

Biological Analysis Report

NW-DIST-2011-03-15-02

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

Overflow Analyses Performed By:
University of West Florida
11000 University Parkway
Pensacola, FL 32514
DOH Accreditation E71969

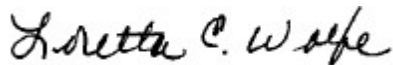
Event Description: **Project Greenshores**
Request ID: **RQ-2011-02-28-10**
Customer: **NW-DIST**
Project ID: **DISCRTNARY**

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Certified by: Loretta E. Wolfe, Environmental Manager

Date Certified: 11-APR-2011 10:24



Abbreviations and data remark codes

CERT # - NELAP (National Environmental Laboratory Accreditation Program) Certification Number of the laboratory that performed the analysis.

LCS – Laboratory Control Sample; in the QC Failures column, this notation indicates a batch recovery failure.

MS – Matrix Spike; in the QC Failures column, this notation indicates a batch recovery failure.

RPD – Relative Percent Difference; in the QC Failures column, this notation indicates a batch failure for precision.

CCV – Continuing Calibration Verification; in the QC Failures column, this notation indicates a failure of the calibration verification check sample.

RSD – Relative Standard Deviation expressed as a percentage.

SMP – Sample.

* - Item was outside the QC Limits.

** - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

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

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).

Precision is reported as relative percent difference unless otherwise noted.

Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.

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.

All sample collection performed by Bureau of Laboratories staff followed the field Standard Operating Procedures adopted by reference in Rule 62-160 FAC unless otherwise noted.

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.

Results for NELAP accredited tests contained in this report meet the requirements specified by the National Environmental Laboratory Accreditation Conference (NELAC). All samples received were in acceptable condition and met NELAC requirements unless otherwise noted. Results generated in this report pertain to the samples collected and submitted for analysis.

Job: TLH-2011-03-15-68

Job: TLH-2011-03-15-69

Job: TLH-2011-03-15-70

Group: Chlorophyll/Grain Size/BOD

Group: Chlorophyll/Grain Size/BOD

Group: Overflow

Sample Location: 1/2 BETWEEN BRIDGE AND PORT**Collection Date/Time: 03/14/2011 11:30 AM****Field ID: 7****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337051	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	IJ		mg/L	E31780
1337065	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.6	I		ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	1.7			ug/L	
1337079	EPA 1600 (MF)	Enterococci-Membrane Filter	12	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	15	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: Laboratory duplicate result is 1.4 I mg/L. Precision data is unavailable due to the small amount of analyte in the QC sample. GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: 1/2 BRIDGE AND MUSCOGEE**Collection Date/Time: 03/14/2011 10:45 AM****Field ID: 2****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337046	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337060	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.0			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.0			ug/L	
1337074	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	7	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 165 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: 1/2 MASCOGEE AND HAWKSHAW 400 FT FROM SHORE**Collection Date/Time: 03/14/2011 12:30 PM****Field ID: 6****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337050	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337064	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.6	I		ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	1.6			ug/L	
1337078	EPA 1600 (MF)	Enterococci-Membrane Filter	14	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	46			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 165 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: 1/4 BETWEEN BRIDGE AND PORT**Collection Date/Time: 03/14/2011 11:40 AM****Field ID: 12****Matrix: W-OTHER**

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337057	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337071	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.2			ug/L	
		Phaeophytin-a	0.89	I		ug/L	

Field ID: 12

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337071	SM 10200 H (mod.)	Chlorophyll/Phaeophytin Ratio	1.5				E31780
		Chlorophyll-a, Uncorrected	3.9			ug/L	
1337085	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	1	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: 100 FT SOUTH OF OUTFALL

Collection Date/Time: 03/14/2011 11:05 AM

Field ID: 4

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337048	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337062	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.2			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.3			ug/L	
1337076	EPA 1600 (MF)	Enterococci-Membrane Filter	10	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	15	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 165 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: BETWEEN MARINA AND OUTFALL

Collection Date/Time: 03/14/2011 12:00 PM

Field ID: 10

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337054	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337068	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.7			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.7			ug/L	
1337082	EPA 1600 (MF)	Enterococci-Membrane Filter	4	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	7	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: E OF STORM DRAIN

Collection Date/Time: 03/14/2011 10:55 AM

Field ID: 3

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337047	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.2	IJ		mg/L	E31780
1337061	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.4			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.6			ug/L	
1337075	EPA 1600 (MF)	Enterococci-Membrane Filter	2	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	1	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 165 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: EAST OF STORM DRAIN

Collection Date/Time: 03/14/2011 12:22 PM

Field ID: 14

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337058	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.3	IJ		mg/L	E31780
1337072	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.3			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	3.6			ug/L	
1337086	EPA 1600 (MF)	Enterococci-Membrane Filter	132			cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	144			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: END OF CHASE STREET

Collection Date/Time: 03/14/2011 11:10 AM

Field ID: 5

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337049	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337063	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.7	I		ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	1.7			ug/L	
1337077	EPA 1600 (MF)	Enterococci-Membrane Filter	32	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	13	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 165 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: ENTRANCE OF MARINA

