

Biological Analysis Report

WAS-SECT-2018-05-02-01

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

Event Description: **Alligator Creek, Minnow Creek**

Request ID: **RQ-2018-04-30-30**

Customer: **WAS-SECT**

Project ID: **SMP**

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Date Certified: 30-MAY-2018 14:03



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 groups are included in this report: Chlorophyll/Grain Size/BOD, Microbiology and Molecular.

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: Alligator Creek upstream of SR 273

Collection Date/Time: 05/02/2018 09:30

Field ID: G3WA0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989494	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.88	U	ug/L	P345265	
		Phaeophytin-a	1.3	I	ug/L	P345265	
		Chlorophyll-a, Uncorrected	1.7	I	ug/L	P345265	
1989503	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	169	A	MPN/100 mL	P344843	

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Alligator Creek upstream of SR 273

Collection Date/Time: 05/02/2018 09:30

Field ID: G3WA0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989511	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-qPCR**	1.3E+03	T	TSC/100 mL	P344387	LCS

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

Sample Location: Alligator Creek upstream of SR 273

Collection Date/Time: 05/02/2018 09:30

Field ID: G3WA0005_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989495	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.0	I	ug/L	P345265	
		Phaeophytin-a	0.86	I	ug/L	P345265	
		Chlorophyll-a, Uncorrected	1.6		ug/L	P345265	
1989504	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	261.3		MPN/100 mL	P344843	

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Alligator Creek upstream of SR 273

Collection Date/Time: 05/02/2018 09:30

Field ID: G3WA0005_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989512	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-qPCR**	1.1E+03	T	TSC/100 mL	P344387	LCS

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

Sample Location: Minnow Creek at Lovewood Rd

Collection Date/Time: 05/02/2018 10:15

Field ID: G3WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989496	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.9	I	ug/L	P345265	
		Phaeophytin-a	0.45	U	ug/L	P345265	
		Chlorophyll-a, Uncorrected	2.1		ug/L	P345265	
1989505	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	129.6		MPN/100 mL	P344843	

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Little Alligator Creek at SR 273

Collection Date/Time: 05/02/2018 10:30

Field ID: G3WA0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989497	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.5	I	ug/L	P345265	
		Phaeophytin-a	0.58	I	ug/L	P345265	
		Chlorophyll-a, Uncorrected	1.9		ug/L	P345265	
1989506	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	2419.6	J	MPN/100 mL	P344843	

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

SM 9223 Quanti-Tray: All Quanti-Tray wells were positive. Result may be higher than reported.

Sample Location: Little Alligator Creek at SR 273

Collection Date/Time: 05/02/2018 10:30

Field ID: G3WA0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989513	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-qPCR**	2.44E+05		TSC/100 mL	P344387	LCS

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

Sample Location: Alligator Creek upstream of Bentley Rd.

Collection Date/Time: 05/02/2018 11:00

Field ID: G3WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989498	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.4	I	ug/L	P345265	
		Phaeophytin-a	0.40	U	ug/L	P345265	
		Chlorophyll-a, Uncorrected	1.6	A	ug/L	P345265	
1989507	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	195.6		MPN/100 mL	P344843	

Ref. Method and Comment:

SM 10200 H (mod.): Laboratory duplicate result is 1.4 I for Chlorophyll-a Corrected and 0.40 U for Phaeophytin-a. Precision data is unavailable due to the small amount of analyte in the QC sample.

Sample Location: Alligator Creek upstream of Bentley Rd.

Collection Date/Time: 05/02/2018 11:00

Field ID: G3WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989514	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-qPCR**	2.1E+03	T	TSC/100 mL	P344387	LCS

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

Sample Location: Scurlock Creek at Pilgrim Rd.

Collection Date/Time: 05/02/2018 11:30

Field ID: G3WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989499	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.0	I	ug/L	P345265	
		Phaeophytin-a	1.0	I	ug/L	P345265	
		Chlorophyll-a, Uncorrected	1.7	I	ug/L	P345265	
1989508	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	1986.3		MPN/100 mL	P344843	

Field ID: G3WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Scurlock Creek at Pilgrim Rd.

