Annex G1

# Calibration Certificates for Water Quality



# 專業化驗有限公司 QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/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. Date of Issue Page No. : R-BC030056 : 20 March 2023 : 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

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

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	S/N: 15M100005
Date of Received :	17 March 2023
Date of Calibration :	17 March 2023
Date of Next Calibration :	16 June 2023
Request No. :	D-BC030056

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

<u>Test Parameter</u>	Reference Method
pH value	APHA 21e 4500 H <sup>+</sup>
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March
	2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

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

#### (1) pH value

Target ( pH unit )	Display Reading ( pH unit )	Tolerance	Result
4.00	4.02	0.02	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.16	0.15	Satisfactory

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

#### (2) Temperature

Reading of Ref. thermometer ( °C )	Display Reading ( °C )	Tolerance	Result
15	15.0	. 0.0	Satisfactory
30	30.0	0.0	Satisfactory
40	39.8	-0.2	Satisfactory

Tolerance of Temperature should be less than  $\pm$  2.0 (  $^{\circ}C$  )

#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.09	0.90	Satisfactory
20	20.53	2.65	Satisfactory
30	30.46	1.53	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning

Assistant Manager (Chemical Testing)



專 業 化 驗 有 限 公 司 QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/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-BC030056	
Date of Issue	: 20 March 2023	
Page No.	: 2 of 2	

#### (4) Dissolved oxygen

Expected Reading ( mg/L )	Display Reading ( mg/L )	Tolerance	Result
8.17	8.33	0.16	Satisfactory
5.28	5.21	-0.07	Satisfactory
1.86	1.58	-0.28	Satisfactory
0.30	0.39	0.09	Satisfactory

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

#### (5) Turbidity

Expected Reading (NTU)	Display Reading ( NTU )	Tolerance ( % )	Result
0	0.10		Satisfactory
10	9.88	-1.2	Satisfactory
20	19.72	-1.4	Satisfactory
100	97.36	-2.6	Satisfactory
800	789.53	-1.3	Satisfactory

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

#### (6) Conductivity

Expected Reading ( µS/cm at 25°C )	Display Reading	Tolerance ( % )	Result
146.9	151.3	3.00	Satisfactory
1412	1366	-3.26	Satisfactory
12890	12852	-0.29	Satisfactory
58670	60593	3.28	Satisfactory
111900	111742	-0.14	Satisfactory

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

#### Remark(s)

•The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards. •The results relate only to the calibrated equipment as received

•The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

•The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

---- END OF REPORT ----



專 業 化 驗 有 限 公 司 QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/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. Date of Issue Page No. : R-BC020017 : 06 February 2023 : 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

### PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	16H104234
Date of Received :	03 February 2023
Date of Calibration :	03 February 2023
Date of Next Calibration :	02 May 2023
Request No. :	D-BC020017

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

<u>Test Parameter</u>	Reference Method
pH value	APHA 21e 4500 H+
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March
	2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

### PART D - CALIBRATION RESULT

#### (1) pH value

Target ( pH unit )	Display Reading ( pH unit )	Tolerance	Result
4.00	3.92	-0.08	Satisfactory
7.42	7.38	-0.04	Satisfactory
10.01	9.94	-0.07	Satisfactory

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

#### (2) Temperature

Reading of Ref. thermometer ( °C )	Display Reading ( °C )	Tolerance	Result
40	40.0	0.0	Satisfactory
30	30.0	0.0	Satisfactory
20	20.0	0.0	Satisfactory

Tolerance of Temperature should be less than  $\pm$  2.0 (  $^{\circ}C$  )

#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.92	-0.80	Satisfactory
20	20.40	2.00	Satisfactory
30	29.79	-0.70	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning

Assistant Manager (Chemical Testing)

This report shall not be reproduced unless with prior written approval from this laboratory



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

Test Report No.	: R-B
Date of Issue	:06 F
Page No.	:2 of

: R-BC020017 : 06 February 2023 : 2 of 2

#### (4) Dissolved oxygen

Expected Reading ( mg/L )	Display Reading ( mg/L )	Tolerance	Result
8.34	8.50	0.16	Satisfactory
6.70	6.62	-0.08	Satisfactory
3.41	3.22	-0.19	Satisfactory
0.11	0.50	0.39	Satisfactory

