

Chemical Analysis Report

CEN-DIST-2023-09-08-01

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

Event Description: **BMAP - Sweetwater, Salt and Long**
Request ID: **RQ-2023-09-04-66**
Customer: **CEN-DIST**
Project ID: **BMAP**

Send Reports to:
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Date Certified: 27-SEP-2023 11:22



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: SALT CREEK AT PACKARD AVE.

Collection Date/Time: 09/07/2023 11:45

Field ID: G2CE0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2435704	DEP SOP: NU-094-1	Color (true)	290		PCU	P434750	
	EPA 180.1 Rev. 2.0	Turbidity	9.4		NTU	P434751	
	EPA 300.0 Rev. 2.1	Chloride	960		mg Cl/L	P435109	
		Sulfate	140		mg SO4/L	P434988	
	SM 2320 B-2011	Total Alkalinity	97		mg CaCO3/L	P435040	
	SM 2540 C-2015	TDS	1.91E+03		mg/L	P435297	
	SM 2540 D-2015	TSS	10	I	mg/L	P435203	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P435050	
2435707	EPA 350.1 Rev. 2.0	Ammonia-N	0.21		mg N/L	P434993	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.8		mg N/L	P435056	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.15		mg N/L	P435280	
	EPA 365.1 Rev. 2.0	Total-P	0.27		mg P/L	P434896	
	SM 5310 B-2011	Organic Carbon	32		mg C/L	P435195	
2435710	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.18		mg P/L	P434752	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

Sample Location: SWEETWATER CREEK AT FLORIDA AVENUE Collection Date/Time: 09/07/2023 11:30

Field ID: G2CE0123

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2435705	DEP SOP: NU-094-1	Color (true)	84		PCU	P434750	
	EPA 180.1 Rev. 2.0	Turbidity	1.9		NTU	P434751	
	EPA 300.0 Rev. 2.1	Chloride	280		mg Cl/L	P434985	
		Sulfate	37		mg SO4/L	P434989	
	SM 2320 B-2011	Total Alkalinity	141		mg CaCO3/L	P435268	
	SM 2540 C-2015	TDS	648		mg/L	P435297	
	SM 2540 D-2015	TSS	3	I	mg/L	P435203	
	SM 4500-F- C-2011	Fluoride	0.30		mg F/L	P435051	
2435708	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P434993	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P435056	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.2		mg N/L	P435460	
	EPA 365.1 Rev. 2.0	Total-P	0.50		mg P/L	P434896	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P435195	
2435711	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.43		mg P/L	P434752	

Ref. Method and Comment:

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

Sample Location: LONG BRANCH AT 07 MI DS OF CR 13

Collection Date/Time: 09/07/2023 10:26

Field ID: G2CE0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2435706	DEP SOP: NU-094-1	Color (true)	170		PCU	P434750	
	EPA 180.1 Rev. 2.0	Turbidity	3.7		NTU	P434751	
	EPA 300.0 Rev. 2.1	Chloride	25	A	mg Cl/L	P434985	
		Sulfate	25	A	mg SO4/L	P434989	
	SM 2320 B-2011	Total Alkalinity	66		mg CaCO3/L	P435268	
	SM 2540 C-2015	TDS	187		mg/L	P435297	
	SM 2540 D-2015	TSS	3	I	mg/L	P435203	
2435709	SM 4500-F- C-2011	Fluoride	0.078	I	mg F/L	P435051	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P434993	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.64		mg N/L	P435056	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.085		mg N/L	P435460	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P434896	
2435712	SM 5310 B-2011	Organic Carbon	19		mg C/L	P435195	
2435725	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.073		mg P/L	P434752	
	EPA 200.7 Rev. 4.4	Calcium	39.3		mg/L	P434788	
		Iron	520		ug/L	P434788	
		Magnesium	2.27		mg/L	P434788	
		Potassium	1.3		mg/L	P434788	
		Sodium	15.3		mg/L	P434788	
		Strontium	190		ug/L	P434788	
		Tin	3.9	I	ug/L	P434788	
		Titanium	1.9	I	ug/L	P434788	
		Vanadium	2.0	U	ug/L	P434788	
		Zinc	5.0	U	ug/L	P434788	
	EPA 200.8 Rev. 5.4	Aluminum	245		ug/L	P434788	
		Antimony	0.23		ug/L	P434788	
		Arsenic	1.0		ug/L	P434788	
		Barium	20.5		ug/L	P434788	
		Beryllium	0.021	I	ug/L	P434788	
		Boron	29.5		ug/L	P434788	
		Cadmium	0.020	U	ug/L	P434788	
		Chromium	0.62	I	ug/L	P434788	
		Cobalt	0.092		ug/L	P434788	
		Copper	0.50	I	ug/L	P434788	
		Lead	0.36	I	ug/L	P434788	
		Manganese	6.60		ug/L	P434788	
		Molybdenum	0.48	I	ug/L	P434788	
		Nickel	0.50	U	ug/L	P434788	
		Selenium	0.55	I	ug/L	P434788	
		Silver	0.010	U	ug/L	P434788	
		Thallium	0.10	U	ug/L	P434788	
	SM 2340 B-2011	Hardness	107		mg/L	P434788	
2435783	EPA 8321B	Sucralose	0.26		ug/L	P434773	

