ammonia-N	98.8	99.2	P/P	90 - 110
Ammonia-N	99.2	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122552

Included Lab Sample IDs: 2447976

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122560

Included Lab Sample IDs: 2447986, 2447987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.5	99.6	P/P	90 - 110
Aluminum	99.6	99.8	P/P	90 - 110
Antimony	96.1	97.7	P/P	90 - 110
Antimony	97.7	97.6	P/P	90 - 110
Arsenic	101	99.4	P/P	90 - 110
Arsenic	99.4	98.3	P/P	90 - 110
Barium	99.2	99.7	P/P	90 - 110
Barium	99.7	99.2	P/P	90 - 110
Beryllium	93.8	96.2	P/P	90 - 110
Beryllium	96.2	96.8	P/P	90 - 110
Boron	96.5	99.3	P/P	90 - 110
Boron	99.3	101	P/P	90 - 110
Cadmium	97.7	99.4	P/P	90 - 110
Cadmium	99.4	98.9	P/P	90 - 110
Chromium	97.2	97.6	P/P	90 - 110
Chromium	97.2	97.2	P/P	90 - 110
Copper	96.0	95.2	P/P	90 - 110
Copper	98.0	96.0	P/P	90 - 110
Lead	102	105	P/P	90 - 110
Lead	105	105	P/P	90 - 110
Manganese	98.3	99.9	P/P	90 - 110
Manganese	99.9	101	P/P	90 - 110
Molybdenum	96.2	96.6	P/P	90 - 110
Molybdenum	96.6	96.0	P/P	90 - 110
Nickel	97.6	97.0	P/P	90 - 110
Nickel	98.8	97.6	P/P	90 - 110
Selenium	100	99.3	P/P	90 - 110
Selenium	99.3	100	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Silver	101	101	P/P	90 - 110
Thallium	103	104	P/P	90 - 110
Thallium	103	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A122562

Included Lab Sample IDs: 2447986, 2447987

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	102	101	P/P	90 - 110
Calcium	103	102	P/P	90 - 110
Iron	100	99.7	P/P	90 - 110
Iron	101	101	P/P	90 - 110
Magnesium	101	99.9	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	99.7	100	P/P	90 - 110
Potassium	99.9	99.5	P/P	90 - 110
Sodium	101	101	P/P	90 - 110
Sodium	102	102	P/P	90 - 110
Strontium	100	99.9	P/P	90 - 110
Strontium	98.9	99.9	P/P	90 - 110
Tin	97.6	98.2	P/P	90 - 110
Tin	98.8	99.0	P/P	90 - 110
Titanium	100	101	P/P	90 - 110
Titanium	101	101	P/P	90 - 110
Vanadium	100	101	P/P	90 - 110
Vanadium	100	100	P/P	90 - 110
Zinc	96.8	97.1	P/P	90 - 110
Zinc	99.3	98.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122565

Included Lab Sample IDs: 2447973, 2447974

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122578

Included Lab Sample IDs: 2447975, 2448004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	97.0	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A122581

Included Lab Sample IDs: 2447986, 2447987

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

Reference Method: EPA 8321B

Run ID: A122596

Included Lab Sample IDs: 2447984, 2447985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	80.5	85.3	P/P	50 - 150
2,4,5-T	86.0	95.6	P/P	50 - 150
Acetaminophen	110	111	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A122596

