

Biological Analysis Report

WAS-SECT-2019-05-01-02

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

Event Description: **NWQI - Alligator Creek**

Request ID: **RQ-2019-04-29-30**

Customer: **WAS-SECT**

Project ID: **SMP**

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Certified by: Jacqueline Savage, Environmental Administrator

Date Certified: 05-JUN-2019 11:29

A handwritten signature in black ink that reads "Jackie Savage". The signature is written in a cursive, flowing style.

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 by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Pine Barn Creek at Woodrest Rd

Collection Date/Time: 05/01/2019 11:46

Field ID: G3WA0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082353	SM 10200 H (mod.)	Chlorophyll-a, Corrected	7.7		ug/L	P363566	
		Phaeophytin-a	3.8	I	ug/L	P363566	
		Chlorophyll-a, Uncorrected	10		ug/L	P363566	
2082361	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	56.8		MPN/100 mL	P363484	
2082369	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P362909	
	SOP-PCR-1.4	BacR-qPCR**	3.0E+03	U	TSC/100 mL	P362909	

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: 05/01/2019 11:23

Field ID: G3WA0009

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082354	SM 10200 H (mod.)	Chlorophyll-a, Corrected	12		ug/L	P363566	
		Phaeophytin-a	4.3	I	ug/L	P363566	
		Chlorophyll-a, Uncorrected	16		ug/L	P363566	
2082362	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	178.5		MPN/100 mL	P363484	
2082370	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P362909	
	SOP-PCR-1.4	BacR-qPCR**	3.0E+03	U	TSC/100 mL	P362909	

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 Bentley Rd.

Collection Date/Time: 05/01/2019 10:52

Field ID: G3WA0004

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082355	SM 10200 H (mod.)	Chlorophyll-a, Corrected	7.5		ug/L	P363566	
		Phaeophytin-a	2.0	U	ug/L	P363566	
		Chlorophyll-a, Uncorrected	8.5		ug/L	P363566	
2082363	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	1986.3		MPN/100 mL	P363484	
2082371	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P363172	
	SOP-PCR-1.4	BacR-qPCR**	1.5E+03	U	TSC/100 mL	P363172	MS

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: 05/01/2019 10:31

Field ID: G3WA0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082356	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.7	I	ug/L	P363566	
		Phaeophytin-a	1.8	U	ug/L	P363566	
		Chlorophyll-a, Uncorrected	5.4		ug/L	P363566	
2082364	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	214.2		MPN/100 mL	P363484	
2082372	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P363172	

Field ID: G3WA0006

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082372	SOP-PCR-1.4	BacR-qPCR**	2.39E+04		TSC/100 mL	P363172	MS

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: Unnamed Creek at Palmview Rd

Collection Date/Time: 05/01/2019 12:36

Field ID: G3WA0013

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082357	SM 10200 H (mod.)	Chlorophyll-a, Corrected	12		ug/L	P363566	
		Phaeophytin-a	3.2	I	ug/L	P363566	
		Chlorophyll-a, Uncorrected	14		ug/L	P363566	
2082365	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	298.7		MPN/100 mL	P363484	
2082373	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P363172	
	SOP-PCR-1.4	BacR-qPCR**	3.0E+03	U	TSC/100 mL	P363172	MS

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: Unnamed Creek at Woodrest Rd

Collection Date/Time: 05/01/2019 12:11

Field ID: G3WA0010

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082358	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.6	I	ug/L	P363566	
		Phaeophytin-a	3.0	U	ug/L	P363566	
		Chlorophyll-a, Uncorrected	6.7		ug/L	P363566	
2082366	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	1850.0		MPN/100 mL	P363484	
2082374	SOP-PCR-1.0	HF183-qPCR**	640	I	GEU/100 mL	P363172	
	SOP-PCR-1.4	BacR-qPCR**	8.5E+04	AJ	TSC/100 mL	P363172	MS

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.

SOP-PCR-1.4: Quality control failure(s) observed. See QA report for details.

Sample Location: Alligator Creek Upstream of SR 273

Collection Date/Time: 05/01/2019 10:02

Field ID: G3WA0005

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082352	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.4	I	ug/L	P363566	
		Phaeophytin-a	3.0	I	ug/L	P363566	
		Chlorophyll-a, Uncorrected	5.4		ug/L	P363566	
2082360	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	866.4		MPN/100 mL	P363484	
2082368	SOP-PCR-1.0	HF183-qPCR**	280	U	GEU/100 mL	P362909	
	SOP-PCR-1.4	BacR-qPCR**	3.0E+03	U	TSC/100 mL	P362909	

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: Minnow Creek At Lovewood Rd

Collection Date/Time: 05/01/2019 09:33

Field ID: G3WA0008

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2082351	SM 10200 H (mod.)	Chlorophyll-a, Corrected	5.0	I	ug/L	P363566	
		Phaeophytin-a	2.2	U	ug/L	P363566	
		Chlorophyll-a, Uncorrected	5.1		ug/L	P363566	
2082359	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	172.6		MPN/100 mL	P363484	
2082367	SOP-PCR-4.0	HF183 - Human Source Marker**	Below Threshold			P363169	

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.