Field ID: G2CE0036

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:
SM 2540 D-2015: 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: P434750

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434751

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434788

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: P434788

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434985

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434988

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434989

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435109

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434993

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435056

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435280

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435460

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434896

Component	Result	Code	Units
Total-P	0.010	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434752

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P434773

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011
Batch ID: P435040

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

Reference Method: SM 2320 B-2011
Batch ID: P435268

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

Reference Method: SM 2540 C-2015
Batch ID: P435297

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P435203

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435050

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435051

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P435195

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: P434750

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: P434751

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	104		P	85 - 115
Magnesium	104		P	85 - 115
Potassium	103		P	85 - 115
Sodium	103		P	85 - 115
Strontium	105		P	85 - 115
Tin	105		P	85 - 115
Titanium	101		P	85 - 115
Vanadium	102		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434788

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.0		P	85 - 115
Antimony	102		P	85 - 115
Arsenic	100		P	85 - 115
Barium	103		P	85 - 115
Beryllium	101		P	85 - 115
Boron	98.9		P	85 - 115
Cadmium	99.5		P	85 - 115
Chromium	97.4		P	85 - 115
Cobalt	101		P	85 - 115
Copper	100		P	85 - 115
Lead	96.1		P	85 - 115
Manganese	99.2		P	85 - 115
Molybdenum	99.4		P	85 - 115
Nickel	98.9		P	85 - 115
Selenium	101		P	85 - 115
Silver	112		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434985

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434988

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434989

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435109

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434993

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: P435056

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: P435280

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435460

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434896

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434752

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P434773

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	94.9		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P435040

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.7		P	92 - 105

Reference Method: SM 2320 B-2011
Batch ID: P435268

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

Reference Method: SM 2540 C-2015
Batch ID: P435297

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

Reference Method: SM 2540 D-2015
Batch ID: P435203

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.3		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.3		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435195

