

Chemical Analysis Report

NE-DIST-2019-10-03-01

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

Event Description: **UEC**
Request ID: **RQ-2019-09-30-07**
Customer: **NE-DIST**
Project ID: **SMP**

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

Date Certified: 24-OCT-2019 14:42

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

Case Narrative

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

Results for the following analytical 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: LAKE VEDRA AT SOLANA RD.

Collection Date/Time: 10/02/2019 08:45

Field ID: 27010180

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124503	EPA 180.1 Rev. 2.0	Turbidity	8.2		NTU	P371847	
	EPA 300.0 Rev. 2.1	Chloride	140		mg Cl/L	P372381	
		Sulfate	110		mg SO4/L	P372385	
	SM 2120 B	Color (true)	51		PCU	P371852	
	SM 2320 B-97	Total Alkalinity	147		mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	570		mg/L	P372427	
	SM 2540 D-97	TSS	12		mg/L	P372224	
	SM 4500 F-C-97	Fluoride	0.29		mg F/L	P371998	
2124504	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P372139	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.1		mg N/L	P371927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P372035	
	EPA 365.1 Rev. 2.0	Total-P	0.23		mg P/L	P371918	
	SM 5310 B-00	Organic Carbon	18		mg C/L	P371948	
2124505	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.099		mg P/L	P371904	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: MOSES CR AT US 1

Collection Date/Time: 10/02/2019 10:15

Field ID: 27010050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124491	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P371846	
	EPA 300.0 Rev. 2.1	Chloride	96		mg Cl/L	P372380	
		Sulfate	11		mg SO4/L	P372384	
	SM 2120 B	Color (true)	83		PCU	P371851	
	SM 2320 B-97	Total Alkalinity	231		mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	452	A	mg/L	P372427	
	SM 2540 D-97	TSS	2	UA	mg/L	P372224	
	SM 4500 F-C-97	Fluoride	0.26		mg F/L	P371998	
2124495	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P372139	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P371927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.060		mg N/L	P372035	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P371918	
	SM 5310 B-00	Organic Carbon	15		mg C/L	P371948	
2124499	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.044		mg P/L	P371904	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

**Sample Location: CRACKER BRANCH AT PELLICER CREEK
CAMPGROUND**

Collection Date/Time: 10/02/2019 10:50

Field ID: G5NE0582

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124492	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P371846	
	EPA 300.0 Rev. 2.1	Chloride	1.8E+03		mg Cl/L	P372380	
		Sulfate	250		mg SO4/L	P372384	
	SM 2120 B	Color (true)	120		PCU	P371851	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	3.26E+03		mg/L	P372427	
	SM 2540 D-97	TSS	2	U	mg/L	P372224	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P371998	
2124496	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P372055	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P371924	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372085	
	EPA 365.1 Rev. 2.0	Total-P	0.055		mg P/L	P371874	MS
	SM 5310 B-00	Organic Carbon	15		mg C/L	P371948	
2124500	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P371908	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: PALM COAST CANAL .6MI DOWN FROM ROAD Collection Date/Time: 10/02/2019 11:50

Field ID: G5NE0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124493	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P371846	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P372381	
		Sulfate	11		mg SO4/L	P372385	
	SM 2120 B	Color (true)	59	A	PCU	P371852	
	SM 2320 B-97	Total Alkalinity	98		mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	205		mg/L	P372427	
	SM 2540 D-97	TSS	3	I	mg/L	P372224	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P371998	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P372138	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P371927	
2124497	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P372035	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P371918	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P371948	
	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.078		mg P/L	P371904	
	dissolved						

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: PALM COAST CANAL .6MI DOWN FROM ROAD Collection Date/Time: 10/02/2019 11:55

Field ID: G5NE0026 DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124494	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P371846	
	EPA 300.0 Rev. 2.1	Chloride	39		mg Cl/L	P372381	
		Sulfate	11		mg SO4/L	P372385	
		Color (true)	60		PCU	P371852	
	SM 2320 B-97	Total Alkalinity	98		mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	212		mg/L	P372427	
	SM 2540 D-97	TSS	2	I	mg/L	P372224	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P371998	
2124498	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P372138	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.70		mg N/L	P371927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P372035	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P371918	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P371948	
2124502	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.077		mg P/L	P371904	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: PALM COAST CANAL .6MI DOWN FROM ROAD Collection Date/Time: 10/02/2019 12:00

