Chemical Analysis Report

NW-DIST-2018-06-05-01

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

Event Description: **Baker Run**
Request ID: **RQ-2018-06-04-40**
Customer: **NW-DIST**
Project ID: **SMP**

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Date Certified: 26-JUN-2018 16:03

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 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: BIG HORSE CREEK UPSTREAM **Collection Date/Time: 06/04/2018 10:45**

Field ID: G4NW0298 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997090	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P346431	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P346586	
		Sulfate	1.1		mg SO4/L	P346588	
	SM 2120 B	Color (true)	56		PCU	P346413	
	SM 2320 B-97	Total Alkalinity	3.1		mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	29		mg/L	P346794	
	SM 2540 D-97	TSS	6	I	mg/L	P346733	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997096	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.27		mg N/L	P346637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.062		mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P346657	
	SM 5310 B-00	Organic Carbon	4.3		mg C/L	P346787	
1997102	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: PANTHER CREEK ABOVE SHER **Collection Date/Time: 06/04/2018 11:55**

Field ID: G4NW0417 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997091	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P346431	
	EPA 300.0 Rev. 2.1	Chloride	3.1		mg Cl/L	P346586	
		Sulfate	1.1		mg SO4/L	P346588	
	SM 2120 B	Color (true)	46		PCU	P346413	
	SM 2320 B-97	Total Alkalinity	1.3	I	mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	24	I	mg/L	P346794	
	SM 2540 D-97	TSS	3	I	mg/L	P346733	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997097	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P346637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.009		mg P/L	P346761	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P346787	
1997103	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: BEAR CREEK @ FOREST RD 0.7 **Collection Date/Time: 06/04/2018 12:25**

Field ID: G4NW0380 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997092	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P346431	
	EPA 300.0 Rev. 2.1	Chloride	2.4		mg Cl/L	P346586	
		Sulfate	0.34	I	mg SO4/L	P346588	
	SM 2120 B	Color (true)	76		PCU	P346413	
	SM 2320 B-97	Total Alkalinity	8.0		mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	16	I	mg/L	P346794	
	SM 2540 D-97	TSS	2	I	mg/L	P346733	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997098	EPA 350.1 Rev. 2.0	Ammonia-N	0.007		mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.29		mg N/L	P346637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.013		mg P/L	P346658	
	SM 5310 B-00	Organic Carbon	3.9		mg C/L	P346787	
1997104	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: SWEETWATER CREEK OFF DIRT **Collection Date/Time: 06/04/2018 12:45**

Field ID: G4NW0419 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997093	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P346431	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P346586	
		Sulfate	0.74		mg SO4/L	P346588	
	SM 2120 B	Color (true)	60		PCU	P346413	
	SM 2320 B-97	Total Alkalinity	0.81	I	mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	24	I	mg/L	P346794	
	SM 2540 D-97	TSS	4	I	mg/L	P346733	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997099	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22		mg N/L	P346637	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.058		mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.01		mg P/L	P346658	
	SM 5310 B-00	Organic Carbon	5.1		mg C/L	P346787	
1997105	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Ates Creek NE of Bryant Bridge Road above Blackwater River **Collection Date/Time: 06/04/2018 13:55**

Field ID: G4NW0332 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997094	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P346431	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P346586	
		Sulfate	0.78		mg SO4/L	P346588	
	SM 2120 B	Color (true)	38		PCU	P346413	
	SM 2320 B-97	Total Alkalinity	8.0		mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	30		mg/L	P346795	
	SM 2540 D-97	TSS	4	I	mg/L	P346734	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997100	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P347043	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P346658	
	SM 5310 B-00	Organic Carbon	1.9		mg C/L	P346787	
1997106	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	I	mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

Sample Location: Ates Creek NE of Bryant Bridge Road above Blackwater River **Collection Date/Time: 06/04/2018 14:05**

Field ID: G4NW0332_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997095	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P346431	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P346586	
		Sulfate	0.79		mg SO4/L	P346588	
	SM 2120 B	Color (true)	39		PCU	P346413	
	SM 2320 B-97	Total Alkalinity	8.1		mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	33		mg/L	P346795	
	SM 2540 D-97	TSS	4	I	mg/L	P346734	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997101	EPA 350.1 Rev. 2.0	Ammonia-N	0.017		mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.23		mg N/L	P347043	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.033		mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P346658	
	SM 5310 B-00	Organic Carbon	1.9		mg C/L	P346787	
1997107	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Chloride: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.