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	93.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P434788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434888	Calcium	103		P	80 - 120
2434888	Iron	107	106	P/P	80 - 120
2434888	Magnesium	107	105	P/P	80 - 120
2434888	Potassium	101	101	P/P	80 - 120
2434888	Sodium	104		P	80 - 120
2434888	Strontium	104	105	P/P	80 - 120
2434888	Tin	103	106	P/P	80 - 120
2434888	Titanium	98.5	99.9	P/P	80 - 120
2434888	Vanadium	105	106	P/P	80 - 120
2434888	Zinc	103	104	P/P	80 - 120
2435442	Calcium	105		P	80 - 120
2435442	Iron	105		P	80 - 120
2435442	Magnesium	105		P	80 - 120
2435442	Potassium	103		P	80 - 120
2435442	Sodium	104		P	80 - 120
2435442	Strontium	104		P	80 - 120
2435442	Tin	102		P	80 - 120
2435442	Titanium	101		P	80 - 120
2435442	Vanadium	102		P	80 - 120
2435442	Zinc	104		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P434788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434888	Aluminum	99.2	105	P/P	80 - 120
2434888	Antimony	98.7	99.8	P/P	80 - 120
2434888	Arsenic	99.8	98.7	P/P	80 - 120
2434888	Barium	103	103	P/P	80 - 120
2434888	Beryllium	97.3	98.7	P/P	80 - 120
2434888	Boron	104	104	P/P	80 - 120
2434888	Cadmium	101	103	P/P	80 - 120
2434888	Chromium	102	102	P/P	80 - 120
2434888	Cobalt	101	99.9	P/P	80 - 120
2434888	Copper	98.1	96.9	P/P	80 - 120
2434888	Lead	97.1	97.6	P/P	80 - 120
2434888	Manganese	105	104	P/P	80 - 120
2434888	Molybdenum	98.9	99.7	P/P	80 - 120
2434888	Nickel	98.5	98.1	P/P	80 - 120
2434888	Selenium	94.8	95.0	P/P	80 - 120
2434888	Silver	112	113	P/P	80 - 120
2434888	Thallium	105	105	P/P	80 - 120
2435442	Aluminum	97.3		P	80 - 120
2435442	Antimony	100		P	80 - 120
2435442	Arsenic	97.4		P	80 - 120
2435442	Barium	99.4		P	80 - 120
2435442	Beryllium	95.8		P	80 - 120
2435442	Boron	102		P	80 - 120
2435442	Cadmium	102		P	80 - 120
2435442	Chromium	102		P	80 - 120
2435442	Cobalt	97.0		P	80 - 120
2435442	Copper	97.8		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434788

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435442	Lead	96.4		P	80 - 120
2435442	Manganese	102		P	80 - 120
2435442	Molybdenum	100		P	80 - 120
2435442	Nickel	94.0		P	80 - 120
2435442	Selenium	94.2		P	80 - 120
2435442	Silver	111		P	80 - 120
2435442	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434985

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435706	Chloride	106		P	90 - 110
2435866	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434988

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435440	Sulfate	101		P	90 - 110
2435638	Sulfate	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434989

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435706	Sulfate	101		P	90 - 110
2435866	Sulfate	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435109

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435440	Chloride	97.5		P	90 - 110
2435638	Chloride	94.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434993

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435581	Ammonia-N	97.4	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435056

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435709	Kjeldahl Nitrogen	98.8	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435280

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435280

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435668	NO2NO3-N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2434625	NO2NO3-N	93.0	92.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434896

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435581	Total-P	108	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434752

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435404	O-Phosphate-P	101	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P434773

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435764	Sucralose	101	97.9	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P435050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435952	Fluoride	99.7	98.6	P/P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P435051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435986	Fluoride	99.1	100	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435195

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2435640	Organic Carbon	94.6	96.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P434750

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435754	Color (true)	15.0	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P434751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435517	Turbidity	4.89	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P434788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434888	Calcium	1.65	Spike	P	0 - 20
2434888	Iron	0.993	Spike	P	0 - 20
2434888	Magnesium	1.28	Spike	P	0 - 20
2434888	Potassium	0.0245	Spike	P	0 - 20
2434888	Sodium	0.470	Spike	P	0 - 20
2434888	Strontium	0.996	Spike	P	0 - 20
2434888	Tin	2.64	Spike	P	0 - 20
2434888	Titanium	0.976	Spike	P	0 - 20
2434888	Vanadium	1.06	Spike	P	0 - 20
2434888	Zinc	0.790	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P434788

