

Chemical Analysis Report

NE-DIST-2022-09-21-02

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Nassau North West**
Request ID: **RQ-2022-09-12-30**
Customer: **NE-DIST**
Project ID: **SMP**

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

Date Certified: 14-OCT-2022 08:07

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the 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: UNNAMED BRANCH @ CR125

Collection Date/Time: 09/20/2022 09:45

Field ID: 19010123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358086	EPA 200.7 Rev. 4.4	Calcium	6.12		mg/L	P420018	
		Iron	1.54E+03		ug/L	P420018	
		Magnesium	1.59		mg/L	P420018	
		Potassium	1.4		mg/L	P420018	
		Sodium	4.1		mg/L	P420548	
		Strontium	17.2		ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	1.9	I	ug/L	P420018	
		Vanadium	2.7	I	ug/L	P420018	
		Zinc	11	I	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Aluminum	566		ug/L	P420018	
		Antimony	0.091	I	ug/L	P420018	
		Arsenic	1.08		ug/L	P420018	
		Barium	21.6		ug/L	P420018	
		Beryllium	0.038	I	ug/L	P420018	
		Boron	21.5		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	1.9		ug/L	P420018	
		Cobalt	0.240		ug/L	P420018	
		Copper	0.89		ug/L	P420372	
	SM 2340 B-2011	Lead	0.90		ug/L	P420018	
		Manganese	17.6		ug/L	P420018	
		Molybdenum	0.40	I	ug/L	P420018	
		Nickel	0.92	I	ug/L	P420018	
		Selenium	0.23	I	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
		Hardness	21.8		mg/L	P420018	

Ref. Method and Comment:
EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 09/29/2022.

Sample Location: MOCCASIN CREEK @ MOCCASIN CREEK CIR. W. **Collection Date/Time: 09/20/2022 10:45**

Field ID: 19010120

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358066	DEP SOP: NU-094-1	Color (true)	610		PCU	P419921	
	EPA 180.1 Rev. 2.0	Turbidity	0.50	I	NTU	P419958	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P420256	
		Sulfate	0.20	U	mg SO4/L	P420260	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P420378	
	SM 2540 C-2011	TDS	93		mg/L	P420435	
	SM 2540 D-2011	TSS	2	U	mg/L	P420389	
2358069	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420468	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.028		mg N/L	P420346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P420024	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420318	MS
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P419995	
2358082	SM 5310 B-2011	Organic Carbon	53		mg C/L	P420120	
	EPA 200.7 Rev. 4.4	Calcium	0.86		mg/L	P420018	
		Iron	970		ug/L	P420018	
		Magnesium	0.63		mg/L	P420018	
		Potassium	0.30	I	mg/L	P420018	
		Sodium	2.3		mg/L	P420548	
		Strontium	7.4	I	ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	1.5	I	ug/L	P420018	
		Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.0	U	ug/L	P420018	
		Aluminum	433		ug/L	P420018	
		Antimony	0.050	U	ug/L	P420018	
		Arsenic	0.43		ug/L	P420018	
		Barium	10.8		ug/L	P420018	
		Beryllium	0.030	I	ug/L	P420018	
		Boron	13.7		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	0.40	U	ug/L	P420018	
		Cobalt	0.215		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
		Lead	0.29	I	ug/L	P420018	
		Manganese	14.9		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	0.55	I	ug/L	P420018	
		Selenium	0.20	U	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
	SM 2340 B-2011	Hardness	4.7		mg/L	P420018	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Moccasin Creek @ Moccasin Creek Cir. North Collection Date/Time: 09/20/2022 11:05

Field ID: G4NE0313

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358067	DEP SOP: NU-094-1	Color (true)	410		PCU	P419921	
	EPA 180.1 Rev. 2.0	Turbidity	1.0		NTU	P419958	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P420257	
		Sulfate	0.20	U	mg SO4/L	P420261	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P420378	
	SM 2540 C-2011	TDS	64		mg/L	P420435	
	SM 2540 D-2011	TSS	2	I	mg/L	P420389	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420468	
2358070	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P420346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.75		mg N/L	P420024	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420318	MS
	EPA 365.1 Rev. 2.0	Total-P	0.007		mg P/L	P419995	
	SM 5310 B-2011	Organic Carbon	37		mg C/L	P420121	
2358083	EPA 200.7 Rev. 4.4	Calcium	0.77		mg/L	P420018	
		Iron	620		ug/L	P420018	
		Magnesium	0.45		mg/L	P420018	
		Potassium	0.30	U	mg/L	P420018	
		Sodium	2.3		mg/L	P420548	
		Strontium	5.7	I	ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	1.1	I	ug/L	P420018	
		Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.0	U	ug/L	P420018	
		Aluminum	232		ug/L	P420018	
		Antimony	0.050	U	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Arsenic	0.28		ug/L	P420018	
		Barium	5.84		ug/L	P420018	
		Beryllium	0.017	I	ug/L	P420018	
		Boron	10.6		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	0.40	U	ug/L	P420018	
		Cobalt	0.137		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
		Lead	0.36	I	ug/L	P420018	
		Manganese	5.64		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	0.50	U	ug/L	P420018	
		Selenium	0.20	U	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
		Hardness	3.8		mg/L	P420018	

