

Chemical Analysis Report

WQAP-2016-06-15-02

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

Event Description: **Merritt's Mill Pond**
Request ID: **RQ-2016-06-13-47**
Customer: **WQAP**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Katrina Sanders

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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 11-JUL-2016 14:22

A handwritten signature in black ink, appearing to read "Timothy Fitzpatrick", with a stylized flourish at the end.

Case Narrative

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

Results for the following analytical groups are included in this report: Metals and Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited 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: MERRITTS MILL POND 600 METERS
DOWNSTREAM OF JACKSON BLUE SPRING**

Collection Date/Time: 06/15/2016 09:45

Field ID: G2WA0007

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808497	EPA 180.1 Rev. 2.0	Turbidity	0.25		NTU	P306451	
	EPA 300.0 Rev. 2.1	Chloride	4.6		mg Cl/L	P306878	
	SM 2120 B	Color (true)	2.5	U	PCU	P306346	
	SM 2320 B-97	Total Alkalinity	118	A	mg CaCO3/L	P306821	
	SM 2540 C-97	TDS	156		mg/L	P306887	
	SM 2540 D-97	TSS	2	I	mg/L	P306865	
	SM 4500 F-C-97	Fluoride	0.037	I	mg F/L	P307271	
1808500	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P306632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P306355	
	EPA 353.2 Rev. 2.0	NO2NO3-N	3.5		mg N/L	P306487	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P306460	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P306615	
1808503	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.018		mg P/L	P306334	
1808522	EPA 200.7 Rev. 4.4	Calcium	52.6		mg/L	P306469	
		Iron	30	U	ug/L	P306469	
		Magnesium	2.64		mg/L	P306469	
		Potassium	0.46	I	mg/L	P306469	
		Sodium	2.0	I	mg/L	P306469	
		Zinc	5.0	U	ug/L	P306469	
	EPA 200.8 Rev. 5.4	Arsenic	0.28		ug/L	P306469	
		Cadmium	0.020	U	ug/L	P306469	
		Chromium	1.13		ug/L	P306469	
		Copper	0.10	U	ug/L	P306469	
		Lead	0.050	U	ug/L	P306469	
		Nickel	0.25	U	ug/L	P306469	
		Silver	0.0050	U	ug/L	P306469	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

**Sample Location: MERRITTS MILL POND 500 METERS
UPSTREAM OF DAM**

Collection Date/Time: 06/15/2016 10:25

Field ID: G2WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808498	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P306451	
	EPA 300.0 Rev. 2.1	Chloride	4.8		mg Cl/L	P306878	
	SM 2120 B	Color (true)	2.5	U	PCU	P306346	
	SM 2320 B-97	Total Alkalinity	118		mg CaCO3/L	P306821	
	SM 2540 C-97	TDS	145		mg/L	P306887	
	SM 2540 D-97	TSS	2	I	mg/L	P306865	
	SM 4500 F-C-97	Fluoride	0.039	I	mg F/L	P307271	
1808501	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P306632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P306356	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.4		mg N/L	P306487	

Field ID: G2WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808501	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P306460	
	SM 5310 B-00	Organic Carbon	0.74	I	mg C/L	P306882	
1808504	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.006	I	mg P/L	P306334	
1808523	EPA 200.7 Rev. 4.4	Calcium	52.3		mg/L	P306469	
		Iron	30	U	ug/L	P306469	
		Magnesium	3.01		mg/L	P306469	
		Potassium	0.37	I	mg/L	P306469	
		Sodium	2.2		mg/L	P306469	
		Zinc	5.0	U	ug/L	P306469	
	EPA 200.8 Rev. 5.4	Arsenic	0.31		ug/L	P306469	
		Cadmium	0.020	U	ug/L	P306469	
		Chromium	0.92		ug/L	P306469	
		Copper	0.10	U	ug/L	P306469	
		Lead	0.050	U	ug/L	P306469	
		Nickel	0.25	U	ug/L	P306469	
		Silver	0.0050	U	ug/L	P306469	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: MERRITTS MILL POND MID UNDER POWERLINES