Field ID: FB 10022019

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2124506	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P371847	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P372381	
		Sulfate	0.20	U	mg SO4/L	P372385	
		Color (true)	2.5	U	PCU	P371852	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P371996	
	SM 2540 C-97	TDS	15	U	mg/L	P372427	
	SM 2540 D-97	TSS	2	U	mg/L	P372224	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P371998	
2124507	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P372139	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P371927	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P372035	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P371918	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P371948	
2124508	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P371904	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371846

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371847

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372380

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372384

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372055

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372138

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372139

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371924

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372035

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372085

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371874

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371918

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371904

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371908

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

Reference Method: SM 2120 B
Batch ID: P371851

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B
Batch ID: P371852

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P371996

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

Reference Method: SM 2540 C-97
Batch ID: P372427

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P372224

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P371948

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372380

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372384

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.3		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372055

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372138

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372139

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371924

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372035

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372085

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: P371874

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371918

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371908

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

Reference Method: SM 2120 B
Batch ID: P371851

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: SM 2120 B
Batch ID: P371852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P371996

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 106

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P371948

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372380

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124318	Chloride	98.3		P	90 - 110
2124416	Chloride	98.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124556	Chloride	99.1		P	90 - 110
2124564	Chloride	97.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124318	Sulfate	98.0		P	90 - 110
2124416	Sulfate	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124556	Sulfate	99.7		P	90 - 110
2124564	Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372055

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124496	Ammonia-N	102	99.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124419	Ammonia-N	99.1	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372139

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124538	Ammonia-N	99.2	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371924

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124097	Kjeldahl Nitrogen	96.5	98.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P371927

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124495	Kjeldahl Nitrogen	97.3	95.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124476	NO2NO3-N	99.0	99.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P372085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124097	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371874

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124759	Total-P	87.1	88.7	F/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P371918

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124471	Total-P	96.0	98.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371904

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124460	O-Phosphate-P	95.3	97.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P371908

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124500	O-Phosphate-P	98.2	96.2	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P371998

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124542	Fluoride	94.7	94.7	P/P	89 - 106

Reference Method: SM 5310 B-00
Batch ID: P371948

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2124459	Organic Carbon	97.4	98.5	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371846

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124378	Turbidity	3.80	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P371847

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124565	Turbidity	4.83	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372380

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124318	Chloride	0.294	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372381

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124556	Chloride	0.0144	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124318	Sulfate	0.702	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P372385

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124556	Sulfate	0.0936	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372055

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124496	Ammonia-N	1.79	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P372138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124419	Ammonia-N	1.54	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P372139

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124538	Ammonia-N	0.494	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P371924

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124097	Kjeldahl Nitrogen	1.64	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P371927

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124495	Kjeldahl Nitrogen	0.920	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124476	NO2NO3-N	0.484	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P372085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124097	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371874

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124759	Total-P	1.79	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P371918

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124471	Total-P	2.53	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124460	O-Phosphate-P	1.78	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P371908

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124500	O-Phosphate-P	1.52	Spike	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P371851

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124458	Color (true)	1.58	Sample	P	0 - 20

Reference Method: SM 2120 B
 Batch ID: P371852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124493	Color (true)	0.930	Sample	P	0 - 20

Reference Method: SM 2320 B-97
 Batch ID: P371996

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124542	Total Alkalinity	0.583	Sample	P	0 - 2.8

Reference Method: SM 2540 C-97
 Batch ID: P372427

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124491	TDS	1.11	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P371998

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124542	Fluoride	0.0	Spike	P	0 - 2.5

Reference Method: SM 5310 B-00
 Batch ID: P371948

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2124459	Organic Carbon	0.944	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A94709

Included Lab Sample IDs: 2124491, 2124492, 2124493, 2124494, 2124503, 2124506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	98.5	99.5	P/P	95 - 105
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A94710

Included Lab Sample IDs: 2124491, 2124492, 2124493, 2124494, 2124503, 2124506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115
Color (true)	102	102	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A94721

Included Lab Sample IDs: 2124499, 2124500, 2124501, 2124502, 2124505, 2124508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	99.6	P/P	90 - 110
O-Phosphate-P	99.6	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94727