Ref. Method and Comment:

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

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Daughtery Branch @ CR125 S

Collection Date/Time: 09/20/2022 11:45

Field ID: 19010125

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358081	EPA 8321B	2,4-D	0.0020	U	ug/L	P419978	
		Acesulfame K	0.10	U	ug/L	P419904	
		2,4,5-T	0.0040	U	ug/L	P419978	
		AMPA	0.10	U	ug/L	P419904	
		Acetaminophen	0.0080	U	ug/L	P419978	
		Acetamiprid	0.0020	U	ug/L	P419978	
		Endothall	0.25	U	ug/L	P419904	
		Glufosinate	0.10	U	ug/L	P419904	
		Glyphosate	0.10	U	ug/L	P419904	
		Afidopyropen	0.0020	U	ug/L	P419978	
		Bentazon	8.0E-04	U	ug/L	P419978	
		Sucralose	0.017	I	ug/L	P419904	
		Benzovindiflupyr	0.0020	U	ug/L	P419978	
		Carbamazepine	8.0E-04	U	ug/L	P419978	
		Clothianidin	0.0020	U	ug/L	P419978	
		Dinotefuran	0.0020	U	ug/L	P419978	
		Diuron	0.0020	U	ug/L	P419978	
		Fenuron	0.016	U	ug/L	P419978	
		Fluridone	8.0E-04	U	ug/L	P419978	
		Imazapyr	0.61		ug/L	P419978	
		Hydrocodone	0.0020	U	ug/L	P419978	
		Ibuprofen	0.020	U	ug/L	P419978	
		Imidacloprid	0.0020	U	ug/L	P419978	MS
		Linuron	0.0040	U	ug/L	P419978	
		Mandestrobin	0.0020	U	ug/L	P419978	
		MCPP	0.0020	U	ug/L	P419978	
		Naproxen	0.0080	U	ug/L	P419978	
		Primidone	0.0040	U	ug/L	P419978	
		Pyraclostrobin	0.0020	U	ug/L	P419978	
		Silvex	0.0040	U	ug/L	P419978	
		Thiamethoxam	0.0020	U	ug/L	P419978	
		Tolfenpyrad	0.0020	U	ug/L	P419978	
		Triclopyr	0.0040	U	ug/L	P419978	
2358085	EPA 200.7 Rev. 4.4	Calcium	2.35		mg/L	P420018	
		Iron	2.97E+03		ug/L	P420018	
		Magnesium	0.80		mg/L	P420018	
		Potassium	0.30	U	mg/L	P420018	
		Sodium	3.5		mg/L	P420548	
		Strontium	11.3		ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	1.7	I	ug/L	P420018	
		Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.8	I	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Aluminum	912		ug/L	P420018	

Field ID: 19010125

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358085	EPA 200.8 Rev. 5.4	Antimony	0.068	I	ug/L	P420018	
		Arsenic	0.75		ug/L	P420018	
		Barium	18.7		ug/L	P420018	
		Beryllium	0.071		ug/L	P420018	
		Boron	15.8		ug/L	P420018	
		Cadmium	0.029	I	ug/L	P420018	
		Chromium	1.1	I	ug/L	P420018	
		Cobalt	0.609		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
		Lead	1.16		ug/L	P420018	
		Manganese	18.7		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	1.3	I	ug/L	P420018	
		Selenium	0.28	I	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
	SM 2340 B-2011	Hardness	9.2		mg/L	P420018	

Ref. Method and Comment:
 EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 09/29/2022.

Sample Location: CALKINS CR @ CR 127

Collection Date/Time: 09/20/2022 10:10

Field ID: 19010105

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2358068	DEP SOP: NU-094-1	Color (true)	560		PCU	P419921	
	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P419958	
	EPA 300.0 Rev. 2.1	Chloride	4.5		mg Cl/L	P420257	
		Sulfate	0.20	U	mg SO4/L	P420261	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P420378	
	SM 2540 C-2011	TDS	82		mg/L	P420435	
	SM 2540 D-2011	TSS	2	I	mg/L	P420389	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P420468	
2358071	EPA 350.1 Rev. 2.0	Ammonia-N	0.026		mg N/L	P420346	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P420124	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P420318	MS
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P419996	
	SM 5310 B-2011	Organic Carbon	46		mg C/L	P420121	
2358084	EPA 200.7 Rev. 4.4	Calcium	0.69		mg/L	P420018	
		Iron	2.68E+03		ug/L	P420018	
		Magnesium	0.60		mg/L	P420018	
		Potassium	0.30	U	mg/L	P420018	
		Sodium	2.5		mg/L	P420548	
		Strontium	6.4	I	ug/L	P420018	
		Tin	3.0	U	ug/L	P420018	
		Titanium	1.3	I	ug/L	P420018	
		Vanadium	2.0	U	ug/L	P420018	
		Zinc	5.0	U	ug/L	P420018	
	EPA 200.8 Rev. 5.4	Aluminum	693		ug/L	P420018	
		Antimony	0.050	U	ug/L	P420018	
		Arsenic	0.55		ug/L	P420018	
		Barium	15.4		ug/L	P420018	
		Beryllium	0.056		ug/L	P420018	
		Boron	12.3		ug/L	P420018	
		Cadmium	0.020	U	ug/L	P420018	
		Chromium	0.62	I	ug/L	P420018	
		Cobalt	0.418		ug/L	P420018	
		Copper	0.40	U	ug/L	P420018	
		Lead	0.67		ug/L	P420018	
		Manganese	14.6		ug/L	P420018	
		Molybdenum	0.15	U	ug/L	P420018	
		Nickel	0.93	I	ug/L	P420018	
		Selenium	0.20	U	ug/L	P420018	
		Silver	0.010	U	ug/L	P420018	
		Thallium	0.10	U	ug/L	P420018	
	SM 2340 B-2011	Hardness	4.2		mg/L	P420018	

