

Chemical Analysis Report

NE-DIST-2022-02-10-02

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

Event Description: **Pellicer Creek Tribs**
Request ID: **RQ-2022-02-07-23**
Customer: **NE-DIST**
Project ID: **SMP**

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

Date Certified: 07-MAR-2022 09:59

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

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: Stevens BR @ CR 204

Collection Date/Time: 02/09/2022 10:30

Field ID: 27010062

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305162	DEP SOP: NU-094-1	Color (true)**	300		PCU	P409715	
	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P409702	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P410027	
		Sulfate	1.5		mg SO4/L	P410029	
	SM 2320 B-2011	Total Alkalinity	57		mg CaCO3/L	P409896	
	SM 2540 C-2011	TDS	229		mg/L	P410074	
	SM 2540 D-2011	TSS	2	U	mg/L	P409828	
2305163	SM 4500 F-C-2011	Fluoride	0.042	I	mg F/L	P409906	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P410148	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P409732	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P410169	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P410211	
2305164	SM 5310 B-2011	Organic Carbon	47		mg C/L	P410394	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.010		mg P/L	P409694	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Pringle BR Unnamed Dirt Rd 0.5MI S Dave BR Collection Date/Time: 02/09/2022 11:05

Field ID: 27010203

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305153	DEP SOP: NU-094-1	Color (true)**	82		PCU	P409715	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P409702	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P410027	
		Sulfate	2.4		mg SO4/L	P410029	
	SM 2320 B-2011	Total Alkalinity	124		mg CaCO3/L	P409895	
	SM 2540 C-2011	TDS	232	A	mg/L	P410073	
	SM 2540 D-2011	TSS	2	UA	mg/L	P409827	
	SM 4500 F-C-2011	Fluoride	0.097	I	mg F/L	P409905	
2305155	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P410148	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P409732	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P410168	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P409829	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P410394	
2305157	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.076		mg P/L	P409694	
2305179	EPA 200.7 Rev. 4.4	Calcium	52.0		mg/L	P409769	
		Iron	670		ug/L	P409769	
		Magnesium	3.35		mg/L	P409769	
		Potassium	0.54	I	mg/L	P409769	
		Sodium	20.3		mg/L	P409769	
		Strontium	266		ug/L	P409769	
		Tin	3.0	U	ug/L	P409769	
		Titanium	1.1	I	ug/L	P409769	
		Vanadium	2.0	U	ug/L	P409769	
		Zinc	5.0	U	ug/L	P409769	
	EPA 200.8 Rev. 5.4	Aluminum	68		ug/L	P409769	
		Antimony	0.050	U	ug/L	P409769	
		Arsenic	0.19	I	ug/L	P409769	
		Barium	18.3		ug/L	P409769	
		Beryllium	0.019	I	ug/L	P409769	
		Boron**	19.2		ug/L	P409769	
		Cadmium	0.020	U	ug/L	P409769	
		Chromium	0.49	I	ug/L	P409769	
		Cobalt	0.106		ug/L	P409769	
		Copper	0.40	U	ug/L	P409769	
		Lead	0.20	U	ug/L	P409769	
		Manganese	6.67		ug/L	P409769	
		Molybdenum	0.15	U	ug/L	P409769	
		Nickel	0.50	U	ug/L	P409769	
		Selenium	0.20	U	ug/L	P409769	MS
		Silver	0.010	U	ug/L	P409769	
		Thallium	0.10	U	ug/L	P409769	
	SM 2340B	Hardness	144		mg/L	P409769	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Pellicer Creek downstream of RR tracks

Collection Date/Time: 02/09/2022 11:55

Field ID: G5NE0590

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305178	EPA 8321B	2,4-D	0.0020	U	ug/L	P409686	
		Acesulfame K	0.10	U	ug/L	P409687	
		2,4,5-T	0.0040	U	ug/L	P409686	
		AMPA	0.10	U	ug/L	P409687	
		Acetaminophen	0.0080	U	ug/L	P409686	
		Acetamiprid	0.0020	U	ug/L	P409686	
		Endothall	0.25	U	ug/L	P409687	
		Glufosinate	0.10	U	ug/L	P409687	
		Glyphosate	0.10	U	ug/L	P409687	
		Afidopyropen	0.0020	U	ug/L	P409686	
		Bentazon	8.0E-04	U	ug/L	P409686	
		Sucralose	0.030	I	ug/L	P409687	
		Benzovindiflupyr	0.0020	U	ug/L	P409686	
		Carbamazepine	8.0E-04	U	ug/L	P409686	
		Clothianidin	0.0020	UJ	ug/L	P409686	MS
		Dinotefuran	0.0020	UJ	ug/L	P409686	MS
		Diuron	0.0020	U	ug/L	P409686	
		Fenuron	0.016	U	ug/L	P409686	
		Fluridone	8.0E-04	U	ug/L	P409686	
		Imazapyr	0.020		ug/L	P409686	
		Hydrocodone	0.0020	U	ug/L	P409686	
		Ibuprofen	0.020	UJ	ug/L	P409686	CCV
		Imidacloprid	0.0020	UJ	ug/L	P409686	MS
		Linuron	0.0040	U	ug/L	P409686	
		Mandestrobin	0.0020	U	ug/L	P409686	
		MCPP	0.0040	UJ	ug/L	P409686	MS
		Naproxen	0.0080	U	ug/L	P409686	
		Primidone	0.0040	UJ	ug/L	P409686	MS
		Pyraclostrobin	0.0020	U	ug/L	P409686	
		Silvex	0.0040	UJ	ug/L	P409686	MS
		Thiamethoxam	0.0020	UJ	ug/L	P409686	MS
		Tolfenpyrad	0.0020	U	ug/L	P409686	
		Triclopyr	0.0040	UJ	ug/L	P409686	MS, RPD