Quality Assurance Report
Method Blank Results

Reference Method: SM 10200 H (mod.)
Batch ID: P363566

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.82	U	ug/L
Chlorophyll-a, Uncorrected	0.60	U	ug/L
Phaeophytin-a	0.90	U	ug/L

Reference Method: SM 9223 Quanti-Tray
Batch ID: P363484

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

Reference Method: SOP-PCR-1.0
Batch ID: P362909

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

Reference Method: SOP-PCR-1.0
Batch ID: P363172

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

Reference Method: SOP-PCR-1.4
Batch ID: P362909

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

Reference Method: SOP-PCR-1.4
Batch ID: P363172

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 10200 H (mod.)
 Batch ID: P363566

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	106		P	84 - 116

Reference Method: SOP-PCR-1.0
 Batch ID: P362909

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	116	113	P/P	50 - 175

Reference Method: SOP-PCR-1.0
 Batch ID: P363172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	130	123	P/P	50 - 175

Reference Method: SOP-PCR-1.4
 Batch ID: P362909

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	91.8	81.3	P/P	50 - 175

Reference Method: SOP-PCR-1.4
 Batch ID: P363172

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	104	84.2	P/P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0
 Batch ID: P362909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2081377	HF183-qPCR	92.3		P	50 - 175
2081378	HF183-qPCR	86.2		P	50 - 175
2081891	HF183-qPCR	81.5		P	50 - 175
2081892	HF183-qPCR	79.6		P	50 - 175
2082147	HF183-qPCR	89.4	87.2	P/P	50 - 175
2082296	HF183-qPCR	94.4		P	50 - 175
2082297	HF183-qPCR	78.0		P	50 - 175
2082298	HF183-qPCR	125		P	50 - 175
2082299	HF183-qPCR	99.5		P	50 - 175
2082300	HF183-qPCR	89.8		P	50 - 175
2082368	HF183-qPCR	78.2		P	50 - 175
2082369	HF183-qPCR	75.2		P	50 - 175
2082370	HF183-qPCR	88.2		P	50 - 175

Reference Method: SOP-PCR-1.0
 Batch ID: P363172

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

Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0

Batch ID: P363172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076372	HF183-qPCR	103		P	50 - 175
2078230	HF183-qPCR	95.8		P	50 - 175
2078231	HF183-qPCR	97.9		P	50 - 175
2079339	HF183-qPCR	100		P	50 - 175
2082371	HF183-qPCR	91.4		P	50 - 175
2082372	HF183-qPCR	90.3		P	50 - 175
2082373	HF183-qPCR	75.0		P	50 - 175
2082374	HF183-qPCR	69.4	62.6	P/P	50 - 175
2083121	HF183-qPCR	86.8		P	50 - 175
2083122	HF183-qPCR	108		P	50 - 175
2083298	HF183-qPCR	95.4		P	50 - 175
2084684	HF183-qPCR	114		P	50 - 175
2084685	HF183-qPCR	87.0		P	50 - 175

Reference Method: SOP-PCR-1.4

Batch ID: P362909

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2081891	BacR-qPCR	58.4		P	50 - 175
2081892	BacR-qPCR	70.3		P	50 - 175
2082147	BacR-qPCR	68.7	71.0	P/P	50 - 175
2082297	BacR-qPCR	70.8		P	50 - 175
2082300	BacR-qPCR	80.4		P	50 - 175
2082368	BacR-qPCR	62.8		P	50 - 175
2082369	BacR-qPCR	64.3		P	50 - 175
2082370	BacR-qPCR	75.3		P	50 - 175

Reference Method: SOP-PCR-1.4

Batch ID: P363172

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2076372	BacR-qPCR	75.8		P	50 - 175
2078231	BacR-qPCR	85.8		P	50 - 175
2079339	BacR-qPCR	78.6		P	50 - 175
2082371	BacR-qPCR	69.5		P	50 - 175
2082372	BacR-qPCR	69.6		P	50 - 175
2082373	BacR-qPCR	54.5		P	50 - 175
2082374	BacR-qPCR	48.0	38.9	F/F	50 - 175
2083121	BacR-qPCR	79.7		P	50 - 175
2083122	BacR-qPCR	107		P	50 - 175
2083298	BacR-qPCR	78.6		P	50 - 175
2084684	BacR-qPCR	83.6		P	50 - 175
2084685	BacR-qPCR	74.1		P	50 - 175

