

Chemical Analysis Report

SO-DIST-2015-05-20-01

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

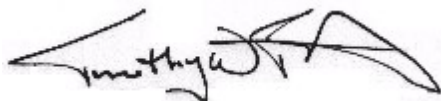
Event Description: **Algal Bloom Response - As needed**
Request ID: **RQ-2015-05-18-77**
Customer: **SO-DIST**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: Kirby Wolfe

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Certified by: Timothy Fitzpatrick, Program Administrator

Date Certified: 21-MAY-2015 10:42



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.

SUR – Surrogate; in the QC Failures column, this notation indicates a recovery failure for the associated surrogate.

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 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).

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.

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.

All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Sample Location: FRANKLIN LOCK AND DAM

Collection Date/Time: 05/19/2015 14:55

Field ID: 051915-1

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Failures
1702780	DEP SOP LC-038-1 (based on EPA 8321B)	Microcystin LR**	250		ug/L	P285284	
		Microcystin RR**	7.4		ug/L	P285284	

Ref. Method and Comment:

DEP SOP LC-038-1 (based on EPA 8321B): Tentative identification: Microcystin LA = 5 ug/L, estimated.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP LC-038-1 (based on EPA 8321B)

Batch ID: P285284

Component	Result	Code	Units
Microcystin LR	1.0	U	ug/L
Microcystin RR	1.0	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP LC-038-1 (based on EPA 8321B)

Batch ID: P285284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Microcystin LR	126	120	P/P	50 - 150
Microcystin RR	118	124	P/P	50 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP LC-038-1 (based on EPA 8321B)

Batch ID: P285284

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1702763	Microcystin LR	128	134	P/P	50 - 150
1702763	Microcystin RR	100	104	P/P	50 - 150

Quality Assurance Report Precision

Reference Method: DEP SOP LC-038-1 (based on EPA 8321B)

Batch ID: P285284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1702763	Microcystin LR	4.58	Spike	P	0 - 30
1702763	Microcystin RR	3.92	Spike	P	0 - 30
LFB	Microcystin LR	4.88	LCS	P	0 - 30
LFB	Microcystin RR	4.96	LCS	P	0 - 30

* 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 Calibration Verification

Reference Method: DEP SOP LC-038-1 (based on EPA 8321B)

Run ID: A62766

Included Lab Sample IDs: 1702780

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Microcystin LR	116	122	P/P	60 - 160
Microcystin RR	96.8	113	P/P	60 - 160

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
DEP SOP LC-038-1 (based on EPA 8321B)	Microcystin LR	126	120	128	134	4.88		4.58
	Microcystin RR	118	124	100	104	4.96		3.92

Reference Method Descriptions

Method / NELAC Cert. #	Description	Associated Samples
DEP SOP LC-038-1 (based on EPA 8321B) / E31780	Microcystins in water matrices by HPLC/MS/MS	1702780

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP LC-038-1 (based on EPA 8321B)	05/20/2015	05/20/2015	Juyoung Kim	05/20/2015	Juyoung Kim	1702780