

Chemical Analysis Report

SE-DIST-2022-07-13-01

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

Event Description: **Basinger 4/5**
Request ID: **RQ-2022-05-23-36**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
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2199 South Rock Road
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 04-AUG-2022 10:51

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

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

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

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

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

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: Chandler Slough @ Southern US98 Culvert

Collection Date/Time: 07/12/2022 09:30

Field ID: G4SE0142

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340810	DEP SOP: NU-094-1	Color (true)	160	A	PCU	P416607	
	EPA 180.1 Rev. 2.0	Turbidity	15		NTU	P416611	
	EPA 300.0 Rev. 2.1	Chloride	320		mg Cl/L	P416961	
		Sulfate	240		mg SO4/L	P416965	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P416839	
	SM 2540 C-2011	TDS	1.03E+03		mg/L	P417071	
	SM 2540 D-2011	TSS	5	I	mg/L	P416976	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P417550	
2340814	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P416933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P416773	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416743	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P416694	
	SM 5310 B-2011	Organic Carbon	34		mg C/L	P416724	

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: Chandler Slough @ Northern US98 Culvert

Collection Date/Time: 07/12/2022 09:40

Field ID: G4SE0141

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340811	DEP SOP: NU-094-1	Color (true)	250		PCU	P416602	
	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P416611	
	EPA 300.0 Rev. 2.1	Chloride	60		mg Cl/L	P416961	
		Sulfate	15		mg SO4/L	P416965	
	SM 2320 B-2011	Total Alkalinity	116		mg CaCO3/L	P416839	
	SM 2540 C-2011	TDS	334		mg/L	P417071	
	SM 2540 D-2011	TSS	2	I	mg/L	P416976	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P417550	
2340815	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P416933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.2		mg N/L	P416773	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P416743	
	EPA 365.1 Rev. 2.0	Total-P	0.39		mg P/L	P416694	
	SM 5310 B-2011	Organic Carbon	37		mg C/L	P416724	

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: Chandler Slough @ NW 160th Dr

Collection Date/Time: 07/12/2022 10:10

Field ID: G4SE0143

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340812	DEP SOP: NU-094-1	Color (true)	140		PCU	P416602	
	EPA 180.1 Rev. 2.0	Turbidity	14		NTU	P416611	
	EPA 300.0 Rev. 2.1	Chloride	94		mg Cl/L	P416961	
		Sulfate	80		mg SO4/L	P416965	
	SM 2320 B-2011	Total Alkalinity	26		mg CaCO3/L	P416839	
	SM 2540 C-2011	TDS	358		mg/L	P417071	
	SM 2540 D-2011	TSS	7	I	mg/L	P416976	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P417550	
2340816	EPA 350.1 Rev. 2.0	Ammonia-N	0.31		mg N/L	P416933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P416775	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.054		mg N/L	P416743	
	EPA 365.1 Rev. 2.0	Total-P	0.35		mg P/L	P416695	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P416724	

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: Oak Creek @ 68

Collection Date/Time: 07/12/2022 10:30

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340818	DEP SOP: NU-094-1	Color (true)	300		PCU	P416602	
	EPA 180.1 Rev. 2.0	Turbidity	4.0		NTU	P416611	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P416961	
		Sulfate	12		mg SO4/L	P416965	
	SM 2320 B-2011	Total Alkalinity	39		mg CaCO3/L	P416839	
	SM 2540 C-2011	TDS	197	A	mg/L	P417072	
	SM 2540 D-2011	TSS	4	IA	mg/L	P416977	
2340819	SM 4500-F- C-2011	Fluoride	0.11		mg F/L	P417550	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.33		mg N/L	P416933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.2		mg N/L	P416776	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416743	
	EPA 365.1 Rev. 2.0	Total-P	0.76		mg P/L	P416695	
2340838	SM 5310 B-2011	Organic Carbon	28		mg C/L	P416724	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P416589	
		Acesulfame K	0.10	U	ug/L	P416474	
		2,4,5-T	0.0040	U	ug/L	P416589	
		AMPA	0.10	U	ug/L	P416474	
		Acetaminophen	0.0080	U	ug/L	P416589	
		Acetamiprid	0.0020	U	ug/L	P416589	
		Endothall	0.25	U	ug/L	P416474	
		Glufosinate	0.10	U	ug/L	P416474	
		Glyphosate	0.10	U	ug/L	P416474	
		Afidopyropen	0.0020	U	ug/L	P416589	
		Bentazon	8.0E-04	U	ug/L	P416589	
		Sucralose	0.010	I	ug/L	P416474	
		Benzovindiflupyr	0.0020	U	ug/L	P416589	
		Carbamazepine	8.0E-04	U	ug/L	P416589	
		Clothianidin	0.0020	U	ug/L	P416589	
		Dinotefuran	0.0020	U	ug/L	P416589	
		Diuron	0.0020	U	ug/L	P416589	
		Fenuron	0.032	U	ug/L	P416589	
		Fluridone	8.0E-04	U	ug/L	P416589	
		Imazapyr	0.0040	U	ug/L	P416589	
		Hydrocodone	0.0020	U	ug/L	P416589	
		Ibuprofen	0.080	U	ug/L	P416589	
		Imidacloprid	0.014		ug/L	P416589	
		Linuron	0.0040	U	ug/L	P416589	
		Mandestrobin	0.0020	U	ug/L	P416589	
		MCPP	0.0040	U	ug/L	P416589	
		Naproxen	0.0080	U	ug/L	P416589	
		Primidone	0.0040	U	ug/L	P416589	
		Pyraclostrobin	0.0020	U	ug/L	P416589	
		Silvex	0.0040	U	ug/L	P416589	
		Thiamethoxam	0.0020	U	ug/L	P416589	

Field ID: G4SE0080

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340838	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P416589	
		Triclopyr	0.0040	U	ug/L	P416589	
2340841	EPA 200.7 Rev. 4.4	Calcium	17.1		mg/L	P416617	
		Iron	1.24E+03		ug/L	P416617	
		Magnesium	5.47		mg/L	P416617	
		Potassium	6.1		mg/L	P416617	
		Sodium	17.2		mg/L	P416617	
		Strontium	661		ug/L	P416617	
		Tin	3.0	U	ug/L	P416617	
		Titanium	1.2	I	ug/L	P416617	
		Vanadium	2.0	U	ug/L	P416617	
		Zinc	5.0	U	ug/L	P416617	
	EPA 200.8 Rev. 5.4	Aluminum	128		ug/L	P416617	
		Antimony	0.067	I	ug/L	P416617	
		Arsenic	1.33		ug/L	P416617	
		Barium	23.0		ug/L	P416617	
		Beryllium	0.019	I	ug/L	P416617	
		Boron	30.4		ug/L	P416617	
		Cadmium	0.020	U	ug/L	P416617	
		Chromium	0.91	I	ug/L	P416617	
		Cobalt	0.310		ug/L	P416617	
		Copper	0.40	U	ug/L	P416617	
		Lead	0.20	U	ug/L	P416617	
		Manganese	72.0		ug/L	P416617	
		Molybdenum	0.17	I	ug/L	P416617	
		Nickel	0.50	U	ug/L	P416617	
		Selenium	0.20	U	ug/L	P416617	
		Silver	0.010	U	ug/L	P416617	
		Thallium	0.10	U	ug/L	P416617	
	SM 2340 B-2011	Hardness	65.3		mg/L	P416617	

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: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gore Branch @ 724

Collection Date/Time: 07/12/2022 11:05

Field ID: G4SE0130

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340839	EPA 8321B	2,4-D	0.0029	I	ug/L	P416589	
		Acesulfame K	0.10	U	ug/L	P416474	
		2,4,5-T	0.0040	U	ug/L	P416589	
		AMPA	0.69		ug/L	P416474	
		Acetaminophen	0.0080	U	ug/L	P416589	
		Acetamiprid	0.0020	U	ug/L	P416589	
		Endothall	0.25	U	ug/L	P416474	
		Glufosinate	0.10	U	ug/L	P416474	
		Glyphosate	0.54		ug/L	P416474	
		Afidopyropen	0.0020	U	ug/L	P416589	
		Bentazon	8.0E-04	U	ug/L	P416589	
		Sucralose	0.041		ug/L	P416474	
		Benzovindiflupyr	0.0020	U	ug/L	P416589	
		Carbamazepine	8.0E-04	U	ug/L	P416589	
		Clothianidin	0.0020	U	ug/L	P416589	
		Dinotefuran	0.0020	U	ug/L	P416589	
		Diuron	0.0020	U	ug/L	P416589	
		Fenuron	0.032	U	ug/L	P416589	
		Fluridone	0.040		ug/L	P416589	
		Imazapyr	0.0070	I	ug/L	P416589	
		Hydrocodone	0.0020	U	ug/L	P416589	
		Ibuprofen	0.080	U	ug/L	P416589	
		Imidacloprid	0.028		ug/L	P416589	
		Linuron	0.0040	U	ug/L	P416589	
		Mandestrobin	0.0020	U	ug/L	P416589	
		MCPP	0.0040	U	ug/L	P416589	
		Naproxen	0.0080	U	ug/L	P416589	
		Primidone	0.0040	U	ug/L	P416589	
		Pyraclostrobin	0.0020	U	ug/L	P416589	
		Silvex	0.0040	U	ug/L	P416589	
		Thiamethoxam	0.032		ug/L	P416589	
		Tolfenpyrad	0.0020	U	ug/L	P416589	
		Triclopyr	0.0040	U	ug/L	P416589	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Chandler Slough @ NW 190th

Collection Date/Time: 07/12/2022 11:20

Field ID: G4SE0136

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340840	EPA 8321B	2,4-D	0.0069	I	ug/L	P416589	
		Acesulfame K	0.10	U	ug/L	P416474	
		2,4,5-T	0.0040	U	ug/L	P416589	
		AMPA	0.32	I	ug/L	P416474	
		Acetaminophen	0.015	I	ug/L	P416589	
		Acetamiprid	0.0020	U	ug/L	P416589	
		Endothall	0.25	U	ug/L	P416474	
		Glufosinate	0.10	U	ug/L	P416474	
		Glyphosate	0.24	I	ug/L	P416474	
		Afidopyropen	0.0020	U	ug/L	P416589	
		Bentazon	8.0E-04	U	ug/L	P416589	
		Sucralose	0.010	U	ug/L	P416474	
		Benzovindiflupyr	0.0020	U	ug/L	P416589	
		Carbamazepine	8.0E-04	U	ug/L	P416589	
		Clothianidin	0.0055	I	ug/L	P416589	
		Dinotefuran	0.0020	U	ug/L	P416589	
		Diuron	0.0020	U	ug/L	P416589	
		Fenuron	0.032	U	ug/L	P416589	
		Fluridone	8.0E-04	U	ug/L	P416589	
		Imazapyr	0.055		ug/L	P416589	
		Hydrocodone	0.0020	U	ug/L	P416589	
		Ibuprofen	0.080	U	ug/L	P416589	
		Imidacloprid	0.047		ug/L	P416589	
		Linuron	0.0040	U	ug/L	P416589	
		Mandestrobin	0.0020	U	ug/L	P416589	
		MCPP	0.0040	U	ug/L	P416589	
		Naproxen	0.0080	U	ug/L	P416589	
		Primidone	0.0040	U	ug/L	P416589	
		Pyraclostrobin	0.0020	U	ug/L	P416589	
		Silvex	0.0040	U	ug/L	P416589	
		Thiamethoxam	0.062		ug/L	P416589	
		Tolfenpyrad	0.0020	U	ug/L	P416589	
		Triclopyr	0.0040	U	ug/L	P416589	

Ref. Method and Comment:

EPA 8321B: MS accuracy for some analytes could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Gore Branch / Chandler Slough @ NW 240th St Collection Date/Time: 07/12/2022 11:45

Field ID: G4SE0145

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2340813	DEP SOP: NU-094-1	Color (true)	74	A	PCU	P416602	
	EPA 180.1 Rev. 2.0	Turbidity	2.7	A	NTU	P416611	
	EPA 300.0 Rev. 2.1	Chloride	260		mg Cl/L	P416961	
		Sulfate	110		mg SO4/L	P416965	
	SM 2320 B-2011	Total Alkalinity	112		mg CaCO3/L	P416839	
	SM 2540 C-2011	TDS	748		mg/L	P417071	
	SM 2540 D-2011	TSS	2	U	mg/L	P416976	
	SM 4500-F- C-2011	Fluoride	0.18		mg F/L	P417550	
2340817	EPA 350.1 Rev. 2.0	Ammonia-N	0.18		mg N/L	P416933	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P416778	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P416743	
	EPA 365.1 Rev. 2.0	Total-P	0.29		mg P/L	P416695	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P416724	

Ref. Method and Comment:

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

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P416602

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P416607

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416611

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P416617

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: P416617

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416961

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416965

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416933

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416773

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416775

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416776

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416778

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416743

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416694

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416695

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

Reference Method: EPA 8321B

Batch ID: P416474

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: P416589

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0040	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: SM 2320 B-2011

Batch ID: P416839

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: P417071

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-2011
Batch ID: P417072

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P416976

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P416977

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P417550

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P416724

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: P416602

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	95.4		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P416607

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416611

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	94.7		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P416617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	100		P	85 - 115
Iron	101		P	85 - 115
Magnesium	99.3		P	85 - 115
Potassium	104		P	85 - 115
Sodium	103		P	85 - 115
Strontium	106		P	85 - 115
Tin	99.9		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	99.1		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416617

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	104		P	85 - 115
Antimony	105		P	85 - 115
Arsenic	101		P	85 - 115
Barium	97.6		P	85 - 115
Beryllium	95.3		P	85 - 115
Boron	103		P	85 - 115
Cadmium	99.4		P	85 - 115
Chromium	102		P	85 - 115
Cobalt	103		P	85 - 115
Copper	97.9		P	85 - 115
Lead	99.5		P	85 - 115
Manganese	104		P	85 - 115
Molybdenum	101		P	85 - 115
Nickel	101		P	85 - 115
Selenium	102		P	85 - 115
Silver	104		P	85 - 115
Thallium	102		P	85 - 115

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416961

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416965

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416933

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416773

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416775

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416776

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416778

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416743

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: P416694

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P416695

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

Reference Method: EPA 8321B

Batch ID: P416474

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	88.1		P	40 - 150
AMPA	113		P	40 - 150
Endothall	80.3		P	40 - 150
Glufosinate	111		P	40 - 150
Glyphosate	108		P	40 - 150
Sucralose	105		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P416589

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.4		P	40 - 150
2,4,5-T	91.6		P	40 - 150
Acetaminophen	94.6		P	30 - 150
Acetamiprid	96.4		P	40 - 150
Afidopyropen	52.6		P	30 - 150
Bentazon	106		P	30 - 150
Benzovindiflupyr	95.8		P	40 - 150
Carbamazepine	101		P	40 - 150
Clothianidin	114		P	40 - 150
Dinotefuran	110		P	40 - 150
Diuron	87.2		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	97.1		P	40 - 150
Hydrocodone	100		P	40 - 150
Ibuprofen	86.1		P	40 - 150
Imazapyr	108		P	40 - 150
Imidacloprid	98.1		P	40 - 150
Linuron	94.7		P	40 - 150
Mandestrobin	88.3		P	40 - 150
MCPP	95.9		P	40 - 150
Naproxen	87.0		P	40 - 150
Primidone	111		P	40 - 150
Pyraclostrobin	93.9		P	40 - 150
Silvex	83.7		P	40 - 150
Thiamethoxam	107		P	40 - 150
Tolfenpyrad	62.3		P	30 - 150
Triclopyr	118		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P416839

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.5		P	94 - 106

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P417550

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.0		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P416617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340504	Calcium	98.9		P	80 - 120
2340504	Iron	102		P	80 - 120
2340504	Magnesium	103		P	80 - 120
2340504	Potassium	101		P	80 - 120
2340504	Sodium	101		P	80 - 120
2340504	Strontium	107		P	80 - 120
2340504	Tin	99.3		P	80 - 120
2340504	Titanium	106		P	80 - 120
2340504	Vanadium	105		P	80 - 120
2340504	Zinc	101		P	80 - 120
2340703	Calcium	96.4		P	80 - 120
2340703	Iron	99.9	98.3	P/P	80 - 120
2340703	Magnesium	98.6	96.8	P/P	80 - 120
2340703	Potassium	98.9	99.4	P/P	80 - 120
2340703	Sodium	103	101	P/P	80 - 120
2340703	Strontium	104	104	P/P	80 - 120
2340703	Tin	96.3	95.8	P/P	80 - 120
2340703	Titanium	101	100	P/P	80 - 120
2340703	Vanadium	101	100	P/P	80 - 120
2340703	Zinc	95.1	94.2	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P416617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340504	Aluminum	100		P	80 - 120
2340504	Antimony	104		P	80 - 120
2340504	Arsenic	99.4		P	80 - 120
2340504	Barium	98.2		P	80 - 120
2340504	Beryllium	98.0		P	80 - 120
2340504	Boron	98.0		P	80 - 120
2340504	Cadmium	99.2		P	80 - 120
2340504	Chromium	98.3		P	80 - 120
2340504	Cobalt	99.3		P	80 - 120
2340504	Copper	95.2		P	80 - 120
2340504	Lead	98.3		P	80 - 120
2340504	Manganese	100		P	80 - 120
2340504	Molybdenum	99.1		P	80 - 120
2340504	Nickel	97.2		P	80 - 120
2340504	Selenium	99.8		P	80 - 120
2340504	Silver	99.4		P	80 - 120
2340504	Thallium	101		P	80 - 120
2340703	Aluminum	103	102	P/P	80 - 120
2340703	Antimony	107	104	P/P	80 - 120
2340703	Arsenic	99.3	98.6	P/P	80 - 120
2340703	Barium	99.1	104	P/P	80 - 120
2340703	Beryllium	93.4	92.5	P/P	80 - 120
2340703	Boron	108	105	P/P	80 - 120
2340703	Cadmium	103	100	P/P	80 - 120
2340703	Chromium	102	100	P/P	80 - 120
2340703	Cobalt	101	99.5	P/P	80 - 120
2340703	Copper	93.9	92.3	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340703	Lead	100	99.0	P/P	80 - 120
2340703	Manganese	104	102	P/P	80 - 120
2340703	Molybdenum	103	102	P/P	80 - 120
2340703	Nickel	98.4	97.4	P/P	80 - 120
2340703	Selenium	97.0	97.6	P/P	80 - 120
2340703	Silver	104	101	P/P	80 - 120
2340703	Thallium	104	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416961

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340783	Chloride	101		P	90 - 110
2340818	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416965

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340783	Sulfate	100		P	90 - 110
2340818	Sulfate	98.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416933

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340784	Ammonia-N	101	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340808	Kjeldahl Nitrogen	102	93.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416775

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340689	Kjeldahl Nitrogen	99.9	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416776

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2341072	Kjeldahl Nitrogen	93.3	95.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416778

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340690	Kjeldahl Nitrogen	99.2	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416743

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340808	NO2NO3-N	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416694

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340814	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340852	Total-P	104	104	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P416474

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340387	Acesulfame K	75.9	76.4	P/P	40 - 150
2340387	AMPA	96.9	97.2	P/P	40 - 150
2340387	Endothall	83.3	81.1	P/P	40 - 150
2340387	Glufosinate	72.7	70.8	P/P	40 - 150
2340387	Glyphosate	84.2	88.5	P/P	40 - 150
2340387	Sucralose	98.5	99.2	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P416589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340862	2,4-D	91.9	83.2	P/P	40 - 150
2340862	2,4,5-T	70.5	72.6	P/P	40 - 150
2340862	Acetaminophen	111	94.4	P/P	30 - 150
2340862	Acetamiprid	54.5	51.5	P/P	40 - 150
2340862	Afidopyropen	59.3	49.9	P/P	30 - 150
2340862	Benzovindiflupyr	88.3	82.3	P/P	40 - 150
2340862	Carbamazepine	81.3	79.7	P/P	40 - 150
2340862	Clothianidin	120	102	P/P	40 - 150
2340862	Dinotefuran	143	127	P/P	40 - 150
2340862	Diuron	57.4	60.3	P/P	40 - 150
2340862	Fenuron	70.0	67.7	P/P	40 - 150
2340862	Fluridone	76.8	67.0	P/P	40 - 150
2340862	Hydrocodone	90.9	89.6	P/P	40 - 150
2340862	Ibuprofen	62.1	60.7	P/P	40 - 150
2340862	Imidacloprid	132	129	P/P	40 - 150
2340862	Linuron	74.8	65.2	P/P	40 - 150
2340862	Mandestrobin	74.3	67.5	P/P	40 - 150
2340862	MCPP	84.7	78.5	P/P	40 - 150
2340862	Naproxen	61.5	65.7	P/P	40 - 150
2340862	Primidone	102	105	P/P	40 - 150
2340862	Pyraclostrobin	83.6	76.3	P/P	40 - 150
2340862	Silvex	96.2	88.8	P/P	40 - 150
2340862	Thiamethoxam	146	133	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P416589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340862	Tolfenpyrad	50.2	50.1	P/P	30 - 150
2340862	Triclopyr	81.8	77.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P417550

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340697	Fluoride	94.7	96.4	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P416724

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2340817	Organic Carbon	98.5	99.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P416602

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340813	Color (true)	1.90	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P416607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340810	Color (true)	0.252	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P416611

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340813	Turbidity	4.13	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P416617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340703	Calcium	1.24	Spike	P	0 - 20
2340703	Iron	1.64	Spike	P	0 - 20
2340703	Magnesium	1.06	Spike	P	0 - 20
2340703	Potassium	0.470	Spike	P	0 - 20
2340703	Sodium	0.831	Spike	P	0 - 20
2340703	Strontium	0.676	Spike	P	0 - 20
2340703	Tin	0.586	Spike	P	0 - 20
2340703	Titanium	0.914	Spike	P	0 - 20
2340703	Vanadium	0.936	Spike	P	0 - 20
2340703	Zinc	0.989	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340703	Aluminum	1.59	Spike	P	0 - 20
2340703	Antimony	2.89	Spike	P	0 - 20
2340703	Arsenic	0.715	Spike	P	0 - 20
2340703	Barium	4.89	Spike	P	0 - 20
2340703	Beryllium	1.02	Spike	P	0 - 20
2340703	Boron	2.34	Spike	P	0 - 20
2340703	Cadmium	2.89	Spike	P	0 - 20
2340703	Chromium	1.11	Spike	P	0 - 20
2340703	Cobalt	1.76	Spike	P	0 - 20
2340703	Copper	1.68	Spike	P	0 - 20
2340703	Lead	1.14	Spike	P	0 - 20
2340703	Manganese	1.49	Spike	P	0 - 20
2340703	Molybdenum	0.793	Spike	P	0 - 20
2340703	Nickel	0.995	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P416617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340703	Selenium	0.570	Spike	P	0 - 20
2340703	Silver	2.74	Spike	P	0 - 20
2340703	Thallium	0.749	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416961

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340783	Chloride	0.338	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P416965

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340783	Sulfate	0.00716	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P416933

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340784	Ammonia-N	1.57	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340808	Kjeldahl Nitrogen	4.33	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416775

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340689	Kjeldahl Nitrogen	1.01	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416776

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2341072	Kjeldahl Nitrogen	1.66	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P416778

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340690	Kjeldahl Nitrogen	1.47	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P416743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340808	NO2NO3-N	0.976	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416694

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340814	Total-P	2.09	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P416695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340852	Total-P	0.479	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P416474

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340387	Acesulfame K	0.698	Spike	P	0 - 30
2340387	AMPA	0.270	Spike	P	0 - 30
2340387	Endothall	2.66	Spike	P	0 - 30
2340387	Glufosinate	2.62	Spike	P	0 - 30
2340387	Glyphosate	5.07	Spike	P	0 - 30
2340387	Sucralose	0.509	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P416589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340862	2,4-D	7.77	Spike	P	0 - 30
2340862	2,4,5-T	2.92	Spike	P	0 - 30
2340862	Acetaminophen	15.9	Spike	P	0 - 30
2340862	Acetamiprid	5.63	Spike	P	0 - 30
2340862	Afidopyropen	17.3	Spike	P	0 - 30
2340862	Bentazon	16.0	Spike	P	0 - 30
2340862	Benzovindiflupyr	7.06	Spike	P	0 - 30
2340862	Carbamazepine	1.91	Spike	P	0 - 30
2340862	Clothianidin	16.5	Spike	P	0 - 30
2340862	Dinotefuran	10.8	Spike	P	0 - 30
2340862	Diuron	5.00	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P416589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340862	Fenuron	3.30	Spike	P	0 - 30
2340862	Fluridone	13.6	Spike	P	0 - 30
2340862	Hydrocodone	1.41	Spike	P	0 - 30
2340862	Ibuprofen	2.29	Spike	P	0 - 30
2340862	Imazapyr	0.309	Spike	P	0 - 30
2340862	Imidacloprid	1.71	Spike	P	0 - 30
2340862	Linuron	13.6	Spike	P	0 - 30
2340862	Mandestrobin	9.52	Spike	P	0 - 30
2340862	MCCP	7.68	Spike	P	0 - 30
2340862	Naproxen	6.56	Spike	P	0 - 30
2340862	Primidone	2.93	Spike	P	0 - 30
2340862	Pyraclostrobin	9.05	Spike	P	0 - 30
2340862	Silvex	7.98	Spike	P	0 - 30
2340862	Thiamethoxam	9.48	Spike	P	0 - 30
2340862	Tolfenpyrad	0.332	Spike	P	0 - 30
2340862	Triclopyr	5.31	Spike	P	0 - 30

Reference Method: SM 2320 B-2011

Batch ID: P416839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340697	Total Alkalinity	1.00	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011

Batch ID: P417071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340687	TDS	9.64	Sample	P	0 - 10

Reference Method: SM 2540 C-2011

Batch ID: P417072

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340818	TDS	6.09	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011

Batch ID: P417550

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340697	Fluoride	1.50	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011

Batch ID: P416724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2340817	Organic Carbon	0.228	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: 2340838

Field Sample ID: G4SE0080

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	102	P	30 - 160
EPA 8321B	Acetaminophen-d4	111	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.0	P	30 - 160
EPA 8321B	Diuron-d6	48.7	P	30 - 160
EPA 8321B	Endothall-d6	134	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	116	P	30 - 160
EPA 8321B	Ibuprofen-d3	77.1	P	30 - 160
EPA 8321B	Primidone-d5	80.4	P	30 - 160
EPA 8321B	Sucralose-d6	101	P	30 - 160

Lab Sample ID: 2340839

Field Sample ID: G4SE0130

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.8	P	30 - 160
EPA 8321B	Acetaminophen-d4	116	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	67.4	P	30 - 160
EPA 8321B	Endothall-d6	147	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	67.5	P	30 - 160
EPA 8321B	Primidone-d5	91.3	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2340840

Field Sample ID: G4SE0136

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.3	P	30 - 160
EPA 8321B	Diuron-d6	67.6	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	100	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.0	P	30 - 160
EPA 8321B	Primidone-d5	93.4	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A113478

Included Lab Sample IDs: 2340810, 2340811, 2340812, 2340813, 2340818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	99.6	P/P	90 - 110
Color (true)	98.3	97.9	P/P	90 - 110
Color (true)	98.5	95.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A113480

Included Lab Sample IDs: 2340810, 2340811, 2340812, 2340813, 2340818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.0	98.0	P/P	95 - 105

Reference Method: EPA 8321B

Run ID: A113489

Included Lab Sample IDs: 2340838, 2340839, 2340840

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	117	110	P/P	60 - 160
Endothall	93.3	61.4	P/P	60 - 160
Glufosinate	120	83.7	P/P	60 - 160
Glyphosate	110	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A113497

Included Lab Sample IDs: 2340838, 2340839, 2340840

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	89.9	86.4	P/P	60 - 160
Sucralose	104	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A113508

Included Lab Sample IDs: 2340838, 2340839, 2340840

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	102	95.5	P/P	50 - 150
2,4,5-T	105	111	P/P	50 - 150
Acetaminophen	98.0	99.9	P/P	60 - 160
Acetamiprid	106	107	P/P	50 - 150
Afidopyropen	107	103	P/P	50 - 150
Bentazon	125	121	P/P	50 - 160
Benzovindiflupyr	92.0	105	P/P	50 - 150
Carbamazepine	104	99.7	P/P	60 - 150
Clothianidin	104	103	P/P	60 - 150
Dinotefuran	105	105	P/P	50 - 150
Diuron	90.0	94.3	P/P	60 - 160
Fenuron	100	97.2	P/P	60 - 150
Fluridone	113	113	P/P	60 - 160
Hydrocodone	98.4	101	P/P	60 - 150
Ibuprofen	102	120	P/P	50 - 160
Imazapyr	100	98.3	P/P	50 - 150
Imidacloprid	104	103	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A113508

Included Lab Sample IDs: 2340838, 2340839, 2340840

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Linuron	103	103	P/P	60 - 150
Mandestrobin	101	101	P/P	50 - 150
MCPD	109	108	P/P	50 - 150
Naproxen	134	131	P/P	50 - 160
Primidone	96.1	105	P/P	60 - 150
Pyraclostrobin	106	103	P/P	60 - 150
Silvex	90.2	95.4	P/P	50 - 150
Thiamethoxam	99.4	97.0	P/P	50 - 150
Tolfenpyrad	103	102	P/P	60 - 150
Triclopyr	103	119	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113518

Included Lab Sample IDs: 2340841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.5	98.8	P/P	90 - 110
Antimony	101	100	P/P	90 - 110
Arsenic	97.6	96.8	P/P	90 - 110
Beryllium	94.1	95.0	P/P	90 - 110
Boron	98.8	99.2	P/P	90 - 110
Cadmium	101	99.7	P/P	90 - 110
Chromium	96.7	95.1	P/P	90 - 110
Cobalt	98.9	97.8	P/P	90 - 110
Copper	93.9	93.3	P/P	90 - 110
Lead	96.4	96.1	P/P	90 - 110
Manganese	100	98.6	P/P	90 - 110
Molybdenum	98.0	96.8	P/P	90 - 110
Nickel	96.8	95.2	P/P	90 - 110
Selenium	98.0	98.6	P/P	90 - 110
Silver	103	102	P/P	90 - 110
Thallium	98.9	98.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A113519

Included Lab Sample IDs: 2340841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	94.1	93.7	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A113531

Included Lab Sample IDs: 2340814, 2340815, 2340816, 2340817, 2340819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	99.0	P/P	90 - 110
Organic Carbon	98.6	99.0	P/P	90 - 110
Organic Carbon	99.0	98.6	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A113536

Included Lab Sample IDs: 2340814, 2340815, 2340816, 2340817, 2340819

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

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A113542

Included Lab Sample IDs: 2340841

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	96.0	96.2	P/P	90 - 110
Iron	94.9	96.4	P/P	90 - 110
Magnesium	94.4	95.6	P/P	90 - 110
Potassium	97.6	98.6	P/P	90 - 110
Sodium	97.4	98.8	P/P	90 - 110
Strontium	103	106	P/P	90 - 110
Tin	97.6	96.9	P/P	90 - 110
Titanium	99.1	102	P/P	90 - 110
Vanadium	101	101	P/P	90 - 110
Zinc	96.0	96.5	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A113576

Included Lab Sample IDs: 2340810, 2340811, 2340812, 2340813, 2340818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	97.4	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113580

Included Lab Sample IDs: 2340814, 2340815

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	101	P/P	90 - 110
Total-P	105	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A113581

Included Lab Sample IDs: 2340816, 2340817, 2340819

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113613

Included Lab Sample IDs: 2340814, 2340815, 2340819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.4	93.4	P/P	90 - 110
Kjeldahl Nitrogen	98.2	95.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A113621

Included Lab Sample IDs: 2340814, 2340815, 2340816, 2340817, 2340819

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	99.2	P/P	90 - 110
Ammonia-N	98.5	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A113630

Included Lab Sample IDs: 2340816, 2340817

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.9	96.6	P/P	90 - 110
Kjeldahl Nitrogen	96.6	95.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A113634

Included Lab Sample IDs: 2340810, 2340811, 2340812, 2340813, 2340818

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

Reference Method: SM 4500-F- C-2011

Run ID: A113869

Included Lab Sample IDs: 2340810, 2340811, 2340812, 2340813, 2340818

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	102	P/P	90 - 110
Fluoride	102	102	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)	95.4				1.90	
	Color (true)	98.5				0.252	
EPA 180.1 Rev. 2.0	Turbidity	94.7				4.13	
EPA 200.7 Rev. 4.4	Calcium	100	98.9	96.4			1.24
	Iron	101	102	99.9	98.3		1.64
	Magnesium	99.3	103	98.6	96.8		1.06
	Potassium	104	101	98.9	99.4		0.470
	Sodium	103	101	103	101		0.831
	Strontium	106	107	104	104		0.676
	Tin	99.9	99.3	96.3	95.8		0.586
	Titanium	104	106	101	100		0.914
	Vanadium	103	105	101	100		0.936
	Zinc	99.1	101	95.1	94.2		0.989
EPA 200.8 Rev. 5.4	Aluminum	104	100	103	102		1.59
	Antimony	105	104	107	104		2.89
	Arsenic	101	99.4	99.3	98.6		0.715
	Barium	97.6	99.1	104	98.2		4.89
	Beryllium	95.3	98.0	93.4	92.5		1.02
	Boron	103	98.0	108	105		2.34
	Cadmium	99.4	99.2	103	100		2.89
	Chromium	102	98.3	102	100		1.11
	Cobalt	103	99.3	101	99.5		1.76
	Copper	97.9	95.2	93.9	92.3		1.68
	Lead	99.5	98.3	100	99.0		1.14
	Manganese	104	100	104	102		1.49
	Molybdenum	101	99.1	103	102		0.793
	Nickel	101	97.2	98.4	97.4		0.995
	Selenium	102	99.8	97.0	97.6		0.570
	Silver	104	99.4	104	101		2.74
	Thallium	102	101	104	103		0.749
EPA 300.0 Rev. 2.1	Chloride	101	101	104		0.338	
	Sulfate	101	100	98.3		0.0071	
EPA 350.1 Rev. 2.0	Ammonia-N	96.6	101	98.4			1.57
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	102	93.7			4.33
	Kjeldahl Nitrogen	98.1	99.9	101			1.01
	Kjeldahl Nitrogen	100	93.3	95.9			1.66
	Kjeldahl Nitrogen	103	99.2	101			1.47
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	103			0.976
EPA 365.1 Rev. 2.0	Total-P	103	104	106			2.09
	Total-P	103	104	104			0.479
EPA 8321B	2,4-D	83.4	91.9	83.2			7.77
	2,4,5-T	91.6	70.5	72.6			2.92
	Acesulfame K	88.1	75.9	76.4			0.698
	Acetaminophen	94.6	111	94.4			15.9
	Acetamiprid	96.4	54.5	51.5			5.63
	Afidopyropen	52.6	59.3	49.9			17.3
	AMPA	113	96.9	97.2			0.270
	Bentazon	106					16.0
	Benzovindiflupyr	95.8	88.3	82.3			7.06
	Carbamazepine	101	81.3	79.7			1.91
	Clothianidin	114	120	102			16.5
	Dinotefuran	110	143	127			10.8
	Diuron	87.2	57.4	60.3			5.00
	Endothall	80.3	83.3	81.1			2.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	SMP
EPA 8321B	Fenuron	103	70.0	67.7		3.30
	Fluridone	97.1	76.8	67.0		13.6
	Glufosinate	111	72.7	70.8		2.62
	Glyphosate	108	84.2	88.5		5.07
	Hydrocodone	100	90.9	89.6		1.41
	Ibuprofen	86.1	62.1	60.7		2.29
	Imazapyr	108				0.309
	Imidacloprid	98.1	132	129		1.71
	Linuron	94.7	74.8	65.2		13.6
	Mandestrobin	88.3	74.3	67.5		9.52
	MCPP	95.9	84.7	78.5		7.68
	Naproxen	87.0	61.5	65.7		6.56
	Primidone	111	102	105		2.93
	Pyraclostrobin	93.9	83.6	76.3		9.05
	Silvex	83.7	96.2	88.8		7.98
	Sucralose	105	98.5	99.2		0.509
	Thiamethoxam	107	146	133		9.48
	Tolfenpyrad	62.3	50.2	50.1		0.332
	Triclopyr	118	81.8	77.6		5.31
SM 2320 B-2011	Total Alkalinity	99.5				1.00
SM 2540 C-2011	TDS					9.64
	TDS					6.09
SM 4500-F- C-2011	Fluoride	99.0	94.7	96.4		1.50
SM 5310 B-2011	Organic Carbon	97.8	98.5	99.0		0.228

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2340810, 2340811, 2340812, 2340813, 2340818
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2340810, 2340811, 2340812, 2340813, 2340818
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2340841
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2340841
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2340810, 2340811, 2340812, 2340813, 2340818
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2340810, 2340811, 2340812, 2340813, 2340818
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2340814, 2340815, 2340816, 2340817, 2340819
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2340814, 2340815, 2340816, 2340817, 2340819
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2340814, 2340815, 2340816, 2340817, 2340819
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2340814, 2340815, 2340816, 2340817, 2340819
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2340838, 2340839, 2340840
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2340810, 2340811, 2340812, 2340813, 2340818
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2340841
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2340810, 2340811, 2340812, 2340813, 2340818
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2340810, 2340811, 2340812, 2340813, 2340818

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2340810, 2340811, 2340812, 2340813, 2340818
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2340814, 2340815, 2340816, 2340817, 2340819

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	07/13/2022			07/13/2022 14:47	Anna M. Plaviak	2340812
	07/13/2022			07/13/2022 14:48	Anna M. Plaviak	2340813
	07/13/2022			07/13/2022 15:22	Anna M. Plaviak	2340811
	07/13/2022			07/13/2022 15:23	Anna M. Plaviak	2340818
	07/13/2022			07/13/2022 15:50	Anna M. Plaviak	2340810
EPA 180.1 Rev. 2.0	07/13/2022			07/13/2022 14:49	Khloe J Berg	2340813
	07/13/2022			07/13/2022 14:51	Khloe J Berg	2340810
	07/13/2022			07/13/2022 14:53	Khloe J Berg	2340811
	07/13/2022			07/13/2022 14:55	Khloe J Berg	2340812
	07/13/2022			07/13/2022 14:56	Khloe J Berg	2340818
EPA 200.7 Rev. 4.4	07/13/2022	07/14/2022 09:59	Mackenzie Hunt	07/15/2022 23:20	McKinley C Carter	2340841
EPA 200.8 Rev. 5.4	07/13/2022	07/14/2022 09:59	Mackenzie Hunt	07/14/2022 19:36	Megan Whitefoot	2340841
	07/13/2022	07/14/2022 09:59	Mackenzie Hunt	07/15/2022 04:17	Emily M Philpot	2340841
EPA 300.0 Rev. 2.1	07/13/2022			07/20/2022 05:59	Anna M. Plaviak	2340818
	07/13/2022			07/20/2022 07:12	Anna M. Plaviak	2340810
	07/13/2022			07/20/2022 07:24	Anna M. Plaviak	2340811
	07/13/2022			07/20/2022 07:36	Anna M. Plaviak	2340812
	07/13/2022			07/20/2022 07:48	Anna M. Plaviak	2340813
EPA 350.1 Rev. 2.0	07/13/2022			07/20/2022 15:22	Ping Hua	2340814
	07/13/2022			07/20/2022 15:23	Ping Hua	2340815
	07/13/2022			07/20/2022 15:24	Ping Hua	2340817
	07/13/2022			07/20/2022 16:18	Ping Hua	2340816
	07/13/2022			07/20/2022 16:19	Ping Hua	2340819
EPA 351.2 Rev. 2.0	07/13/2022	07/19/2022 11:11	Samantha L Bates	07/20/2022 12:34	Alexandra J Mattheus	2340819
	07/13/2022	07/19/2022 11:11	Samantha L Bates	07/20/2022 16:34	Alexandra J Mattheus	2340817
	07/13/2022	07/19/2022 11:12	Samantha L Bates	07/20/2022 11:26	Alexandra J Mattheus	2340814
	07/13/2022	07/19/2022 11:12	Samantha L Bates	07/20/2022 11:27	Alexandra J Mattheus	2340815
	07/13/2022	07/19/2022 11:12	Samantha L Bates	07/20/2022 16:06	Alexandra J Mattheus	2340816
EPA 353.2 Rev. 2.0	07/13/2022			07/15/2022 13:05	Judith K. Clark	2340814
	07/13/2022			07/15/2022 13:06	Judith K. Clark	2340815
	07/13/2022			07/15/2022 13:07	Judith K. Clark	2340816
	07/13/2022			07/15/2022 13:08	Judith K. Clark	2340817
	07/13/2022			07/15/2022 13:09	Judith K. Clark	2340819
EPA 365.1 Rev. 2.0	07/13/2022	07/18/2022 14:52	Adam P Silver	07/19/2022 10:20	James L Waggeberby	2340814
	07/13/2022	07/18/2022 14:52	Adam P Silver	07/19/2022 10:30	James L Waggeberby	2340815
	07/13/2022	07/18/2022 14:52	Adam P Silver	07/19/2022 12:05	James L Waggeberby	2340816
	07/13/2022	07/18/2022 14:52	Adam P Silver	07/19/2022 12:06	James L Waggeberby	2340817
	07/13/2022	07/18/2022 14:52	Adam P Silver	07/19/2022 12:07	James L Waggeberby	2340819
EPA 8321B	07/13/2022	07/13/2022 13:30	Umesh Chiluwal	07/13/2022 15:15	Umesh Chiluwal	2340838
	07/13/2022	07/13/2022 13:30	Umesh Chiluwal	07/13/2022 15:28	Umesh Chiluwal	2340839

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	07/13/2022	07/13/2022 13:30	Umesh Chiluwal	07/13/2022 15:41	Umesh Chiluwal	2340840
	07/13/2022	07/13/2022 13:30	Umesh Chiluwal	07/14/2022 02:12	Umesh Chiluwal	2340838
	07/13/2022	07/13/2022 13:30	Umesh Chiluwal	07/14/2022 02:27	Umesh Chiluwal	2340839
	07/13/2022	07/13/2022 13:30	Umesh Chiluwal	07/14/2022 02:42	Umesh Chiluwal	2340840
	07/13/2022	07/14/2022 10:00	Hoor Shaik	07/15/2022 02:08	Juyoung Kim	2340838
	07/13/2022	07/14/2022 10:00	Hoor Shaik	07/15/2022 02:29	Juyoung Kim	2340839
	07/13/2022	07/14/2022 10:00	Hoor Shaik	07/15/2022 02:50	Juyoung Kim	2340840
SM 2320 B-2011	07/13/2022			07/15/2022 08:02	Dale L. Simmons	2340811
	07/13/2022			07/15/2022 08:15	Dale L. Simmons	2340812
	07/13/2022			07/15/2022 08:29	Dale L. Simmons	2340818
	07/13/2022			07/15/2022 09:12	Dale L. Simmons	2340813
	07/13/2022			07/15/2022 09:25	Dale L. Simmons	2340810
SM 2340 B-2011	07/13/2022			07/15/2022 23:20	McKinley C Carter	2340841
SM 2540 C-2011	07/13/2022			07/18/2022 15:45	Yijie Li	2340810, 2340811, 2340812, 2340813, 2340818
SM 2540 D-2011	07/13/2022			07/18/2022 15:45	Yijie Li	2340810, 2340811, 2340812, 2340813, 2340818
SM 4500-F- C-2011	07/13/2022			08/02/2022 21:28	Dale L. Simmons	2340811
	07/13/2022			08/02/2022 22:10	Dale L. Simmons	2340812
	07/13/2022			08/02/2022 22:15	Dale L. Simmons	2340818
	07/13/2022			08/02/2022 22:35	Dale L. Simmons	2340813
	07/13/2022			08/02/2022 22:40	Dale L. Simmons	2340810
SM 5310 B-2011	07/13/2022			07/15/2022 01:11	Khloe J Berg	2340817
	07/13/2022			07/15/2022 05:40	Khloe J Berg	2340814
	07/13/2022			07/15/2022 05:55	Khloe J Berg	2340815
	07/13/2022			07/15/2022 06:37	Khloe J Berg	2340816
	07/13/2022			07/15/2022 06:51	Khloe J Berg	2340819