Quality Assurance Report

Precision

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P363566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082125	Chlorophyll-a, Corrected	3.67	Sample	P	0 - 25
2082125	Chlorophyll-a, Uncorrected	4.88	Sample	P	0 - 25

Reference Method: SM 9223 Quanti-Tray
Batch ID: P363484

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2081972	Escherichia Coli-Quanti-Tray	40.0	Sample	P	0 - 80
2082011	Escherichia Coli-Quanti-Tray	14.9	Sample	P	0 - 80
2082290	Escherichia Coli-Quanti-Tray	13.2	Sample	P	0 - 80

Reference Method: SOP-PCR-1.0
Batch ID: P362909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082147	HF183-qPCR	2.52	Spike	P	0 - 25

Reference Method: SOP-PCR-1.0
Batch ID: P363172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082374	HF183-qPCR	10.4	Spike	P	0 - 25

Reference Method: SOP-PCR-1.4
Batch ID: P362909

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082147	BacR-qPCR	3.32	Spike	P	0 - 25

Reference Method: SOP-PCR-1.4
Batch ID: P363172

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2082374	BacR-qPCR	22.0	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

Lab Sample ID: 2082368
Field Sample ID: G3WA0005

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 2082368
 Field Sample ID: G3WA0005

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	89.1	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	88.3	P	50 - 300

Lab Sample ID: 2082369
 Field Sample ID: G3WA0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	87.2	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	85.2	P	50 - 300

Lab Sample ID: 2082370
 Field Sample ID: G3WA0009

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	102	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	98.5	P	50 - 300

Lab Sample ID: 2082371
 Field Sample ID: G3WA0004

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	94.6	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	92.1	P	50 - 300

Lab Sample ID: 2082372
 Field Sample ID: G3WA0006

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	91.4	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	95.5	P	50 - 300

Lab Sample ID: 2082373
 Field Sample ID: G3WA0013

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	82.1	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	81.3	P	50 - 300

Lab Sample ID: 2082374
 Field Sample ID: G3WA0010

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	74.1	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	74.4	P	50 - 300

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision
			LCS	SMP
				MS
SM 10200 H (mod.)	Chlorophyll-a, Corrected	106		3.67

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision	
								SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Uncorrected							4.88	
SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray							40.0 14.9	
								13.2	
SOP-PCR-1.0	HF183-qPCR	113	116	81.5	79.6	89.4			2.52
				87.2					
	HF183-qPCR	123	130	75.0	69.4	62.6			10.4
				91.4					
SOP-PCR-1.4	BacR-qPCR	81.3	91.8	58.4	70.3	68.7			3.32
				71.0					
	BacR-qPCR	84.2	104	54.5	48.0	38.9			22.0
				69.5					

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	2082351, 2082352, 2082353, 2082354, 2082355, 2082356, 2082357, 2082358
SM 9223 Quanti-Tray / E31780	Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems	2082359, 2082360, 2082361, 2082362, 2082363, 2082364, 2082365, 2082366
SOP-PCR-1.0 / E31780	Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction	2082368, 2082369, 2082370, 2082371, 2082372, 2082373, 2082374
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	2082368, 2082369, 2082370, 2082371, 2082372, 2082373, 2082374
SOP-PCR-4.0 / E31780	Preparation of Samples by Filtration and held for qPCR Analysis	2082367

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 10200 H (mod.)	05/01/2019	05/01/2019 16:15	Jennifer Mihalic	05/06/2019 14:16	Carina A. Tull	2082351, 2082352, 2082353, 2082354, 2082355, 2082356, 2082357, 2082358
SM 9223 Quanti-Tray	05/01/2019	05/01/2019 16:41	Edwin Gonzalez-Soto	05/02/2019 10:45	Edwin Gonzalez-Soto	2082359, 2082360, 2082361, 2082362, 2082363, 2082364, 2082365, 2082366
SOP-PCR-1.0	05/01/2019	05/02/2019 09:30	Angela Smith	05/09/2019 11:17	Sarah Menz	2082368, 2082369, 2082370
	05/01/2019	05/02/2019 09:30	Angela Smith	05/13/2019 10:08	Sarah Menz	2082371, 2082372, 2082373, 2082374
SOP-PCR-1.4	05/01/2019	05/02/2019 09:30	Angela Smith	05/13/2019 14:57	Sarah Menz	2082368, 2082369, 2082370
	05/01/2019	05/02/2019 09:30	Angela Smith	05/13/2019 15:40	Sarah Menz	2082371, 2082372, 2082373, 2082374
SOP-PCR-4.0	05/01/2019	05/02/2019 09:30	Angela Smith	05/13/2019 08:33	Sarah Menz	2082367