Collection Date/Time: 06/15/2016 10:55

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808499	EPA 180.1 Rev. 2.0	Turbidity	0.55		NTU	P306451	
	EPA 300.0 Rev. 2.1	Chloride	4.8		mg Cl/L	P306878	
	SM 2120 B	Color (true)	2.5	U	PCU	P306346	
	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P306821	
	SM 2540 C-97	TDS	156		mg/L	P306888	
	SM 2540 D-97	TSS	2	I	mg/L	P306866	
	SM 4500 F-C-97	Fluoride	0.039	I	mg F/L	P307271	
1808502	EPA 350.1 Rev. 2.0	Ammonia-N	0.078		mg N/L	P306632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P306356	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P306487	
	EPA 365.1 Rev. 2.0	Total-P	0.020		mg P/L	P306460	
	SM 5310 B-00	Organic Carbon	0.66	I	mg C/L	P306882	
1808505	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P306334	
1808524	EPA 200.7 Rev. 4.4	Calcium	52.2		mg/L	P306469	
		Iron	30	U	ug/L	P306469	
		Magnesium	2.99		mg/L	P306469	
		Potassium	0.35	I	mg/L	P306469	
		Sodium	2.1		mg/L	P306469	
		Zinc	5.0	U	ug/L	P306469	
	EPA 200.8 Rev. 5.4	Arsenic	0.30		ug/L	P306469	
		Cadmium	0.020	U	ug/L	P306469	

Field ID: G2WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808524	EPA 200.8 Rev. 5.4	Chromium	0.95		ug/L	P306469	
		Copper	0.10	U	ug/L	P306469	
		Lead	0.050	U	ug/L	P306469	
		Nickel	0.25	U	ug/L	P306469	
		Silver	0.0050	U	ug/L	P306469	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: MERRITTS MILL POND MID UNDER POWERLINES

Collection Date/Time: 06/15/2016 10:55

Field ID: G2WA0008D

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808509	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P306451	
	EPA 300.0 Rev. 2.1	Chloride	4.8		mg Cl/L	P306878	
	SM 2120 B	Color (true)	2.5	U	PCU	P306346	
	SM 2320 B-97	Total Alkalinity	123		mg CaCO3/L	P306821	
	SM 2540 C-97	TDS	148	A	mg/L	P306888	
	SM 2540 D-97	TSS	2	I	mg/L	P306866	
	SM 4500 F-C-97	Fluoride	0.042	I	mg F/L	P307271	
1808510	EPA 350.1 Rev. 2.0	Ammonia-N	0.077		mg N/L	P306632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P306356	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P306488	
	EPA 365.1 Rev. 2.0	Total-P	0.021		mg P/L	P306460	
	SM 5310 B-00	Organic Carbon	0.55	I	mg C/L	P306882	
1808511	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P306334	
1808526	EPA 200.7 Rev. 4.4	Calcium	54.2		mg/L	P306469	
		Iron	30	U	ug/L	P306469	
		Magnesium	3.11		mg/L	P306469	
		Potassium	0.40	I	mg/L	P306469	
		Sodium	2.2		mg/L	P306469	
		Zinc	5.0	U	ug/L	P306469	
	EPA 200.8 Rev. 5.4	Arsenic	0.31		ug/L	P306469	
		Cadmium	0.020	U	ug/L	P306469	
		Chromium	1.00		ug/L	P306469	
		Copper	0.10	U	ug/L	P306469	
		Lead	0.050	U	ug/L	P306469	
		Nickel	0.25	U	ug/L	P306469	
		Silver	0.0050	U	ug/L	P306469	

Ref. Method and Comment:

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Sample Location: BLANK

Collection Date/Time: 06/15/2016 15:47

Field ID: G2WA0008B

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808506	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P306451	

Field ID: G2WA0008B

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1808506	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P306878	
	SM 2120 B	Color (true)	2.5	U	PCU	P306346	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P306821	
	SM 2540 C-97	TDS	15	U	mg/L	P306885	
	SM 2540 D-97	TSS	2	U	mg/L	P306863	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P307271	
1808507	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P306632	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P306356	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P306488	
	EPA 365.1 Rev. 2.0	Total-P	0.003	I	mg P/L	P306460	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P306882	
1808508	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P306334	
1808525	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P306469	
		Iron	30	U	ug/L	P306469	
		Magnesium	0.040	U	mg/L	P306469	
		Potassium	0.30	U	mg/L	P306469	
		Sodium	0.50	U	mg/L	P306469	
		Zinc	5.0	U	ug/L	P306469	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P306469	
		Cadmium	0.020	U	ug/L	P306469	
		Chromium	0.050	U	ug/L	P306469	
		Copper	0.10	U	ug/L	P306469	
		Lead	0.050	U	ug/L	P306469	
		Nickel	0.25	U	ug/L	P306469	
		Silver	0.0050	U	ug/L	P306469	

Ref. Method and Comment:
SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P306451

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P306469

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P306469

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Nickel	0.25	U	ug/L
Silver	0.0050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P306878

