

ALS Technichem (HK) Pty Ltd

11/F., Chung Shun Knitting Centre,

1 - 3 Wing Yip Street,

Kwai Chung, N.T., Hong Kong

T: +852 2610 1044 F: +852 2610 2021 www.alsglobal.com

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: THOMAS CHAN WORK ORDER: HK2250993

**CLIENT:** MOTT MACDONALD HONG KONG LIMITED

**ADDRESS:** 3/F, MANULIFE PLACE, **SUB-BATCH:** 

348 KWUN TONG ROAD, LABORATORY: HONG KONG KWUN TONG, KOWLOON, DATE RECEIVED: 21-Dec-2022 DATE OF ISSUE: 30-Dec-2022

## **SPECIFIC COMMENTS**

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client. The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type: Multifunctional Meter Service Nature: Performance Check

Scope: Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature

Brand Name/ Model No.: [HORIBA]/ [U-53]

Serial No./ Equipment No.: [X42XKBNO/4BHN08KG]/[N/A]

Date of Calibration: 28-December-2022

### **GENERAL COMMENTS**

This report superseded any previous report(s) with same work order number.

16.3

Ms. Lin Wai Yu, Iris Assistant Manager - Inorganics

This report may not be reproduced except with prior written approval from ALS Technichem (HK) Pty Ltd.

## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2250993

**SUB-BATCH:** 0

**DATE OF ISSUE:** 30-Dec-2022

**CLIENT:** MOTT MACDONALD HONG KONG LIMITED

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[HORIBA]/[U-53]

Serial No./

Equipment No.:

[X42XKBNO/4BHN08KG]/[N/A]

Date of Calibration:

28-December-2022

Date of Next Calibration:

28-March-2023

**PARAMETERS:** 

Conductivity

Method Ref: APHA (23rd edition), 2510B

Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)
146.9	159	+8.2
6667	6740	+1.1
12890	13200	+2.4
58670	53800	-8.3
	Tolerance Limit (%)	±10.0

**Dissolved Oxygen** 

Method Ref: APHA (23rd edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.69	2.62	-0.07
5.06	5.09	+0.03
7.28	7.27	-0.01
	Tolerance Limit (mg/L)	±0.20

pH Value

Method Ref: APHA (23rd edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.80	-0.20
7.0	7.00	+0.00
10.0	9.81	-0.19
	Tolerance Limit (pH unit)	±0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganics

# **REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION**

**WORK ORDER:** HK2250993

**SUB-BATCH:** 0

30-Dec-2022 **DATE OF ISSUE:** 

**CLIENT:** MOTT MACDONALD HONG KONG LIMITED

Equipment Type:

Multifunctional Meter

Brand Name/

[HORIBA]/[U-53]

Model No.: Serial No./

Equipment No.:

[X42XKBNO/4BHN08KG]/[N/A]

Date of Calibration:

28-December-2022

Date of Next Calibration:

28-March-2023

**PARAMETERS:** 

**Turbidity** 

Method Ref: APHA (23rd edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.00	
4	3.79	-5.3
40	37.4	-6.5
80	81.4	+1.8
400	389	-2.8
800	749	-6.4
	Tolerance Limit (%)	±10.0

**Salinity** Method Ref: APHA (23rd edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	
10	9.55	-4.5
20	18.36	-8.2
30	28.22	-5.9
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganics

# **REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION**

WORK ORDER: HK2250993

**SUB-BATCH:** 0

**DATE OF ISSUE:** 30-Dec-2022

**CLIENT:** MOTT MACDONALD HONG KONG LIMITED

Equipment Type:

Multifunctional Meter

Brand Name/

[HORIBA]/[U-53]

Model No.: Serial No./

Equipment No.:

[X42XKBNO/4BHN08KG]/[N/A]

Date of Calibration:

28-December-2022

Date of Next Calibration: 28-March-2023

**PARAMETERS:** 

Temperature Method Ref: Section 6 of International Accreditation New Zealand Technical

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
9.0	10.58	+1.6
22.0	21.25	-0.8
41.5	41.53	+0.0
	Tolerance Limit (°C)	±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganics