Chemical Analysis Report

TLH-ROC-2022-08-04-02

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

Event Description: **Run 16**
Request ID: **RQ-2022-07-25-17**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

This Report replaces the previous Report Serial Number: 0139832

Report Comment: The Total Organic Carbon result was corrected for the sample with Field ID G3TLHR0050.

Revision certified by: Colin Wright, Program Administrator

Date Certified: 02-SEP-2022 15:50

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 and Nutrients.

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: Marshall Creek @ SR2 **Collection Date/Time: 08/04/2022 11:20**

Field ID: G2TLHR0007 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346374	DEP SOP: NU-094-1	Color (true)	19		PCU	P417737	
	EPA 180.1 Rev. 2.0	Turbidity	10	A	NTU	P417743	
	EPA 300.0 Rev. 2.1	Chloride	5.5		mg Cl/L	P418021	
		Sulfate	1.3		mg SO4/L	P418026	
	SM 2320 B-2011	Total Alkalinity	93		mg CaCO3/L	P418046	
	SM 2540 C-2011	TDS	126		mg/L	P418184	
	SM 2540 D-2011	TSS	12		mg/L	P418228	
	SM 4500-F- C-2011	Fluoride	0.049	I	mg F/L	P418050	
2346375	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P417833	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P417861	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.83		mg N/L	P417875	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P417925	
	SM 5310 B-2011	Organic Carbon	2.4		mg C/L	P417957	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Camp Branch @ US90 **Collection Date/Time: 08/04/2022 12:35**

Field ID: G3TLHR0005 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346376	DEP SOP: NU-094-1	Color (true)	93		PCU	P417737	
	EPA 180.1 Rev. 2.0	Turbidity	8.4		NTU	P417742	
	EPA 300.0 Rev. 2.1	Chloride	7.6		mg Cl/L	P418021	
		Sulfate	0.73		mg SO4/L	P418026	
	SM 2320 B-2011	Total Alkalinity	48		mg CaCO3/L	P418046	
	SM 2540 C-2011	TDS	86		mg/L	P418184	
	SM 2540 D-2011	TSS	2	I	mg/L	P418228	
	SM 4500-F- C-2011	Fluoride	0.041	I	mg F/L	P418050	
2346378	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P417974	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.49		mg N/L	P417861	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P417757	
	EPA 365.1 Rev. 2.0	Total-P	0.12		mg P/L	P417925	
	SM 5310 B-2011	Organic Carbon	8.4		mg C/L	P417814	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Gilberts Mill Creek @ Aycock Rd **Collection Date/Time: 08/04/2022 13:30**

Field ID: G3TLHR0050 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2346377	DEP SOP: NU-094-1	Color (true)	130		PCU	P417737	
	EPA 180.1 Rev. 2.0	Turbidity	3.9		NTU	P417742	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P418021	
		Sulfate	1.1		mg SO4/L	P418026	
	SM 2320 B-2011	Total Alkalinity	5.1		mg CaCO3/L	P418047	
	SM 2540 C-2011	TDS	56		mg/L	P418184	
	SM 2540 D-2011	TSS	2	I	mg/L	P418228	
	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P418051	
2346379	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P417974	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.66		mg N/L	P417861	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.90		mg N/L	P417757	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P417925	
	SM 5310 B-2011	Organic Carbon	14		mg C/L	P418976	
2346386	EPA 200.7 Rev. 4.4	Calcium	3.28		mg/L	P417748	
		Iron	1.49E+03		ug/L	P417748	
		Magnesium	1.09		mg/L	P417748	
		Potassium	1.2		mg/L	P417748	
		Sodium	1.4	I	mg/L	P417748	
		Strontium	11.1		ug/L	P417748	
		Tin	3.0	U	ug/L	P417748	
		Titanium	1.1	I	ug/L	P417748	
		Vanadium	2.0	U	ug/L	P417748	
		Zinc	5.0	U	ug/L	P417748	
	EPA 200.8 Rev. 5.4	Aluminum	275		ug/L	P417748	
		Antimony	0.050	U	ug/L	P417748	
		Arsenic	0.89		ug/L	P417748	
		Barium	15.3		ug/L	P417748	
		Beryllium	0.015	I	ug/L	P417748	
		Boron	17.6		ug/L	P417748	
		Cadmium	0.020	U	ug/L	P417748	
		Chromium	0.43	I	ug/L	P417748	
		Cobalt	0.183		ug/L	P417748	
		Copper	0.72	I	ug/L	P417748	
		Lead	0.66		ug/L	P417748	
		Manganese	87.3		ug/L	P417748	
		Molybdenum	0.15	U	ug/L	P417748	
		Nickel	0.50	U	ug/L	P417748	
		Selenium	0.20	U	ug/L	P417748	
		Silver	0.010	U	ug/L	P417748	
		Thallium	0.10	U	ug/L	P417748	
	SM 2340 B-2011	Hardness	12.7		mg/L	P417748	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.
EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 08/11/2022.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P417737