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434888	Aluminum	3.54	Spike	P	0 - 20
2434888	Antimony	1.12	Spike	P	0 - 20
2434888	Arsenic	1.15	Spike	P	0 - 20
2434888	Barium	0.263	Spike	P	0 - 20
2434888	Beryllium	1.26	Spike	P	0 - 20
2434888	Boron	0.566	Spike	P	0 - 20
2434888	Cadmium	1.34	Spike	P	0 - 20
2434888	Chromium	0.834	Spike	P	0 - 20
2434888	Cobalt	0.626	Spike	P	0 - 20
2434888	Copper	1.16	Spike	P	0 - 20
2434888	Lead	0.525	Spike	P	0 - 20
2434888	Manganese	0.334	Spike	P	0 - 20
2434888	Molybdenum	0.768	Spike	P	0 - 20
2434888	Nickel	0.379	Spike	P	0 - 20
2434888	Selenium	0.125	Spike	P	0 - 20
2434888	Silver	1.10	Spike	P	0 - 20
2434888	Thallium	0.692	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434985

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435706	Chloride	0.278	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435706	Sulfate	1.16	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P435109

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435440	Chloride	0.0128	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434993

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435581	Ammonia-N	1.90	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P435056

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435709	Kjeldahl Nitrogen	3.24	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435280

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435668	NO2NO3-N	0.442	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P435460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2434625	NO2NO3-N	0.466	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P434896

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435581	Total-P	0.0452	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P434752

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435404	O-Phosphate-P	0.0954	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P434773

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435764	Sucralose	3.11	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P435040

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435952	Total Alkalinity	0.718	Sample	P	0 - 3.9

Reference Method: SM 2320 B-2011
Batch ID: P435268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435986	Total Alkalinity	1.56	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P435297

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435580	TDS	2.50	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P435050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435952	Fluoride	1.00	Spike	P	0 - 1.9

Reference Method: SM 4500-F- C-2011
Batch ID: P435051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435986	Fluoride	1.00	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P435195

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2435640	Organic Carbon	1.19	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: 2435783
Field Sample ID: G2CE0036

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	84.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A121426

Included Lab Sample IDs: 2435704, 2435705, 2435706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A121428

Included Lab Sample IDs: 2435704, 2435705, 2435706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	97.0	97.0	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A121430

Included Lab Sample IDs: 2435710, 2435711, 2435712

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	99.9	P/P	90 - 110
O-Phosphate-P	99.9	98.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121485

Included Lab Sample IDs: 2435705, 2435706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.5	99.3	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: A121491

Included Lab Sample IDs: 2435725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	97.2	100	P/P	90 - 110
Antimony	98.7	97.0	P/P	90 - 110
Arsenic	98.8	99.7	P/P	90 - 110
Barium	99.3	98.7	P/P	90 - 110
Beryllium	99.1	99.8	P/P	90 - 110
Boron	99.4	101	P/P	90 - 110
Cadmium	99.3	99.7	P/P	90 - 110
Chromium	102	100	P/P	90 - 110
Cobalt	101	100	P/P	90 - 110
Copper	98.3	98.8	P/P	90 - 110
Lead	95.9	96.1	P/P	90 - 110
Manganese	106	102	P/P	90 - 110
Molybdenum	99.3	99.9	P/P	90 - 110
Nickel	98.6	98.2	P/P	90 - 110
Selenium	101	99.5	P/P	90 - 110
Silver	101	102	P/P	90 - 110
Thallium	99.1	99.3	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A121499

Included Lab Sample IDs: 2435725

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Iron	102	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Potassium	101	101	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Strontium	99.1	99.7	P/P	90 - 110
Tin	97.8	99.4	P/P	90 - 110
Titanium	96.7	98.0	P/P	90 - 110
Vanadium	96.6	98.7	P/P	90 - 110
Zinc	96.4	99.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A121513

Included Lab Sample IDs: 2435783

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	91.2	95.1	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121533

Included Lab Sample IDs: 2435707, 2435708, 2435709

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121535

Included Lab Sample IDs: 2435707, 2435708, 2435709

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.0	P/P	90 - 110
Ammonia-N	99.3	98.4	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121553

Included Lab Sample IDs: 2435704

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.0	102	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121553

