

Chemical Analysis Report

SO-DIST-2024-03-22-01

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

Event Description: **Caloosa Creeks**
Request ID: **RQ-2024-03-04-12**
Customer: **SO-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: Samantha Gelinis

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Marek Topolski, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Thekkekalathil Chandrasekhar, Environmental Consultant

Date Certified: 09-APR-2024 10:43



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 group are included in this report: 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: ORANGE RIVER AT BOAT RAMP

Collection Date/Time: 03/21/2024 08:20

Field ID: G3SD0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2477305	DEP SOP: NU-094-1	Color (true)	29	A	PCU	P443215	
	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P443219	
	EPA 300.0 Rev. 2.1	Chloride	78		mg Cl/L	P443537	
		Sulfate	14		mg SO4/L	P443540	
	SM 2320 B-2011	Total Alkalinity	188		mg CaCO3/L	P443339	
	SM 2540 C-2015	TDS	366		mg/L	P443620	
	SM 2540 D-2015	TSS	4	I	mg/L	P443726	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P443341	
2477310	SM 5310 B-2014 dissolved	Organic Carbon	9.1		mg C/L	P443561	
2477315	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P443281	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P443237	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P443413	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P443307	
	SM 5310 B-2014	Organic Carbon	9.4		mg C/L	P443561	
2477320	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.005	I	mg P/L	P443209	

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: FB

Collection Date/Time: 03/21/2024 08:25

Field ID: FB_03212024

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2477325	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P443213	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P443219	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P443537	
		Sulfate	0.20	U	mg SO4/L	P443540	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P443339	
	SM 2540 C-2015	TDS	15	U	mg/L	P443620	
	SM 2540 D-2015	TSS	2	U	mg/L	P443726	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P443341	
2477326	SM 5310 B-2014 dissolved	Organic Carbon	0.50	U	mg C/L	P443562	
2477327	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P443281	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P443420	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P443414	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P443309	
	SM 5310 B-2014	Organic Carbon	0.50	U	mg C/L	P443562	
2477328	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P443210	

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: ROBERTS CANAL AT SR 80

Collection Date/Time: 03/21/2024 09:25

Field ID: G3SD0146

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2477306	DEP SOP: NU-094-1	Color (true)	56	A	PCU	P443213	
	EPA 180.1 Rev. 2.0	Turbidity	11	A	NTU	P443219	
	EPA 300.0 Rev. 2.1	Chloride	30		mg Cl/L	P443537	
		Sulfate	63		mg SO4/L	P443540	
	SM 2320 B-2011	Total Alkalinity	215		mg CaCO3/L	P443339	
	SM 2540 C-2015	TDS	430		mg/L	P443620	
	SM 2540 D-2015	TSS	20		mg/L	P443726	
	SM 4500-F- C-2011	Fluoride	0.31		mg F/L	P443341	
2477311	SM 5310 B-2014 dissolved	Organic Carbon	15		mg C/L	P443561	
2477316	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P443281	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P443237	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.022		mg N/L	P443413	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P443309	
	SM 5310 B-2014	Organic Carbon	15		mg C/L	P443561	
2477321	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P443209	

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: NINE MILE CANAL AT SR 80

Collection Date/Time: 03/21/2024 10:35

Field ID: G3SD0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2477307	DEP SOP: NU-094-1	Color (true)	70		PCU	P443213	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P443218	
	EPA 300.0 Rev. 2.1	Chloride	49		mg Cl/L	P443537	
		Sulfate	20		mg SO4/L	P443540	
	SM 2320 B-2011	Total Alkalinity	114		mg CaCO3/L	P443339	
	SM 2540 C-2015	TDS	270		mg/L	P443620	
	SM 2540 D-2015	TSS	26		mg/L	P443726	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P443341	
2477312	SM 5310 B-2014 dissolved	Organic Carbon	17		mg C/L	P443561	
2477317	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P443281	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.7		mg N/L	P443237	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P443414	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P443309	
	SM 5310 B-2014	Organic Carbon	18		mg C/L	P443561	
2477322	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.021		mg P/L	P443210	

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: BEE BRANCH AT LOBLOLLY BAY RD