Ref. Method and Comment:

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

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 09/29/2022.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P419921

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419958

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420018

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
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 200.7 Rev. 4.4
Batch ID: P420548

Component	Result	Code	Units
Sodium	0.50	U	mg/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

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	0.63	I	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

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420372

Component	Result	Code	Units
Copper	0.40	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420256

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420257

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420260

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420261

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420346

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420024

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420124

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420318

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419995

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419996

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

Reference Method: EPA 8321B
Batch ID: P419904

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: P419978

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	0.020	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	0.0020	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

Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P420378

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P420435

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P420389

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P420468

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P420120

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

Reference Method: SM 5310 B-2011
Batch ID: P420121

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: P419921

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419958

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	104		P	85 - 115
Iron	108		P	85 - 115
Magnesium	105		P	85 - 115
Potassium	101		P	85 - 115
Strontium	104		P	85 - 115
Tin	102		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	99.9		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420548

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sodium	95.9		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	100		P	85 - 115
Barium	104		P	85 - 115
Beryllium	94.2		P	85 - 115
Boron	104		P	85 - 115
Cadmium	97.8		P	85 - 115
Chromium	101		P	85 - 115
Cobalt	100		P	85 - 115
Copper	97.9		P	85 - 115
Lead	93.8		P	85 - 115
Manganese	103		P	85 - 115
Molybdenum	97.3		P	85 - 115
Nickel	99.9		P	85 - 115
Selenium	102		P	85 - 115
Silver	112		P	85 - 115
Thallium	93.3		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420372

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Copper	96.8		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420256

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420257

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420260

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420261

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420346

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420024

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420124

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420318

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419995

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: P419996

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

Reference Method: EPA 8321B
Batch ID: P419904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	105		P	40 - 150
Endothall	98.5		P	40 - 150
Glufosinate	88.5		P	40 - 150
Glyphosate	103		P	40 - 150
Sucralose	106		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419978

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	73.0		P	30 - 160
2,4,5-T	68.7		P	30 - 160
Acetaminophen	95.6		P	30 - 150
Acetamiprid	81.4		P	30 - 160
Afidopyropen	60.7		P	30 - 160
Bentazon	93.9		P	30 - 150
Benzovindiflupyr	79.6		P	30 - 160
Carbamazepine	78.2		P	30 - 160
Clothianidin	100		P	30 - 160
Dinotefuran	98.2		P	30 - 160
Diuron	51.0		P	30 - 160
Fenuron	109		P	30 - 160
Fluridone	92.5		P	30 - 160
Hydrocodone	88.4		P	30 - 160
Ibuprofen	50.8		P	30 - 160
Imazapyr	103		P	30 - 160
Imidacloprid	123		P	30 - 160
Linuron	84.2		P	30 - 160
Mandestrobin	102		P	30 - 160
MCPP	75.6		P	30 - 160
Naproxen	76.7		P	30 - 160
Primidone	88.6		P	30 - 160
Pyraclostrobin	86.4		P	30 - 160
Silvex	66.1		P	30 - 160
Thiamethoxam	102		P	30 - 160
Tolfenpyrad	50.6		P	30 - 160
Triclopyr	68.6		P	30 - 160

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P420378

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

Reference Method: SM 4500-F- C-2011
Batch ID: P420468

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P420120

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

Reference Method: SM 5310 B-2011
Batch ID: P420121

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P420018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358253	Calcium	104		P	80 - 120
2358253	Iron	118	108	P/P	80 - 120
2358253	Magnesium	118	105	P/P	80 - 120
2358253	Potassium	112	101	P/P	80 - 120
2358253	Strontium	113	104	P/P	80 - 120
2358253	Tin	110	101	P/P	80 - 120
2358253	Titanium	115	105	P/P	80 - 120
2358253	Vanadium	113	103	P/P	80 - 120
2358253	Zinc	108	98.9	P/P	80 - 120
2358254	Calcium	104		P	80 - 120
2358254	Iron	105		P	80 - 120
2358254	Magnesium	98.9		P	80 - 120
2358254	Potassium	95.0		P	80 - 120
2358254	Strontium	101		P	80 - 120
2358254	Tin	99.3		P	80 - 120
2358254	Titanium	102		P	80 - 120
2358254	Vanadium	102		P	80 - 120
2358254	Zinc	98.6		P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P420548