Included Lab Sample IDs: 2124495, 2124497, 2124498, 2124504, 2124507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A94743

Included Lab Sample IDs: 2124495, 2124496, 2124497, 2124498, 2124504, 2124507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	98.6	P/P	90 - 110
Organic Carbon	98.6	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94751

Included Lab Sample IDs: 2124496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94753

Included Lab Sample IDs: 2124495, 2124497, 2124498, 2124504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A94757

Included Lab Sample IDs: 2124491, 2124492, 2124493, 2124494, 2124503, 2124506

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

Reference Method: SM 4500 F-C-97

Run ID: A94757

Included Lab Sample IDs: 2124491, 2124492, 2124493, 2124494, 2124503, 2124506

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94758

Included Lab Sample IDs: 2124496

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A94759

Included Lab Sample IDs: 2124507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94775

Included Lab Sample IDs: 2124496

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A94782

Included Lab Sample IDs: 2124495, 2124497, 2124498, 2124504, 2124507

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A94791

Included Lab Sample IDs: 2124496

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94808

Included Lab Sample IDs: 2124495, 2124497, 2124498, 2124504, 2124507

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A94808

Included Lab Sample IDs: 2124495, 2124497, 2124498, 2124504, 2124507

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	100	P/P	90 - 110
Ammonia-N	99.8	99.1	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A94920

Included Lab Sample IDs: 2124491, 2124492, 2124493, 2124494, 2124503, 2124506

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

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				3.80	
	Turbidity				4.83	
EPA 300.0 Rev. 2.1	Chloride	98.7	98.3	98.9	0.294	
	Chloride	99.9	99.1	97.8	0.0144	
	Sulfate	99.3	98.0	99.4	0.702	
	Sulfate	100	99.7	100	0.0936	
EPA 350.1 Rev. 2.0	Ammonia-N	100	102	99.9		1.79
	Ammonia-N	97.7	99.1	97.4		1.54
	Ammonia-N	97.1	99.2	99.8		0.494
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	96.5	98.3		1.64
	Kjeldahl Nitrogen	99.6	97.3	95.8		0.920
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	99.0	99.5		0.484
	NO2NO3-N	100	100	100		0.0
EPA 365.1 Rev. 2.0	Total-P	99.5	87.1	88.7		1.79
	Total-P	97.5	96.0	98.5		2.53
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.4	95.3	97.1		1.78
	O-Phosphate-P	100	98.2	96.2		1.52
SM 2120 B	Color (true)	100			1.58	
	Color (true)	101			0.930	
SM 2320 B-97	Total Alkalinity	103			0.583	
SM 2540 C-97	TDS				1.11	
SM 4500 F-C-97	Fluoride	96.2	94.7	94.7		0.0
SM 5310 B-00	Organic Carbon	101	97.4	98.5		0.944

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2124495, 2124496, 2124497, 2124498, 2124504, 2124507
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2124495, 2124496, 2124497, 2124498, 2124504, 2124507
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2124495, 2124496, 2124497, 2124498, 2124504, 2124507
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2124495, 2124496, 2124497, 2124498, 2124504, 2124507
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2124499, 2124500, 2124501, 2124502, 2124505, 2124508
SM 2120 B / E31780	True Color measured at 450 nm	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2124495, 2124496, 2124497, 2124498, 2124504, 2124507