Collection Date/Time: 03/21/2024 11:30

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2477308	DEP SOP: NU-094-1	Color (true)	180		PCU	P443213	
	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P443219	
	EPA 300.0 Rev. 2.1	Chloride	30	A	mg Cl/L	P443537	
		Sulfate	9.0	A	mg SO4/L	P443540	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P443339	
	SM 2540 C-2015	TDS	167		mg/L	P443620	
	SM 2540 D-2015	TSS	3	I	mg/L	P443726	
	SM 4500-F- C-2011	Fluoride	0.089	I	mg F/L	P443341	
2477313	SM 5310 B-2014 dissolved	Organic Carbon	24		mg C/L	P443561	
2477318	EPA 350.1 Rev. 2.0	Ammonia-N	0.027		mg N/L	P443281	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P443237	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.061		mg N/L	P443414	
	EPA 365.1 Rev. 2.0	Total-P	0.094		mg P/L	P443309	
	SM 5310 B-2014	Organic Carbon	24		mg C/L	P443561	
2477323	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.069		mg P/L	P443210	

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: TELEGRAPH CREEK SONDE AT USGS SONDE STATION Collection Date/Time: 03/21/2024 12:25

Field ID: G3SD0129 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2477309	DEP SOP: NU-094-1	Color (true)	200		PCU	P443213	
	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P443219	
	EPA 300.0 Rev. 2.1	Chloride	48		mg Cl/L	P443537	
		Sulfate	2.7		mg SO4/L	P443540	
	SM 2320 B-2011	Total Alkalinity	135		mg CaCO3/L	P443339	
	SM 2540 C-2015	TDS	306		mg/L	P443620	
	SM 2540 D-2015	TSS	4	I	mg/L	P443726	
	SM 4500-F- C-2011	Fluoride	0.12		mg F/L	P443341	
2477314	SM 5310 B-2014 dissolved	Organic Carbon	26		mg C/L	P443562	
2477319	EPA 350.1 Rev. 2.0	Ammonia-N	0.014		mg N/L	P443281	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P443420	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P443414	
	EPA 365.1 Rev. 2.0	Total-P	0.046		mg P/L	P443309	
	SM 5310 B-2014	Organic Carbon	26		mg C/L	P443562	
2477324	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P443209	

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: P443213

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P443215

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P443218

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P443219

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443537

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443540

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P443281

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443237

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443420

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443413

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443414

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443307

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443309

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443210

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

Reference Method: SM 2320 B-2011
Batch ID: P443339

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

Reference Method: SM 2540 C-2015
Batch ID: P443620

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P443726

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 4500-F- C-2011
Batch ID: P443341

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2014
Batch ID: P443561

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

Reference Method: SM 5310 B-2014
Batch ID: P443562

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

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443561

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

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443562

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: P443213

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	92.5		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P443215

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P443218

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P443219

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443537

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443540

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P443281

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443237

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: P443420

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443413

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443414

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443307

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443309

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443209

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443210

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

Reference Method: SM 2320 B-2011
Batch ID: P443339

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.7		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P443620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	103		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P443726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	87.2		P	85 - 115

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P443341

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P443561

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

Reference Method: SM 5310 B-2014
Batch ID: P443562

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

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443561

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

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443562

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443537

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477308	Chloride	101		P	90 - 110
2477424	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443540

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477308	Sulfate	103		P	90 - 110
2477424	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P443281

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477234	Ammonia-N	97.8	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443237

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477291	Kjeldahl Nitrogen	102	110	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443420

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477349	Kjeldahl Nitrogen	104	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443413

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477196	NO2NO3-N	95.2	95.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443414

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477317	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443307

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477205	Total-P	103	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443309

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477425	Total-P	105	106	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443209

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477320	O-Phosphate-P	98.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443210

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477351	O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P443341

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477423	Fluoride	99.0	98.4	P/P	94 - 106

Reference Method: SM 5310 B-2014
Batch ID: P443561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477238	Organic Carbon	99.0	99.6	P/P	85 - 115

Reference Method: SM 5310 B-2014
Batch ID: P443562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477319	Organic Carbon	101	100	P/P	85 - 115

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477238	Organic Carbon	99.0	99.6	P/P	85 - 115

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2477319	Organic Carbon	101	100	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P443213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477306	Color (true)	2.60	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P443215

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477305	Color (true)	0.304	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P443218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477134	Turbidity	2.57	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P443219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477306	Turbidity	6.33	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443537

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477308	Chloride	1.48	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P443540

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477308	Sulfate	1.62	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P443281

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477234	Ammonia-N	0.234	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443237