Included Lab Sample IDs: 2447984, 2447985

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetamiprid	104	105	P/P	50 - 150
Afidopyropen	93.7	102	P/P	50 - 150
Bentazon	95.2	96.5	P/P	50 - 160
Benzovindiflupyr	101	102	P/P	50 - 150
Carbamazepine	102	101	P/P	60 - 150
Clothianidin	103	108	P/P	60 - 150
Dinotefuran	113	112	P/P	50 - 150
Diuron	113	115	P/P	60 - 160
Fenuron	104	106	P/P	60 - 150
Fluridone	108	109	P/P	60 - 160
Hydrocodone	112	113	P/P	60 - 150
Ibuprofen	66.3	88.1	P/P	50 - 160
Imazapyr	93.3	89.4	P/P	50 - 150
Imidacloprid	99.6	96.7	P/P	60 - 150
Linuron	92.9	98.4	P/P	60 - 150
Mandestrobin	98.9	98.3	P/P	50 - 150
MCPP	96.8	85.6	P/P	50 - 150
Naproxen	73.4	109	P/P	50 - 160
Primidone	104	101	P/P	60 - 150
Pyraclostrobin	104	103	P/P	60 - 150
Silvex	88.6	98.0	P/P	50 - 150
Thiamethoxam	109	113	P/P	50 - 150
Tolfenpyrad	96.1	100	P/P	60 - 150
Triclopyr	83.3	84.1	P/P	50 - 150

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122601

Included Lab Sample IDs: 2447975, 2448004

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	90.4	95.7	P/P	90 - 110
Kjeldahl Nitrogen	95.7	94.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122610

Included Lab Sample IDs: 2447973, 2447974, 2448003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.8	101	P/P	90 - 110
Sulfate	98.8	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A122678

Included Lab Sample IDs: 2447973, 2447974, 2448003

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.1	94.5	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122712

Included Lab Sample IDs: 2448004

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122741

Included Lab Sample IDs: 2447976

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

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

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

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	98.5				7.26	
EPA 180.1 Rev. 2.0	Turbidity	105				5.76	
EPA 200.7 Rev. 4.4	Calcium	105	103	104			0.880
	Iron	111	110	110	109		0.356
	Magnesium	104	104	108			0.741
	Potassium	102	102	103	101		0.528
	Sodium	109	108	109	103		0.736
	Strontium	100	99.2				1.85
	Tin	96.4	95.4	96.2	95.1		0.846
	Titanium	100	100	101	101		0.352
	Vanadium	99.2	99.9	101	99.3		0.641
	Zinc	97.3	95.3	95.6	96.4		0.364
EPA 200.8 Rev. 5.4	Aluminum	98.3	98.8	97.9	98.5		0.681
	Antimony	97.7	100	99.9	98.5		0.381
	Arsenic	99.3	100	99.5	98.8		0.523
	Barium	102	101	101	100		0.263
	Beryllium	94.3	93.4	94.5	92.3		1.18
	Boron	96.3	103	103	100		0.436
	Cadmium	96.5	101	98.9	99.1		1.67
	Chromium	94.9	95.9	95.6	95.0		0.241
	Cobalt	101	98.9	98.7	99.2		0.426
	Copper	95.7	95.2	94.6	95.1		0.619
	Lead	104	105	105	104		0.651
	Manganese	96.6	99.0	98.3	98.8		0.683
	Molybdenum	95.0	98.0	98.3	96.9		0.120
	Nickel	96.2	96.2	95.0	94.4		1.22
	Selenium	99.1	98.1	96.4	99.0		1.76
	Silver	106	107	107	107		0.430
	Thallium	106	109	108	106		0.192
EPA 300.0 Rev. 2.1	Chloride	101	101	99.1		0.363	
	Sulfate	101	100	94.3		12.0	
EPA 350.1 Rev. 2.0	Ammonia-N	97.6	98.4	98.2			0.129
	Ammonia-N	97.0	96.0	97.6			1.42
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	102	103			0.666
	Kjeldahl Nitrogen	99.4	101	99.3			1.44
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	102	100			1.97
	NO2NO3-N	103	98.7	101			2.50
EPA 365.1 Rev. 2.0	Total-P	105	97.8	96.6			0.993
	Total-P	102	104	105			0.191
	Total-P	101	105	103			1.87
EPA 8321B	2,4-D	69.7	80.4	79.2			1.47
	2,4,5-T	77.3	76.0	74.6			1.94
	Acesulfame K	108	118	123			4.01
	Acetaminophen	86.5	85.2	82.1			3.64
	Acetamiprid	77.3	54.7	58.5			6.62
	Afidopyropen	59.1	63.0	59.6			5.67
	AMPA	84.3	79.5	90.2			12.6
	Bentazon	74.8	46.5	43.8			5.99
	Benzovindiflupyr	80.4	82.9	78.2			5.87
	Carbamazepine	75.1	56.9	54.8			3.64
	Clothianidin	87.6	67.5	65.9			2.46
	Dinotefuran	102	60.2	58.5			2.81
	Diuron	85.6					1.55
	Endothall	98.2	102	103			1.38

