

Biological Analysis Report

NW-DIST-2010-11-23-03

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

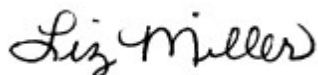
Event Description: **Project Greenshores**
Request ID: **RQ-2010-11-22-04**
Customer: **NW-DIST**
Project ID: **DISCRTNARY**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

For additional information please contact
David D. Whiting - Administrator
Elizabeth Miller - Bench Biology
Cheryl Swanson - Taxonomy (Invertebrate & Algal)
J. Marshall Faircloth - Aquatic Toxicology
Daisys Tamayo - Microbiology
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Phone (850) 245-8177

Certified by: Elizabeth Miller, Environmental Manager

Date Certified: 17-DEC-2010 11:05



NON-CONFORMANCE REPORT INCLUDED

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-2010-11-23-45

Job: TLH-2010-11-23-46

Job: TLH-2010-11-23-48

Group: Chlorophyll/Grain Size/BOD

Group: Chlorophyll/Grain Size/BOD

Group: Overflow

Sample Location: 1/2 BETWEEN BRIDGE & MUSCOGEE

Collection Date/Time: 11/22/2010 10:12 AM

Field ID: 3302J8GS2 (2)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314442	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.2	I		mg/L	E31780
1314456	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.5			ug/L	
		Phaeophytin-a	0.50	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.6				
		Chlorophyll-a, Uncorrected	3.9			ug/L	
1314480	EPA 1600	Enterococci-Membrane Filter	10	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	19	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: 1/2 BETWEEN BRIDGE AND PORT

Collection Date/Time: 11/22/2010 11:12 AM

Field ID: 3302J8GS7 (7)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314447	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.2			mg/L	E31780
1314461	SM 10200 H (mod.)	Chlorophyll-a, Corrected	4.5			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	4.7			ug/L	
1314485	EPA 1600	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: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: 1/2 BETWEEN MUSCOGEE AND HAWKSHAW

Collection Date/Time: 11/22/2010 11:00 AM

Field ID: 3302J1GS6 (6)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314446	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.3	I		mg/L	E31780
1314460	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.8			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.9			ug/L	
1314484	EPA 1600	Enterococci-Membrane Filter	18	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	21	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: 1/4 BETWEEN BRIDGE AND PORT

Collection Date/Time: 11/22/2010 11:20 AM

Field ID: 3302J7GS12 (12)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314452	SM 5210 B	Biochemical Oxygen Demand-5 Day	2.1			mg/L	E31780
1314466	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.2			ug/L	

Field ID: 3302J7GS12 (12)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314466	SM 10200 H (mod.)	Phaeophytin-a	0.40	U		ug/L	E31780
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	3.2			ug/L	
1314490	EPA 1600	Enterococci-Membrane Filter	10	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	16	B		cfu/100 mL	

Ref. Method and Comment:
SM 5210 B: See nonconformance report #3569.
SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: 100FT S OF STORMDRAIN

Collection Date/Time: 11/22/2010 10:35 AM

Field ID: 3302J2GS4 (4)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314444	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.7	I		mg/L	E31780
1314458	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.8			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	1.8			ug/L	
		Enterococci-Membrane Filter	32	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	50			cfu/100 mL	

Ref. Method and Comment:
SM 5210 B: See nonconformance report #3569.
SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: BETWEEN MARINE AND OUTFALL

Collection Date/Time: 11/22/2010 11:45 AM

Field ID: 3302J7GS10 (10)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314450	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	I		mg/L	E31780
1314464	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.3			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.4			ug/L	
		Enterococci-Membrane Filter	12	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	41	B		cfu/100 mL	

Ref. Method and Comment:
SM 5210 B: See nonconformance report #3569.
SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: EAST OF PRIMARY STORMDRAIN

Collection Date/Time: 11/22/2010 10:27 AM

Field ID: 3302J2GJ3 (3)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314443	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.6	I		mg/L	E31780
1314457	SM 10200 H (mod.)	Chlorophyll-a, Corrected	3.1			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	3.3			ug/L	
		Enterococci-Membrane Filter	8	B		cfu/100 mL	E71969