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358129	Sodium	89.4	101	P/P	80 - 120
2358347	Sodium	97.0		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P420018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358253	Aluminum	103	105	P/P	80 - 120
2358253	Antimony	107	105	P/P	80 - 120
2358253	Arsenic	104	102	P/P	80 - 120
2358253	Barium	107	105	P/P	80 - 120
2358253	Beryllium	98.4	97.6	P/P	80 - 120
2358253	Boron	103	106	P/P	80 - 120
2358253	Cadmium	102	103	P/P	80 - 120
2358253	Chromium	108	107	P/P	80 - 120
2358253	Cobalt	105	104	P/P	80 - 120
2358253	Copper	103	101	P/P	80 - 120
2358253	Lead	99.1	97.0	P/P	80 - 120
2358253	Manganese	107	107	P/P	80 - 120
2358253	Molybdenum	103	101	P/P	80 - 120
2358253	Nickel	103	102	P/P	80 - 120
2358253	Selenium	107	104	P/P	80 - 120
2358253	Silver	114	111	P/P	80 - 120
2358253	Thallium	99.2	97.8	P/P	80 - 120
2358254	Aluminum	104		P	80 - 120
2358254	Antimony	106		P	80 - 120
2358254	Arsenic	103		P	80 - 120
2358254	Barium	107		P	80 - 120
2358254	Beryllium	98.5		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358254	Boron	105		P	80 - 120
2358254	Cadmium	102		P	80 - 120
2358254	Chromium	106		P	80 - 120
2358254	Cobalt	104		P	80 - 120
2358254	Copper	101		P	80 - 120
2358254	Lead	97.7		P	80 - 120
2358254	Manganese	107		P	80 - 120
2358254	Molybdenum	99.2		P	80 - 120
2358254	Nickel	102		P	80 - 120
2358254	Selenium	103		P	80 - 120
2358254	Silver	111		P	80 - 120
2358254	Thallium	97.3		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420372

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358208	Copper	101		P	80 - 120
2359911	Copper	98.1	99.1	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420256

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357991	Chloride	97.5		P	90 - 110
2357993	Chloride	97.7		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420257

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358092	Chloride	99.5		P	90 - 110
2358237	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420260

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357991	Sulfate	97.0		P	90 - 110
2357993	Sulfate	98.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358092	Sulfate	96.5		P	90 - 110
2358237	Sulfate	99.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420346

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420346

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357833	Ammonia-N	98.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420124

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357832	Kjeldahl Nitrogen	105	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358045	NO2NO3-N	91.2	89.8	P/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419995

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358019	Total-P	109	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419996

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358108	Total-P	109	109	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P419904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357804	Acesulfame K	102	103	P/P	40 - 150
2357804	AMPA	82.9	83.0	P/P	40 - 150
2357804	Endothall	86.6	89.6	P/P	40 - 150
2357804	Glufosinate	64.3	69.7	P/P	40 - 150
2357804	Glyphosate	89.2	91.4	P/P	40 - 150
2357804	Sucralose	99.3	97.0	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P419978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357801	2,4-D	107	83.9	P/P	30 - 160
2357801	2,4,5-T	100	90.5	P/P	30 - 160
2357801	Acetaminophen	117	103	P/P	30 - 150
2357801	Acetamiprid	89.2	80.8	P/P	30 - 160
2357801	Afidopyrophen	78.1	85.8	P/P	30 - 160
2357801	Bentazon	109	87.9	P/P	30 - 150
2357801	Benzovindiflupyr	80.3	92.3	P/P	30 - 160
2357801	Carbamazepine	87.4	79.3	P/P	30 - 160
2357801	Clothianidin	119	89.5	P/P	30 - 160
2357801	Dinotefuran	129	109	P/P	30 - 160
2357801	Diuron	55.5	63.7	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P419978

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357801	Fenuron	133	113	P/P	30 - 160
2357801	Fluridone	110	96.6	P/P	30 - 160
2357801	Hydrocodone	98.4	93.1	P/P	30 - 160
2357801	Ibuprofen	50.1	43.4	P/P	30 - 160
2357801	Imazapyr	134	115	P/P	30 - 160
2357801	Imidacloprid	163	130	F/P	30 - 160
2357801	Linuron	94.5	74.0	P/P	30 - 160
2357801	Mandestrobin	119	102	P/P	30 - 160
2357801	MCPD	108	97.0	P/P	30 - 160
2357801	Naproxen	97.7	91.6	P/P	30 - 160
2357801	Primidone	118	96.2	P/P	30 - 160
2357801	Pyraclostrobin	109	94.9	P/P	30 - 160
2357801	Silvex	95.0	83.7	P/P	30 - 160
2357801	Thiamethoxam	124	112	P/P	30 - 160
2357801	Tolfenpyrad	75.7	61.9	P/P	30 - 160
2357801	Triclopyr	101	88.5	P/P	30 - 160

Reference Method: SM 4500-F- C-2011
Batch ID: P420468

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358198	Fluoride	100	101	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P420120

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2357834	Organic Carbon	97.1	97.9	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P420121

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2358295	Organic Carbon	98.4	99.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P419921

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357992	Color (true)	1.23	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P419958

