

Biological Analysis Report

NE-DIST-2019-06-26-01

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

Overflow Analyses Performed By:
ALS Environmental - Jacksonville
9143 Philips Highway, Suite 200
Jacksonville, FL 32256
DOH Accreditation E82502

Event Description: **LSJR North Boat**
Request ID: **RQ-2019-06-24-06**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish

For additional information please contact
Cheryl Swanson - Administrator
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Diane Power - Bench Biology
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Certified by: Cheryl A. Swanson, Program Administrator

Date Certified: 06-AUG-2019 13:22



NON-CONFORMANCE REPORT INCLUDED

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: RIBAUT RIVER AT US-1

Collection Date/Time: 06/25/2019 09:20

Field ID: 20030133

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098539	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.7		ug/L	P366842	RPD
		Phaeophytin-a	1.2	I	ug/L	P366842	
		Chlorophyll-a, Uncorrected	5.6		ug/L	P366842	RPD
2098556	ASTM D650399	ENTEROCOCCI-ENTEROLERT	150		MPN/100 mL		
2098562	SOP-PCR-1.0	HF183-qPCR**	190	U	GEU/100 mL	P366460	
	SOP-PCR-1.2	GULL2-qPCR**	1.1E+04	U	TSC/100 mL	P366460	
	SOP-PCR-1.3	GFD-purified-qPCR**	250	I	TSC/100 mL	P366837	LCS, MS
	SOP-PCR-1.4	BacR-qPCR**	2.0E+03	U	TSC/100 mL	P366460	
	SOP-PCR-4.0	HF183 - Human Source Marker**	Above Threshold			P365679	

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. See nonconformance report #7821.

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

Sample Location: RIBAUT R MONCRIEF RD BR

Collection Date/Time: 06/25/2019 09:40

Field ID: 20030129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098540	SM 10200 H (mod.)	Chlorophyll-a, Corrected	30		ug/L	P366904	
		Phaeophytin-a	9.1		ug/L	P366904	
		Chlorophyll-a, Uncorrected	37		ug/L	P366904	
2098557	ASTM D650399	ENTEROCOCCI-ENTEROLERT	52		MPN/100 mL		
2098563	SOP-PCR-4.0	HF183 - Human Source Marker**	Below Threshold			P365679	

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. See nonconformance report #7821.

Sample Location: MONCRIEF CREEK NEAR MOUTH

Collection Date/Time: 06/25/2019 10:00

Field ID: 20030115

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098537	SM 10200 H (mod.)	Chlorophyll-a, Corrected	13		ug/L	P366842	RPD
		Phaeophytin-a	3.5		ug/L	P366842	
		Chlorophyll-a, Uncorrected	15		ug/L	P366842	RPD
2098554	ASTM D650399	ENTEROCOCCI-ENTEROLERT	150		MPN/100 mL		
2098560	SOP-PCR-1.0	HF183-qPCR**	1.75E+03		GEU/100 mL	P365930	LCS

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. See nonconformance report #7821.

Sample Location: MONCRIEF CREEK NEAR MOUTH DUPLICATE

Collection Date/Time: 06/25/2019 10:05

Field ID: 20030115dup

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098538	SM 10200 H (mod.)	Chlorophyll-a, Corrected	43	AJ	ug/L	P366842	RPD
		Phaeophytin-a	7.1		ug/L	P366842	
		Chlorophyll-a, Uncorrected	47	AJ	ug/L	P366842	RPD
2098555	ASTM D650399	ENTEROCOCCI-ENTEROLERT	86		MPN/100 mL		

Field ID: 20030115dup

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098561	SOP-PCR-1.0	HF183-qPCR**	1.37E+03		GEU/100 mL	P365930	LCS

Ref. Method and Comment:

SM 10200 H (mod.): Lab dup result is 2.8 I for Phaeo-a. Precision data is unavailable due to small amount of analyte in QC sample. Chl-a Corr and Chl-a Uncorr results are J-qualified due to a lab dup RPD failure. See nonconformance report #7821.