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477291	Kjeldahl Nitrogen	6.10	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P443420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477349	Kjeldahl Nitrogen	0.381	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477196	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P443414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477317	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443307

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477205	Total-P	0.876	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P443309

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477425	Total-P	1.09	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443209

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477320	O-Phosphate-P	1.62	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P443210

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477351	O-Phosphate-P	0.0978	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P443339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477423	Total Alkalinity	1.55	Sample	P	0 - 3.9

Quality Assurance Report Precision

Reference Method: SM 2540 C-2015
Batch ID: P443620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2476858	TDS	4.30	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P443341

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477423	Fluoride	0.495	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2014
Batch ID: P443561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477238	Organic Carbon	0.448	Spike	P	0 - 15

Reference Method: SM 5310 B-2014
Batch ID: P443562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477319	Organic Carbon	0.182	Spike	P	0 - 15

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477238	Organic Carbon	0.448	Spike	P	0 - 15

Reference Method: SM 5310 B-2014 dissolved
Batch ID: P443562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2477319	Organic Carbon	0.182	Spike	P	0 - 15

* 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: A124937

Included Lab Sample IDs: 2477305, 2477306, 2477307, 2477308, 2477309, 2477325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	94.3	93.8	P/P	90 - 110
Color (true)	97.0	94.3	P/P	90 - 110
Color (true)	97.2	96.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A124940

Included Lab Sample IDs: 2477320, 2477321, 2477322, 2477323, 2477324, 2477328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	100	100	P/P	90 - 110
O-Phosphate-P	107	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A124941

Included Lab Sample IDs: 2477305, 2477306, 2477307, 2477308, 2477309, 2477325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A124969

Included Lab Sample IDs: 2477315, 2477316, 2477317, 2477318, 2477319, 2477327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A124998

Included Lab Sample IDs: 2477315, 2477316, 2477317, 2477318

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A125001

Included Lab Sample IDs: 2477316, 2477317, 2477318

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A125002

Included Lab Sample IDs: 2477315, 2477319, 2477327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	94.8	98.2	P/P	90 - 110
Total-P	96.8	94.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-2011

Run ID: A125005

Included Lab Sample IDs: 2477305, 2477306, 2477307, 2477308, 2477309, 2477325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	94.3	P/P	90 - 110
Total Alkalinity	94.3	103	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A125005

Included Lab Sample IDs: 2477305, 2477306, 2477307, 2477308, 2477309, 2477325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	98.5	P/P	90 - 110
Fluoride	99.5	101	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A125018

Included Lab Sample IDs: 2477305, 2477306, 2477307, 2477308, 2477309, 2477325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	98.3	P/P	90 - 110
Sulfate	102	99.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A125035

Included Lab Sample IDs: 2477315, 2477316, 2477317, 2477318, 2477319, 2477327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	99.5	P/P	90 - 110
NO2NO3-N	99.5	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A125069

Included Lab Sample IDs: 2477319, 2477327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	98.6	P/P	90 - 110
Kjeldahl Nitrogen	102	100	P/P	90 - 110

Reference Method: SM 5310 B-2014

Run ID: A125084

Included Lab Sample IDs: 2477315, 2477316, 2477317, 2477318, 2477319, 2477327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	123	99.0	P/P	70 - 130
Organic Carbon	99.0	100	P/P	85 - 115

Reference Method: SM 5310 B-2014 dissolved

Run ID: A125084

Included Lab Sample IDs: 2477310, 2477311, 2477312, 2477313, 2477314, 2477326

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	123	99.0	P/P	70 - 130
Organic Carbon	99.0	100	P/P	85 - 115

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	MS
DEP SOP: NU-094-1	Color (true)	92.5			2.60	
	Color (true)	98.3			0.304	
EPA 180.1 Rev. 2.0	Turbidity	104			2.57	
	Turbidity	105			6.33	
EPA 300.0 Rev. 2.1	Chloride	103	101	101	1.48	
	Sulfate	104	103	101	1.62	
EPA 350.1 Rev. 2.0	Ammonia-N	92.2	97.8	98.2		0.234
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	102	110		6.10
	Kjeldahl Nitrogen	103	104	104		0.381
EPA 353.2 Rev. 2.0	NO2NO3-N	98.0	95.2	95.7		0.496
	NO2NO3-N	101	99.0	99.0		0.0
EPA 365.1 Rev. 2.0	Total-P	102	103	104		0.876
	Total-P	102	105	106		1.09
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.8	100		1.62
	O-Phosphate-P	104	102	102		0.0978
SM 2320 B-2011	Total Alkalinity	98.7			1.55	
SM 2540 C-2015	TDS	103			4.30	
SM 2540 D-2015	TSS	87.2				
SM 4500-F- C-2011	Fluoride	98.2	99.0	98.4		0.495
SM 5310 B-2014	Organic Carbon	96.8	99.0	99.6		0.448
	Organic Carbon	97.4	101	100		0.182
SM 5310 B-2014 dissolved	Organic Carbon	96.8	99.0	99.6		0.448
	Organic Carbon	97.4	101	100		0.182