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P306632

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306355

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306356

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306487

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306488

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P306460

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306334

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

Reference Method: SM 2120 B
Batch ID: P306346

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P306821

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

Reference Method: SM 2540 C-97
Batch ID: P306885

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P306887

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 C-97
Batch ID: P306888

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P306863

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P306865

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P306866

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: SM 4500 F-C-97
Batch ID: P307271

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P306615

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

Reference Method: SM 5310 B-00
Batch ID: P306882

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P306469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	103		P	85 - 115
Magnesium	108		P	85 - 115
Potassium	99.6		P	85 - 115
Sodium	103		P	85 - 115
Zinc	98.2		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P306469

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	98.8		P	85 - 115
Cadmium	99.2		P	85 - 115
Chromium	98.8		P	85 - 115
Copper	97.9		P	85 - 115
Lead	100		P	85 - 115
Nickel	103		P	85 - 115
Silver	100		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P306878

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P306632

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306355

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306356

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	94.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306487

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306488

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: P306460

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: P306334

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

Reference Method: SM 2320 B-97
Batch ID: P306821

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P307271

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P306615

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
 Batch ID: P306882

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 200.7 Rev. 4.4
 Batch ID: P306469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808522	Calcium	101		P	80 - 120
1808522	Iron	104	103	P/P	80 - 120
1808522	Magnesium	106	106	P/P	80 - 120
1808522	Potassium	101	101	P/P	80 - 120
1808522	Sodium	103	104	P/P	80 - 120
1808522	Zinc	99.1	99.8	P/P	80 - 120
1809060	Calcium	104		P	80 - 120
1809060	Iron	104		P	80 - 120
1809060	Magnesium	106		P	80 - 120
1809060	Potassium	106		P	80 - 120
1809060	Sodium	103		P	80 - 120
1809060	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P306469

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808522	Arsenic	99.4	98.3	P/P	80 - 120
1808522	Cadmium	103	104	P/P	80 - 120
1808522	Chromium	98.7	99.2	P/P	80 - 120
1808522	Copper	94.1	94.0	P/P	80 - 120
1808522	Lead	100	99.3	P/P	80 - 120
1808522	Nickel	99.4	98.7	P/P	80 - 120
1808522	Silver	99.6	100	P/P	80 - 120
1809060	Arsenic	103		P	80 - 120
1809060	Cadmium	106		P	80 - 120
1809060	Chromium	103		P	80 - 120
1809060	Copper	96.8		P	80 - 120
1809060	Lead	103		P	80 - 120
1809060	Nickel	101		P	80 - 120
1809060	Silver	101		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P306878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808737	Chloride	103		P	90 - 110
1808802	Chloride	103		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P306632

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808397	Ammonia-N	99.4	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306355

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808202	Kjeldahl Nitrogen	97.7	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306356

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808501	Kjeldahl Nitrogen	93.3	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306487

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808395	NO2NO3-N	98.6	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808536	NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P306460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808500	Total-P	98.6	95.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306334

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808503	O-Phosphate-P	99.0	99.1	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P307271

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808509	Fluoride	96.8	96.8	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P306615

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808108	Organic Carbon	95.4	92.0	P/P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P306882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1808535	Organic Carbon	94.0	93.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P306451

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808737	Turbidity	0.101	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P306469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808522	Calcium	1.59	Spike	P	0 - 20
1808522	Iron	0.376	Spike	P	0 - 20
1808522	Magnesium	0.158	Spike	P	0 - 20
1808522	Potassium	0.150	Spike	P	0 - 20
1808522	Sodium	0.278	Spike	P	0 - 20
1808522	Zinc	0.716	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P306469

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808522	Arsenic	1.07	Spike	P	0 - 20
1808522	Cadmium	1.48	Spike	P	0 - 20
1808522	Chromium	0.422	Spike	P	0 - 20
1808522	Copper	0.0975	Spike	P	0 - 20
1808522	Lead	0.736	Spike	P	0 - 20
1808522	Nickel	0.714	Spike	P	0 - 20
1808522	Silver	0.531	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P306878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808737	Chloride	0.00819	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P306632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808397	Ammonia-N	0.840	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306355

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808202	Kjeldahl Nitrogen	1.13	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P306356

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808501	Kjeldahl Nitrogen	6.33	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306487

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808395	NO2NO3-N	1.14	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P306488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808536	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P306460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808500	Total-P	3.43	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P306334

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808503	O-Phosphate-P	0.0854	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P306346

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808533	Color (true)	3.83	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P306821

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808497	Total Alkalinity	0.0437	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P306885

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1807843	TDS	5.68	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P306887

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808184	TDS	6.25	Sample	P	0 - 10

Reference Method: SM 2540 C-97
Batch ID: P306888

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808509	TDS	2.03	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P307271