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/03/2019			10/03/2019 16:10	Rosalyn Ballman	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
EPA 300.0 Rev. 2.1	10/03/2019			10/11/2019 22:22	Julia Storbeck	2124491
	10/03/2019			10/11/2019 22:35	Julia Storbeck	2124492
	10/03/2019			10/12/2019 01:24	Julia Storbeck	2124493
	10/03/2019			10/12/2019 02:00	Julia Storbeck	2124494
	10/03/2019			10/12/2019 02:12	Julia Storbeck	2124503
	10/03/2019			10/12/2019 02:24	Julia Storbeck	2124506
EPA 350.1 Rev. 2.0	10/03/2019			10/07/2019 12:38	Ping Hua	2124496
	10/03/2019			10/08/2019 12:55	Ping Hua	2124498
	10/03/2019			10/08/2019 13:12	Ping Hua	2124495
	10/03/2019			10/08/2019 13:13	Ping Hua	2124504
	10/03/2019			10/08/2019 13:16	Ping Hua	2124507
	10/03/2019			10/08/2019 14:33	Ping Hua	2124497
EPA 351.2 Rev. 2.0	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 10:36	Virginia P. Brown	2124496
	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 14:41	Virginia P. Brown	2124495
	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 14:46	Virginia P. Brown	2124497
	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 14:48	Virginia P. Brown	2124498
	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 14:49	Virginia P. Brown	2124504
	10/03/2019	10/04/2019 14:15	Jhamieka S. Greenwood	10/07/2019 14:54	Virginia P. Brown	2124507
EPA 353.2 Rev. 2.0	10/03/2019			10/04/2019 11:00	Beverly Y. Sanders	2124495
	10/03/2019			10/04/2019 11:03	Beverly Y. Sanders	2124497
	10/03/2019			10/04/2019 11:04	Beverly Y. Sanders	2124498
	10/03/2019			10/04/2019 11:05	Beverly Y. Sanders	2124504
	10/03/2019			10/04/2019 11:06	Beverly Y. Sanders	2124507
	10/03/2019			10/08/2019 10:43	Beverly Y. Sanders	2124496
EPA 365.1 Rev. 2.0	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 10:54	Lipi Saha	2124495
	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 10:55	Lipi Saha	2124497
	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 10:56	Lipi Saha	2124498
	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 10:57	Lipi Saha	2124504
	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 12:09	Lipi Saha	2124496
	10/03/2019	10/04/2019 14:00	Vijayalakshmi Reddy	10/07/2019 13:18	Lipi Saha	2124507
EPA 365.1 Rev. 2.0 dissolved	10/03/2019			10/03/2019 15:39	Samantha Davila	2124500
	10/03/2019			10/03/2019 15:52	Samantha Davila	2124499
	10/03/2019			10/03/2019 15:53	Samantha Davila	2124501
	10/03/2019			10/03/2019 15:54	Samantha Davila	2124502
	10/03/2019			10/03/2019 15:55	Samantha Davila	2124505
	10/03/2019			10/03/2019 15:56	Samantha Davila	2124508
SM 2120 B	10/03/2019			10/03/2019 16:41	Madeline Funaro	2124491
	10/03/2019			10/03/2019 16:42	Madeline Funaro	2124492

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2120 B	10/03/2019			10/03/2019 16:46	Madeline Funaro	2124493
	10/03/2019			10/03/2019 16:47	Madeline Funaro	2124494
	10/03/2019			10/03/2019 16:48	Madeline Funaro	2124503, 2124506
SM 2320 B-97	10/03/2019			10/05/2019 07:41	Dale L. Simmons	2124491
	10/03/2019			10/05/2019 07:54	Dale L. Simmons	2124493
	10/03/2019			10/05/2019 08:07	Dale L. Simmons	2124494
	10/03/2019			10/05/2019 08:20	Dale L. Simmons	2124503
	10/03/2019			10/05/2019 08:34	Dale L. Simmons	2124506
	10/03/2019			10/05/2019 09:13	Dale L. Simmons	2124492
	10/03/2019			10/04/2019 20:17	Rosalyn Ballman	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 2540 D-97	10/03/2019			10/04/2019 20:17	Rosalyn Ballman	2124491, 2124492, 2124493, 2124494, 2124503, 2124506
SM 4500 F-C-97	10/03/2019			10/05/2019 07:41	Dale L. Simmons	2124491
	10/03/2019			10/05/2019 07:54	Dale L. Simmons	2124493
	10/03/2019			10/05/2019 08:07	Dale L. Simmons	2124494
	10/03/2019			10/05/2019 08:20	Dale L. Simmons	2124503
	10/03/2019			10/05/2019 08:34	Dale L. Simmons	2124506
	10/03/2019			10/05/2019 09:13	Dale L. Simmons	2124492
	10/03/2019			10/05/2019 00:43	Madeline Funaro	2124495
SM 5310 B-00	10/03/2019			10/05/2019 00:55	Madeline Funaro	2124496
	10/03/2019			10/05/2019 01:33	Madeline Funaro	2124497
	10/03/2019			10/05/2019 01:48	Madeline Funaro	2124498
	10/03/2019			10/05/2019 02:02	Madeline Funaro	2124504
	10/03/2019			10/05/2019 02:16	Madeline Funaro	2124507
	10/03/2019					