Field ID: 3302J2GJ3 (3)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314481	SM 9222 D	Fecal Coliforms-Membrane Filter	7	B		cfu/100 mL	E71969

Ref. Method and Comment:

SM 5210 B: Laboratory duplicate result is 1.5 I mg/L. Precision data is unavailable due to the small amount of analyte in the QC sample. See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: END OF CHASE ST

Collection Date/Time: 11/22/2010 10:53 AM

Field ID: 3302J2GS5 (5)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314445	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.78	I		mg/L	E31780
1314459	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.8			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.9			ug/L	
1314483	EPA 1600	Enterococci-Membrane Filter	46			cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	70			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: ENTRANCE OF MARINA

Collection Date/Time: 11/22/2010 11:28 AM

Field ID: 3302J7GS11 (11)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314451	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.2	I		mg/L	E31780
1314465	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	
1314489	EPA 1600	Enterococci-Membrane Filter	148			cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	320			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: INSIDE HAWKSHAW

Collection Date/Time: 11/22/2010 12:05 PM

Field ID: 3302J1HL1 (13)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314453	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.85	I		mg/L	E31780
1314467	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.6	I		ug/L	
		Phaeophytin-a	0.53	I		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.5				
		Chlorophyll-a, Uncorrected	1.9			ug/L	
1314491	EPA 1600	Enterococci-Membrane Filter	108			cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	320			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: INSIDE PGSII E OF DRAIN

Collection Date/Time: 11/22/2010 12:15 PM

Field ID: 3302J1GS7 (14)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314454	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	I		mg/L	E31780
1314468	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	
1314492	EPA 1600	Enterococci-Membrane Filter	20	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	31	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: RANGE MARKER E OF TEXOR

Collection Date/Time: 11/22/2010 09:56 AM

Field ID: 3302H32GS1 (1)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314441	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.5	I		mg/L	E31780
1314455	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.6			ug/L	
		Phaeophytin-a	0.40	U		ug/L	
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.8			ug/L	
1314479	EPA 1600	Enterococci-Membrane Filter	2	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	2	B		cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: W OF STORMDRAIN INSIDE ROCKS

Collection Date/Time: 11/22/2010 10:45 AM

Field ID: 3302J2GS8 (8)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314448	SM 5210 B	Biochemical Oxygen Demand-5 Day	1.6	I		mg/L	E31780
1314462	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	1.8			ug/L	
1314486	EPA 1600	Enterococci-Membrane Filter	58			cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	97			cfu/100 mL	

Ref. Method and Comment:

SM 5210 B: See nonconformance report #3569.

SM 10200 H (mod.): See nonconformance report #3569.

Sample Location: WEST END OF HAWKSHAW

Collection Date/Time: 11/22/2010 11:55 AM

Field ID: 3302J1GS9 (9)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314449	SM 5210 B	Biochemical Oxygen Demand-5 Day	0.87	I		mg/L	E31780
1314463	SM 10200 H (mod.)	Chlorophyll-a, Corrected	2.0			ug/L	

Field ID: 3302J1GS9 (9)

Matrix: W-OTHER

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1314463	SM 10200 H (mod.)	Phaeophytin-a	0.40	U		ug/L	E31780
		Chlorophyll/Phaeophytin Ratio	1.7				
		Chlorophyll-a, Uncorrected	2.1			ug/L	
1314487	EPA 1600	Enterococci-Membrane Filter	20	B		cfu/100 mL	E71969
	SM 9222 D	Fecal Coliforms-Membrane Filter	52			cfu/100 mL	

Ref. Method and Comment:
SM 5210 B: See nonconformance report #3569.
SM 10200 H (mod.): See nonconformance report #3569.

