

## **ANNEX H**

### **CALIBRATION CERTIFICATES FOR MARINE WATER QUALITY MONITORING EQUIPMENT**



## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

<b>CONTACT:</b>	SAMUEL LAI	<b>WORK ORDER:</b>	HK2127988
<b>CLIENT:</b>	EGS (ASIA) LTD	<b>SUB- BATCH:</b>	0
<b>ADDRESS:</b>	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	<b>LABORATORY:</b>	HONG KONG
		<b>DATE RECEIVED:</b>	13-Jul- 2021
		<b>DATE OF ISSUE:</b>	14-Jul- 2021

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

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [6820- C- M]
Serial No./ Equipment No.:	[02]0058- AB]/ [MPP15]
Date of Calibration:	13-July- 2021

### GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Mr Chan Siu Ming, Vico  
Manager - Inorganic

*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: HK2127988  
SUB- BATCH: 0  
DATE OF ISSUE: 14-Jul-2021  
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter  
Brand Name/ Model No.: [YSI]/ [6820- C- M]  
Serial No./ Equipment No.: [02J0058- AB]/ [MPP15]  
Date of Calibration: 13-July-2021

## PARAMETERS:

Dissolved Oxygen Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.87	2.78	- 0.09
5.43	5.40	- 0.03
7.75	7.71	- 0.04
	Tolerance Limit (mg/L)	±0.20

pH Value Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.05	+ 0.05
7.0	7.00	+ 0.00
10.0	10.00	+ 0.00
	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.

Mr Chan Siu Ming, Vico  
Manager - Inorganic

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2127988  
SUB- BATCH: 0  
DATE OF ISSUE: 14-Jul-2021  
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter  
Brand Name/ Model No.: [YSI]/ [6820- C- M]  
Serial No./ Equipment No.: [02J0058- AB]/ [MPP15]  
Date of Calibration: 13-July-2021

## PARAMETERS:

### Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.10	--
4	4.40	+10.0
40	39.10	-2.3
80	85	+6.3
	Tolerance Limit (%)	±10.0

### Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.86	-1.4
20	19.61	-2.0
30	28.54	-4.9
	Tolerance Limit (%)	±10.0

### 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)
15.0	15.53	+0.5
22.8	23.20	+0.4
40.6	41.07	+0.5
	Tolerance Limit (°C)	±2.0

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

Mr Chan Siu Ming, Vico  
Manager - Inorganic



## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

<b>CONTACT:</b>	SAMUEL LAI	<b>WORK ORDER:</b>	HK2121764
<b>CLIENT:</b>	EGS (ASIA) LTD	<b>SUB- BATCH:</b>	0
<b>ADDRESS:</b>	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	<b>LABORATORY:</b>	HONG KONG
		<b>DATE RECEIVED:</b>	31- May- 2021
		<b>DATE OF ISSUE:</b>	01- Jun- 2021

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

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [6820- V2- M]
Serial No./ Equipment No.:	[09H101347]/ [MPP37]
Date of Calibration:	31- May- 2021

### GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Mr Chan Siu Ming, Vico  
Manager - Inorganic

*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: HK2121764  
SUB- BATCH: 0  
DATE OF ISSUE: 01- Jun- 2021  
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter  
Brand Name/  
Model No.: [YSI]/ [6820- V2- M]  
Serial No./  
Equipment No.: [09H101347]/ [MPP37]  
Date of Calibration: 31- May- 2021

## PARAMETERS:

Dissolved Oxygen Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.94	3.09	+ 0.15
5.27	5.39	+ 0.12
7.03	7.03	+ 0.00
	Tolerance Limit (mg/L)	± 0.20

pH Value Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.95	- 0.05
7.0	6.89	- 0.11
10.0	10.00	+ 0.00
	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.

Mr Chan Siu Ming, Vico  
Manager - Inorganic

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2121764  
SUB- BATCH: 0  
DATE OF ISSUE: 01-Jun-2021  
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter  
Brand Name/ Model No.: [YSI]/ [6820-V2-M]  
Serial No./ Equipment No.: [09H101347]/ [MPP37]  
Date of Calibration: 31-May-2021

## PARAMETERS:

### Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	3.6	- 10.0
40	37.5	- 6.3
80	80.7	+0.9
	Tolerance Limit (%)	±10.0

### Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.04	--
10	9.01	- 9.9
20	20.01	+0.1
30	29.04	- 3.2
	Tolerance Limit (%)	±10.0

### 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)
11.8	12.15	+0.4
20.4	20.88	+0.5
39.9	40.25	+0.4
	Tolerance Limit (°C)	±2.0

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

Mr Chan Siu Ming, Vico  
Manager - Inorganic



## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

<b>CONTACT:</b>	SAMUEL LAI	<b>WORK ORDER:</b>	HK2121766
<b>CLIENT:</b>	EGS (ASIA) LTD	<b>SUB- BATCH:</b>	0
<b>ADDRESS:</b>	15/F., NORTH POINT INDUSTRIAL BUILDING, 499 KING'S ROAD, NORTH POINT, HONG KONG	<b>LABORATORY:</b>	HONG KONG
		<b>DATE RECEIVED:</b>	31- May- 2021
		<b>DATE OF ISSUE:</b>	01- Jun- 2021

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

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [6820- V2- M]
Serial No./ Equipment No.:	[13H103323]/ [MPP44]
Date of Calibration:	31- May- 2021

### GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Mr Chan Siu Ming, Vico  
Manager - Inorganic

*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: HK2121766  
SUB- BATCH: 0  
DATE OF ISSUE: 01- Jun- 2021  
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter  
Brand Name/  
Model No.: [YSI]/ [6820- V2- M]  
Serial No./  
Equipment No.: [13H103323]/ [MPP44]  
Date of Calibration: 31- May- 2021

## PARAMETERS:

Dissolved Oxygen Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.00	3.20	+ 0.20
5.15	5.29	+ 0.14
7.03	7.00	- 0.03
	Tolerance Limit (mg/L)	± 0.20

pH Value Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	4.09	+ 0.09
7.0	6.82	- 0.18
10.0	10.06	+ 0.06
	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.

Mr Chan Siu Ming, Vico  
Manager - Inorganic

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



WORK ORDER: HK2121766  
SUB- BATCH: 0  
DATE OF ISSUE: 01-Jun-2021  
CLIENT: EGS (ASIA) LTD

Equipment Type: Multifunctional Meter  
Brand Name/ Model No.: [YSI]/ [6820-V2-M]  
Serial No./ Equipment No.: [13H103323]/ [MPP44]  
Date of Calibration: 31-May-2021

## PARAMETERS:

### Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.0	+0.0
40	40.1	+0.3
80	80.2	+0.3
	Tolerance Limit (%)	±10.0

### Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.04	--
10	10.01	+0.1
20	19.99	-0.1
30	31.37	+4.6
	Tolerance Limit (%)	±10.0

### 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)
12.0	12.06	+0.1
21.1	21.29	+0.2
37.5	37.57	+0.1
	Tolerance Limit (°C)	±2.0

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

Mr Chan Siu Ming, Vico  
Manager - Inorganic