

Biological Analysis Report

SO-DIST-2019-06-19-02

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

Overflow Analyses Performed By:
Benchmark EnviroAnalytical, Inc. - North Port
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North Port, FL 34289
DOH Accreditation E85086

Event Description: **P Cricks 1**
Request ID: **RQ-2019-06-10-37**
Customer: **SO-DIST**
Project ID: **SMP**

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Date Certified: 18-JUL-2019 10:59



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, Molecular and Overflow.

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: HawthorneCreek@Reynolds

Collection Date/Time: 06/18/2019 09:45

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096754	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.9	I	ug/L	P367076	
		Phaeophytin-a	1.6	I	ug/L	P367076	
		Chlorophyll-a, Uncorrected	2.9		ug/L	P367076	
2096759	SOP-PCR-1.0	HF183-qPCR**	71	U	GEU/100 mL	P365488	
2096766	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	294		MPN/100 mL		

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: Hog Bay @ CR 763

Collection Date/Time: 06/18/2019 10:15

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096755	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.0	I	ug/L	P367076	
		Phaeophytin-a	1.6	I	ug/L	P367076	
		Chlorophyll-a, Uncorrected	3.0		ug/L	P367076	
2096760	SOP-PCR-1.0	HF183-qPCR**	150	I	GEU/100 mL	P365930	LCS
	SOP-PCR-1.4	BacR-qPCR**	1.0E+03	U	TSC/100 mL	P365930	
2096767	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	855		MPN/100 mL		

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: MyrtleSlough@PinelIsland

Collection Date/Time: 06/18/2019 11:10

Field ID: G3SD0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096758	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.1		ug/L	P367076	
		Phaeophytin-a	0.90	U	ug/L	P367076	
		Chlorophyll-a, Uncorrected	3.7		ug/L	P367076	
2096763	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P366460	
	SOP-PCR-1.2	GULL2-qPCR**	8.4E+03	U	TSC/100 mL	P366460	
	SOP-PCR-1.3	GFD-purified-qPCR**	220	IJ	TSC/100 mL	P366837	LCS, MS
	SOP-PCR-1.4	BacR-qPCR**	1.5E+03	U	TSC/100 mL	P366460	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold			P365679	
2096770	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	5172		MPN/100 mL		

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-1.2: Precision data unavailable due to inhibition in QC sample.

SOP-PCR-1.3: Quality control failure(s) observed. See QA report for details.

Sample Location: Myrtle Slough @ SR 31

Collection Date/Time: 06/18/2019 11:50

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096756	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.0	I	ug/L	P367076	
		Phaeophytin-a	1.1	U	ug/L	P367076	

Field ID: G3SD0097

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096756	SM 10200 H (mod.)	Chlorophyll-a, Uncorrected	2.4		ug/L	P367076	
2096761	SOP-PCR-1.0	HF183-qPCR**	140	U	GEU/100 mL	P365930	LCS
	SOP-PCR-1.4	BacR-qPCR**	8.9E+03		TSC/100 mL	P365930	
2096768	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	52		MPN/100 mL		

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: Myrtle Slough @ SR 31

Collection Date/Time: 06/18/2019 11:55

Field ID: G3SD0097_DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2096757	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.8		ug/L	P367076	
		Phaeophytin-a	0.90	U	ug/L	P367076	
		Chlorophyll-a, Uncorrected	3.2		ug/L	P367076	
2096762	SOP-PCR-1.0	HF183-qPCR**	240	I	GEU/100 mL	P365930	LCS
	SOP-PCR-1.4	BacR-qPCR**	8.2E+03		TSC/100 mL	P365930	
2096769	SM 9223 Quanti-Tray	Escherichia Coli-Quanti-Tray	75		MPN/100 mL		

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-1.0: Duplicate was analyzed and result is 140 U.