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358044	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358253	Calcium	7.19	Spike	P	0 - 20
2358253	Iron	9.10	Spike	P	0 - 20
2358253	Magnesium	8.74	Spike	P	0 - 20
2358253	Potassium	7.33	Spike	P	0 - 20
2358253	Strontium	7.85	Spike	P	0 - 20
2358253	Tin	8.67	Spike	P	0 - 20
2358253	Titanium	8.77	Spike	P	0 - 20
2358253	Vanadium	8.66	Spike	P	0 - 20
2358253	Zinc	9.04	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P420548

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358129	Sodium	12.2	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358253	Aluminum	1.27	Spike	P	0 - 20
2358253	Antimony	2.44	Spike	P	0 - 20
2358253	Arsenic	1.50	Spike	P	0 - 20
2358253	Barium	2.18	Spike	P	0 - 20
2358253	Beryllium	0.817	Spike	P	0 - 20
2358253	Boron	2.78	Spike	P	0 - 20
2358253	Cadmium	1.04	Spike	P	0 - 20
2358253	Chromium	0.255	Spike	P	0 - 20
2358253	Cobalt	0.917	Spike	P	0 - 20
2358253	Copper	1.42	Spike	P	0 - 20
2358253	Lead	2.13	Spike	P	0 - 20
2358253	Manganese	0.242	Spike	P	0 - 20
2358253	Molybdenum	2.52	Spike	P	0 - 20
2358253	Nickel	1.82	Spike	P	0 - 20
2358253	Selenium	2.87	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358253	Silver	2.24	Spike	P	0 - 20
2358253	Thallium	1.43	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P420372

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2359911	Copper	1.01	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420256

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357991	Chloride	0.0146	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420257

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358092	Chloride	0.893	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420260

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357991	Sulfate	0.00933	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P420261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358092	Sulfate	1.09	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P420346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357833	Ammonia-N	2.43	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357987	Kjeldahl Nitrogen	3.05	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P420124

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357832	Kjeldahl Nitrogen	1.97	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P420318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358045	NO2NO3-N	1.49	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419995

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358019	Total-P	2.20	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P419996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358108	Total-P	0.366	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P419904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357804	Acesulfame K	1.27	Spike	P	0 - 30
2357804	AMPA	0.0482	Spike	P	0 - 30
2357804	Endothall	3.35	Spike	P	0 - 30
2357804	Glufosinate	8.01	Spike	P	0 - 30
2357804	Glyphosate	2.46	Spike	P	0 - 30
2357804	Sucralose	2.34	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P419978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357801	2,4-D	24.4	Spike	P	0 - 30
2357801	2,4,5-T	10.3	Spike	P	0 - 30
2357801	Acetaminophen	12.4	Spike	P	0 - 30
2357801	Acetamiprid	9.84	Spike	P	0 - 30
2357801	Afidopyropen	9.45	Spike	P	0 - 30
2357801	Bentazon	16.9	Spike	P	0 - 30
2357801	Benzovindiflupyr	14.0	Spike	P	0 - 30
2357801	Carbamazepine	9.70	Spike	P	0 - 30
2357801	Clothianidin	28.3	Spike	P	0 - 30
2357801	Dinotefuran	15.6	Spike	P	0 - 30
2357801	Diuron	13.7	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P419978

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357801	Fenuron	16.6	Spike	P	0 - 30
2357801	Fluridone	13.3	Spike	P	0 - 30
2357801	Hydrocodone	5.46	Spike	P	0 - 30
2357801	Ibuprofen	14.3	Spike	P	0 - 30
2357801	Imazapyr	14.6	Spike	P	0 - 30
2357801	Imidacloprid	22.3	Spike	P	0 - 30
2357801	Linuron	24.3	Spike	P	0 - 30
2357801	Mandestrobin	14.6	Spike	P	0 - 30
2357801	MCCP	10.3	Spike	P	0 - 30
2357801	Naproxen	6.51	Spike	P	0 - 30
2357801	Primidone	20.1	Spike	P	0 - 30
2357801	Pyraclostrobin	14.0	Spike	P	0 - 30
2357801	Silvex	12.6	Spike	P	0 - 30
2357801	Thiamethoxam	10.8	Spike	P	0 - 30
2357801	Tolfenpyrad	20.0	Spike	P	0 - 30
2357801	Triclopyr	12.8	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P420378

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357859	Total Alkalinity	2.90	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P420435

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357862	TDS	7.45	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P420468

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358198	Fluoride	0.963	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P420120

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2357834	Organic Carbon	0.576	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P420121

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2358295	Organic Carbon	0.811	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: 2358081

Field Sample ID: 19010125

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	83.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	99.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	40.2	P	30 - 160
EPA 8321B	Diuron-d6	36.9	P	30 - 160
EPA 8321B	Endothall-d6	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	53.6	P	30 - 160
EPA 8321B	Ibuprofen-d3	90.1	P	30 - 160
EPA 8321B	Primidone-d5	74.7	P	30 - 160
EPA 8321B	Sucralose-d6	98.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A114859

Included Lab Sample IDs: 2358066, 2358067, 2358068

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	103	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A114873

Included Lab Sample IDs: 2358081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	103	108	P/P	60 - 160
Sucralose	106	105	P/P	60 - 160