Non-Conformance Report

NCR ID: 3569

Event(s)	Job(s)	Sample(s)	Test(s)
NW-DIST-2010-11-23-03			
NCR Type:	SHIPPING/RECEIVING	NCR Category:	Receiving
Observation:	There was insufficient information provided for matching the lab labels to the sample containers. The field IDs on the field sheets were not written on the bottles. The bottles were labeled with sequential numbers that were not listed on the field sheets.		
Resolution:	Customer was contacted (Zach Schang) by R. White. Zach had a copy of the field form that included the sequential numbers. He provided the information to R. White. The field sheet was updated and the bottles were labeled using the updated information.		

Authorised by/Date: Kathryn Brackett 11/24/2010

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

Chemistry Tim Fitzpatrick (850) 245-8085
Biology David D. Whiting (850) 245-8177

Quality Control Report

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Uncorrected				5.30	
	Chlorophyll-a, Uncorrected				11.6	
	Phaeophytin-a				5.32	

Reference Method Descriptions

Method:	Description
EPA 1600	Enterococci by membrane filter method by UWF Overflow Laboratory for NWD
SM 10200 H (mod.)	Phytoplankton chlorophyll-a and phaeophytin and ratio by spectrophotometry
SM 5210 B	BOD, NOT nitrogen-inhibited
SM 9222 D	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	11/22/2010			11/22/2010 16:02	UWF Lab	1314479
	11/22/2010			11/22/2010 16:05	UWF Lab	1314480
	11/22/2010			11/22/2010 16:07	UWF Lab	1314481
	11/22/2010			11/22/2010 16:10	UWF Lab	1314482
	11/22/2010			11/22/2010 16:12	UWF Lab	1314483
	11/22/2010			11/22/2010 16:15	UWF Lab	1314484
	11/22/2010			11/22/2010 16:17	UWF Lab	1314485
	11/22/2010			11/22/2010 16:20	UWF Lab	1314486
	11/22/2010			11/22/2010 16:25	UWF Lab	1314487
	11/22/2010			11/22/2010 16:27	UWF Lab	1314488
	11/22/2010			11/22/2010 16:32	UWF Lab	1314489
	11/22/2010			11/22/2010 16:35	UWF Lab	1314490
	11/22/2010			11/22/2010 16:37	UWF Lab	1314491
	11/22/2010			11/22/2010 16:40	UWF Lab	1314492
SM 10200 H (mod.)	11/23/2010	11/23/2010 15:43	Meiqin Chen	12/01/2010	Meiqin Chen	1314455, 1314456, 1314457
	11/23/2010	11/23/2010 15:43	Meiqin Chen	12/09/2010	Kim M. Spencer	1314458, 1314459, 1314460, 1314461, 1314462, 1314463, 1314464, 1314465, 1314466, 1314467, 1314468
SM 5210 B	11/23/2010			11/24/2010 07:30	Jonathan M. Woods	1314441, 1314442, 1314443, 1314444, 1314445, 1314446, 1314447, 1314448, 1314449, 1314450, 1314451, 1314452, 1314453, 1314454
SM 9222 D	11/22/2010			11/22/2010 14:40	UWF Lab	1314479
	11/22/2010			11/22/2010 14:43	UWF Lab	1314480
	11/22/2010			11/22/2010 14:46	UWF Lab	1314481
	11/22/2010			11/22/2010 14:49	UWF Lab	1314482
	11/22/2010			11/22/2010 14:52	UWF Lab	1314483
	11/22/2010			11/22/2010 14:55	UWF Lab	1314484
	11/22/2010			11/22/2010 14:58	UWF Lab	1314485
	11/22/2010			11/22/2010 15:04	UWF Lab	1314486
	11/22/2010			11/22/2010 15:07	UWF Lab	1314487
	11/22/2010			11/22/2010 15:10	UWF Lab	1314488
	11/22/2010			11/22/2010 15:16	UWF Lab	1314489
	11/22/2010			11/22/2010 15:19	UWF Lab	1314490
	11/22/2010			11/22/2010 15:22	UWF Lab	1314491
	11/22/2010			11/22/2010 15:25	UWF Lab	1314492