Ref. Method and Comment:

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Pellicer Creek above Schoolhouse Br

Collection Date/Time: 02/09/2022 12:40

Field ID: G5NE0598

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305159	DEP SOP: NU-094-1	Color (true)**	120		PCU	P409715	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P409702	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P410027	
		Sulfate	18		mg SO4/L	P410029	
	SM 2320 B-2011	Total Alkalinity	108		mg CaCO3/L	P409895	
	SM 2540 C-2011	TDS	235	A	mg/L	P410074	
	SM 2540 D-2011	TSS	2	UA	mg/L	P409828	
	SM 4500 F-C-2011	Fluoride	0.14		mg F/L	P409905	
2305160	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P410148	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P409788	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P410168	
	EPA 365.1 Rev. 2.0	Total-P	0.082		mg P/L	P409829	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P410394	
2305161	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.062		mg P/L	P409694	
2305177	EPA 8321B	2,4-D	0.0020	U	ug/L	P409686	
		Acesulfame K	0.10	U	ug/L	P409687	
		2,4,5-T	0.0040	U	ug/L	P409686	
		AMPA	0.10	U	ug/L	P409687	
		Acetaminophen	0.0080	U	ug/L	P409686	
		Acetamiprid	0.0020	U	ug/L	P409686	
		Endothall	0.25	U	ug/L	P409687	
		Glufosinate	0.10	U	ug/L	P409687	
		Glyphosate	0.10	U	ug/L	P409687	
		Afidopyropen	0.0020	U	ug/L	P409686	
		Bentazon	8.0E-04	U	ug/L	P409686	
		Sucralose	0.010	U	ug/L	P409687	
		Benzovindiflupyr	0.0020	U	ug/L	P409686	
		Carbamazepine	8.0E-04	U	ug/L	P409686	
		Clothianidin	0.0020	U	ug/L	P409686	MS
		Dinotefuran	0.0020	U	ug/L	P409686	MS
		Diuron	0.0020	U	ug/L	P409686	
		Fenuron	0.016	U	ug/L	P409686	
		Fluridone	8.0E-04	U	ug/L	P409686	
		Imazapyr	0.015	I	ug/L	P409686	
		Hydrocodone	0.0020	U	ug/L	P409686	
		Ibuprofen	0.020	U	ug/L	P409686	
		Imidacloprid	0.0020	U	ug/L	P409686	MS
		Linuron	0.0040	U	ug/L	P409686	
		Mandestrobin	0.0020	U	ug/L	P409686	
		MCPP	0.0040	U	ug/L	P409686	MS
		Naproxen	0.0080	U	ug/L	P409686	
		Primidone	0.0040	U	ug/L	P409686	MS
		Pyraclostrobin	0.0020	U	ug/L	P409686	

Field ID: G5NE0598

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305177	EPA 8321B	Silvex	0.0040	U	ug/L	P409686	MS
		Thiamethoxam	0.0020	U	ug/L	P409686	MS
		Tolfenpyrad	0.0020	UJ	ug/L	P409686	CCV
		Triclopyr	0.0040	UJ	ug/L	P409686	CCV, MS, RPD

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Schoolhouse Branch at RR tracks

Collection Date/Time: 02/09/2022 13:30

Field ID: G5NE0599

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305154	DEP SOP: NU-094-1	Color (true)**	93		PCU	P409715	
	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P409702	
	EPA 300.0 Rev. 2.1	Chloride	20		mg Cl/L	P410027	
		Sulfate	5.5		mg SO4/L	P410029	
	SM 2320 B-2011	Total Alkalinity	68		mg CaCO3/L	P409895	
	SM 2540 C-2011	TDS	139		mg/L	P410073	
	SM 2540 D-2011	TSS	2	I	mg/L	P409827	
	SM 4500 F-C-2011	Fluoride	0.043	I	mg F/L	P409905	
2305156	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P410148	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33		mg N/L	P409788	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P410168	
	EPA 365.1 Rev. 2.0	Total-P	0.069		mg P/L	P409829	
	SM 5310 B-2011	Organic Carbon	10		mg C/L	P410394	
2305158	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.046		mg P/L	P409694	
2305180	EPA 200.7 Rev. 4.4	Calcium	33.2		mg/L	P409769	
		Iron	450		ug/L	P409769	
		Magnesium	2.17		mg/L	P409769	
		Potassium	0.35	I	mg/L	P409769	
		Sodium	12.1		mg/L	P409769	
		Strontium	147		ug/L	P409769	
		Tin	3.0	U	ug/L	P409769	
		Titanium	1.1	I	ug/L	P409769	
		Vanadium	2.0	U	ug/L	P409769	
		Zinc	5.0	U	ug/L	P409769	
	EPA 200.8 Rev. 5.4	Aluminum	111		ug/L	P409769	
		Antimony	0.050	U	ug/L	P409769	
		Arsenic	0.21		ug/L	P409769	
		Barium	11.3		ug/L	P409769	
		Beryllium	0.017	I	ug/L	P409769	
		Boron**	28.1		ug/L	P409769	
		Cadmium	0.020	U	ug/L	P409769	
		Chromium	0.40	U	ug/L	P409769	
		Cobalt	0.056	I	ug/L	P409769	
		Copper	0.40	U	ug/L	P409769	
		Lead	0.20	U	ug/L	P409769	
		Manganese	6.32		ug/L	P409769	
		Molybdenum	0.25	I	ug/L	P409769	
		Nickel	0.50	U	ug/L	P409769	
		Selenium	0.20	U	ug/L	P409769	MS
		Silver	0.010	U	ug/L	P409769	
		Thallium	0.10	U	ug/L	P409769	
	SM 2340B	Hardness	91.9		mg/L	P409769	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Pringle Aprox. 100M abv RR tracks