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2477315, 2477316, 2477317, 2477318, 2477319, 2477327
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2477315, 2477316, 2477317, 2477318, 2477319, 2477327
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2477315, 2477316, 2477317, 2477318, 2477319, 2477327
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2477315, 2477316, 2477317, 2477318, 2477319, 2477327
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2477320, 2477321, 2477322, 2477323, 2477324, 2477328
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
SM 5310 B-2014	Nonpurgeable Organic Carbon in aqueous matrices	2477315, 2477316, 2477317, 2477318, 2477319, 2477327

Reference Method Descriptions

Method	Description	Associated Samples
SM 5310 B-2014 dissolved	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2477310, 2477311, 2477312, 2477313, 2477314, 2477326

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	03/22/2024			03/22/2024 15:16	Samantha L Bates	2477306
	03/22/2024			03/22/2024 15:17	Samantha L Bates	2477307
	03/22/2024			03/22/2024 15:18	Samantha L Bates	2477325
	03/22/2024			03/22/2024 15:28	Samantha L Bates	2477308
	03/22/2024			03/22/2024 15:29	Samantha L Bates	2477309
	03/22/2024			03/22/2024 15:32	Samantha L Bates	2477305
EPA 180.1 Rev. 2.0	03/22/2024			03/22/2024 14:23	Khloe J Berg	2477307
	03/22/2024			03/22/2024 14:40	Khloe J Berg	2477305
	03/22/2024			03/22/2024 14:43	Khloe J Berg	2477306
	03/22/2024			03/22/2024 14:46	Khloe J Berg	2477308
	03/22/2024			03/22/2024 14:48	Khloe J Berg	2477309
	03/22/2024			03/22/2024 14:50	Khloe J Berg	2477325
EPA 300.0 Rev. 2.1	03/22/2024			03/29/2024 23:09	James L Waggerby	2477308
	03/22/2024			03/30/2024 00:24	James L Waggerby	2477305
	03/22/2024			03/30/2024 00:39	James L Waggerby	2477306
	03/22/2024			03/30/2024 00:54	James L Waggerby	2477307
	03/22/2024			03/30/2024 01:10	James L Waggerby	2477309
	03/22/2024			03/30/2024 01:25	James L Waggerby	2477325
EPA 350.1 Rev. 2.0	03/22/2024			03/25/2024 13:49	Kenneth H Lee	2477315
	03/22/2024			03/25/2024 13:50	Kenneth H Lee	2477316
	03/22/2024			03/25/2024 13:52	Kenneth H Lee	2477317
	03/22/2024			03/25/2024 13:53	Kenneth H Lee	2477318
	03/22/2024			03/25/2024 13:54	Kenneth H Lee	2477319
	03/22/2024			03/25/2024 13:56	Kenneth H Lee	2477327
EPA 351.2 Rev. 2.0	03/22/2024	03/25/2024 14:44	Simonne.V. Calhoun	03/26/2024 14:28	Robyn Blevins	2477315
	03/22/2024	03/25/2024 14:44	Simonne.V. Calhoun	03/26/2024 14:30	Robyn Blevins	2477316
	03/22/2024	03/25/2024 14:44	Simonne.V. Calhoun	03/26/2024 14:31	Robyn Blevins	2477317
	03/22/2024	03/25/2024 14:44	Simonne.V. Calhoun	03/26/2024 14:33	Robyn Blevins	2477318
	03/22/2024	03/28/2024 14:46	Simonne.V. Calhoun	03/29/2024 12:52	Robyn Blevins	2477319
	03/22/2024	03/28/2024 14:46	Simonne.V. Calhoun	03/29/2024 12:57	Robyn Blevins	2477327
EPA 353.2 Rev. 2.0	03/22/2024			03/27/2024 12:57	Fadila Guebre	2477315
	03/22/2024			03/27/2024 12:59	Fadila Guebre	2477316
	03/22/2024			03/27/2024 13:06	Fadila Guebre	2477317
	03/22/2024			03/27/2024 13:12	Fadila Guebre	2477318
	03/22/2024			03/27/2024 13:13	Fadila Guebre	2477319
	03/22/2024			03/27/2024 13:14	Fadila Guebre	2477327
EPA 365.1 Rev. 2.0	03/22/2024	03/26/2024 14:29	Josephine W Gitau	03/26/2024 17:30	Simonne.V. Calhoun	2477316
	03/22/2024	03/26/2024 14:29	Josephine W Gitau	03/26/2024 17:31	Simonne.V. Calhoun	2477317
	03/22/2024	03/26/2024 14:29	Josephine W Gitau	03/26/2024 17:32	Simonne.V. Calhoun	2477318
	03/22/2024	03/26/2024 14:29	Josephine W Gitau	03/26/2024 17:55	Simonne.V. Calhoun	2477315