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A114874

Included Lab Sample IDs: 2358066, 2358067, 2358068

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

Reference Method: EPA 8321B

Run ID: A114916

Included Lab Sample IDs: 2358081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	101	P/P	50 - 150
2,4,5-T	97.2	103	P/P	50 - 150
Acetaminophen	104	107	P/P	60 - 160
Acetamiprid	104	101	P/P	50 - 150
Afidopyropen	111	111	P/P	50 - 150
Bentazon	115	85.2	P/P	50 - 160
Benzovindiflupyr	104	106	P/P	50 - 160
Carbamazepine	106	114	P/P	60 - 150
Clothianidin	120	105	P/P	60 - 150
Dinotefuran	108	110	P/P	50 - 150
Diuron	97.2	115	P/P	60 - 160
Fenuron	105	100	P/P	60 - 150
Fluridone	110	112	P/P	60 - 160
Hydrocodone	107	110	P/P	60 - 150
Ibuprofen	119	92.4	P/P	50 - 160
Imazapyr	101	112	P/P	50 - 150
Imidacloprid	97.0	103	P/P	60 - 150
Linuron	104	111	P/P	60 - 150
Mandestrobin	117	120	P/P	50 - 150
MCPP	90.0	102	P/P	50 - 150
Naproxen	144	118	P/P	50 - 160
Primidone	104	101	P/P	60 - 150
Pyraclostrobin	114	116	P/P	60 - 150
Silvex	99.1	105	P/P	50 - 150
Thiamethoxam	105	110	P/P	50 - 150
Tolfenpyrad	124	128	P/P	60 - 150
Triclopyr	103	91.0	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A114925
Included Lab Sample IDs: 2358081

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	106	106	P/P	60 - 160
Endothall	106	83.4	P/P	60 - 160
Glufosinate	81.0	78.4	P/P	60 - 160
Glyphosate	96.0	100	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114937
Included Lab Sample IDs: 2358069, 2358070, 2358071

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114938
Included Lab Sample IDs: 2358069, 2358070

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

Reference Method: SM 5310 B-2011
Run ID: A114944
Included Lab Sample IDs: 2358069, 2358070, 2358071

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.0	95.8	P/P	90 - 110
Organic Carbon	95.8	96.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114999
Included Lab Sample IDs: 2358066, 2358067, 2358068

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

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A115010
Included Lab Sample IDs: 2358082, 2358083, 2358084, 2358085, 2358086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	103	P/P	90 - 110
Aluminum	103	105	P/P	90 - 110
Antimony	100	101	P/P	90 - 110
Antimony	101	102	P/P	90 - 110
Arsenic	100	101	P/P	90 - 110
Arsenic	101	100	P/P	90 - 110
Barium	101	102	P/P	90 - 110
Barium	102	102	P/P	90 - 110
Beryllium	98.0	98.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A115010

Included Lab Sample IDs: 2358082, 2358083, 2358084, 2358085, 2358086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Beryllium	98.0	98.6	P/P	90 - 110
Boron	100	101	P/P	90 - 110
Boron	99.9	100	P/P	90 - 110
Cadmium	100	102	P/P	90 - 110
Cadmium	101	100	P/P	90 - 110
Chromium	100	101	P/P	90 - 110
Chromium	101	104	P/P	90 - 110
Cobalt	100	100	P/P	90 - 110
Cobalt	100	102	P/P	90 - 110
Copper	98.0	98.1	P/P	90 - 110
Copper	98.1	99.5	P/P	90 - 110
Lead	95.5	95.7	P/P	90 - 110
Lead	95.7	95.0	P/P	90 - 110
Manganese	101	103	P/P	90 - 110
Manganese	103	105	P/P	90 - 110
Molybdenum	100	100	P/P	90 - 110
Molybdenum	100	101	P/P	90 - 110
Nickel	99.8	101	P/P	90 - 110
Nickel	99.8	99.8	P/P	90 - 110
Selenium	102	103	P/P	90 - 110
Selenium	103	102	P/P	90 - 110
Silver	99.7	101	P/P	90 - 110
Silver	99.8	99.7	P/P	90 - 110
Thallium	96.0	96.9	P/P	90 - 110
Thallium	96.9	95.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A115032

Included Lab Sample IDs: 2358069, 2358070, 2358071

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.0	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A115055

Included Lab Sample IDs: 2358069, 2358070, 2358071

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115060

Included Lab Sample IDs: 2358082, 2358083, 2358084, 2358085, 2358086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	104	105	P/P	95 - 105
Iron	103	105	P/P	95 - 105
Magnesium	100	103	P/P	95 - 105
Potassium	99.2	101	P/P	95 - 105
Strontium	99.4	97.5	P/P	95 - 105
Tin	99.3	97.2	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115060

Included Lab Sample IDs: 2358082, 2358083, 2358084, 2358085, 2358086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Titanium	97.6	97.3	P/P	95 - 105
Vanadium	97.9	97.4	P/P	95 - 105
Zinc	102	98.1	P/P	95 - 105

Reference Method: SM 2320 B-2011

Run ID: A115070

Included Lab Sample IDs: 2358066, 2358067, 2358068

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.0	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A115092

Included Lab Sample IDs: 2358071

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.1	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A115099

Included Lab Sample IDs: 2358086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Copper	95.4	96.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A115129