Sample Location: Ates Creek NE of Bryant Bridge Road above Blackwater River **Collection Date/Time: 06/04/2018 14:15**

Field ID: BLANK_06042018 Matrix: DI-WATER

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1997108	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P346432	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P346587	
		Sulfate	0.20	U	mg SO4/L	P346589	
	SM 2120 B	Color (true)	2.5	U	PCU	P346414	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P346614	
	SM 2540 C-97	TDS	15	U	mg/L	P346791	
	SM 2540 D-97	TSS	2	U	mg/L	P346730	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P346618	
1997109	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P346801	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P347043	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P346508	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P346658	
	SM 5310 B-00	Organic Carbon	0.77	I	mg C/L	P346787	
1997110	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P346406	

Ref. Method and Comment:
EPA 300.0 Rev. 2.1: Sulfate: Batch matrix spike recoveries for one of two spiked samples are unavailable because of high analyte concentration in the QC sample.
SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 350.1 Rev. 2.0: The result was confirmed on 06/12/2018.
SM 5310 B-00: The result was confirmed on 06/13/2018.

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346431

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346432

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346586

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346587

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346588

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346589

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346801

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346637

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347043

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: P346508

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346657

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346658

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346761

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346406

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

Reference Method: SM 2120 B
Batch ID: P346413

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P346414

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P346614

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

Reference Method: SM 2540 C-97
Batch ID: P346791

Component	Result	Code	Units
TDS	15	U	mg/L

Quality Assurance Report
Method Blank Results

Reference Method: SM 2540 C-97
Batch ID: P346794

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P346795

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P346730

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P346733

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P346734

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P346618

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P346787

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: P346586

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346587

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346588

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346589

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346801

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346637

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347043

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.8		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346508

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346657

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346658

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346761

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346406

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

Reference Method: SM 2320 B-97
Batch ID: P346614

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P346618

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.0		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P346787

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

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346586

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1996910	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997142	Chloride	103		P	90 - 110
1997250	Chloride	105		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346588

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1996910	Sulfate	101		P	90 - 110
1996969	Sulfate	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346589

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997250	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346801

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997096	Ammonia-N	99.8	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997098	Kjeldahl Nitrogen	92.2	97.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347043

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997100	Kjeldahl Nitrogen	95.6	93.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346508

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997096	NO2NO3-N	99.6	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997096	Total-P	104	107	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346658

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997101	Total-P	99.7	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346761

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997097	Total-P	97.3	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346406

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997102	O-Phosphate-P	97.3	98.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P346618

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1996959	Fluoride	94.9	95.4	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P346787

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1997096	Organic Carbon	95.9	96.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346431

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997046	Turbidity	1.72	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P346432

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997141	Turbidity	0.0	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346586

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996910	Chloride	0.538	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997142	Chloride	0.676	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346588

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996910	Sulfate	1.25	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P346589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997142	Sulfate	0.357	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P346801

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997096	Ammonia-N	1.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P346637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997098	Kjeldahl Nitrogen	4.69	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P347043

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997100	Kjeldahl Nitrogen	1.60	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P346508

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997096	NO2NO3-N	0.382	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997096	Total-P	2.83	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346658

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997101	Total-P	5.60	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P346761

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997097	Total-P	1.22	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P346406

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997102	O-Phosphate-P	1.31	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P346413

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996970	Color (true)	0.149	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P346414

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997141	Color (true)	0.733	Sample	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2320 B-97
Batch ID: P346614

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996959	Total Alkalinity	0.289	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P346791

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996565	TDS	1.98	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P346794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996956	TDS	1.79	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P346795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997141	TDS	4.29	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P346734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997141	TSS	7.69	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P346618

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1996959	Fluoride	0.479	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P346787

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1997096	Organic Carbon	0.595	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A84339
Included Lab Sample IDs: 1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	103	P/P	90 - 110
Chloride	102	99.9	P/P	90 - 110
Chloride	99.9	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110
Sulfate	101	98.9	P/P	90 - 110
Sulfate	98.9	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A84357
Included Lab Sample IDs: 1997102, 1997103, 1997104, 1997105, 1997106, 1997107, 1997110

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	98.5	P/P	90 - 110
O-Phosphate-P	98.0	98.5	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A84360
Included Lab Sample IDs: 1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	102	P/P	90 - 115
Color (true)	101	100	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A84364
Included Lab Sample IDs: 1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105
Turbidity	99.5	99.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A84398
Included Lab Sample IDs: 1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109

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

Reference Method: SM 2320 B-97
Run ID: A84458
Included Lab Sample IDs: 1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108