SOP-PCR-1.4: Duplicate was analyzed and result is 6.8E+03 I

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)

Batch ID: P367076

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: SOP-PCR-1.0

Batch ID: P365488

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

Reference Method: SOP-PCR-1.0

Batch ID: P365930

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

Reference Method: SOP-PCR-1.0

Batch ID: P366460

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

Quality Assurance Report Method Blank Results

Reference Method: SOP-PCR-1.2
Batch ID: P366460

Component	Result	Code	Units
GULL2-qPCR	1.7E+04	U	TSC/100 mL

Reference Method: SOP-PCR-1.3
Batch ID: P366837

Component	Result	Code	Units
GFD-purified-qPCR	340	U	TSC/100 mL

Reference Method: SOP-PCR-1.4
Batch ID: P365930

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

Reference Method: SOP-PCR-1.4
Batch ID: P366460

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 10200 H (mod.)
Batch ID: P367076

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	98.4		P	84 - 116

Reference Method: SOP-PCR-1.0
Batch ID: P365488

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	122	142	P/P	50 - 175

Reference Method: SOP-PCR-1.0
Batch ID: P365930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	125	185	P/F	50 - 175

Reference Method: SOP-PCR-1.0
Batch ID: P366460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	149	143	P/P	50 - 175

Reference Method: SOP-PCR-1.2
Batch ID: P366460

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

Reference Method: SOP-PCR-1.2
 Batch ID: P366460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GULL2-qPCR	235	188	P/P	50 - 300

Reference Method: SOP-PCR-1.3
 Batch ID: P366837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
GFD-purified-qPCR	203	71.5	F/P	50 - 175

Reference Method: SOP-PCR-1.4
 Batch ID: P365930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	90.9	78.8	P/P	50 - 175

Reference Method: SOP-PCR-1.4
 Batch ID: P366460

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
BacR-qPCR	83.2	69.3	P/P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0
 Batch ID: P365488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2094705	HF183-qPCR	67.8	59.5	P/P	50 - 175
2095211	HF183-qPCR	83.0		P	50 - 175
2095212	HF183-qPCR	101		P	50 - 175
2095213	HF183-qPCR	94.5		P	50 - 175
2095214	HF183-qPCR	99.2		P	50 - 175
2096075	HF183-qPCR	90.7		P	50 - 175
2096076	HF183-qPCR	88.7		P	50 - 175
2096077	HF183-qPCR	93.3		P	50 - 175
2096625	HF183-qPCR	95.8		P	50 - 175
2096626	HF183-qPCR	92.1		P	50 - 175
2096627	HF183-qPCR	86.7		P	50 - 175
2096628	HF183-qPCR	106		P	50 - 175
2096759	HF183-qPCR	95.6		P	50 - 175

Reference Method: SOP-PCR-1.0
 Batch ID: P365930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091168	HF183-qPCR	104		P	50 - 175
2092578	HF183-qPCR	98.0		P	50 - 175
2092579	HF183-qPCR	97.2		P	50 - 175
2096760	HF183-qPCR	104		P	50 - 175
2096761	HF183-qPCR	115		P	50 - 175
2096762	HF183-qPCR	126	123	P/P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.0

Batch ID: P365930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2097400	HF183-qPCR	93.6		P	50 - 175
2097401	HF183-qPCR	109		P	50 - 175
2097402	HF183-qPCR	90.7		P	50 - 175
2097845	HF183-qPCR	91.5		P	50 - 175
2098198	HF183-qPCR	95.6		P	50 - 175
2098560	HF183-qPCR	88.2		P	50 - 175
2098561	HF183-qPCR	91.5		P	50 - 175