Included Lab Sample IDs: 2435704, 2435705, 2435706

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121585

Included Lab Sample IDs: 2435704

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121617

Included Lab Sample IDs: 2435707, 2435708, 2435709

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

Reference Method: SM 5310 B-2011

Run ID: A121625

Included Lab Sample IDs: 2435707, 2435708, 2435709

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	95.8	P/P	90 - 110
Organic Carbon	96.2	95.3	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121658

Included Lab Sample IDs: 2435705, 2435706

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.1	97.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121662

Included Lab Sample IDs: 2435707

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121750

Included Lab Sample IDs: 2435708, 2435709

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	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				15.0	
EPA 180.1 Rev. 2.0	Turbidity	100				4.89	
EPA 200.7 Rev. 4.4	Calcium	103	103	105			1.65
	Iron	104	107	106	105		0.993
	Magnesium	104	107	105	105		1.28
	Potassium	103	101	101	103		0.0245
	Sodium	103	104	104			0.470
	Strontium	105	104	105	104		0.996
	Tin	105	103	106	102		2.64
	Titanium	101	98.5	99.9	101		0.976
	Vanadium	102	105	106	102		1.06
	Zinc	102	103	104	104		0.790
EPA 200.8 Rev. 5.4	Aluminum	97.0	99.2	105	97.3		3.54
	Antimony	102	98.7	99.8	100		1.12
	Arsenic	100	99.8	98.7	97.4		1.15
	Barium	103	103	103	99.4		0.263
	Beryllium	101	97.3	98.7	95.8		1.26
	Boron	98.9	104	104	102		0.566
	Cadmium	99.5	101	103	102		1.34
	Chromium	97.4	102	102	102		0.834
	Cobalt	101	101	99.9	97.0		0.626
	Copper	100	98.1	96.9	97.8		1.16
	Lead	96.1	97.1	97.6	96.4		0.525
	Manganese	99.2	105	104	102		0.334
	Molybdenum	99.4	98.9	99.7	100		0.768
	Nickel	98.9	98.5	98.1	94.0		0.379
	Selenium	101	94.8	95.0	94.2		0.125
	Silver	112	112	113	111		1.10
	Thallium	102	105	105	103		0.692
EPA 300.0 Rev. 2.1	Chloride	101	106	106		0.278	
	Chloride	99.5	97.5	94.9		0.0128	
	Sulfate	101	101	102			
	Sulfate	102	101	104		1.16	
EPA 350.1 Rev. 2.0	Ammonia-N	98.0	97.4	99.4			1.90
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	98.8	103			3.24
EPA 353.2 Rev. 2.0	NO2NO3-N	104	100				0.442
	NO2NO3-N	100	93.0	92.5			0.466
EPA 365.1 Rev. 2.0	Total-P	107	108	108			0.0452
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9	101	101			0.0954
EPA 8321B	Sucralose	94.9	101	97.9			3.11
SM 2320 B-2011	Total Alkalinity	99.7				0.718	
	Total Alkalinity	98.1				1.56	
SM 2540 C-2015	TDS	99.6				2.50	
SM 2540 D-2015	TSS	95.3					
SM 4500-F- C-2011	Fluoride	99.3	99.7	98.6			1.00
	Fluoride	99.3	99.1	100			1.00
SM 5310 B-2011	Organic Carbon	93.4	94.6	96.6			1.19

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2435704, 2435705, 2435706
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2435704, 2435705, 2435706

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2435725
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2435725
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2435704, 2435705, 2435706
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2435704, 2435705, 2435706
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2435707, 2435708, 2435709
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2435707, 2435708, 2435709
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2435707, 2435708, 2435709
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2435707, 2435708, 2435709
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2435710, 2435711, 2435712
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2435783
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2435704, 2435705, 2435706
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2435725
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2435704, 2435705, 2435706
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2435704, 2435705, 2435706
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2435704, 2435705, 2435706
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2435707, 2435708, 2435709

