

Biological Analysis Report

WTRSHD-MGT-2012-01-26-01

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

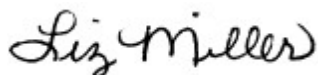
Event Description: **TMDL Sampling - Merritts Mill Pond SURFACE WATER**
Request ID: **RQ-2012-01-23-37**
Customer: **WTRSHD-MGT**
Project ID: **GRNT-10608**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400
Attn: Kathryn Holland

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
Thekkekalathil Chandrasekhar, PhD, QA Officer
Phone (850) 245-8177

Certified by: Elizabeth Miller, Environmental Manager

Date Certified: 14-FEB-2012 13:10



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.

** - 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-2012-01-26-87

Job: TLH-2012-01-26-88

Group: Chlorophyll/Grain Size/BOD

Group: Chlorophyll/Grain Size/BOD

Sample Location: MMP-2

Collection Date/Time: 01/26/2012 12:18 PM

Field ID: MMP-2

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1404719	SM 5210 B	Biochemical Oxygen Demand-5 Day,N-Inhib	No Result	O	mg/L		
1404722	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.70	I	ug/L	P235745	
		Phaeophytin-a	0.40	U	ug/L	P235745	

Ref. Method and Comment:
SM 5210 B: See Non-Conformance Report #4035.

Sample Location: MMP-4

Collection Date/Time: 01/26/2012 10:16 AM

Field ID: MMP-4

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1404718	SM 5210 B	Biochemical Oxygen Demand-5 Day,N-Inhib	No Result	O	mg/L		
1404721	SM 10200 H (mod.)	Chlorophyll-a, Corrected	1.0	I	ug/L	P235745	
		Phaeophytin-a	0.56	I	ug/L	P235745	

Ref. Method and Comment:
SM 5210 B: See Non-Conformance Report #4035.

Sample Location: MMP-5

Collection Date/Time: 01/26/2012 09:01 AM

Field ID: MMP-5

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1404717	SM 5210 B	Biochemical Oxygen Demand-5 Day,N-Inhib	No Result	O	mg/L		
1404720	SM 10200 H (mod.)	Chlorophyll-a, Corrected	0.86	I	ug/L	P235632	
		Phaeophytin-a	0.49	I	ug/L	P235632	

Ref. Method and Comment:
SM 5210 B: See Non-Conformance Report #4035.

Non-Conformance Report

NCR ID: 4035

<u>Event(s)</u>	<u>Job(s)</u>	<u>Sample(s)</u>	<u>Test(s)</u>
WTRSHD-MGT-2012-01-26-01	TLH-2012-01-26-87	1404717	
WTRSHD-MGT-2012-01-26-01	TLH-2012-01-26-87	1404718	
WTRSHD-MGT-2012-01-26-01	TLH-2012-01-26-87	1404719	

NCR Type: ANALYSIS

NCR Category: Holding Time

Observation: Due to laboratory error, samples were not analyzed.
Resolution: Clients, Kathryn Holland and Mike Nash, were contacted.
Sample was reported as No Result with an O qualifier.

Authorised by/Date: David Whiting 2/3/2012

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 Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: SM 10200 H (mod.)

Batch ID: P235632

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Reference Method: SM 10200 H (mod.)

Batch ID: P235745

Component	Result	Code	Units
Chlorophyll-a, Corrected	0.55	U	ug/L
Phaeophytin-a	0.40	U	ug/L

Quality Assurance Report Precision

Reference Method: SM 10200 H (mod.)

Batch ID: P235632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1404428	Chlorophyll-a, Corrected	9.86	Sample	P	0 - 25
1404428	Phaeophytin-a	12.7	Sample	P	0 - 25

Reference Method: SM 10200 H (mod.)

Batch ID: P235745

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1404826	Chlorophyll-a, Corrected	0.553	Sample	P	0 - 25
1404826	Phaeophytin-a	4.20	Sample	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 Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
SM 10200 H (mod.)	Chlorophyll-a, Corrected				9.86	
	Chlorophyll-a, Corrected				0.553	
	Phaeophytin-a				12.7	
	Phaeophytin-a				4.20	

Reference Method Descriptions

Method / NELAC Cert. #

Description

SM 10200 H (mod.) / E31780

Phytoplankton chlorophyll-a (corrected for phaeophytin) and phaeophytin by spectrophotometry

SM 5210 B / E31780

BOD, nitrogen-inhibited (=CBOD)

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 10200 H (mod.)	01/26/2012	01/27/2012 13:20	Jacqueline Savage	02/02/2012	Jacqueline Savage	1404720
	01/26/2012	01/27/2012 13:20	Jacqueline Savage	02/06/2012	Meiqin Chen	1404721, 1404722
SM 5210 B	01/26/2012			01/27/2012 08:30	Amelia G. Rankin	1404717, 1404718, 1404719