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417742

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417743

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417748

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: P417748

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: P418021

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418026

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417833

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417974

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417861

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417757

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417875

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417925

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

Reference Method: SM 2320 B-2011
Batch ID: P418046

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P418047

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

Reference Method: SM 2540 C-2011
Batch ID: P418184

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P418228

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P418050

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P418051

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P417814

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

Reference Method: SM 5310 B-2011
Batch ID: P417957

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

Reference Method: SM 5310 B-2011
Batch ID: P418976

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: P417737

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417742

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	96.3		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417743

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

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	97.1		P	85 - 115
Iron	107		P	85 - 115
Magnesium	107		P	85 - 115
Potassium	106		P	85 - 115
Sodium	105		P	85 - 115
Strontium	104		P	85 - 115
Tin	102		P	85 - 115
Titanium	104		P	85 - 115
Vanadium	103		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	98.2		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	101		P	85 - 115
Barium	107		P	85 - 115
Beryllium	97.4		P	85 - 115
Boron	100		P	85 - 115
Cadmium	98.2		P	85 - 115
Chromium	98.8		P	85 - 115
Cobalt	95.9		P	85 - 115
Copper	98.0		P	85 - 115
Lead	92.7		P	85 - 115
Manganese	98.5		P	85 - 115
Molybdenum	97.0		P	85 - 115
Nickel	99.0		P	85 - 115
Selenium	98.9		P	85 - 115
Silver	97.5		P	85 - 115
Thallium	94.4		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418021

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418026

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417833

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417974

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417861

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.1		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417757

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417875

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417925

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

Reference Method: SM 2320 B-2011
Batch ID: P418046

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	94 - 106

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P418047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	100		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P418050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P418051