Collection Date/Time: 05/02/2018 11:30

Field ID: G3WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989515	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-qPCR**	5.7E+03	I	TSC/100 mL	P344387	LCS

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

Sample Location: Gilberts Mill Creek at Woodrest Rd

Collection Date/Time: 05/02/2018 12:15

Field ID: G3WA0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989500	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.1	I	ug/L	P345265	
		Phaeophytin-a	5.3		ug/L	P345265	
		Chlorophyll-a, Uncorrected	6.4		ug/L	P345265	
1989509	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	290.9		MPN/100 mL	P344843	

Ref. Method and Comment:

SM 10200 H (mod.): Precision data is not available for at least one component due to the small amount of analyte in the QC sample. Refer to QA report for available precision data.

Sample Location: Gilberts Mill Creek at Woodrest Rd

Collection Date/Time: 05/02/2018 12:15

Field ID: G3WA0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989516	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-purified-qPCR**	6.69E+04	J	TSC/100 mL	P344748	LCS, SUR

Ref. Method and Comment:

SOP-PCR-1.0: No amplification of HF183 marker.

SOP-PCR-1.4: Quality control failure(s) observed. See QA report for details. Precision data unavailable for Analysis Batch A83918.

Sample Location: Unnamed Creek at Palmview Rd

Collection Date/Time: 05/02/2018 11:55

Field ID: G3WA0013

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989501	SM 10200 H (mod.)	Chlorophyll-a, Corrected	12		ug/L	P345273	RPD
		Phaeophytin-a	11		ug/L	P345273	
		Chlorophyll-a, Uncorrected	19		ug/L	P345273	
1989510	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	1986.3		MPN/100 mL	P344843	

Sample Location: Unnamed Creek at Palmview Rd

Collection Date/Time: 05/02/2018 11:55

Field ID: G3WA0013

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1989517	SOP-PCR-1.0	HF183-qPCR**	120	T	GEU/100 mL	P344387	
	SOP-PCR-1.4	BacR-qPCR**	1.9E+03	T	TSC/100 mL	P344387	LCS

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)
Batch ID: P345265

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Chlorophyll-a, Uncorrected	0.40	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Reference Method: SM 10200 H (mod.)
Batch ID: P345273

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Chlorophyll-a, Uncorrected	0.40	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Reference Method: SM 9223 Quanti-Tray
Batch ID: P344843

Component	Result	Code	Units
Escherichia Coli-Quanti-Tray	1.0	U	MPN/100 mL

Reference Method: SOP-PCR-1.0
Batch ID: P344387

Component	Result	Code	Units
HF183-qPCR	280	U	GEU/100 mL

Reference Method: SOP-PCR-1.4
Batch ID: P344387

Component	Result	Code	Units
BacR-qPCR	3.0E+03	U	TSC/100 mL

Reference Method: SOP-PCR-1.4
Batch ID: P344748

Component	Result	Code	Units
BacR-purified-qPCR	510	U	TSC/100 mL

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 10200 H (mod.)
Batch ID: P345265

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	98.5		P	84 - 116

Reference Method: SM 10200 H (mod.)
Batch ID: P345273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	96.1		P	84 - 116

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SOP-PCR-1.0
Batch ID: P344387

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	116	119	P/P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P344387

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	140	33.8	P/F	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P344748

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-purified-qPCR	92.2	18.5	P/F	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0
Batch ID: P344387

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984442	HF183-qPCR	107		P	50 - 175
1984444	HF183-qPCR	103		P	50 - 175
1984445	HF183-qPCR	98.1		P	50 - 175
1989511	HF183-qPCR	96.3		P	50 - 175
1989512	HF183-qPCR	100		P	50 - 175
1989513	HF183-qPCR	97.8		P	50 - 175
1989514	HF183-qPCR	105	105	P/P	50 - 175
1989515	HF183-qPCR	76.5		P	50 - 175
1989516	HF183-qPCR	74.8		P	50 - 175
1989517	HF183-qPCR	78.6		P	50 - 175
1989782	HF183-qPCR	101		P	50 - 175
1989903	HF183-qPCR	97.0		P	50 - 175

Reference Method: SOP-PCR-1.4
Batch ID: P344387

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1984445	BacR-qPCR	77.2		P	50 - 175
1989284	BacR-qPCR	79.4		P	50 - 175
1989285	BacR-qPCR	77.5		P	50 - 175
1989511	BacR-qPCR	75.7		P	50 - 175
1989512	BacR-qPCR	68.4		P	50 - 175
1989513	BacR-qPCR	72.5		P	50 - 175
1989514	BacR-qPCR	97.0	76.2	P/P	50 - 175
1989515	BacR-qPCR	55.1		P	50 - 175
1989517	BacR-qPCR	89.6		P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.4
 Batch ID: P344748