Collection Date/Time: 02/09/2022 13:10

Field ID: 27010974

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2305181	EPA 200.7 Rev. 4.4	Calcium	53.1		mg/L	P409769	
		Iron	320		ug/L	P409769	
		Magnesium	2.68		mg/L	P409769	
		Potassium	0.61	I	mg/L	P409769	
		Sodium	15.5		mg/L	P409769	
		Strontium	262		ug/L	P409769	
		Tin	3.0	U	ug/L	P409769	
		Titanium	1.2	I	ug/L	P409769	
		Vanadium	2.0	U	ug/L	P409769	
	EPA 200.8 Rev. 5.4	Zinc	5.0	U	ug/L	P409769	
		Aluminum	87		ug/L	P409769	
		Antimony	0.050	U	ug/L	P409769	
		Arsenic	0.28		ug/L	P409769	
		Barium	13.2		ug/L	P409769	
		Beryllium	0.016	I	ug/L	P409769	
		Boron**	17.1		ug/L	P409769	
		Cadmium	0.020	U	ug/L	P409769	
		Chromium	0.40	U	ug/L	P409769	
		Cobalt	0.087		ug/L	P409769	
		Copper	0.40	U	ug/L	P409769	
		Lead	0.20	U	ug/L	P409769	
		Manganese	4.66		ug/L	P409769	
		Molybdenum	0.49	I	ug/L	P409769	
		Nickel	0.50	U	ug/L	P409769	
		Selenium	0.20	U	ug/L	P409769	MS
		Silver	0.010	U	ug/L	P409769	
		Thallium	0.10	U	ug/L	P409769	
	SM 2340B	Hardness	144		mg/L	P409769	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P409715

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409702

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

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: P409769

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: P410027

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: P410029

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410148

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409788

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410169

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409829

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410211

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409694

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P409686

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	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	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: EPA 8321B

Batch ID: P409687

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

Reference Method: SM 2320 B-2011

Batch ID: P409895

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

Reference Method: SM 2320 B-2011

Batch ID: P409896

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

Quality Assurance Report Method Blank Results

Reference Method: SM 2540 C-2011
Batch ID: P410073

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P410074

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P409827

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P409828

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P409905

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-2011
Batch ID: P409906

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P410394

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: P409715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.1		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	106		P	85 - 115
Iron	107		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	109		P	85 - 115
Sodium	104		P	85 - 115
Strontium	105		P	85 - 115
Tin	109		P	85 - 115
Titanium	107		P	85 - 115
Vanadium	99.4		P	85 - 115
Zinc	105		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	101		P	85 - 115
Antimony	98.9		P	85 - 115
Arsenic	102		P	85 - 115
Barium	103		P	85 - 115
Beryllium	98.8		P	85 - 115
Boron	103		P	85 - 115
Cadmium	100		P	85 - 115
Chromium	96.5		P	85 - 115
Cobalt	102		P	85 - 115
Copper	98.4		P	85 - 115
Lead	99.1		P	85 - 115
Manganese	98.3		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	104		P	85 - 115
Selenium	101		P	85 - 115
Silver	99.9		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P410027

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: P410029

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410148

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409788

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410169

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409829

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P410211

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P409694

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P409686

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	148		P	40 - 150
2,4,5-T	118		P	40 - 150
Acetaminophen	113		P	30 - 150
Acetamiprid	118		P	40 - 150
Afidopyropen	124		P	40 - 150
Bentazon	105		P	30 - 150
Benzovindiflupyr	147		P	40 - 150
Carbamazepine	136		P	40 - 150
Clothianidin	137		P	40 - 150
Dinotefuran	120		P	40 - 150
Diuron	112		P	40 - 150
Fenuron	104		P	40 - 150
Fluridone	119		P	40 - 150
Hydrocodone	105		P	40 - 150
Ibuprofen	130		P	40 - 150
Imazapyr	121		P	40 - 150
Imidacloprid	118		P	40 - 150
Linuron	103		P	40 - 150
Mandestrobin	105		P	40 - 150
MCPP	146		P	40 - 150
Naproxen	79.2		P	40 - 150
Primidone	135		P	40 - 150
Pyraclostrobin	97.0		P	40 - 150
Silvex	114		P	40 - 150
Thiamethoxam	125		P	40 - 150
Tolfenpyrad	88.3		P	30 - 150
Triclopyr	113		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P409687

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
AMPA	95.6		P	40 - 150
Endothall	68.0		P	40 - 150
Glufosinate	108		P	40 - 150
Glyphosate	101		P	40 - 150
Sucralose	93.5		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P409895

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.7		P	94 - 106

Reference Method: SM 2320 B-2011

Batch ID: P409896

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.0		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-2011
Batch ID: P409905

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.4		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P409906