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Fenuron	89.2				2.49
	Fluridone	78.4	65.4	57.5		7.99
	Glufosinate	99.9	92.1	87.3		5.37
	Glyphosate	93.3	67.0	64.8		3.37
	Hydrocodone	89.3	54.4	53.2		2.06
	Ibuprofen	65.4	48.7	57.7		16.9
	Imazapyr	75.3	87.4	82.6		5.74
	Imidacloprid	81.6	89.8	91.7		2.05
	Linuron	81.3	66.4	60.4		9.57
	Mandestrobin	79.3	73.6	73.3		0.371
	MCPP	73.4	84.4	80.4		4.90
	Naproxen	61.0	65.2	77.9		17.8
	Primidone	84.3	72.9	71.5		1.96
	Pyraclostrobin	75.6	77.6	79.2		2.01
	Silvex	68.8	74.6	69.9		6.55
	Sucralose	96.4	90.6	93.3		2.83
	Thiamethoxam	86.8	61.3	61.9		0.921
	Tolfenpyrad	51.7	57.4	53.2		7.48
	Triclopyr	82.8	77.2	80.4		4.06
SM 2320 B-2011	Total Alkalinity	98.1			0.358	
SM 2540 C-2015	TDS	107			5.45	
	TDS	93.6			4.13	
SM 2540 D-2015	TSS	96.0				
	TSS	106				
SM 4500-F- C-2011	Fluoride	101	100	100		0.0
	Fluoride	103	102	100		0.992
SM 5310 B-2011	Organic Carbon	96.4	94.9	95.6		0.548
	Organic Carbon	99.2	93.1	92.4		0.542

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2447973, 2447974, 2448003
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2447973, 2447974, 2448003
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2447986, 2447987
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2447986, 2447987
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2447973, 2447974, 2448003
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2447973, 2447974, 2448003
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2447975, 2447976, 2448004
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2447975, 2447976, 2448004
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2447975, 2447976, 2448004
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2447975, 2447976, 2448004
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2447984, 2447985
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2447973, 2447974, 2448003
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2447986, 2447987
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2447973, 2447974, 2448003
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2447973, 2447974, 2448003
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2447973, 2447974
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2447975, 2447976, 2448004