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1989516	BacR-purified-qPCR	81.0		P	50 - 175

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
 Batch ID: P345265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1989498	Chlorophyll-a, Uncorrected	1.26	Sample	P	0 - 25

Reference Method: SM 10200 H (mod.)
 Batch ID: P345273

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1989642	Chlorophyll-a, Corrected	29.8	Sample	F	0 - 25
1989642	Chlorophyll-a, Uncorrected	1.43	Sample	P	0 - 25
1989642	Phaeophytin-a	15.9	Sample	P	0 - 25

Reference Method: SM 9223 Quanti-Tray
 Batch ID: P344843

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1989141	Escherichia Coli-Quanti-Tray	11.5	Sample	P	0 - 80
1989357	Escherichia Coli-Quanti-Tray	46.2	Sample	P	0 - 80
1989503	Escherichia Coli-Quanti-Tray	29.4	Sample	P	0 - 80

Reference Method: SOP-PCR-1.0
 Batch ID: P344387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1989514	HF183-qPCR	0.553	Spike	P	0 - 25

Reference Method: SOP-PCR-1.4
 Batch ID: P344387

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1989514	BacR-qPCR	24.0	Spike	P	0 - 25

* 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 Surrogates

Quality Assurance Report Surrogates

Lab Sample ID: 1989511
Field Sample ID: G3WA0005

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	109	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	90.3	P	50 - 300

Lab Sample ID: 1989512
Field Sample ID: G3WA0005_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	117	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	95.2	P	50 - 300

Lab Sample ID: 1989513
Field Sample ID: G3WA0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	112	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	96.8	P	50 - 300

Lab Sample ID: 1989514
Field Sample ID: G3WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	127	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	92.3	P	50 - 300

Lab Sample ID: 1989515
Field Sample ID: G3WA0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	80.6	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	62.1	P	50 - 300

Lab Sample ID: 1989516
Field Sample ID: G3WA0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	63.8	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	9.92	F	30 - 300

Lab Sample ID: 1989517
Field Sample ID: G3WA0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	93.1	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	74.8	P	50 - 300

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision	MS
				LCS	SMP
SM 10200 H (mod.)	Chlorophyll-a, Corrected	98.5			

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery			MS % Recovery			LCS	Precision	
									SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Corrected	96.1							29.8	
	Chlorophyll-a, Uncorrected								1.26	
	Chlorophyll-a, Uncorrected								1.43	
	Phaeophytin-a								15.9	
SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray								11.5	46.2
									29.4	
SOP-PCR-1.0	HF183-qPCR	119	116		107	103	98.1			0.553
SOP-PCR-1.4	BacR-purified-qPCR	18.5	92.2		81.0					
	BacR-qPCR	33.8	140		77.2	79.4	77.5			24.0
					75.7					

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	1989494, 1989495, 1989496, 1989497, 1989498, 1989499, 1989500, 1989501
SM 9223 Quanti-Tray / E31780	Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems	1989503, 1989504, 1989505, 1989506, 1989507, 1989508, 1989509, 1989510
SOP-PCR-1.0 / E31780	Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction	1989511, 1989512, 1989513, 1989514, 1989515, 1989516, 1989517
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	1989511, 1989512, 1989513, 1989514, 1989515, 1989517
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	1989516

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 10200 H (mod.)	05/02/2018	05/03/2018 08:13	Mariam Hanna	05/08/2018 09:05	Carina A. Tull	1989494, 1989495, 1989496, 1989497, 1989498, 1989499, 1989500
	05/02/2018	05/03/2018 08:13	Mariam Hanna	05/09/2018 08:30	Carina A. Tull	1989501
SM 9223 Quanti-Tray	05/02/2018	05/02/2018 17:00	Peterson Janvier	05/03/2018 11:15	Edwin Gonzalez-Soto	1989503, 1989504, 1989505, 1989506, 1989507, 1989508, 1989509, 1989510
	05/02/2018	05/03/2018 09:15	Puja Jasrotia	05/04/2018 13:01	Mailin Lopez	1989511, 1989512, 1989513, 1989514, 1989515, 1989516, 1989517
SOP-PCR-1.4	05/02/2018	05/03/2018 09:15	Puja Jasrotia	05/04/2018 15:46	Sarah Menz	1989511, 1989512, 1989513, 1989514, 1989515, 1989517
	05/02/2018	05/03/2018 09:15	Sarah Menz	05/15/2018 14:34	Sarah Menz	1989516