Sample Location: TROUT R @ I-95 BURT MAXWELL DOCK

Collection Date/Time: 06/25/2019 10:25

Field ID: 20030121

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098558	ASTM D650399	ENTEROCOCCI-ENTEROLERT	20		MPN/100 mL		
2098586	SM 10200 H (mod.)	Chlorophyll-a, Corrected	11		ug/L	P366904	
		Phaeophytin-a	3.7		ug/L	P366904	
		Chlorophyll-a, Uncorrected	13		ug/L	P366904	

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. See nonconformance report #7821.

Sample Location: MONCRIEF CR LEM TURNER RD BR / NORWOOD AVE

Collection Date/Time: 06/25/2019 10:55

Field ID: 20030114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2098541	SM 10200 H (mod.)	Chlorophyll-a, Corrected	150		ug/L	P366904	
		Phaeophytin-a	5.7	I	ug/L	P366904	
		Chlorophyll-a, Uncorrected	160		ug/L	P366904	
2098559	ASTM D650399	ENTEROCOCCI-ENTEROLERT	370		MPN/100 mL		
2098564	SOP-PCR-1.0	HF183-qPCR**	1.96E+04		GEU/100 mL	P366320	LCS

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. See nonconformance report #7821.

Non-Conformance Report

NCR ID: 7821

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
NE-DIST-2019-06-26-01	TLH-2019-06-26-14	2098537	
NE-DIST-2019-06-26-01	TLH-2019-06-26-14	2098538	
NE-DIST-2019-06-26-01	TLH-2019-06-26-14	2098539	
NE-DIST-2019-06-26-01	TLH-2019-06-26-14	2098540	
NE-DIST-2019-06-26-01	TLH-2019-06-26-14	2098541	
NE-DIST-2019-06-26-01	TLH-2019-06-26-14	2098586	

NCR Type: ANALYSIS

NCR Category: Analytical Measurement

Observation: Excessive duplicate RPD failure (151% for Chlorophyll-a, Corrected, 147% for Chlorophyll-a, Uncorrected and 88% for Phaeophytin).

Resolution: Customers whose samples were filtered with the duplicate were notified.

Authorized by/Date: Cheryl A. Swanson 7/31/2019

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.
Please address questions to:

Chemistry Colin Wright (850) 245-8085
Biology Cheryl Swanson (850) 245-8177

Quality Assurance Report

Method Blank Results

Reference Method: SM 10200 H (mod.)

Batch ID: P366842

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 10200 H (mod.)

Batch ID: P366904

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.69	U	ug/L
Chlorophyll-a, Uncorrected	0.50	U	ug/L
Phaeophytin-a	0.75	U	ug/L

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: P366320

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

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: 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: P366842

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	90.8		P	84 - 116

Reference Method: SM 10200 H (mod.)
 Batch ID: P366904

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlorophyll-a, Corrected	90.4		P	84 - 116

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: P366320

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
HF183-qPCR	111	205	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
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: 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: P365930

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: 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
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: P366320

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2095801	HF183-qPCR	80.3		P	50 - 175
2098564	HF183-qPCR	85.8		P	50 - 175
2098709	HF183-qPCR	104	101	P/P	50 - 175
2098783	HF183-qPCR	90.4		P	50 - 175
2098815	HF183-qPCR	93.6		P	50 - 175
2098816	HF183-qPCR	93.5		P	50 - 175
2099128	HF183-qPCR	92.0		P	50 - 175
2099129	HF183-qPCR	87.8		P	50 - 175
2099217	HF183-qPCR	90.5		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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SOP-PCR-1.2

Batch ID: P366460

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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
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: 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: SM 10200 H (mod.)

