# Annex G1

# Calibration Certificates for Water Quality



Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong Email: info@qualityprotest.com; Website: www.qualityprotest.com Tel: (852) 3956 8717; Fax: (852) 3956 3928

# REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No.

: R-BB030068

**Date of Issue** 

: 21 March 2022

Page No.

: 1 of 2

## PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.

Flat 2207, Yu Fun House Yu Chui Court, Shatin

New Territories (HK) Hong Kong

Attn:

## PART B - SAMPLE INFORMATION

Name of Equipment:

YSI ProDSS (Multi-Parameters)

Manufacturer:

YSI (a xylem brand)

Serial Number:

S/N: 16H104233

Date of Received:

18 March 2022

Date of Calibration:

18 March 2022

Date of Next Calibration:

17 June 2022

#### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

**Test Parameter** 

Reference Method

Turbidity

APHA 21e 2130B

Conductivity

APHA 21e 2510B

Dissolved oxygen

APHA 21e 4500 O APHA 21e 4500 H+

pH value

APHA 21e 2520B

Salinity Temperature

Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March

2008: Working Thermometer Calibration Procedure

#### **PART D - CALIBRATION RESULT**

#### (1) Turbidity

(1) Turbland			
EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.05	'	Satisfactory
10	10.09	0.9	Satisfactory
20	19.68	-1.6	Satisfactory
100	104.79	4.79	Satisfactory
800	793.41	-0.82	Satisfactory

Tolerance of Turbidity should be less than  $\pm$  10.0 (%)

## (2) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	149.71	1.91	Satisfactory
1412	1471	4.18	Satisfactory
12890	12690	-1.55	Satisfactory
58670	57736	-1.59	Satisfactory
111900	110653	-1.11	Satisfactory

Tolerance of Conductivity should be less than  $\pm$  10.0 (%)

# (3) Dissolved oxygen

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AUTHORIZED SIGNATORY:

LEE Chun-ning
Assistant Manager (Chemical Testing)

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Page No.

: 2 of 2

EXPECTED READING ( MG/L )	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.08	8.23	0.15	Satisfactory
4.8	4.92	0.12	Satisfactory
1.8	1.81	0.01	Satisfactory
0.08	0.33	0.25	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  ( mg/L )

## (4) pH value

TARGET (PH UNIT)	DISPLAY READING ( PH UNIT )	TOLERANCE	RESULT
4.00	4.09	0.09	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	9.87	-0.14	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  (pH unit)

#### (5) Salinity

EXPECTED READING ( G/L )	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.9	-1.00	Satisfactory
20	19.83	-0.85	Satisfactory
30	30.33	1.10	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

# (6) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	10	0	Satisfactory
20	20	0	Satisfactory
48	48	0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  (°C)

# Remark(s)

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No.

: R-BB030069

**Date of Issue** 

: 21 March 2022

Page No.

: 1 of 2

## PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.

Flat 2207, Yu Fun House Yu Chui Court, Shatin

New Territories (HK) Hong Kong

Attn:

## **PART B - SAMPLE INFORMATION**

Name of Equipment:

YSI ProDSS (Multi-Parameters)

Manufacturer:

YSI (a xylem brand)

Serial Number:

S/N: 16H104234

Date of Received:

18 March 2022 18 March 2022

Date of Calibration :
Date of Next Calibration :

17 June 2022

#### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

**Test Parameter** 

Reference Method

Turbidity

APHA 21e 2130B

Conductivity

APHA 21e 2510B

Dissolved oxygen

APHA 21e 4500 O APHA 21e 4500 H+

pH value Salinity

APHA 21e 2520B

Temperature

Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March

2008: Working Thermometer Calibration Procedure

## **PART D - CALIBRATION RESULT**

## (1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.05	"	Satisfactory
10	10.20	2.0	Satisfactory
20	19.77	-1.2	Satisfactory
100	104.21	4.2	Satisfactory
800	792.60	-0.9	Satisfactory

Tolerance of Turbidity should be less than  $\pm 10.0$  (%)

#### (2) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	152.1	3.54	Satisfactory
1412	1472	4.25	Satisfactory
12890	12618	-2.11	Satisfactory
58670	57412	-2.14	Satisfactory
111900	110616	-1.15	Satisfactory

Tolerance of Conductivity should be less than ± 10.0 (%)

# (3) Dissolved oxygen

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No.

: R-BB030069

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: 21 March 2022

Page No.

: 2 of 2

EXPECTED READING ( MG/L )	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.08	8.25	0.17	Satisfactory
4.8	5.00	0.20	Satisfactory
1.8	1.74	-0.06	Satisfactory
0.08	0.5	0.42	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  ( mg/L )

#### (4) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	4.08	0.08	Satisfactory
7.42	7.47	0.05	Satisfactory
10.01	9.90	-0.11	Satisfactory

Tolerance of pH value should be less than  $\pm$  0.2 (pH unit)

## (5) Salinity

EXPECTED READING ( G/L )	DISPLAY READING ( G/L )	TOLERANCE (%)	RESULT
10	9.93	-0.70	Satisfactory
20	19.81	-0.95	Satisfactory
30	30.12	0.40	Satisfactory

Tolerance of Salinity should be less than  $\pm$  10.0 (%)

# (6) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	10	0	Satisfactory
20	20	0	Satisfactory
48	48	0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  ( °C )

## Remark(s)

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No.