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P417814

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

Reference Method: SM 5310 B-2011
Batch ID: P417957

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

Reference Method: SM 5310 B-2011
Batch ID: P418976

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346651	Calcium	108		P	80 - 120
2346651	Iron	102	109	P/P	80 - 120
2346651	Magnesium	103	113	P/P	80 - 120
2346651	Potassium	114	115	P/P	80 - 120
2346651	Sodium	100	108	P/P	80 - 120
2346651	Strontium	104	107	P/P	80 - 120
2346651	Tin	101	103	P/P	80 - 120
2346651	Titanium	103	105	P/P	80 - 120
2346651	Vanadium	104	106	P/P	80 - 120
2346651	Zinc	99.2	103	P/P	80 - 120
2346652	Calcium	106		P	80 - 120
2346652	Iron	109		P	80 - 120
2346652	Magnesium	108		P	80 - 120
2346652	Potassium	105		P	80 - 120
2346652	Sodium	106		P	80 - 120
2346652	Strontium	105		P	80 - 120
2346652	Tin	104		P	80 - 120
2346652	Titanium	107		P	80 - 120
2346652	Vanadium	106		P	80 - 120
2346652	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346651	Aluminum	98.5	96.8	P/P	80 - 120
2346651	Antimony	104	104	P/P	80 - 120
2346651	Arsenic	101	101	P/P	80 - 120
2346651	Barium	106	106	P/P	80 - 120
2346651	Beryllium	97.6	97.5	P/P	80 - 120
2346651	Boron	102	99.9	P/P	80 - 120
2346651	Cadmium	100	97.4	P/P	80 - 120
2346651	Chromium	103	99.9	P/P	80 - 120
2346651	Cobalt	94.2	92.1	P/P	80 - 120
2346651	Copper	95.2	94.1	P/P	80 - 120
2346651	Lead	91.4	91.2	P/P	80 - 120
2346651	Manganese	100	98.9	P/P	80 - 120
2346651	Molybdenum	97.9	97.6	P/P	80 - 120
2346651	Nickel	96.0	94.9	P/P	80 - 120
2346651	Selenium	97.3	97.1	P/P	80 - 120
2346651	Silver	96.7	96.3	P/P	80 - 120
2346651	Thallium	93.9	94.5	P/P	80 - 120
2346652	Aluminum	98.2		P	80 - 120
2346652	Antimony	101		P	80 - 120
2346652	Arsenic	98.3		P	80 - 120
2346652	Barium	107		P	80 - 120
2346652	Beryllium	90.8		P	80 - 120
2346652	Boron	104		P	80 - 120
2346652	Cadmium	99.1		P	80 - 120
2346652	Chromium	100		P	80 - 120
2346652	Cobalt	91.9		P	80 - 120
2346652	Copper	91.8		P	80 - 120

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346652	Lead	91.4		P	80 - 120
2346652	Manganese	99.7		P	80 - 120
2346652	Molybdenum	97.5		P	80 - 120
2346652	Nickel	93.9		P	80 - 120
2346652	Selenium	94.8		P	80 - 120
2346652	Silver	96.3		P	80 - 120
2346652	Thallium	90.7		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418021

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346156	Chloride	96.8		P	90 - 110
2346288	Chloride	96.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418026

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346156	Sulfate	91.9		P	90 - 110
2346288	Sulfate	93.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417833

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346589	Ammonia-N	98.0	99.0	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417974

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346644	Ammonia-N	98.4	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417757

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346289	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417875

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2345668	NO2NO3-N	98.0	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417925

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346375	Total-P	104	103	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P418050

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346364	Fluoride	101	99.6	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P418051

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346639	Fluoride	100	100	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P417814

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346159	Organic Carbon	94.6	94.2	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P417957

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2346589	Organic Carbon	96.4	98.6	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P418976

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2351463	Organic Carbon	97.4	97.2	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P417737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346639	Color (true)	1.43	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417742

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346489	Turbidity	0.314	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P417743

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346374	Turbidity	0.985	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P417748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346651	Calcium	3.65	Spike	P	0 - 20
2346651	Iron	6.50	Spike	P	0 - 20
2346651	Magnesium	5.41	Spike	P	0 - 20
2346651	Potassium	0.463	Spike	P	0 - 20
2346651	Sodium	5.15	Spike	P	0 - 20
2346651	Strontium	2.97	Spike	P	0 - 20
2346651	Tin	1.63	Spike	P	0 - 20
2346651	Titanium	2.61	Spike	P	0 - 20
2346651	Vanadium	2.00	Spike	P	0 - 20
2346651	Zinc	3.56	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346651	Aluminum	1.70	Spike	P	0 - 20
2346651	Antimony	0.401	Spike	P	0 - 20
2346651	Arsenic	0.436	Spike	P	0 - 20
2346651	Barium	0.423	Spike	P	0 - 20
2346651	Beryllium	0.164	Spike	P	0 - 20
2346651	Boron	1.72	Spike	P	0 - 20
2346651	Cadmium	2.72	Spike	P	0 - 20
2346651	Chromium	2.65	Spike	P	0 - 20
2346651	Cobalt	2.19	Spike	P	0 - 20
2346651	Copper	1.27	Spike	P	0 - 20
2346651	Lead	0.242	Spike	P	0 - 20
2346651	Manganese	1.33	Spike	P	0 - 20
2346651	Molybdenum	0.268	Spike	P	0 - 20
2346651	Nickel	1.18	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P417748