Batch ID: P366842

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098538	Chlorophyll-a, Corrected	151	Sample	F	0 - 25
2098538	Chlorophyll-a, Uncorrected	147	Sample	F	0 - 25

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)
Batch ID: P366904

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098730	Chlorophyll-a, Corrected	2.64	Sample	P	0 - 25
2098730	Chlorophyll-a, Uncorrected	3.31	Sample	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

Reference Method: SOP-PCR-1.0
Batch ID: P366320

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2098709	HF183-qPCR	2.67	Spike	P	0 - 25

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: 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: 2098560
Field Sample ID: 20030115

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	97.1	P	50 - 300

Quality Assurance Report Surrogates

Lab Sample ID: 2098561
Field Sample ID: 20030115dup

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	94.1	P	50 - 300

Lab Sample ID: 2098562
Field Sample ID: 20030133

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	99.0	P	50 - 300
SOP-PCR-1.2	SKETA-qPCR	102	P	50 - 300
SOP-PCR-1.4	SKETA-qPCR	111	P	50 - 300

Lab Sample ID: 2098564
Field Sample ID: 20030114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
SOP-PCR-1.0	SKETA-qPCR	88.6	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	90.8			151	
	Chlorophyll-a, Corrected	90.4			2.64	
	Chlorophyll-a, Uncorrected				147	
	Chlorophyll-a, Uncorrected				3.31	
SOP-PCR-1.0	HF183-qPCR	185 125	104 115 126			2.64
	HF183-qPCR	205 111	85.8 104 101			2.67
	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	69.3 83.2	66.7 67.6 65.5			18.0
			66.6			

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
ASTM D650399 / E82502	Enterococci by Enterolert/QT by ALS in Jacksonville	2098554, 2098555, 2098556, 2098557, 2098558, 2098559
SM 10200 H (mod.) / E31780	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry	2098537, 2098538, 2098539, 2098540, 2098541, 2098586
SOP-PCR-1.0 / E31780	Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction	2098560, 2098561, 2098562, 2098564
SOP-PCR-1.2 / E31780	Detection and quantification of coastal bird specific Catellicoccus marimammalium Gull2 genetic marker with quantitative polymerase chain reaction	2098562
SOP-PCR-1.3 / E31780	Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction	2098562
SOP-PCR-1.4 / E31780	Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction	2098562

Reference Method Descriptions

Method / DoH Cert #	Description	<u>Associated Samples</u>
SOP-PCR-4.0 / E31780	Preparation of Samples by Filtration and held for qPCR Analysis	2098562, 2098563

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
ASTM D650399	06/25/2019	06/25/2019 12:43		06/26/2019 12:45	ALS Environmental, Jax	2098554, 2098555, 2098556, 2098557, 2098558, 2098559
SM 10200 H (mod.)	06/26/2019	06/26/2019 13:12	Yuliya Danyuk	07/08/2019 11:42	Yuliya Danyuk	2098537, 2098538, 2098539
	06/26/2019	06/26/2019 13:12	Yuliya Danyuk	07/09/2019 08:20	Peterson Janvier	2098540, 2098541, 2098586
SOP-PCR-1.0	06/26/2019	06/26/2019 12:45	Angela Smith	07/01/2019 12:09	Mailin Lopez	2098560, 2098561
	06/26/2019	06/26/2019 12:45	Angela Smith	07/02/2019 11:37	Mailin Lopez	2098564
	06/26/2019	06/26/2019 12:45	Sarah Menz	07/05/2019 11:45	Mailin Lopez	2098562
SOP-PCR-1.2	06/26/2019	06/26/2019 12:45	Sarah Menz	07/08/2019 13:47	Mailin Lopez	2098562
SOP-PCR-1.3	06/26/2019	06/26/2019 12:45	Mailin Lopez	07/15/2019 17:22	Mailin Lopez	2098562
SOP-PCR-1.4	06/26/2019	06/26/2019 12:45	Sarah Menz	07/05/2019 17:00	Mailin Lopez	2098562
SOP-PCR-4.0	06/26/2019	06/26/2019 12:45	Angela Smith	07/05/2019 08:40	Sarah Menz	2098562, 2098563