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

Reference Method: SM 4500 F-C-97
Run ID: A84458
Included Lab Sample IDs: 1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	97.6	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A84495
Included Lab Sample IDs: 1997096, 1997097, 1997098, 1997099

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.1	100	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A84530
Included Lab Sample IDs: 1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	96.1	P/P	90 - 110
Organic Carbon	96.1	96.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A84534
Included Lab Sample IDs: 1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A84553
Included Lab Sample IDs: 1997096, 1997098, 1997099, 1997100, 1997101, 1997109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	101	P/P	90 - 110
Total-P	101	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A84598
Included Lab Sample IDs: 1997097

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A84735
Included Lab Sample IDs: 1997100, 1997101, 1997109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	96.9	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	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					1.72	
	Turbidity					0.0	
EPA 300.0 Rev. 2.1	Chloride	104	101			0.538	
	Chloride	101	103	105		0.676	
	Sulfate	104	101	104		1.25	
	Sulfate	101	104			0.357	
EPA 350.1 Rev. 2.0	Ammonia-N	102	99.8	101			1.12
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	92.2	97.8			4.69
	Kjeldahl Nitrogen	97.8	95.6	93.8			1.60
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	99.6	100			0.382
EPA 365.1 Rev. 2.0	Total-P	101	104	107			2.83
	Total-P	104	99.7	106			5.60
	Total-P	98.2	97.3	98.6			1.22
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.0	97.3	98.8			1.31
SM 2120 B	Color (true)					0.149	
	Color (true)					0.733	
SM 2320 B-97	Total Alkalinity	102				0.289	
SM 2540 C-97	TDS					1.98	
	TDS					1.79	
	TDS					4.29	
SM 2540 D-97	TSS					7.69	
SM 4500 F-C-97	Fluoride	96.0	94.9	95.4			0.479
SM 5310 B-00	Organic Carbon	96.8	95.9	96.6			0.595

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1997102, 1997103, 1997104, 1997105, 1997106, 1997107, 1997110
SM 2120 B / E31780	True Color measured at 450 nm	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1997096, 1997097, 1997098, 1997099, 1997100, 1997101, 1997109

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	06/05/2018			06/05/2018 17:06	William L. Brown IV	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
EPA 300.0 Rev. 2.1	06/05/2018			06/06/2018 16:25	Lipi Saha	1997090
	06/05/2018			06/06/2018 16:37	Lipi Saha	1997091
	06/05/2018			06/06/2018 17:13	Lipi Saha	1997092
	06/05/2018			06/06/2018 17:25	Lipi Saha	1997093
	06/05/2018			06/06/2018 17:37	Lipi Saha	1997094
	06/05/2018			06/06/2018 17:49	Lipi Saha	1997095
	06/05/2018			06/06/2018 19:48	Lipi Saha	1997108
EPA 350.1 Rev. 2.0	06/05/2018			06/12/2018 09:40	Ping Hua	1997096
	06/05/2018			06/12/2018 09:44	Ping Hua	1997097
	06/05/2018			06/12/2018 09:46	Ping Hua	1997098
	06/05/2018			06/12/2018 09:47	Ping Hua	1997099
	06/05/2018			06/12/2018 09:49	Ping Hua	1997100
	06/05/2018			06/12/2018 09:50	Ping Hua	1997101
	06/05/2018			06/12/2018 09:52	Ping Hua	1997109
EPA 351.2 Rev. 2.0	06/05/2018	06/11/2018 10:00	Adrian Shelby	06/11/2018 17:04	Joseph Suarez	1997096
	06/05/2018	06/11/2018 10:00	Adrian Shelby	06/11/2018 17:05	Joseph Suarez	1997097
	06/05/2018	06/11/2018 10:00	Adrian Shelby	06/11/2018 17:07	Joseph Suarez	1997098
	06/05/2018	06/11/2018 10:00	Adrian Shelby	06/11/2018 17:12	Joseph Suarez	1997099
	06/05/2018	06/18/2018 15:30	Adrian Shelby	06/20/2018 12:25	Joseph Suarez	1997100
	06/05/2018	06/18/2018 15:30	Adrian Shelby	06/20/2018 12:30	Joseph Suarez	1997101
	06/05/2018	06/18/2018 15:30	Adrian Shelby	06/20/2018 12:31	Joseph Suarez	1997109
EPA 353.2 Rev. 2.0	06/05/2018			06/06/2018 15:47	Lauren Bottorf	1997096
	06/05/2018			06/06/2018 15:53	Lauren Bottorf	1997109
	06/05/2018			06/06/2018 15:54	Lauren Bottorf	1997100
	06/05/2018			06/06/2018 15:55	Lauren Bottorf	1997101
	06/05/2018			06/06/2018 15:56	Lauren Bottorf	1997097
	06/05/2018			06/06/2018 15:57	Lauren Bottorf	1997098
	06/05/2018			06/06/2018 15:59	Lauren Bottorf	1997099
EPA 365.1 Rev. 2.0	06/05/2018	06/11/2018 12:30	Adrian Shelby	06/13/2018 12:36	Beverly Y. Sanders	1997096
	06/05/2018	06/11/2018 12:30	Adrian Shelby	06/13/2018 12:46	Beverly Y. Sanders	1997109
	06/05/2018	06/11/2018 12:30	Adrian Shelby	06/13/2018 12:47	Beverly Y. Sanders	1997101
	06/05/2018	06/11/2018 12:30	Adrian Shelby	06/13/2018 12:48	Beverly Y. Sanders	1997098
	06/05/2018	06/11/2018 12:30	Adrian Shelby	06/13/2018 12:49	Beverly Y. Sanders	1997099
	06/05/2018	06/11/2018 12:30	Adrian Shelby	06/13/2018 12:50	Beverly Y. Sanders	1997100
	06/05/2018	06/12/2018 12:15	Lipi Saha	06/14/2018 14:23	Beverly Y. Sanders	1997097
EPA 365.1 Rev. 2.0 dissolved	06/05/2018			06/05/2018 14:32	Megan Treadwell	1997102
	06/05/2018			06/05/2018 14:56	Megan Treadwell	1997103
	06/05/2018			06/05/2018 14:57	Megan Treadwell	1997104