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346651	Selenium	0.122	Spike	P	0 - 20
2346651	Silver	0.462	Spike	P	0 - 20
2346651	Thallium	0.709	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418021

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346156	Chloride	0.269	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P418026

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346156	Sulfate	0.0297	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417833

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346589	Ammonia-N	0.802	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P417974

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346644	Ammonia-N	2.61	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P417861

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346469	Kjeldahl Nitrogen	5.59	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417757

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346289	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits

Quality Assurance Report
Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P417875

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2345668	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P417925

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346375	Total-P	0.812	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P418046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346364	Total Alkalinity	1.24	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P418047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346639	Total Alkalinity	0.772	Sample	P	0 - 3.8

Reference Method: SM 2540 C-2011
Batch ID: P418184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346363	TDS	0.980	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P418050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346364	Fluoride	0.953	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P418051

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346639	Fluoride	0.0	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P417814

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346159	Organic Carbon	0.207	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 5310 B-2011
Batch ID: P417957

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2346589	Organic Carbon	1.52	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P418976

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2351463	Organic Carbon	0.131	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A113939
Included Lab Sample IDs: 2346374, 2346376, 2346377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	103	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A113940
Included Lab Sample IDs: 2346374, 2346376, 2346377

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A113955
Included Lab Sample IDs: 2346378, 2346379

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

Reference Method: SM 5310 B-2011
Run ID: A113980
Included Lab Sample IDs: 2346378

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	95.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A113987
Included Lab Sample IDs: 2346375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.5	99.3	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114000
Included Lab Sample IDs: 2346386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	96.6	98.8	P/P	90 - 110
Antimony	99.5	98.9	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Beryllium	94.3	94.3	P/P	90 - 110
Boron	100	106	P/P	90 - 110
Cadmium	104	104	P/P	90 - 110
Chromium	99.9	101	P/P	90 - 110
Cobalt	93.3	92.8	P/P	90 - 110
Copper	96.9	96.5	P/P	90 - 110
Lead	90.1	90.4	P/P	90 - 110
Manganese	100	101	P/P	90 - 110
Molybdenum	96.1	95.6	P/P	90 - 110
Nickel	95.4	95.2	P/P	90 - 110
Selenium	102	103	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114000
Included Lab Sample IDs: 2346386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	96.4	96.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A114001
Included Lab Sample IDs: 2346375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.5	93.5	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4
Run ID: A114015
Included Lab Sample IDs: 2346386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	100	101	P/P	90 - 110
Thallium	95.7	96.2	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A114022
Included Lab Sample IDs: 2346375

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.8	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A114030
Included Lab Sample IDs: 2346378, 2346379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114034
Included Lab Sample IDs: 2346375, 2346378

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A114036
Included Lab Sample IDs: 2346379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.2	97.5	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114048
Included Lab Sample IDs: 2346374, 2346376, 2346377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A114048
Included Lab Sample IDs: 2346374, 2346376, 2346377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	104	102	P/P	90 - 110
Sulfate	102	99.5	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A114059
Included Lab Sample IDs: 2346374, 2346376, 2346377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.5	100	P/P	90 - 110
Total Alkalinity	99.7	97.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A114059
Included Lab Sample IDs: 2346374, 2346376, 2346377

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	103	P/P	90 - 110
Fluoride	103	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A114098
Included Lab Sample IDs: 2346386