Reference Method: SOP-PCR-1.0

Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095804	HF183-qPCR	99.2		P	50 - 175
2095805	HF183-qPCR	100		P	50 - 175
2096551	HF183-qPCR	119		P	50 - 175
2096552	HF183-qPCR	101		P	50 - 175
2096585	HF183-qPCR	109		P	50 - 175
2096763	HF183-qPCR	118		P	50 - 175
2096968	HF183-qPCR	108		P	50 - 175
2096969	HF183-qPCR	89.1		P	50 - 175
2097844	HF183-qPCR	104		P	50 - 175
2098562	HF183-qPCR	97.0		P	50 - 175
2099657	HF183-qPCR	95.5		P	50 - 175
2099658	HF183-qPCR	102		P	50 - 175
2100038	HF183-qPCR	71.7	65.2	P/P	50 - 175

Reference Method: SOP-PCR-1.2

Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095804	GULL2-qPCR	143		P	50 - 300
2095805	GULL2-qPCR	149		P	50 - 300
2096551	GULL2-qPCR	142		P	50 - 300
2096552	GULL2-qPCR	143		P	50 - 300
2096585	GULL2-qPCR	146		P	50 - 300
2096763	GULL2-qPCR	164		P	50 - 300
2096968	GULL2-qPCR	158		P	50 - 300
2096969	GULL2-qPCR	65.2		P	50 - 300
2098562	GULL2-qPCR	116		P	50 - 300

Reference Method: SOP-PCR-1.3

Batch ID: P366837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2096551	GFD-purified-qPCR	153		P	50 - 175
2096552	GFD-purified-qPCR	272		F	50 - 175
2096585	GFD-purified-qPCR	258		F	50 - 175
2096763	GFD-purified-qPCR	252		F	50 - 175
2096968	GFD-purified-qPCR	393		F	50 - 175
2096969	GFD-purified-qPCR	316		F	50 - 175
2097845	GFD-purified-qPCR	301		F	50 - 175
2098562	GFD-purified-qPCR	96.9		P	50 - 175

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.3

Batch ID: P366837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2100038	GFD-purified-qPCR	248	221	F/F	50 - 175
2101175	GFD-purified-qPCR	381		F	50 - 175
2101593	GFD-purified-qPCR	311		F	50 - 175
2101594	GFD-purified-qPCR	321		F	50 - 175
2101595	GFD-purified-qPCR	292		F	50 - 175

Reference Method: SOP-PCR-1.4

Batch ID: P365930

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2091168	BacR-qPCR	73.0		P	50 - 175
2092578	BacR-qPCR	60.0		P	50 - 175
2092579	BacR-qPCR	66.8		P	50 - 175
2096760	BacR-qPCR	80.7		P	50 - 175
2096761	BacR-qPCR	69.6		P	50 - 175
2096762	BacR-qPCR	83.5	88.5	P/P	50 - 175
2098198	BacR-qPCR	72.6		P	50 - 175

Reference Method: SOP-PCR-1.4

Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095804	BacR-qPCR	67.6		P	50 - 175
2095805	BacR-qPCR	65.5		P	50 - 175
2096551	BacR-qPCR	66.6		P	50 - 175
2096552	BacR-qPCR	64.7		P	50 - 175
2096585	BacR-qPCR	66.7		P	50 - 175
2096763	BacR-qPCR	80.8		P	50 - 175
2096968	BacR-qPCR	75.0		P	50 - 175
2096969	BacR-qPCR	65.0		P	50 - 175
2098562	BacR-qPCR	66.7		P	50 - 175
2100038	BacR-qPCR	61.6	51.4	P/P	50 - 175

Quality Assurance Report Precision

Reference Method: SOP-PCR-1.0

Batch ID: P365488

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2094705	HF183-qPCR	13.0	Spike	P	0 - 25

Reference Method: SOP-PCR-1.0

Batch ID: P365930

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096762	HF183-qPCR	2.64	Spike	P	0 - 25

Quality Assurance Report Precision

Reference Method: SOP-PCR-1.0
Batch ID: P366460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100038	HF183-qPCR	9.47	Spike	P	0 - 25

Reference Method: SOP-PCR-1.3
Batch ID: P366837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100038	GFD-purified-qPCR	11.2	Spike	P	0 - 25