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 dissolved	06/05/2018			06/05/2018 14:58	Megan Treadwell	1997105, 1997106
	06/05/2018			06/05/2018 14:59	Megan Treadwell	1997107
	06/05/2018			06/05/2018 15:00	Megan Treadwell	1997110
SM 2120 B	06/05/2018			06/05/2018 14:47	Tanya Welborn	1997090
	06/05/2018			06/05/2018 14:48	Tanya Welborn	1997091
	06/05/2018			06/05/2018 14:49	Tanya Welborn	1997092
	06/05/2018			06/05/2018 14:50	Tanya Welborn	1997093, 1997094
	06/05/2018			06/05/2018 14:51	Tanya Welborn	1997095
	06/05/2018			06/05/2018 14:54	Tanya Welborn	1997108
SM 2320 B-97	06/05/2018			06/07/2018 09:19	Dale L. Simmons	1997090
	06/05/2018			06/07/2018 09:31	Dale L. Simmons	1997091
	06/05/2018			06/07/2018 09:42	Dale L. Simmons	1997092
	06/05/2018			06/07/2018 09:51	Dale L. Simmons	1997093
	06/05/2018			06/07/2018 10:02	Dale L. Simmons	1997094
	06/05/2018			06/07/2018 10:12	Dale L. Simmons	1997095
	06/05/2018			06/07/2018 10:21	Dale L. Simmons	1997108
SM 2540 C-97	06/05/2018			06/06/2018 15:03	Yijie Li	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 2540 D-97	06/05/2018			06/06/2018 15:03	Yijie Li	1997090, 1997091, 1997092, 1997093, 1997094, 1997095, 1997108
SM 4500 F-C-97	06/05/2018			06/07/2018 09:19	Dale L. Simmons	1997090
	06/05/2018			06/07/2018 09:31	Dale L. Simmons	1997091
	06/05/2018			06/07/2018 09:42	Dale L. Simmons	1997092
	06/05/2018			06/07/2018 09:51	Dale L. Simmons	1997093
	06/05/2018			06/07/2018 10:02	Dale L. Simmons	1997094
	06/05/2018			06/07/2018 10:12	Dale L. Simmons	1997095
	06/05/2018			06/07/2018 10:21	Dale L. Simmons	1997108
SM 5310 B-00	06/05/2018			06/11/2018 15:53	Megan Treadwell	1997096
	06/05/2018			06/11/2018 16:53	Megan Treadwell	1997097
	06/05/2018			06/11/2018 17:26	Megan Treadwell	1997098
	06/05/2018			06/11/2018 17:45	Megan Treadwell	1997099
	06/05/2018			06/11/2018 18:32	Megan Treadwell	1997100
	06/05/2018			06/11/2018 18:49	Megan Treadwell	1997101
	06/05/2018			06/11/2018 19:05	Megan Treadwell	1997109