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808509	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P306615

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808108	Organic Carbon	2.14	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P306882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1808535	Organic Carbon	0.338	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 365.1 Rev. 2.0 dissolved
Run ID: A70081
Included Lab Sample IDs: 1808503, 1808504, 1808505, 1808508, 1808511

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	97.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A70087

Included Lab Sample IDs: 1808497, 1808498, 1808499, 1808506, 1808509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.6	97.5	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A70118

Included Lab Sample IDs: 1808497, 1808498, 1808499, 1808506, 1808509

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A70126

Included Lab Sample IDs: 1808500, 1808501, 1808502, 1808507, 1808510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110
NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A70131

Included Lab Sample IDs: 1808500, 1808501, 1808502, 1808507, 1808510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.2	99.7	P/P	90 - 110
Kjeldahl Nitrogen	99.7	97.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A70135

Included Lab Sample IDs: 1808500, 1808501, 1808502, 1808507, 1808510

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

Reference Method: SM 5310 B-00

Run ID: A70160

Included Lab Sample IDs: 1808500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.4	95.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A70161

Included Lab Sample IDs: 1808522, 1808523, 1808524, 1808525, 1808526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Calcium	101	102	P/P	90 - 110
Iron	100	100	P/P	90 - 110
Iron	100	101	P/P	90 - 110
Magnesium	101	102	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A70161

Included Lab Sample IDs: 1808522, 1808523, 1808524, 1808525, 1808526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Potassium	98.7	99.5	P/P	90 - 110
Potassium	99.5	100	P/P	90 - 110
Sodium	100	101	P/P	90 - 110
Sodium	98.9	100	P/P	90 - 110
Zinc	101	101	P/P	90 - 110
Zinc	99.9	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A70162

Included Lab Sample IDs: 1808500, 1808501, 1808502, 1808507, 1808510

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

Reference Method: SM 2320 B-97

Run ID: A70215

Included Lab Sample IDs: 1808497, 1808498, 1808499, 1808506, 1808509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	100	104	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A70233

Included Lab Sample IDs: 1808497, 1808498, 1808499, 1808506, 1808509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.8	P/P	90 - 110
Chloride	99.8	99.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A70234

Included Lab Sample IDs: 1808501, 1808502, 1808507, 1808510

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	98.2	97.8	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A70238

Included Lab Sample IDs: 1808522, 1808523, 1808524, 1808525, 1808526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	101	98.6	P/P	90 - 110
Arsenic	98.6	97.6	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Cadmium	99.4	100	P/P	90 - 110
Chromium	100	102	P/P	90 - 110
Chromium	96.8	100	P/P	90 - 110
Copper	101	97.7	P/P	90 - 110
Copper	97.7	96.6	P/P	90 - 110
Lead	95.7	98.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A70238

Included Lab Sample IDs: 1808522, 1808523, 1808524, 1808525, 1808526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	98.5	98.2	P/P	90 - 110
Silver	98.4	98.2	P/P	90 - 110
Silver	98.6	98.4	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A70289

Included Lab Sample IDs: 1808522, 1808523, 1808524, 1808525, 1808526

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	100	104	P/P	90 - 110
Nickel	102	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A70370

Included Lab Sample IDs: 1808497, 1808498, 1808499, 1808506, 1808509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.6	99.0	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					0.101	
EPA 200.7 Rev. 4.4	Calcium	101	101	104			1.59
	Iron	103	104	103	104		0.376
	Magnesium	108	106	106	106		0.158
	Potassium	99.6	101	101	106		0.150
	Sodium	103	103	104	103		0.278
	Zinc	98.2	99.1	99.8	102		0.716
EPA 200.8 Rev. 5.4	Arsenic	98.8	99.4	98.3	103		1.07
	Cadmium	99.2	103	104	106		1.48
	Chromium	98.8	98.7	99.2	103		0.422
	Copper	97.9	94.1	94.0	96.8		0.0975
	Lead	100	100	99.3	103		0.736
	Nickel	103	99.4	98.7	101		0.714
	Silver	100	99.6	100	101		0.531
EPA 300.0 Rev. 2.1	Chloride	102	103	103		0.0081	
EPA 350.1 Rev. 2.0	Ammonia-N	97.1	99.4	100			0.840
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	95.0	99.1	97.7			1.13
	Kjeldahl Nitrogen	94.9	93.3	100			6.33
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.6	100			1.14
	NO2NO3-N	99.5	101	102			1.01
EPA 365.1 Rev. 2.0	Total-P	98.2	98.6	95.1			3.43
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	99.0	99.1			0.0854