Included Lab Sample IDs: 2358066, 2358067, 2358068

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A115175

Included Lab Sample IDs: 2358082, 2358083, 2358084, 2358085, 2358086

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sodium	99.0	101	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)	101				1.23	
EPA 180.1 Rev. 2.0	Turbidity	101				0.0	
EPA 200.7 Rev. 4.4	Calcium	104	104	104			7.19
	Iron	108	118	108	105		9.10
	Magnesium	105	118	105	98.9		8.74
	Potassium	101	112	101	95.0		7.33
	Sodium	95.9	89.4	101	97.0		12.2
	Strontium	104	113	104	101		7.85
	Tin	102	110	101	99.3		8.67
	Titanium	104	115	105	102		8.77
	Vanadium	102	113	103	102		8.66
	Zinc	99.9	108	98.9	98.6		9.04
EPA 200.8 Rev. 5.4	Aluminum	100	103	105	104		1.27
	Antimony	101	107	105	106		2.44
	Arsenic	100	104	102	103		1.50
	Barium	104	107	105	107		2.18
	Beryllium	94.2	98.4	97.6	98.5		0.817
	Boron	104	106	105	103		2.78
	Cadmium	97.8	102	103	102		1.04
	Chromium	101	108	107	106		0.255
	Cobalt	100	105	104	104		0.917
	Copper	97.9	103	101	101		1.42
	Copper	96.8	101	98.1	99.1		1.01
	Lead	93.8	99.1	97.0	97.7		2.13
	Manganese	103	107	107	107		0.242
	Molybdenum	97.3	103	101	99.2		2.52
	Nickel	99.9	103	102	102		1.82
	Selenium	102	107	104	103		2.87
	Silver	112	114	111	111		2.24
	Thallium	93.3	99.2	97.8	97.3		1.43
EPA 300.0 Rev. 2.1	Chloride	99.9	97.5	97.7		0.0146	
	Chloride	102	99.5	100		0.893	
	Sulfate	98.7	97.0	98.5		0.0093	
	Sulfate	101	96.5	99.0		1.09	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	98.6	101			2.43
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104					3.05
	Kjeldahl Nitrogen	97.9	105	107			1.97
EPA 353.2 Rev. 2.0	NO2NO3-N	101	91.2	89.8			1.49
EPA 365.1 Rev. 2.0	Total-P	105	109	107			2.20
	Total-P	107	109	109			0.366
EPA 8321B	2,4-D	73.0	107	83.9			24.4
	2,4,5-T	68.7	100	90.5			10.3
	Acesulfame K	103	102	103			1.27
	Acetaminophen	95.6	117	103			12.4
	Acetamiprid	81.4	89.2	80.8			9.84
	Afidopyropen	60.7	78.1	85.8			9.45
	AMPA	105	82.9	83.0			0.0482
	Bentazon	93.9	109	87.9			16.9
	Benzovindiflupyr	79.6	80.3	92.3			14.0
	Carbamazepine	78.2	87.4	79.3			9.70
	Clothianidin	100	119	89.5			28.3
	Dinotefuran	98.2	129	109			15.6
	Diuron	51.0	55.5	63.7			13.7
	Endothall	98.5	86.6	89.6			3.35

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
EPA 8321B	Fenuron	109	133	113			16.6
	Fluridone	92.5	110	96.6			13.3
	Glufosinate	88.5	64.3	69.7			8.01
	Glyphosate	103	89.2	91.4			2.46
	Hydrocodone	88.4	98.4	93.1			5.46
	Ibuprofen	50.8	50.1	43.4			14.3
	Imazapyr	103	134	115			14.6
	Imidacloprid	123	163	130			22.3
	Linuron	84.2	94.5	74.0			24.3
	Mandestrobin	102	119	102			14.6
	MCPP	75.6	108	97.0			10.3
	Naproxen	76.7	97.7	91.6			6.51
	Primidone	88.6	118	96.2			20.1
	Pyraclostrobin	86.4	109	94.9			14.0
	Silvex	66.1	95.0	83.7			12.6
	Sucralose	106	99.3	97.0			2.34
	Thiamethoxam	102	124	112			10.8
	Tolfenpyrad	50.6	75.7	61.9			20.0
	Triclopyr	68.6	101	88.5			12.8
SM 2320 B-2011	Total Alkalinity	103				2.90	
SM 2540 C-2011	TDS					7.45	
SM 4500-F- C-2011	Fluoride	102	100	101			0.963
SM 5310 B-2011	Organic Carbon	96.0	97.1	97.9			0.576
	Organic Carbon	97.0	98.4	99.6			0.811

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2358066, 2358067, 2358068
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2358066, 2358067, 2358068
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2358082, 2358083, 2358084, 2358085, 2358086
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2358082, 2358083, 2358084, 2358085, 2358086
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2358066, 2358067, 2358068
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2358066, 2358067, 2358068
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2358069, 2358070, 2358071
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2358069, 2358070, 2358071
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2358069, 2358070, 2358071
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2358069, 2358070, 2358071
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2358081
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2358066, 2358067, 2358068
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2358082, 2358083, 2358084, 2358085, 2358086
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2358066, 2358067, 2358068
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2358066, 2358067, 2358068
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2358066, 2358067, 2358068
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2358069, 2358070, 2358071