Collection Date/Time: 03/14/2011 11:50 AM

Field ID: 11

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337055	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	IJ		mg/L	E31780
1337069	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.5			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	3.6			ug/L	
1337083	EPA 1600 (MF)	Enterococci-Membrane Filter	10	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	12	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: INSIDE HAWKSHAW

Collection Date/Time: 03/14/2011 12:20 PM

Field ID: 13

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337056	SM 5210 B	Biochemical Oxygen Demand-5 Day	8.0	JL		mg/L	E31780
1337070	SM 10200 H (mod.)	Chlorophyll-a, Corrected	98			ug/L	
		Phaeophytin-a	29			ug/L	
		Chlorophyll/Phaeophytin Ratio	1.5				

Field ID: 13

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337070	SM 10200 H (mod.)	Chlorophyll-a, Uncorrected	120			ug/L	E31780
1337084	EPA 1600 (MF)	Enterococci-Membrane Filter	14	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	152			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: The sample depleted to less than 1.0 mg/L for the final DO measurement. GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: RANGE MARKER E OF TEXAR

Collection Date/Time: 03/14/2011 10:30 AM

Field ID: 1

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337045	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.3	IJ		mg/L	E31780
1337059	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.7			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	1.7			ug/L	
1337073	EPA 1600 (MF)	Enterococci-Membrane Filter	26	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	62			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 165 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: WEST END OF HAWKSHAW 100FT S OF OUTFALL

Collection Date/Time: 03/14/2011 12:05 PM

Field ID: 9

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337053	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337067	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.6	I		ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.8				
		Chlorophyll-a, Uncorrected	1.5			ug/L	
1337081	EPA 1600 (MF)	Enterococci-Membrane Filter	14	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	12	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Sample Location: WEST OF OUTFALL INSIDE ROCKS

Collection Date/Time: 03/14/2011 11:20 AM

Field ID: 8

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1337052	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.1	IJ		mg/L	E31780
1337066	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.6	I		ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	1.6			ug/L	
1337080	EPA 1600 (MF)	Enterococci-Membrane Filter	30	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	46			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: GGA Control Sample result was 167.5 ppm. The control sample acceptance limits are 198 +/- 30.5 ppm.

Quality Control Report

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	Precision		
				LCS	SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Uncorrected				2.93	

Reference Method Descriptions

Method:

EPA 1600 (MF)
SM 10200 H (mod.)
SM 5210 B
SM 9222 D

Description

Enterococci by membrane filter method by UWF Overflow Laboratory for NWD
Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
BOD, NOT nitrogen-inhibited
Fecal coliforms by membrane filter method by UWF Overflow Laboratory for NWD

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 1600 (MF)	03/14/2011			03/14/2011 16:16	UWF Lab	1337073
	03/14/2011			03/14/2011 16:20	UWF Lab	1337074
	03/14/2011			03/14/2011 16:23	UWF Lab	1337075
	03/14/2011			03/14/2011 16:31	UWF Lab	1337076
	03/14/2011			03/14/2011 16:35	UWF Lab	1337077
	03/14/2011			03/14/2011 16:42	UWF Lab	1337078
	03/14/2011			03/14/2011 16:45	UWF Lab	1337079
	03/14/2011			03/14/2011 16:49	UWF Lab	1337080
	03/14/2011			03/14/2011 16:56	UWF Lab	1337081
	03/14/2011			03/14/2011 17:00	UWF Lab	1337082
	03/14/2011			03/14/2011 17:03	UWF Lab	1337083
	03/14/2011			03/14/2011 17:07	UWF Lab	1337085
	03/14/2011			03/14/2011 17:11	UWF Lab	1337084
	03/14/2011			03/14/2011 17:15	UWF Lab	1337086
SM 10200 H (mod.)	03/15/2011	03/15/2011 16:05	Kim M. Spencer	03/23/2011	Kim M. Spencer	1337059, 1337060, 1337061, 1337062, 1337063, 1337064, 1337065, 1337066, 1337067, 1337068, 1337069, 1337070, 1337071, 1337072
SM 5210 B	03/15/2011			03/16/2011 08:10	Jonathan M. Woods	1337045, 1337046, 1337047, 1337048, 1337049, 1337050, 1337051, 1337052, 1337053, 1337054, 1337055, 1337056, 1337057, 1337058
SM 9222 D	03/14/2011			03/14/2011 16:02	UWF Lab	1337073
	03/14/2011			03/14/2011 16:05	UWF Lab	1337074
	03/14/2011			03/14/2011 16:07	UWF Lab	1337075
	03/14/2011			03/14/2011 16:12	UWF Lab	1337076
	03/14/2011			03/14/2011 16:15	UWF Lab	1337077
	03/14/2011			03/14/2011 16:17	UWF Lab	1337078
	03/14/2011			03/14/2011 16:20	UWF Lab	1337079
	03/14/2011			03/14/2011 16:25	UWF Lab	1337080
	03/14/2011			03/14/2011 16:30	UWF Lab	1337081
	03/14/2011			03/14/2011 16:32	UWF Lab	1337082
	03/14/2011			03/14/2011 16:35	UWF Lab	1337083
	03/14/2011			03/14/2011 16:37	UWF Lab	1337085
	03/14/2011			03/14/2011 16:40	UWF Lab	1337084
	03/14/2011			03/14/2011 16:45	UWF Lab	1337086