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P410394

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P409769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304833	Calcium	110		P	80 - 120
2304833	Iron	111	107	P/P	80 - 120
2304833	Magnesium	108		P	80 - 120
2304833	Potassium	109	104	P/P	80 - 120
2304833	Sodium	107		P	80 - 120
2304833	Strontium	107	101	P/P	80 - 120
2304833	Tin	110	105	P/P	80 - 120
2304833	Titanium	109	104	P/P	80 - 120
2304833	Vanadium	103	98.0	P/P	80 - 120
2304833	Zinc	106	100	P/P	80 - 120
2305312	Calcium	109		P	80 - 120
2305312	Iron	109		P	80 - 120
2305312	Magnesium	109		P	80 - 120
2305312	Potassium	106		P	80 - 120
2305312	Sodium	104		P	80 - 120
2305312	Strontium	105		P	80 - 120
2305312	Tin	108		P	80 - 120
2305312	Titanium	108		P	80 - 120
2305312	Vanadium	99.5		P	80 - 120
2305312	Zinc	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P409769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304833	Aluminum	102	102	P/P	80 - 120
2304833	Antimony	103	102	P/P	80 - 120
2304833	Arsenic	103	103	P/P	80 - 120
2304833	Barium	105	104	P/P	80 - 120
2304833	Beryllium	95.6	97.6	P/P	80 - 120
2304833	Boron	110	111	P/P	80 - 120
2304833	Cadmium	102	104	P/P	80 - 120
2304833	Chromium	100	101	P/P	80 - 120
2304833	Cobalt	103	102	P/P	80 - 120
2304833	Copper	98.7	99.3	P/P	80 - 120
2304833	Lead	99.7	101	P/P	80 - 120
2304833	Manganese	101	102	P/P	80 - 120
2304833	Molybdenum	105	105	P/P	80 - 120
2304833	Nickel	102	101	P/P	80 - 120
2304833	Selenium	79.5	79.2	F/F	80 - 120
2304833	Silver	102	102	P/P	80 - 120
2304833	Thallium	106	108	P/P	80 - 120
2305312	Aluminum	102		P	80 - 120
2305312	Antimony	99.9		P	80 - 120
2305312	Arsenic	99.7		P	80 - 120
2305312	Barium	102		P	80 - 120
2305312	Beryllium	93.3		P	80 - 120
2305312	Boron	109		P	80 - 120
2305312	Cadmium	102		P	80 - 120
2305312	Chromium	99.0		P	80 - 120
2305312	Cobalt	99.9		P	80 - 120
2305312	Copper	97.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305312	Lead	100		P	80 - 120
2305312	Manganese	97.7		P	80 - 120
2305312	Molybdenum	101		P	80 - 120
2305312	Nickel	98.4		P	80 - 120
2305312	Selenium	99.7		P	80 - 120
2305312	Silver	98.6		P	80 - 120
2305312	Thallium	105		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P410027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305105	Chloride	99.5		P	90 - 110
2305189	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P410029

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305105	Sulfate	99.9		P	90 - 110
2305189	Sulfate	99.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305106	Ammonia-N	98.4	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2304617	Kjeldahl Nitrogen	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305024	Kjeldahl Nitrogen	101	93.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305155	NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305270	NO2NO3-N	100	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P409829

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305143	Total-P	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P410211

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2306923	Total-P	107	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P409694

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305108	O-Phosphate-P	98.2	99.6	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P409686

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305178	2,4-D	147	114	P/P	40 - 150
2305178	2,4,5-T	132	126	P/P	40 - 150
2305178	Acetaminophen	145	144	P/P	30 - 150
2305178	Acetamiprid	128	98.4	P/P	40 - 150
2305178	Afidopyropen	93.1	82.0	P/P	40 - 150
2305178	Bentazon	48.8	59.3	P/P	30 - 150
2305178	Benzovindiflupyr	111	121	P/P	40 - 150
2305178	Carbamazepine	118	131	P/P	40 - 150
2305178	Clothianidin	200	167	F/F	40 - 150
2305178	Dinotefuran	179	157	F/F	40 - 150
2305178	Diuron	64.9	86.3	P/P	40 - 150
2305178	Fenuron	98.3	98.6	P/P	40 - 150
2305178	Fluridone	116	96.0	P/P	40 - 150
2305178	Hydrocodone	135	124	P/P	40 - 150
2305178	Ibuprofen	132	104	P/P	40 - 150
2305178	Imazapyr	121	122	P/P	40 - 150
2305178	Imidacloprid	287	235	F/F	40 - 150
2305178	Linuron	95.2	74.8	P/P	40 - 150
2305178	Mandestrobin	110	100	P/P	40 - 150
2305178	MCPP	174	141	F/P	40 - 150
2305178	Naproxen	101	100	P/P	40 - 150
2305178	Primidone	156	118	F/P	40 - 150
2305178	Pyraclostrobin	111	99.0	P/P	40 - 150
2305178	Silvex	151	120	F/P	40 - 150
2305178	Thiamethoxam	222	203	F/F	40 - 150
2305178	Tolfenpyrad	101	84.4	P/P	30 - 150
2305178	Triclopyr	159	107	F/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P409687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305124	Acesulfame K	102	94.3	P/P	40 - 150
2305124	AMPA	98.8	97.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P409687

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305124	Endothall	76.4	82.9	P/P	40 - 150
2305124	Glufosinate	107	105	P/P	40 - 150
2305124	Glyphosate	93.0	90.3	P/P	40 - 150
2305124	Sucralose	80.0	83.2	P/P	40 - 150

Reference Method: SM 4500 F-C-2011
Batch ID: P409905

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305384	Fluoride	99.6	99.0	P/P	92 - 107

Reference Method: SM 4500 F-C-2011
Batch ID: P409906

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305329	Fluoride	99.5	98.9	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P410394

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2305163	Organic Carbon	100		P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P409715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305011	Color (true)	0.755	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P409702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305105	Turbidity	2.71	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P409769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304833	Calcium	4.87	Spike	P	0 - 20
2304833	Iron	4.13	Spike	P	0 - 20
2304833	Magnesium	4.40	Spike	P	0 - 20
2304833	Potassium	3.97	Spike	P	0 - 20
2304833	Sodium	4.61	Spike	P	0 - 20
2304833	Strontium	4.68	Spike	P	0 - 20
2304833	Tin	4.72	Spike	P	0 - 20
2304833	Titanium	5.28	Spike	P	0 - 20
2304833	Vanadium	5.25	Spike	P	0 - 20
2304833	Zinc	5.10	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P409769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304833	Aluminum	0.613	Spike	P	0 - 20
2304833	Antimony	1.04	Spike	P	0 - 20
2304833	Arsenic	0.462	Spike	P	0 - 20
2304833	Barium	0.483	Spike	P	0 - 20
2304833	Beryllium	2.05	Spike	P	0 - 20
2304833	Boron	1.02	Spike	P	0 - 20
2304833	Cadmium	2.02	Spike	P	0 - 20
2304833	Chromium	0.394	Spike	P	0 - 20
2304833	Cobalt	0.196	Spike	P	0 - 20
2304833	Copper	0.663	Spike	P	0 - 20
2304833	Lead	1.68	Spike	P	0 - 20
2304833	Manganese	0.733	Spike	P	0 - 20
2304833	Molybdenum	0.118	Spike	P	0 - 20
2304833	Nickel	0.784	Spike	P	0 - 20
2304833	Selenium	0.347	Spike	P	0 - 20
2304833	Silver	0.265	Spike	P	0 - 20
2304833	Thallium	1.82	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P410027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305105	Chloride	0.625	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P410029