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110
Iron	99.2	103	P/P	90 - 110
Magnesium	99.0	102	P/P	90 - 110
Potassium	100	103	P/P	90 - 110
Sodium	98.5	101	P/P	90 - 110
Strontium	99.2	102	P/P	90 - 110
Tin	98.5	101	P/P	90 - 110
Titanium	97.4	99.8	P/P	90 - 110
Vanadium	99.2	102	P/P	90 - 110
Zinc	98.7	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A114118
Included Lab Sample IDs: 2346375, 2346378, 2346379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	90.5	91.7	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A114476
Included Lab Sample IDs: 2346379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.3	96.1	P/P	90 - 110

Quality Assurance Report
Calibration Verification

* 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		
						LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	102					1.43	
EPA 180.1 Rev. 2.0	Turbidity	96.3					0.314	
	Turbidity	97.0					0.985	
EPA 200.7 Rev. 4.4	Calcium	97.1	108	106				3.65
	Iron	107	102	109	109			6.50
	Magnesium	107	103	113	108			5.41
	Potassium	106	114	115	105			0.463
	Sodium	105	100	108	106			5.15
	Strontium	104	104	107	105			2.97
	Tin	102	101	103	104			1.63
	Titanium	104	103	105	107			2.61
	Vanadium	103	104	106	106			2.00
	Zinc	103	99.2	103	103			3.56
EPA 200.8 Rev. 5.4	Aluminum	98.2	98.5	96.8	98.2			1.70
	Antimony	101	104	104	101			0.401
	Arsenic	101	101	101	98.3			0.436
	Barium	107	106	106	107			0.423
	Beryllium	97.4	97.6	97.5	90.8			0.164
	Boron	100	102	99.9	104			1.72
	Cadmium	98.2	100	97.4	99.1			2.72
	Chromium	98.8	103	99.9	100			2.65
	Cobalt	95.9	94.2	92.1	91.9			2.19
	Copper	98.0	95.2	94.1	91.8			1.27
	Lead	92.7	91.4	91.2	91.4			0.242
	Manganese	98.5	100	98.9	99.7			1.33
	Molybdenum	97.0	97.9	97.6	97.5			0.268
	Nickel	99.0	96.0	94.9	93.9			1.18
	Selenium	98.9	97.3	97.1	94.8			0.122
	Silver	97.5	96.7	96.3	96.3			0.462
	Thallium	94.4	90.7	93.9	94.5			0.709
EPA 300.0 Rev. 2.1	Chloride	102	96.8	96.8			0.269	
	Sulfate	98.8	91.9	93.7			0.0297	
EPA 350.1 Rev. 2.0	Ammonia-N	97.4	98.0	99.0				0.802
	Ammonia-N	96.8	98.4	101				2.61
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.1						5.59
EPA 353.2 Rev. 2.0	NO2NO3-N	100	100	100				0.0
	NO2NO3-N	97.0	98.0	98.0				0.0
EPA 365.1 Rev. 2.0	Total-P	103	104	103				0.812
SM 2320 B-2011	Total Alkalinity	99.2					1.24	
	Total Alkalinity	100					0.772	
SM 2540 C-2011	TDS						0.980	
SM 4500-F- C-2011	Fluoride	100	101	99.6				0.953
	Fluoride	101	100	100				0.0
SM 5310 B-2011	Organic Carbon	99.0	94.6	94.2				0.207
	Organic Carbon	96.6	96.4	98.6				1.52
	Organic Carbon	95.6	97.4	97.2				0.131

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2346374, 2346376, 2346377
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2346374, 2346376, 2346377

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	2346386
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2346386
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2346374, 2346376, 2346377
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2346374, 2346376, 2346377
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2346375, 2346378, 2346379
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2346375, 2346378, 2346379
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2346375, 2346378, 2346379
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2346375, 2346378, 2346379
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2346374, 2346376, 2346377
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2346386
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2346374, 2346376, 2346377
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2346374, 2346376, 2346377
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2346374, 2346376, 2346377
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2346375, 2346378, 2346379