: R-BB040015

**Date of Issue** 

: 08 April 2022

Page No.

: 1 of 2

#### PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House Yu Chui Court, Shatin New Territories (HK) Hong Kong

Attn:

#### **PART B - SAMPLE INFORMATION**

Name of Equipment:

YSI ProDSS (Multi-Parameters)

Manufacturer:

YSI (a xylem brand)

Serial Number:

S/N: 17E100747

Date of Received:

08 April 2022

Date of Calibration:

08 April 2022

Date of Next Calibration:

07 July 2022

## PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

**Test Parameter** 

Reference Method

Turbidity

APHA 21e 2130B

Dissolved oxygen

APHA 21e 4500 O

pH value Salinity APHA 21e 4500 H+ APHA 21e 2520B

Temperature

Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March

2008: Working Thermometer Calibration Procedure

Conductivity

APHA 21e 2510B

## **PART D - CALIBRATION RESULT**

# (1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.05	:	Satisfactory
10	9.94	-0.6	Satisfactory
20	19.9	-0.5	Satisfactory
100	97.96	-2.0	Satisfactory
800	797.37	-0.3	Satisfactory

Tolerance of Turbidity should be less than  $\pm$  10.0 ( % )

# (2) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.23	8.39	0.16	Satisfactory
5.61	5.79	0.18	Satisfactory
4.20	4.36	0.16	Satisfactory
0.15	0.40	0.25	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm~0.5$  ( mg/L )

## (3) pH value

TARGET (PH UNIT)	DISPLAY READING ( PH UNIT )	TOLERANCE	RESULT	
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# REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No.

: R-BB040015

**Date of Issue** 

: 08 April 2022

Page No.

: 2 of 2

TARGET (PH UNIT)	DISPLAY READING ( PH UNIT )	TOLERANCE	RESULT
4.00	4.06	0.06	Satisfactory
7.42	7.47	0.05	Satisfactory
10.01	10.18	0.17	Satisfactory

Tolerance of pH value should be less than  $\pm$  0.2 (pH unit)

## (4) Salinity

EXPECTED READING ( G/L )	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	10.24	2.40	Satisfactory
20	20.37	1.85	Satisfactory
30	30.18	0.60	Satisfactory

Tolerance of Salinity should be less than  $\pm 10.0$  (%)

## (5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	10.0	0.0	Satisfactory
20	19.9	-0.1	Satisfactory
48	48.0	0.0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  (°C)

# (6) Conductivity

EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	151.3	3.00	Satisfactory
1412	1380	-2.27	Satisfactory
12890	12258	-4.90	Satisfactory
58670	58105	-0.96	Satisfactory
111900	112267	0.33	Satisfactory

Tolerance of Conductivity should be less than ± 10.0 (%)

# Remark(s)

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No.

: R-BB040014

**Date of Issue** 

: 08 April 2022

Page No.

: 1 of 2

#### PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House Yu Chui Court, Shatin New Territories (HK) Hong Kong

Attn:

## **PART B - SAMPLE INFORMATION**

Name of Equipment:

YSI ProDSS (Multi-Parameters)

Manufacturer:

YSI (a xylem brand)

Serial Number:

S/N: 21G105356

Date of Received:

08 April 2022

Date of Calibration :

08 April 2022

Date of Next Calibration:

07 July 2022

## PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

**Test Parameter** 

Reference Method

Turbidity

APHA 21e 2130B

Dissolved oxygen

APHA 21e 4500 O APHA 21e 4500 H+

pH value Salinity

APHA 21e 2520B

Temperature

Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March

2008: Working Thermometer Calibration Procedure

Conductivity

APHA 21e 2510B

## **PART D - CALIBRATION RESULT**

# (1) Turbidity

EXPECTED READING ( NTU )	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.06		Satisfactory
10	9.95	-0.5	Satisfactory
20	19.88	-0.6	Satisfactory
100	98.27	-1.7	Satisfactory
800	796.82	-0.4	Satisfactory

Tolerance of Turbidity should be less than  $\pm$  10.0 ( % )

#### (2) Dissolved oxygen

(2) Dissorted onlygen			
EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE (MG/L)	RESULT
8.23	8.40	0.17	Satisfactory
5.61	5.74	0.13	Satisfactory
4.20	4.42	0.22	Satisfactory
0.15	0.33	0.18	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  ( mg/L )

(3) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT

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AUTHORIZED SIGNATORY:

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Page No.

: 2 of 2

TARGET (PH UNIT)	DISPLAY READING ( PH UNIT )	TOLERANCE	RESULT
4.00	4.03	0.03	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.11	0.10	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  ( pH unit )

## (4) Salinity

EXPECTED READING ( G/L )	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	10.08	0.80	Satisfactory
20	20.24	1.20	Satisfactory
30	30.16	0.53	Satisfactory

Tolerance of Salinity should be less than  $\pm 10.0$  (%)

#### (5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE (°C)	RESULT
10	10.0	0.0	Satisfactory
20	19.9	-0.1	Satisfactory
48	48.0	0.0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  ( °C )

# (6) Conductivity

EXPECTED READING ( MS/CM AT 25°C )	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	150.9	2.72	Satisfactory
1412	1374	-2.69	Satisfactory
12890	12254	-4.93	Satisfactory
58670	58236	-0.74	Satisfactory
111900	112346	0.40	Satisfactory

Tolerance of Conductivity should be less than  $\pm$  10.0 (%)

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