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305105	Sulfate	0.00956	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P410148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305106	Ammonia-N	1.87	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409732

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2304617	Kjeldahl Nitrogen	2.11	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P409788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305024	Kjeldahl Nitrogen	5.30	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410168

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305155	NO2NO3-N	0.995	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P410169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305270	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P409829

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305143	Total-P	0.234	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P410211

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2306923	Total-P	4.23	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P409694

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305108	O-Phosphate-P	0.999	Spike	P	0 - 20

Reference Method: EPA 8321B

Batch ID: P409686

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305178	2,4-D	25.6	Spike	P	0 - 30
2305178	2,4,5-T	4.68	Spike	P	0 - 30
2305178	Acetaminophen	0.212	Spike	P	0 - 30
2305178	Acetamiprid	25.8	Spike	P	0 - 30
2305178	Afidopyropen	12.7	Spike	P	0 - 30
2305178	Bentazon	19.5	Spike	P	0 - 30
2305178	Benzovindiflupyr	8.20	Spike	P	0 - 30
2305178	Carbamazepine	10.6	Spike	P	0 - 30
2305178	Clothianidin	18.1	Spike	P	0 - 30
2305178	Dinotefuran	12.8	Spike	P	0 - 30
2305178	Diuron	28.3	Spike	P	0 - 30
2305178	Fenuron	0.363	Spike	P	0 - 30
2305178	Fluridone	18.5	Spike	P	0 - 30
2305178	Hydrocodone	8.13	Spike	P	0 - 30
2305178	Ibuprofen	24.2	Spike	P	0 - 30
2305178	Imazapyr	1.03	Spike	P	0 - 30
2305178	Imidacloprid	20.0	Spike	P	0 - 30
2305178	Linuron	24.0	Spike	P	0 - 30
2305178	Mandestrobin	9.71	Spike	P	0 - 30
2305178	MCPP	20.9	Spike	P	0 - 30
2305178	Naproxen	0.895	Spike	P	0 - 30
2305178	Primidone	27.8	Spike	P	0 - 30
2305178	Pyraclostrobin	11.6	Spike	P	0 - 30
2305178	Silvex	22.6	Spike	P	0 - 30
2305178	Thiamethoxam	8.95	Spike	P	0 - 30
2305178	Tolfenpyrad	17.9	Spike	P	0 - 30
2305178	Triclopyr	38.7	Spike	F	0 - 30

Reference Method: EPA 8321B

Batch ID: P409687

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305124	Acesulfame K	7.82	Spike	P	0 - 30
2305124	AMPA	1.46	Spike	P	0 - 30
2305124	Endothall	8.18	Spike	P	0 - 30
2305124	Glufosinate	1.83	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P409687

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305124	Glyphosate	2.99	Spike	P	0 - 30
2305124	Sucralose	3.66	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P409895

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305384	Total Alkalinity	2.71	Sample	P	0 - 5.2

Reference Method: SM 2320 B-2011
Batch ID: P409896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305329	Total Alkalinity	2.53	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P410073

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305153	TDS	0.432	Sample	P	0 - 10

Reference Method: SM 2540 C-2011
Batch ID: P410074

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305159	TDS	3.40	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P409905

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305384	Fluoride	0.542	Spike	P	0 - 2.1

Reference Method: SM 4500 F-C-2011
Batch ID: P409906

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305329	Fluoride	0.500	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P410394

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2305163	Organic Carbon	0.322	Spike	P	0 - 20

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2305177
Field Sample ID: G5NE0598

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	140	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	130	P	30 - 160
EPA 8321B	Diuron-d6	66.9	P	30 - 160
EPA 8321B	Endothall-d6	81.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	94.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	113	P	30 - 160
EPA 8321B	Primidone-d5	77.0	P	30 - 160
EPA 8321B	Sucralose-d6	74.8	P	30 - 160

Lab Sample ID: 2305178
Field Sample ID: G5NE0590

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	131	P	30 - 160
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	134	P	30 - 160
EPA 8321B	Diuron-d6	66.3	P	30 - 160
EPA 8321B	Endothall-d6	89.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	91.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	98.4	P	30 - 160
EPA 8321B	Primidone-d5	91.4	P	30 - 160
EPA 8321B	Sucralose-d6	82.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A110338

Included Lab Sample IDs: 2305157, 2305158, 2305161, 2305164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.7	100	P/P	90 - 110
O-Phosphate-P	99.8	99.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A110339

Included Lab Sample IDs: 2305153, 2305154, 2305159, 2305162

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

Reference Method: DEP SOP: NU-094-1

Run ID: A110350

Included Lab Sample IDs: 2305153, 2305154, 2305159, 2305162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	85 - 115
Color (true)	104	103	P/P	85 - 115

