Water Quality Monitoring Report for First Year of Operation of the LNG Terminal – July to September 2023

ANNEX A

CALIBRATION CERTIFICATES

www.erm.com Version: 0 Project No.: 0505354 0505354_Operation WQM_2023Q3_Rev_0.docx



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: JOHNNY HO WORK ORDER: HK2316957

CLIENT: EGS (ASIA) LTD

ADDRESS: 15/F., NORTH POINT INDUSTRIAL BUILDING, **SUB-BATCH:** (

499 KING'S ROAD, NORTH POINT, HONG KONG

LABORATORY: HONG KONG

DATE RECEIVED: 05-May-2023 **DATE OF ISSUE:** 08-May-2023

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

Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [14A1010573]/ [MPP46]

Date of Calibration: 05-May-2023

GENERAL COMMENTS

This report superseded any previous report(s) with same work order number.

Mr Chan Siu Ming, Vico Assistant Laboratory Manager

Ma Si

Environmental

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

WORK ORDER: HK2316957

SUB-BATCH: 0

DATE OF ISSUE: 08-May-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

05-May-2023

Serial No./

[14A1010573]/[MPP46]

Equipment No.: Date of Calibration:

Date of Next Calibration:

05-August-2023

PARAMETERS:

Dissolved Oxygen

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

	Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
ſ	2.84	2.72	-0.12
	4.58	4.55	-0.03
	7.17	7.17	+0.00
		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	3.91	-0.09
7.0	7.13	+0.13
10.0	10.02	+0.02
	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 Assistant Laboratory Manager

Ma Sign

Environmental

WORK ORDER: HK2316957

SUB-BATCH: 0

DATE OF ISSUE: 08-May-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

Serial No./

[14A1010573]/[MPP46]

Equipment No.: Date of Calibration:

- - -

Date of Calibratio

05-May-2023 Date of Next Calibration:

05-August-2023

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	
4	4.0	+0.0
40	40.6	+1.5
80	79.8	-0.3
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.01	
10	10.02	+0.2
20	19.64	-1.8
30	29.78	-0.7
	Tolerance Limit (%)	±10.0

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

Mr Chan Siu Ming, Vico Assistant Laboratory Manager

Ma Sign

Environmental

WORK ORDER: HK2316957

SUB-BATCH:

DATE OF ISSUE: 08-May-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/

[YSI]/[6820-V2-M]

Model No.: Serial No./

[14A1010573]/[MPP46]

Equipment No.:

Date of Calibration:

05-May-2023

Date of Next Calibration:

05-August-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)
10.1	10.18	+0.1
23.1	22.22	-0.9
38.4	37.70	-0.7
	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 Assistant Laboratory Manager

Ma Sign

Environmental



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: JOHNNY HO WORK ORDER: HK2329342

CLIENT: EGS (ASIA) LTD

ADDRESS: 15/F., NORTH POINT INDUSTRIAL BUILDING, SUB-BATCH:

499 KING'S ROAD, NORTH POINT, LABORATORY: HONG KONG

HONG KONG

DATE RECEIVED: 25-Jul-2023

DATE OF ISSUE: 26-Jul-2023

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

Brand Name/ Model No.: [YSI]/ [6820-V2-M]
Serial No./ Equipment No.: [07H100241]/ [MPP22]

Date of Calibration: 25-July-2023

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.

WORK ORDER: HK2329342

SUB-BATCH: 0

DATE OF ISSUE: 26-Jul-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

25-July-2023

Serial No./

[07H100241]/[MPP22]

Equipment No.: Date of Calibration: [0711100211]/[1411122]

Date of Next Calibration: 25-October-2023

PARAMETERS:

Dissolved Oxygen

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.96	2.80	-0.16
5.49	5.43	-0.06
7.18	7.19	+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	3.91	-0.09
7.0	6.99	-0.01
10.0	9.89	-0.11
	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

WORK ORDER: HK2329342

SUB-BATCH: 0

DATE OF ISSUE: 26-Jul-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

Serial No./ Equipment No.:

[07H100241]/[MPP22]

Date of Calibration:

25-July-2023

Date of Next Calibration: 25-October-2023

PARAMETERS:

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	
4	4.3	+7.5
40	40.7	+1.8
80	81.4	+1.8
400	N/A	N/A
800	N/A	N/A
	Tolerance Limit (%)	±10.0

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	
10	9.73	-2.7
20	19.46	-2.7
30	29.65	-1.2
	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

WORK ORDER: HK2329342

SUB-BATCH: 0

DATE OF ISSUE: 26-Jul-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

Serial No./

Equipment No.:

[07H100241]/[MPP22]

Date of Calibration:

25-July-2023

Date of Next Calibration:

25-October-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)
11.9	12.01	+0.1
20.7	19.75	-0.9
39.5	38.79	-0.7
	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



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: JC

JOHNNY HO

EGS (ASIA) LTD

CLIENT: ADDRESS:

15/F., NORTH POINT INDUSTRIAL BUILDING,

499 KING'S ROAD, NORTH POINT,

HONG KONG

WORK ORDER:

HK2329350

SUB-BATCH:

0

LABORATORY:
DATE RECEIVED:

HONG KONG

DATE OF ISSUE:

25-Jul-2023 26-Jul-2023

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:

Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

Serial No./ Equipment No.:

[16L100580]/[MPP57]

Date of Calibration:

25-July-2023

GENERAL COMMENTS

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

10,0

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.

WORK ORDER: HK2329350

SUB-BATCH: 0

DATE OF ISSUE: 26-Jul-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

25-July-2023

Serial No./

[16L100580]/[MPP57]

Equipment No.: Date of Calibration: [10[100380]/[[WIFF3/]

Date of Next Calibration: 25-Oct

25-October-2023

PARAMETERS:

Dissolved Oxygen

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.45	2.47	+0.02
5.64	5.63	-0.01
7.17	7.25	+0.08
	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	3.93	-0.07
7.0	6.95	-0.05
10.0	9.91	-0.09
	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

WORK ORDER: HK2329350

SUB-BATCH: 0

DATE OF ISSUE: 26-Jul-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

Serial No./

[16L100580]/[MPP57]

Equipment No.: Date of Calibration:

PARAMETERS:

Date of Next Calibration:

25-October-2023

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

25-July-2023

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	
4	4.1	+2.5
40	41.8	+4.5
80	84.2	+5.3
400	N/A	N/A
800	N/A	N/A
	Tolerance Limit (%)	±10.0

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	
10	9.78	-2.2
20	19.33	-3.4
30	29.64	-1.2
	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

WORK ORDER: HK2329350

SUB-BATCH: 0

DATE OF ISSUE: 26-Jul-2023 **CLIENT:** EGS (ASIA) LTD

Equipment Type:

Multifunctional Meter

Brand Name/ Model No.:

[YSI]/[6820-V2-M]

Serial No./

Equipment No.:

[16L100580]/[MPP57]

Date of Calibration:

25-July-2023

Date of Next Calibration:

25-October-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)
11.9	12.66	+0.8
20.7	19.68	-1.0
39.5	38.68	-0.8
	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