Reference Method: SOP-PCR-1.4
Batch ID: P365930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2096762	BacR-qPCR	5.83	Spike	P	0 - 25

Reference Method: SOP-PCR-1.4
Batch ID: P366460

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2100038	BacR-qPCR	18.0	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: 2096759
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	88.5	P	50 - 300

Lab Sample ID: 2096760
Field Sample ID: G3SD0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	106	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	131	P	50 - 300

Lab Sample ID: 2096761
Field Sample ID: G3SD0097

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	105	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	131	P	50 - 300

Quality Assurance Report Surrogates

Lab Sample ID: 2096762
Field Sample ID: G3SD0097_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	113	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	141	P	50 - 300

Lab Sample ID: 2096763
Field Sample ID: G3SD0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	103	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	103	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	109	P	50 - 300

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery			LCS	Precision SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Corrected	98.4							
SOP-PCR-1.0	HF183-qPCR	142	122	67.8	59.5	83.0			13.0
	HF183-qPCR	185	125	104	115	126			2.64
	HF183-qPCR	143	149	108	89.1	104			9.47
SOP-PCR-1.2	GULL2-qPCR	188	235	143	149	142			
SOP-PCR-1.3	GFD-purified-qPCR	71.5	203	301	248	221			11.2
SOP-PCR-1.4	BacR-qPCR	78.8	90.9	80.7	69.6	83.5			5.83
	BacR-qPCR	69.3	83.2	66.7	67.6	65.5			18.0

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	2096754, 2096755, 2096756, 2096757, 2096758
SM 9223 Quanti-Tray / E85086	E. coli by Colilert/QT by BEA South in North Port	2096766, 2096767, 2096768, 2096769, 2096770
SOP-PCR-1.0 / E31780	Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction	2096759, 2096760, 2096761, 2096762, 2096763
SOP-PCR-1.2 / E31780	Detection and quantification of coastal bird specific Catellicoccus marimammalium Gull2 genetic marker with quantitative polymerase chain reaction	2096763
SOP-PCR-1.3 / E31780	Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction	2096763
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	2096760, 2096761, 2096762, 2096763
SOP-PCR-4.0 / E31780	Preparation of Samples by Filtration and held for qPCR Analysis	2096763

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 10200 H (mod.)	06/19/2019	06/19/2019 13:35	Yuliya Danyuk	07/03/2019 10:06	Peterson Janvier	2096754, 2096755, 2096756, 2096757, 2096758
SM 9223 Quanti-Tray	06/18/2019	06/18/2019 14:38		06/19/2019 15:21	Benchmark EnviroAnalytical in North Port	2096766, 2096767, 2096768, 2096769, 2096770
SOP-PCR-1.0	06/19/2019	06/19/2019 13:45	Angela Smith	06/28/2019 10:46	Mailin Lopez	2096759
	06/19/2019	06/19/2019 13:45	Angela Smith	07/01/2019 12:09	Mailin Lopez	2096760, 2096761, 2096762
	06/19/2019	06/19/2019 13:45	Sarah Menz	07/05/2019 11:45	Mailin Lopez	2096763
SOP-PCR-1.2	06/19/2019	06/19/2019 13:45	Sarah Menz	07/08/2019 13:47	Mailin Lopez	2096763
SOP-PCR-1.3	06/19/2019	06/19/2019 13:45	Mailin Lopez	07/15/2019 17:22	Mailin Lopez	2096763
SOP-PCR-1.4	06/19/2019	06/19/2019 13:45	Angela Smith	07/02/2019 08:27	Mailin Lopez	2096760, 2096761, 2096762
	06/19/2019	06/19/2019 13:45	Sarah Menz	07/05/2019 17:00	Mailin Lopez	2096763
SOP-PCR-4.0	06/19/2019	06/19/2019 13:45	Angela Smith	06/28/2019 11:34	Sarah Menz	2096763