Reference Method: EPA 8321B

Run ID: A110380

Included Lab Sample IDs: 2305177, 2305178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	114	110	P/P	50 - 150
2,4-D	125	116	P/P	50 - 150
2,4,5-T	103	125	P/P	50 - 150
2,4,5-T	133	143	P/P	50 - 150
Acetaminophen	110	112	P/P	60 - 160
Acetaminophen	130	100	P/P	60 - 160
Acetamiprid	111	122	P/P	50 - 150
Acetamiprid	117	120	P/P	50 - 150
Afidopyropen	121	126	P/P	50 - 150
Afidopyropen	147	143	P/P	50 - 150
Bentazon	128	107	P/P	50 - 160
Bentazon	90.6	98.1	P/P	50 - 160
Benzovindiflupyr	137	126	P/P	50 - 150
Benzovindiflupyr	145	124	P/P	50 - 150
Carbamazepine	113	131	P/P	60 - 150
Carbamazepine	119	128	P/P	60 - 150
Clothianidin	121	108	P/P	60 - 150
Clothianidin	135	107	P/P	60 - 150
Dinotefuran	116	108	P/P	50 - 150
Dinotefuran	117	109	P/P	50 - 150
Diuron	125	132	P/P	60 - 160
Diuron	76.8	109	P/P	60 - 160
Fenuron	108	94.9	P/P	60 - 150
Fenuron	94.4	93.0	P/P	60 - 150
Fluridone	112	98.6	P/P	60 - 160
Fluridone	115	116	P/P	60 - 160
Hydrocodone	106	106	P/P	60 - 150
Hydrocodone	117	100	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A110380

Included Lab Sample IDs: 2305177, 2305178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	116	139	P/P	50 - 160
Ibuprofen	78.4	191*	P/F	50 - 160
Imazapyr	110	90.9	P/P	50 - 150
Imazapyr	93.9	94.8	P/P	50 - 150
Imidacloprid	106	109	P/P	60 - 150
Imidacloprid	119	97.4	P/P	60 - 150
Linuron	108	104	P/P	60 - 150
Linuron	93.8	113	P/P	60 - 150
Mandestrobin	109	115	P/P	50 - 150
Mandestrobin	123	124	P/P	50 - 150
MCPPE	125	131	P/P	50 - 150
MCPPE	132	129	P/P	50 - 150
Naproxen	134	75.2	P/P	50 - 160
Naproxen	89.5	121	P/P	50 - 160
Primidone	125	104	P/P	60 - 150
Primidone	90.4	116	P/P	60 - 150
Pyraclostrobin	112	128	P/P	60 - 150
Pyraclostrobin	117	128	P/P	60 - 150
Silvex	134	124	P/P	50 - 150
Silvex	144	140	P/P	50 - 150
Thiamethoxam	116	113	P/P	50 - 150
Thiamethoxam	123	102	P/P	50 - 150
Tolfenpyrad	125	131	P/P	60 - 150
Tolfenpyrad	141	153*	P/F	60 - 150
Triclopyr	123	151*	P/F	50 - 150
Triclopyr	136	121	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A110387

Included Lab Sample IDs: 2305177, 2305178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	98.1	97.2	P/P	60 - 160
Glufosinate	103	105	P/P	60 - 160
Glyphosate	98.1	95.7	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A110393

Included Lab Sample IDs: 2305177, 2305178

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	72.7	85.2	P/P	60 - 160
Endothall	60.4	66.8	P/P	60 - 160
Sucralose	71.4	84.9	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A110423

Included Lab Sample IDs: 2305153, 2305154, 2305159, 2305162

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A110423

Included Lab Sample IDs: 2305153, 2305154, 2305159, 2305162

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A110425

Included Lab Sample IDs: 2305179, 2305180, 2305181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	102	102	P/P	90 - 110
Antimony	95.9	96.6	P/P	90 - 110
Arsenic	99.2	99.0	P/P	90 - 110
Barium	99.9	99.8	P/P	90 - 110
Beryllium	96.1	96.1	P/P	90 - 110
Boron	105	106	P/P	90 - 110
Cadmium	101	101	P/P	90 - 110
Chromium	97.8	98.2	P/P	90 - 110
Cobalt	101	99.4	P/P	90 - 110
Copper	99.6	98.4	P/P	90 - 110
Lead	97.9	98.6	P/P	90 - 110
Manganese	98.7	98.3	P/P	90 - 110
Molybdenum	100	101	P/P	90 - 110
Nickel	100	100	P/P	90 - 110
Selenium	99.5	99.6	P/P	90 - 110
Silver	92.3	92.4	P/P	90 - 110
Thallium	105	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110427

Included Lab Sample IDs: 2305155, 2305163

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

Reference Method: SM 2320 B-2011

Run ID: A110433

Included Lab Sample IDs: 2305153, 2305154, 2305159, 2305162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	95.8	91.3	P/P	90 - 110
Total Alkalinity	97.6	95.8	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A110433

Included Lab Sample IDs: 2305153, 2305154, 2305159, 2305162

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	99.0	P/P	90 - 110
Fluoride	99.5	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110453

Included Lab Sample IDs: 2305156, 2305160

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110529

Included Lab Sample IDs: 2305155, 2305156, 2305160

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110530

Included Lab Sample IDs: 2305155, 2305156, 2305160, 2305163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	97.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A110534

Included Lab Sample IDs: 2305155, 2305156, 2305160, 2305163

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A110559

Included Lab Sample IDs: 2305179, 2305180, 2305181

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	105	100	P/P	90 - 110
Iron	105	101	P/P	90 - 110
Magnesium	105	101	P/P	90 - 110
Potassium	102	98.7	P/P	90 - 110
Sodium	103	99.4	P/P	90 - 110
Strontium	102	103	P/P	90 - 110
Tin	104	105	P/P	90 - 110
Titanium	104	104	P/P	90 - 110
Vanadium	103	104	P/P	90 - 110
Zinc	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110630

Included Lab Sample IDs: 2305163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.0	100	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A110639