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	09/21/2022			09/21/2022 15:03	Samantha L Bates	2358066, 2358067
	09/21/2022			09/21/2022 15:04	Samantha L Bates	2358068
	09/21/2022			09/21/2022 13:52	Chandler E Cox	2358066
EPA 180.1 Rev. 2.0	09/21/2022			09/21/2022 14:02	Chandler E Cox	2358067
	09/21/2022			09/21/2022 14:04	Chandler E Cox	2358068
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 14:27	McKinley C Carter	2358082
EPA 200.7 Rev. 4.4	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 14:31	McKinley C Carter	2358083
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 14:37	McKinley C Carter	2358084
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 14:43	McKinley C Carter	2358085
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/30/2022 14:48	McKinley C Carter	2358086
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 17:28	McKinley C Carter	2358082
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 17:34	McKinley C Carter	2358083
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 17:40	McKinley C Carter	2358084
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 17:45	McKinley C Carter	2358085
	09/21/2022	10/06/2022 10:05	Megan Whitefoot	10/06/2022 17:51	McKinley C Carter	2358086
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 14:05	Emily M Philpot	2358082
EPA 200.8 Rev. 5.4	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 14:14	Emily M Philpot	2358083
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 14:23	Emily M Philpot	2358084
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 15:26	Emily M Philpot	2358085
	09/21/2022	09/23/2022 10:20	Megan Whitefoot	09/27/2022 15:35	Emily M Philpot	2358086
	09/21/2022	10/03/2022 09:55	Megan Whitefoot	10/03/2022 18:28	Emily M Philpot	2358086
EPA 300.0 Rev. 2.1	09/21/2022			09/28/2022 00:45	Anna M. Plaviak	2358066
	09/21/2022			09/28/2022 03:31	Anna M. Plaviak	2358067
	09/21/2022			09/28/2022 03:46	Anna M. Plaviak	2358068
EPA 350.1 Rev. 2.0	09/21/2022			09/30/2022 13:15	Ping Hua	2358069
	09/21/2022			09/30/2022 13:17	Ping Hua	2358070
	09/21/2022			09/30/2022 13:18	Ping Hua	2358071
EPA 351.2 Rev. 2.0	09/21/2022	09/23/2022 11:15	Simonne.V. Calhoun	09/26/2022 12:35	Samantha L Bates	2358069
	09/21/2022	09/23/2022 11:15	Simonne.V. Calhoun	09/26/2022 12:37	Samantha L Bates	2358070
	09/21/2022	09/27/2022 14:11	Samantha L Bates	10/03/2022 13:20	Samantha L Bates	2358071
EPA 353.2 Rev. 2.0	09/21/2022			09/29/2022 13:53	Judith K. Clark	2358069
	09/21/2022			09/29/2022 13:54	Judith K. Clark	2358070
	09/21/2022			09/29/2022 13:55	Judith K. Clark	2358071
EPA 365.1 Rev. 2.0	09/21/2022	09/23/2022 12:15	Adam P Silver	09/26/2022 09:54	Simonne.V. Calhoun	2358069
	09/21/2022	09/23/2022 12:15	Adam P Silver	09/26/2022 09:55	Simonne.V. Calhoun	2358070
	09/21/2022	09/23/2022 12:15	Adam P Silver	09/26/2022 09:58	Simonne.V. Calhoun	2358071
EPA 8321B	09/21/2022	09/22/2022 14:00	Umesh Chiluwal	09/23/2022 07:54	Umesh Chiluwal	2358081
	09/21/2022	09/22/2022 14:00	Umesh Chiluwal	09/23/2022 16:04	Umesh Chiluwal	2358081
	09/21/2022	09/23/2022 08:00	June Rhew	09/24/2022 00:31	Juyoung Kim	2358081
SM 2320 B-2011	09/21/2022			10/01/2022 09:01	Dale L. Simmons	2358066

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-2011	09/21/2022			10/01/2022 09:07	Dale L. Simmons	2358067
	09/21/2022			10/01/2022 09:14	Dale L. Simmons	2358068
SM 2340 B-2011	09/21/2022			09/30/2022 14:27	McKinley C Carter	2358082
	09/21/2022			09/30/2022 14:31	McKinley C Carter	2358083
	09/21/2022			09/30/2022 14:37	McKinley C Carter	2358084
	09/21/2022			09/30/2022 14:43	McKinley C Carter	2358085
	09/21/2022			09/30/2022 14:48	McKinley C Carter	2358086
SM 2540 C-2011	09/21/2022			09/26/2022 15:56	Yijie Li	2358066, 2358067, 2358068
SM 2540 D-2011	09/21/2022			09/26/2022 15:56	Yijie Li	2358066, 2358067, 2358068
SM 4500-F- C-2011	09/21/2022			10/05/2022 03:59	Adam P Silver	2358066
	09/21/2022			10/05/2022 04:04	Adam P Silver	2358067
	09/21/2022			10/05/2022 04:09	Adam P Silver	2358068
SM 5310 B-2011	09/21/2022			09/24/2022 01:56	Khloe J Berg	2358069
	09/21/2022			09/24/2022 04:01	Khloe J Berg	2358070
	09/21/2022			09/24/2022 04:16	Khloe J Berg	2358071