

SFC Umwelttechnik GmbH, Julius Welser Straße 15, 5020 Salzburg, Austria

To

WHOM IT MAY CONCERN

Salzburg, 2016-01-08

Betr./ Subj. / objet: **Certificate about Effluent Quality of C-MEM Water Treatment**

Application: C-MEM river water treatment

Date of test: October 2015

Quantity of treated water: up to 2 m³/day

Water Source: Hlang River / Myanmar



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Firmenbuchgericht: Salzburg
Firmenbuchnr.: FN 39751 h
UID-Nr.: ATU 39099809
DVR-Nr.: 1031996

Bank: Salzburger Sparkasse
IBAN: AT62 2040 4000 0007 7511
BIC: SBGSAT2S

Raw Water (Hlaing River):



LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung

B.Sc Engg: (Civil), Dip S.E (Delft) Lecturer of YIT (Retd), Consultant (Y.C.D.C), LWSE 001.

Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

W1015 107

WTL-RE-001

Issue Date - 01-12-2012

Effective Date - 01-12-2012

Issue No - 1.0/Page 1 of 2

WATER QUALITY TEST RESULTS FORM

Client Mingalar Myanmar
 Nature of Water River Water (Raw)
 Location ဝါးတန်းမြစ်ကမ်း
 Date and Time of collection 7.10.2015
 Date and Time of arrival at Laboratory 7.10.2015
 Date and Time of commencing examination 8.10.2015
 Date and Time of completing 10.10.2015

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

pH	6.6		6.5 - 8.5
Colour (True)	180	TCU	15 TCU
Turbidity	375	NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness	50	mg/l as CaCO ₃	500 mg/l as CaCO ₃
Calcium Hardness		mg/l as CaCO ₃	
Magnesium Hardness		mg/l as CaCO ₃	
Total Alkalinity		mg/l as CaCO ₃	
Phenolphthalein Alkalinity		mg/l as CaCO ₃	
Carbonate (CaCO ₃)		mg/l as CaCO ₃	
Bicarbonate (HCO ₃)		mg/l as CaCO ₃	
Iron	5.72	mg/l	0.3 mg/l
Chloride (as CL)	4	mg/l	250 mg/l
Sodium chloride (as NaCL)		mg/l	
Sulphate (as SO ₄)	Nil	mg/l	200 mg/l
Total Solids	345	mg/l	1500 mg/l
Suspended Solids		mg/l	
Dissolved Solids	58	mg/l	1000 mg/l
Manganese	Nil	mg/l	0.05 mg/l
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by

Signature: Zaw Hein Oo

Name: B.Sc (Chemistry)

Chemist

(a division of WEG Co.,Ltd.) **ISO TECH Laboratory**

Approved by

Signature: Sue Lin

Name: Sue Lin

Technical Office,

ISO TECH Laboratory

No.18, Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.

Ph: 01-640955, 09-73225175, 09-73242162, Fax: 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com



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WATER QUALITY TEST RESULTS FORM

Client Mingalar Myanmar
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 Date and Time of arrival at Laboratory 7.10.2015
 Date and Time of commencing examination 8.10.2015
 Date and Time of completing 10.10.2015

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

Temperature (°C)	°C	
Fluoride (F)	mg/l	1.5 mg/l
Lead (as Pb)	mg/l	0.01 mg/l
Arsenic (As)	mg/l	0.01 mg/l
Nitrate (N.NO ₃)	Nil mg/l	50 mg/l
Chlorine (Residual)	mg/l	
Ammonia (NH ₃)	mg/l	
Ammonium (NH ₄)	mg/l	
Dissolved Oxygen (DO)	mg/l	
Chemical Oxygen Demand (COD)	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	mg/l	
Cyanide (CN)	mg/l	0.07 mg/l
Zinc (Zn)	mg/l	3 mg/l
Copper (Cu)	mg/l	2 mg/l
Silica (Si)	mg/l	

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Tested by

Signature: Hein

Name: Zaw Hein Oo

B.Sc (Chemistry)
Chemist
ISO TECH Laboratory

Approved by

Signature: Saw Chin

Name: Saw Chin

B.Sc (Civil) 1980
Technical Officer
ISO TECH Laboratory

(a division of WEG Co.,Ltd.)

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Treated Water after Installation of C-MEM



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WATER QUALITY TEST RESULTS FORM

Client Mingalar Myanmar
Nature of Water River Water (Treated)
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Date and Time of collection 7.10.2015
Date and Time of arrival at Laboratory 7.10.2015
Date and Time of commencing examination 8.10.2015
Date and Time of completing 10.10.2015

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

pH	6.4		6.5 - 8.5
Colour (True)	Nil	TCU	15 TCU
Turbidity	2	NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness	46	mg/l as CaCO ₃	500 mg/l as CaCO ₃
Calcium Hardness		mg/l as CaCO ₃	
Magnesium Hardness		mg/l as CaCO ₃	
Total Alkalinity		mg/l as CaCO ₃	
Phenolphthalein Alkalinity		mg/l as CaCO ₃	
Carbonate (CaCO ₃)		mg/l as CaCO ₃	
Bicarbonate (HCO ₃)		mg/l as CaCO ₃	
Iron	0.05	mg/l	0.3 mg/l
Chloride (as CL)	3	mg/l	250 mg/l
Sodium chloride (as NaCL)		mg/l	
Sulphate (as SO ₄)	Nil	mg/l	200 mg/l
Total Solids	56	mg/l	1500 mg/l
Suspended Solids		mg/l	
Dissolved Solids	53	mg/l	1000 mg/l
Manganese	Nil	mg/l	0.05 mg/l
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

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 Nature of Water River Water (Treated)
 Location ဝါးတံခွေကျေးရွာ
 Date and Time of collection 7.10.2015
 Date and Time of arrival at Laboratory 7.10.2015
 Date and Time of commencing examination 8.10.2015
 Date and Time of completing 10.10.2015

Results of Water Analysis

WHO Drinking Water Guideline (Geneva - 1993)

Temperature (°C)		°C	
Fluoride (F)	0.1	mg/l	1.5 mg/l
Lead (as Pb)	Nil	mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate (N.NO ₃)	Nil	mg/l	50 mg/l
Chlorine (Residual)		mg/l	
Ammonia (NH ₃)		mg/l	
Ammonium (NH ₄)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)		mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)		mg/l	
Cyanide (CN)	Nil	mg/l	0.07 mg/l
Zinc (Zn)	Nil	mg/l	3 mg/l
Copper (Cu)	Nil	mg/l	2 mg/l
Silica (Si)		mg/l	

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