Included Lab Sample IDs: 2305155, 2305156, 2305160, 2305163

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.9	95.4	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
DEP SOP: NU-094-1	Color (true)	100					0.755	
EPA 180.1 Rev. 2.0	Turbidity	96.1					2.71	
EPA 200.7 Rev. 4.4	Calcium	106	110	109				4.87
	Iron	107	111	107	109			4.13
	Magnesium	106	108	109				4.40
	Potassium	109	109	104	106			3.97
	Sodium	104	107	104				4.61
	Strontium	105	107	101	105			4.68
	Tin	109	110	105	108			4.72
	Titanium	107	109	104	108			5.28
	Vanadium	99.4	103	98.0	99.5			5.25
	Zinc	105	106	100	104			5.10
EPA 200.8 Rev. 5.4	Aluminum	101	102	102	102			0.613
	Antimony	98.9	103	102	99.9			1.04
	Arsenic	102	103	103	99.7			0.462
	Barium	103	105	104	102			0.483
	Beryllium	98.8	95.6	97.6	93.3			2.05
	Boron	103	110	111	109			1.02
	Cadmium	100	102	104	102			2.02
	Chromium	96.5	100	101	99.0			0.394
	Cobalt	102	103	102	99.9			0.196
	Copper	98.4	98.7	99.3	97.8			0.663
	Lead	99.1	99.7	101	100			1.68
	Manganese	98.3	101	102	97.7			0.733
	Molybdenum	101	105	105	101			0.118
	Nickel	104	102	101	98.4			0.784
	Selenium	101	79.5	79.2	99.7			0.347
	Silver	99.9	102	102	98.6			0.265
	Thallium	103	106	108	105			1.82
EPA 300.0 Rev. 2.1	Chloride	101	99.5	102			0.625	
	Sulfate	99.7	99.9	99.2			0.0095	
EPA 350.1 Rev. 2.0	Ammonia-N	100	98.4	101				1.87
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.9	101	104				2.11
	Kjeldahl Nitrogen	101	101	93.0				5.30
EPA 353.2 Rev. 2.0	NO2NO3-N	101	101	100				0.995
	NO2NO3-N	102	100	100				0.0
EPA 365.1 Rev. 2.0	Total-P	102	102	102				0.234
	Total-P	108	107	102				4.23
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9	98.2	99.6				0.999
EPA 8321B	2,4-D	148	114	147				25.6
	2,4,5-T	118	126	132				4.68
	Acesulfame K	102	102	94.3				7.82
	Acetaminophen	113	144	145				0.212
	Acetamiprid	118	98.4	128				25.8
	Afidopyropen	124	82.0	93.1				12.7
	AMPA	95.6	98.8	97.3				1.46
	Bentazon	105	59.3	48.8				19.5
	Benzovindiflupyr	147	121	111				8.20
	Carbamazepine	136	131	118				10.6
	Clothianidin	137	167	200				18.1
	Dinotefuran	120	157	179				12.8
	Diuron	112	86.3	64.9				28.3
	Endothall	68.0	76.4	82.9				8.18
	Fenuron	104	98.6	98.3				0.363

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Fluridone	119	96.0	116		18.5
	Glufosinate	108	107	105		1.83
	Glyphosate	101	93.0	90.3		2.99
	Hydrocodone	105	124	135		8.13
	Ibuprofen	130	104	132		24.2
	Imazapyr	121	122	121		1.03
	Imidacloprid	118	235	287		20.0
	Linuron	103	74.8	95.2		24.0
	Mandestrobin	105	100	110		9.71
	MCPP	146	141	174		20.9
	Naproxen	79.2	100	101		0.895
	Primidone	135	118	156		27.8
	Pyraclostrobin	97.0	99.0	111		11.6
	Silvex	114	120	151		22.6
	Sucralose	93.5	80.0	83.2		3.66
	Thiamethoxam	125	203	222		8.95
	Tolfenpyrad	88.3	84.4	101		17.9
	Triclopyr	113	107	159		38.7
SM 2320 B-2011	Total Alkalinity	97.7			2.71	
	Total Alkalinity	97.0			2.53	
SM 2540 C-2011	TDS				0.432	
	TDS				3.40	
SM 4500 F-C-2011	Fluoride	99.4	99.6	99.0		0.542
	Fluoride	98.9	99.5	98.9		0.500
SM 5310 B-2011	Organic Carbon	93.3	100			0.322

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2305153, 2305154, 2305159, 2305162
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2305153, 2305154, 2305159, 2305162
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2305179, 2305180, 2305181
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2305179, 2305180, 2305181
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2305153, 2305154, 2305159, 2305162
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2305153, 2305154, 2305159, 2305162
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2305155, 2305156, 2305160, 2305163
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2305155, 2305156, 2305160, 2305163
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2305155, 2305156, 2305160, 2305163
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2305155, 2305156, 2305160, 2305163
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2305157, 2305158, 2305161, 2305164
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2305177, 2305178
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2305153, 2305154, 2305159, 2305162
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2305179, 2305180, 2305181
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2305153, 2305154, 2305159, 2305162
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2305153, 2305154, 2305159, 2305162
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2305153, 2305154, 2305159, 2305162
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2305155, 2305156, 2305160, 2305163