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	08/04/2022			08/05/2022 15:19	Samantha L Bates	2346374
	08/04/2022			08/05/2022 15:20	Samantha L Bates	2346376
	08/04/2022			08/05/2022 15:21	Samantha L Bates	2346377
EPA 180.1 Rev. 2.0	08/04/2022			08/05/2022 15:03	Khloe J Berg	2346376
	08/04/2022			08/05/2022 15:04	Khloe J Berg	2346377
	08/04/2022			08/05/2022 15:10	Khloe J Berg	2346374
EPA 200.7 Rev. 4.4	08/04/2022	08/08/2022 09:45	Mackenzie Hunt	08/12/2022 00:26	McKinley C Carter	2346386
EPA 200.8 Rev. 5.4	08/04/2022	08/08/2022 09:45	Mackenzie Hunt	08/09/2022 18:31	Emily M Philpot	2346386
	08/04/2022	08/08/2022 09:45	Mackenzie Hunt	08/10/2022 17:04	Alexander Thompson	2346386
EPA 300.0 Rev. 2.1	08/04/2022			08/11/2022 23:18	Anna M. Plaviak	2346374
	08/04/2022			08/11/2022 23:30	Anna M. Plaviak	2346376
	08/04/2022			08/11/2022 23:42	Anna M. Plaviak	2346377
EPA 350.1 Rev. 2.0	08/04/2022			08/09/2022 12:57	Judith K. Clark	2346375
	08/04/2022			08/11/2022 11:54	Ping Hua	2346378
	08/04/2022			08/11/2022 11:56	Ping Hua	2346379
EPA 351.2 Rev. 2.0	08/04/2022	08/10/2022 13:15	Simonne.V. Calhoun	08/15/2022 17:32	Samantha L Bates	2346375
	08/04/2022	08/10/2022 13:15	Simonne.V. Calhoun	08/15/2022 17:34	Samantha L Bates	2346378
	08/04/2022	08/10/2022 13:15	Simonne.V. Calhoun	08/15/2022 17:35	Samantha L Bates	2346379
EPA 353.2 Rev. 2.0	08/04/2022			08/08/2022 11:05	Beverly Y. Sanders	2346378
	08/04/2022			08/08/2022 11:19	Beverly Y. Sanders	2346379
	08/04/2022			08/10/2022 10:28	Beverly Y. Sanders	2346375
EPA 365.1 Rev. 2.0	08/04/2022	08/10/2022 16:53	Adam P Silver	08/11/2022 11:12	James L Waggerby	2346375
	08/04/2022	08/10/2022 16:53	Adam P Silver	08/11/2022 11:19	James L Waggerby	2346378
	08/04/2022	08/10/2022 16:53	Adam P Silver	08/11/2022 13:20	Simonne.V. Calhoun	2346379
SM 2320 B-2011	08/04/2022			08/12/2022 05:10	Dale L. Simmons	2346374
	08/04/2022			08/12/2022 05:59	Dale L. Simmons	2346376
	08/04/2022			08/12/2022 07:43	Dale L. Simmons	2346377
SM 2340 B-2011	08/04/2022			08/12/2022 00:26	McKinley C Carter	2346386
SM 2540 C-2011	08/04/2022			08/09/2022 15:22	Yijie Li	2346374, 2346376, 2346377
SM 2540 D-2011	08/04/2022			08/09/2022 15:22	Yijie Li	2346374, 2346376, 2346377
SM 4500-F- C-2011	08/04/2022			08/12/2022 05:10	Dale L. Simmons	2346374
	08/04/2022			08/12/2022 05:59	Dale L. Simmons	2346376
	08/04/2022			08/12/2022 07:43	Dale L. Simmons	2346377
SM 5310 B-2011	08/04/2022			08/09/2022 05:48	Khloe J Berg	2346378
	08/04/2022			08/10/2022 18:28	Khloe J Berg	2346375
	08/04/2022			08/31/2022 17:37	Khloe J Berg	2346379