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
SM 2120 B	Color (true)				3.83	
SM 2320 B-97	Total Alkalinity	103			0.0437	
SM 2540 C-97	TDS				5.68	
	TDS				6.25	
	TDS				2.03	
SM 4500 F-C-97	Fluoride	98.2	96.8 96.8			0.0
SM 5310 B-00	Organic Carbon	96.8	95.4 92.0			2.14
	Organic Carbon	96.8	94.0 93.6			0.338

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1808497, 1808498, 1808499, 1808506, 1808509
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1808522, 1808523, 1808524, 1808525, 1808526
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1808522, 1808523, 1808524, 1808525, 1808526
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1808497, 1808498, 1808499, 1808506, 1808509
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1808500, 1808501, 1808502, 1808507, 1808510
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1808500, 1808501, 1808502, 1808507, 1808510
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1808500, 1808501, 1808502, 1808507, 1808510
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1808500, 1808501, 1808502, 1808507, 1808510
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1808503, 1808504, 1808505, 1808508, 1808511
SM 2120 B / E31780	True Color measured at 450 nm	1808497, 1808498, 1808499, 1808506, 1808509
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1808497, 1808498, 1808499, 1808506, 1808509
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1808497, 1808498, 1808499, 1808506, 1808509
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1808497, 1808498, 1808499, 1808506, 1808509
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1808497, 1808498, 1808499, 1808506, 1808509
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1808500, 1808501, 1808502, 1808507, 1808510

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	06/15/2016			06/16/2016 16:07	Rochelle Y Jackson	1808497, 1808498, 1808499, 1808506, 1808509
EPA 200.7 Rev. 4.4	06/15/2016	06/20/2016	Elliott D. Healy	06/21/2016	Joshua Ayres	1808522, 1808523, 1808524, 1808525, 1808526
EPA 200.8 Rev. 5.4	06/15/2016	06/20/2016	Elliott D. Healy	06/24/2016	Charles J. Peterson	1808522, 1808523, 1808524, 1808525, 1808526
	06/15/2016	06/20/2016	Elliott D. Healy	06/28/2016	Robert K Palmer	1808522, 1808523, 1808524, 1808525, 1808526
EPA 300.0 Rev. 2.1	06/15/2016			06/24/2016	Julia Storbeck	1808497, 1808498, 1808499, 1808506, 1808509
EPA 350.1 Rev. 2.0	06/15/2016			06/21/2016	Diana M. Turner	1808500, 1808501, 1808502, 1808507, 1808510
EPA 351.2 Rev. 2.0	06/15/2016	06/17/2016	Sofia Elnemr	06/20/2016	Rochelle Y Jackson	1808500, 1808501, 1808502, 1808507, 1808510
EPA 353.2 Rev. 2.0	06/15/2016			06/20/2016	Beverly Y. Sanders	1808500, 1808501, 1808502, 1808507, 1808510
EPA 365.1 Rev. 2.0	06/15/2016	06/20/2016	Vijayalakshmi Reddy	06/21/2016	Lipi Saha	1808500, 1808501, 1808502, 1808507, 1808510
EPA 365.1 Rev. 2.0 dissolved	06/15/2016			06/16/2016 12:10	Virginia P. Brown	1808503
	06/15/2016			06/16/2016 12:13	Virginia P. Brown	1808504, 1808505
	06/15/2016			06/16/2016 12:14	Virginia P. Brown	1808508
	06/15/2016			06/16/2016 12:15	Virginia P. Brown	1808511
SM 2120 B	06/15/2016			06/16/2016 13:13	Rochelle Y Jackson	1808497
	06/15/2016			06/16/2016 13:14	Rochelle Y Jackson	1808498
	06/15/2016			06/16/2016 13:15	Rochelle Y Jackson	1808499
	06/15/2016			06/16/2016 13:16	Rochelle Y Jackson	1808506, 1808509
SM 2320 B-97	06/15/2016			06/22/2016	Rochelle Y Jackson	1808497, 1808498, 1808499, 1808506, 1808509
SM 2540 C-97	06/15/2016			06/17/2016	Yijie Li	1808497, 1808498, 1808499, 1808506, 1808509
SM 2540 D-97	06/15/2016			06/17/2016	Yijie Li	1808497, 1808498, 1808499, 1808506, 1808509
SM 4500 F-C-97	06/15/2016			07/01/2016	Dale L. Simmons	1808497, 1808498, 1808499, 1808506, 1808509
SM 5310 B-00	06/15/2016			06/21/2016	Diana M. Turner	1808500
	06/15/2016			06/23/2016	Diana M. Turner	1808501, 1808502, 1808507, 1808510