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	09/08/2023			09/08/2023 14:57	Samantha L Bates	2435704, 2435705
	09/08/2023			09/08/2023 14:58	Samantha L Bates	2435706
EPA 180.1 Rev. 2.0	09/08/2023			09/08/2023 14:00	Khloe J Berg	2435704
	09/08/2023			09/08/2023 14:02	Khloe J Berg	2435705, 2435706
EPA 200.7 Rev. 4.4	09/08/2023	09/11/2023 13:50	George D Taylor	09/13/2023 04:20	McKinley C Carter	2435725
EPA 200.8 Rev. 5.4	09/08/2023	09/11/2023 13:50	George D Taylor	09/12/2023 17:55	Emily M Philpot	2435725
EPA 300.0 Rev. 2.1	09/08/2023			09/13/2023 17:48	James L Waggeberby	2435704
	09/08/2023			09/13/2023 19:18	James L Waggeberby	2435706
	09/08/2023			09/13/2023 20:18	James L Waggeberby	2435705
	09/08/2023			09/15/2023 22:34	James L Waggeberby	2435704
EPA 350.1 Rev. 2.0	09/08/2023			09/14/2023 12:06	Khloe J Berg	2435709
	09/08/2023			09/14/2023 14:03	Khloe J Berg	2435707
	09/08/2023			09/14/2023 14:04	Khloe J Berg	2435708
EPA 351.2 Rev. 2.0	09/08/2023	09/15/2023 12:19	Simonne.V. Calhoun	09/19/2023 09:44	Samantha L Bates	2435707
	09/08/2023	09/15/2023 12:19	Simonne.V. Calhoun	09/19/2023 09:45	Samantha L Bates	2435708
	09/08/2023	09/15/2023 12:19	Simonne.V. Calhoun	09/19/2023 09:47	Samantha L Bates	2435709
EPA 353.2 Rev. 2.0	09/08/2023			09/19/2023 13:41	Anna M. Plaviak	2435707
	09/08/2023			09/22/2023 14:57	Anna M. Plaviak	2435708
	09/08/2023			09/22/2023 14:58	Anna M. Plaviak	2435709
EPA 365.1 Rev. 2.0	09/08/2023	09/13/2023 18:31	Adam P Silver	09/14/2023 11:02	James L Waggeberby	2435707
	09/08/2023	09/13/2023 18:31	Adam P Silver	09/14/2023 11:05	James L Waggeberby	2435708
	09/08/2023	09/13/2023 18:31	Adam P Silver	09/14/2023 11:06	James L Waggeberby	2435709
EPA 365.1 Rev. 2.0 dissolved	09/08/2023			09/08/2023 16:07	Chandler E Cox	2435710
	09/08/2023			09/08/2023 16:09	Chandler E Cox	2435711
	09/08/2023			09/08/2023 16:14	Chandler E Cox	2435712
EPA 8321B	09/08/2023	09/13/2023 08:00	Hana Lee	09/13/2023 23:59	Tae K Lee	2435783
SM 2320 B-2011	09/08/2023			09/14/2023 05:16	Chandler E Cox	2435704
	09/08/2023			09/20/2023 13:32	Adam P Silver	2435705
	09/08/2023			09/20/2023 13:43	Adam P Silver	2435706
SM 2340 B-2011	09/08/2023			09/13/2023 04:20	McKinley C Carter	2435725
SM 2540 C-2015	09/08/2023			09/13/2023 15:46	Yijie Li	2435704, 2435705, 2435706
SM 2540 D-2015	09/08/2023			09/13/2023 15:46	Yijie Li	2435704, 2435705, 2435706
SM 4500-F- C-2011	09/08/2023			09/14/2023 05:16	Chandler E Cox	2435704
	09/08/2023			09/14/2023 06:43	Chandler E Cox	2435706
	09/08/2023			09/14/2023 07:10	Chandler E Cox	2435705
SM 5310 B-2011	09/08/2023			09/19/2023 01:31	Elise M. Gillis	2435708
	09/08/2023			09/19/2023 05:35	Elise M. Gillis	2435707
	09/08/2023			09/19/2023 05:49	Elise M. Gillis	2435709