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	02/10/2022			02/10/2022 17:22	Anna M. Plaviak	2305153
	02/10/2022			02/10/2022 17:23	Anna M. Plaviak	2305154
	02/10/2022			02/10/2022 17:24	Anna M. Plaviak	2305159
	02/10/2022			02/10/2022 17:46	Anna M. Plaviak	2305162
EPA 180.1 Rev. 2.0	02/10/2022			02/10/2022 15:59	Khloe J Berg	2305159
	02/10/2022			02/10/2022 16:11	Khloe J Berg	2305153
	02/10/2022			02/10/2022 16:14	Khloe J Berg	2305154
	02/10/2022			02/10/2022 16:15	Khloe J Berg	2305162
EPA 200.7 Rev. 4.4	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/22/2022 15:31	Josef B Mick	2305179
	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/22/2022 15:39	Josef B Mick	2305180
	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/22/2022 15:47	Josef B Mick	2305181
EPA 200.8 Rev. 5.4	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/15/2022 16:58	Alexander Thompson	2305179
	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/15/2022 17:07	Alexander Thompson	2305180
	02/10/2022	02/14/2022 10:40	Megan Whitefoot	02/15/2022 17:17	Alexander Thompson	2305181
EPA 300.0 Rev. 2.1	02/10/2022			02/17/2022 14:44	Roberta Tatti	2305153
	02/10/2022			02/17/2022 14:56	Roberta Tatti	2305154
	02/10/2022			02/17/2022 15:08	Roberta Tatti	2305159
	02/10/2022			02/17/2022 15:45	Roberta Tatti	2305162
EPA 350.1 Rev. 2.0	02/10/2022			02/21/2022 12:29	Ping Hua	2305155
	02/10/2022			02/21/2022 12:30	Ping Hua	2305156
	02/10/2022			02/21/2022 12:32	Ping Hua	2305160
	02/10/2022			02/21/2022 12:33	Ping Hua	2305163
EPA 351.2 Rev. 2.0	02/10/2022	02/15/2022 09:06	Samantha L Bates	02/15/2022 16:44	Alexandra J Mattheus	2305155
	02/10/2022	02/15/2022 09:06	Samantha L Bates	02/15/2022 16:46	Alexandra J Mattheus	2305163
	02/10/2022	02/15/2022 13:57	Samantha L Bates	02/16/2022 16:28	Alexandra J Mattheus	2305156
	02/10/2022	02/15/2022 13:57	Samantha L Bates	02/16/2022 16:29	Alexandra J Mattheus	2305160
EPA 353.2 Rev. 2.0	02/10/2022			02/22/2022 10:05	Beverly Y. Sanders	2305155
	02/10/2022			02/22/2022 10:18	Beverly Y. Sanders	2305156
	02/10/2022			02/22/2022 10:19	Beverly Y. Sanders	2305160
	02/10/2022			02/22/2022 10:31	Beverly Y. Sanders	2305163
EPA 365.1 Rev. 2.0	02/10/2022	02/16/2022 14:20	Simonne.V. Calhoun	02/17/2022 14:40	Shengyu Ding	2305155
	02/10/2022	02/16/2022 14:20	Simonne.V. Calhoun	02/17/2022 14:41	Shengyu Ding	2305156
	02/10/2022	02/16/2022 14:20	Simonne.V. Calhoun	02/17/2022 14:42	Shengyu Ding	2305160
	02/10/2022	02/23/2022 15:05	Simonne.V. Calhoun	02/24/2022 14:12	Sarah A Nixon	2305163
EPA 365.1 Rev. 2.0 dissolved	02/10/2022			02/10/2022 15:28	James L Waggeberby	2305157
	02/10/2022			02/10/2022 15:29	James L Waggeberby	2305158
	02/10/2022			02/10/2022 15:34	James L Waggeberby	2305161
	02/10/2022			02/10/2022 15:35	James L Waggeberby	2305164
EPA 8321B	02/10/2022	02/11/2022 09:00	Hoor Shaik	02/12/2022 01:17	Juyoung Kim	2305178
	02/10/2022	02/11/2022 09:00	Hoor Shaik	02/12/2022 12:49	Juyoung Kim	2305177

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	02/10/2022	02/11/2022 14:00	Umesh Chiluwal	02/11/2022 16:57	Umesh Chiluwal	2305177
	02/10/2022	02/11/2022 14:00	Umesh Chiluwal	02/11/2022 17:08	Umesh Chiluwal	2305178
	02/10/2022	02/11/2022 14:00	Umesh Chiluwal	02/11/2022 22:14	Umesh Chiluwal	2305177
	02/10/2022	02/11/2022 14:00	Umesh Chiluwal	02/11/2022 22:28	Umesh Chiluwal	2305178
SM 2320 B-2011	02/10/2022			02/15/2022 20:35	Dale L. Simmons	2305153
	02/10/2022			02/15/2022 20:46	Dale L. Simmons	2305154
	02/10/2022			02/15/2022 20:59	Dale L. Simmons	2305159
	02/10/2022			02/15/2022 22:46	Dale L. Simmons	2305162
SM 2340B	02/10/2022			02/22/2022 15:31	Josef B Mick	2305179
	02/10/2022			02/22/2022 15:39	Josef B Mick	2305180
	02/10/2022			02/22/2022 15:47	Josef B Mick	2305181
SM 2540 C-2011	02/10/2022			02/11/2022 15:30	Simonne.V. Calhoun	2305153, 2305154, 2305159, 2305162
SM 2540 D-2011	02/10/2022			02/11/2022 15:30	Simonne.V. Calhoun	2305153, 2305154, 2305159, 2305162
SM 4500 F-C-2011	02/10/2022			02/15/2022 20:35	Dale L. Simmons	2305153
	02/10/2022			02/15/2022 20:46	Dale L. Simmons	2305154
	02/10/2022			02/15/2022 20:59	Dale L. Simmons	2305159
	02/10/2022			02/15/2022 22:46	Dale L. Simmons	2305162
SM 5310 B-2011	02/10/2022			02/26/2022 19:57	Touraj Touran	2305163
	02/10/2022			02/26/2022 21:13	Touraj Touran	2305155
	02/10/2022			02/26/2022 21:46	Touraj Touran	2305160
	02/10/2022			02/26/2022 22:06	Touraj Touran	2305156