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	11/01/2023			11/01/2023 10:45	Anna M. Plaviak	2448003
	11/01/2023			11/01/2023 10:48	Anna M. Plaviak	2447973, 2447974
EPA 180.1 Rev. 2.0	11/01/2023			11/01/2023 10:47	Samantha L Bates	2447974
	11/01/2023			11/01/2023 10:51	Samantha L Bates	2447973
	11/01/2023			11/01/2023 10:52	Samantha L Bates	2448003
	11/01/2023	11/02/2023 12:45	George D Taylor	11/03/2023 16:36	Chase Roberts	2447987
EPA 200.7 Rev. 4.4	11/01/2023	11/02/2023 12:45	George D Taylor	11/03/2023 20:11	Chase Roberts	2447986
	11/01/2023	11/02/2023 12:45	George D Taylor	11/03/2023 13:36	Conrad Hartmann	2447987
EPA 200.8 Rev. 5.4	11/01/2023	11/02/2023 12:45	George D Taylor	11/03/2023 16:08	Conrad Hartmann	2447986
	11/01/2023	11/02/2023 12:45	George D Taylor	11/07/2023 03:08	Conrad Hartmann	2447987
	11/01/2023	11/02/2023 12:45	George D Taylor	11/07/2023 03:40	Conrad Hartmann	2447986
	11/01/2023	11/02/2023 12:45	George D Taylor	11/07/2023 03:40	Conrad Hartmann	2447986
EPA 300.0 Rev. 2.1	11/01/2023			11/08/2023 18:48	James L Waggeberby	2447973
	11/01/2023			11/08/2023 19:03	James L Waggeberby	2447974
	11/01/2023			11/08/2023 19:18	James L Waggeberby	2448003
EPA 350.1 Rev. 2.0	11/01/2023			11/03/2023 11:46	Khloe J Berg	2447976
	11/01/2023			11/03/2023 12:14	Khloe J Berg	2447975
	11/01/2023			11/03/2023 13:32	Khloe J Berg	2448004
	11/01/2023	11/01/2023 13:22	Simonne.V. Calhoun	11/02/2023 14:54	Ping Hua	2447976
EPA 351.2 Rev. 2.0	11/01/2023	11/06/2023 11:56	Simonne.V. Calhoun	11/07/2023 13:16	Samantha L Bates	2447975
	11/01/2023	11/06/2023 11:56	Simonne.V. Calhoun	11/07/2023 13:27	Samantha L Bates	2448004
	11/01/2023			11/03/2023 12:57	Fadila Guebre	2447975
EPA 353.2 Rev. 2.0	11/01/2023			11/03/2023 12:58	Fadila Guebre	2448004
	11/01/2023			11/15/2023 11:35	Anna M. Plaviak	2447976
	11/01/2023	11/02/2023 09:55	Simonne.V. Calhoun	11/03/2023 12:26	Simonne.V. Calhoun	2447975
EPA 365.1 Rev. 2.0	11/01/2023	11/02/2023 09:55	Simonne.V. Calhoun	11/03/2023 13:39	Simonne.V. Calhoun	2447976
	11/01/2023	11/13/2023 13:18	Adam P Silver	11/14/2023 16:08	James L Waggeberby	2448004
	11/01/2023	11/02/2023 14:00	Tae K Lee	11/02/2023 21:50	Hana Lee	2447984
EPA 8321B	11/01/2023	11/02/2023 14:00	Tae K Lee	11/02/2023 22:04	Hana Lee	2447985
	11/01/2023	11/02/2023 14:00	Tae K Lee	11/03/2023 07:28	Hana Lee	2447984
	11/01/2023	11/02/2023 14:00	Tae K Lee	11/03/2023 07:41	Hana Lee	2447985
	11/01/2023	11/02/2023 14:00	Tae K Lee	11/03/2023 07:41	Hana Lee	2447985
	11/01/2023	11/03/2023 14:30	Hoor Shaik	11/03/2023 17:56	Juyoung Kim	2447984
	11/01/2023	11/03/2023 14:30	Hoor Shaik	11/03/2023 18:14	Juyoung Kim	2447985
	11/01/2023			11/09/2023 18:36	Chandler E Cox	2447973
SM 2320 B-2011	11/01/2023			11/09/2023 18:43	Chandler E Cox	2448003
	11/01/2023			11/09/2023 20:21	Chandler E Cox	2447974
	11/01/2023			11/03/2023 16:36	Chase Roberts	2447987
SM 2340 B-2011	11/01/2023			11/03/2023 20:11	Chase Roberts	2447986
	11/01/2023			11/03/2023 15:32	Yijie Li	2447973, 2447974, 2448003
SM 2540 C-2015	11/01/2023			11/03/2023 15:32	Yijie Li	2447973, 2447974, 2448003
SM 2540 D-2015	11/01/2023			11/04/2023 03:10	Chandler E Cox	2447973
SM 4500-F- C-2011	11/01/2023					

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	11/01/2023			11/04/2023 10:56	Chandler E Cox	2447974
SM 5310 B-2011	11/01/2023			11/02/2023 22:03	Elise M. Gillis	2447975
	11/01/2023			11/02/2023 22:45	Elise M. Gillis	2448004
	11/01/2023			11/03/2023 04:06	Elise M. Gillis	2447976