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	03/22/2024	03/26/2024 14:29	Josephine W Gitau	03/26/2024 17:56	Simonne.V. Calhoun	2477327
	03/22/2024	03/26/2024 14:29	Josephine W Gitau	03/26/2024 18:06	Simonne.V. Calhoun	2477319
EPA 365.1 Rev. 2.0 dissolved	03/22/2024			03/22/2024 15:53	Victoria Ocasio-Reed	2477320
	03/22/2024			03/22/2024 15:58	Victoria Ocasio-Reed	2477321
	03/22/2024			03/22/2024 15:59	Victoria Ocasio-Reed	2477324
	03/22/2024			03/22/2024 16:12	Victoria Ocasio-Reed	2477322
	03/22/2024			03/22/2024 16:13	Victoria Ocasio-Reed	2477323
	03/22/2024			03/22/2024 16:19	Victoria Ocasio-Reed	2477328
SM 2320 B-2011	03/22/2024			03/26/2024 19:19	Chandler E Cox	2477305
	03/22/2024			03/26/2024 19:32	Chandler E Cox	2477306
	03/22/2024			03/26/2024 19:44	Chandler E Cox	2477307
	03/22/2024			03/26/2024 19:56	Chandler E Cox	2477308
	03/22/2024			03/26/2024 20:45	Chandler E Cox	2477309
	03/22/2024			03/26/2024 20:54	Chandler E Cox	2477325
SM 2540 C-2015	03/22/2024			03/26/2024 13:50	Yijie Li	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
SM 2540 D-2015	03/22/2024			03/26/2024 13:50	Yijie Li	2477305, 2477306, 2477307, 2477308, 2477309, 2477325
SM 4500-F- C-2011	03/22/2024			03/26/2024 19:19	Chandler E Cox	2477305
	03/22/2024			03/26/2024 19:32	Chandler E Cox	2477306
	03/22/2024			03/26/2024 19:44	Chandler E Cox	2477307
	03/22/2024			03/26/2024 19:56	Chandler E Cox	2477308
	03/22/2024			03/26/2024 20:45	Chandler E Cox	2477309
	03/22/2024			03/26/2024 20:54	Chandler E Cox	2477325
SM 5310 B-2014	03/22/2024			03/29/2024 19:44	Jessica K Wilks	2477315
	03/22/2024			03/29/2024 19:58	Jessica K Wilks	2477316
	03/22/2024			03/29/2024 20:13	Jessica K Wilks	2477317
	03/22/2024			03/29/2024 20:29	Jessica K Wilks	2477318
	03/22/2024			03/29/2024 22:47	Jessica K Wilks	2477319
	03/22/2024			03/29/2024 23:32	Jessica K Wilks	2477327
SM 5310 B-2014 dissolved	03/22/2024			03/29/2024 20:44	Jessica K Wilks	2477310
	03/22/2024			03/29/2024 20:58	Jessica K Wilks	2477311
	03/22/2024			03/29/2024 21:14	Jessica K Wilks	2477312
	03/22/2024			03/29/2024 21:29	Jessica K Wilks	2477313
	03/22/2024			03/30/2024 00:56	Jessica K Wilks	2477314
	03/22/2024			03/30/2024 01:11	Jessica K Wilks	2477326