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

#### (5) Turbidity

Expected Reading (NTU)	Display Reading ( NTU )	Tolerance (%)	Result
0	0.05		Satisfactory
10	9.90	-1.0	Satisfactory
20	19.36	-3.2	Satisfactory
100	96.52	-3.5	Satisfactory
800	795.37	-0.6	Satisfactory

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

#### (6) Conductivity

Expected Reading ( µS/cm at 25°C )	Display Reading	Tolerance ( % )	Result
146.9	150	2.11	Satisfactory
1412	1477	4.60	Satisfactory
12890	13582	5.37	Satisfactory
58670	59121	0.77	Satisfactory
111900	114082	1.95	Satisfactory

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

#### Remark(s)

•The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards. •The results relate only to the calibrated equipment as received

The performance of the equipment stated is checked with independent reference material and results compared against a calibrated secondary source.

• "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures. • The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ----



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. Date of Issue Page No. : R-BB120080 : 20 December 2022 : 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

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

YSI ProDSS (Multi-Parameters)
YSI (a xylem brand)
17E100747
20 December 2022
20 December 2022
19 March 2023
D-BB120080

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

<u>Test Parameter</u>	Reference Method
pH value	APHA 21e 4500 H+
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March
	2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

## PART D - CALIBRATION RESULT

#### (1) pH value

Target ( pH unit )	Display Reading ( pH unit )	Tolerance	Result
4.00	4.02	0.02	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.06	0.05	Satisfactory

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

### (2) Temperature

Reading of Ref. thermometer ( °C )	Display Reading ( °C )	Tolerance	Result
15	14.9	-0.1	Satisfactory
30	30.0	0.0	Satisfactory
45	49.9	4.9	Satisfactory

Tolerance of Temperature should be less than  $\pm$  2.0 (  $^{\circ}C$  )

#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.94	-0.60	Satisfactory
20	20.21	1.05	Satisfactory
30	30.20	0.67	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning

Assistant Manager (Chemical Testing)

This report shall not be reproduced unless with prior written approval from this laboratory



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

Test Report No.	
Date of Issue	
Page No.	

: R-BB120080 : 20 December 2022 : 2 of 2

#### (4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading ( mg/L )	Tolerance	Result
9.37	9.60	0.23	Satisfactory
7.08	6.64	-0.44	Satisfactory
4.84	4.48	-0.36	Satisfactory
3.10	2.81	-0.29	Satisfactory

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

#### (5) Turbidity

Expected Reading (NTU)	Display Reading ( NTU )	Tolerance (%)	Result
0	0.10		Satisfactory
10	9.85	-1.50	Satisfactory
20	19.77	-1.20	Satisfactory
100	99.16	-0.80	Satisfactory
800	796.62	-0.40	Satisfactory

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

#### (6) Conductivity

Expected Reading ( µS/cm at 25°C )	Display Reading	Tolerance ( % )	Result
146.9	151.2	2.93	Satisfactory
1412	1366	-3.26	Satisfactory
12890	13610	5.59	Satisfactory
58670	56516	-3.67	Satisfactory
111900	111612	-0.26	Satisfactory

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

#### Remark(s)

•The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards. •The results relate only to the calibrated equipment as received

• The performance of the equipment stated is checked with independent reference material and results compared against a calibrated secondary source. • "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ----



專業化驗有限公司 OUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/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. Date of Issue Page No. : R-BC030055 : 20 March 2023 : 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

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

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	S/N: 21G105356
Date of Received :	17 March 2023
Date of Calibration :	17 March 2023
Date of Next Calibration :	16 June 2023
Request No. :	D-BC030055

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

Test Parameter	Reference Method
pH value	APHA 21e 4500 H+
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March
	2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

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

### (1) pH value

Target ( pH unit )	Display Reading ( pH unit )	Tolerance	Result
4.00	4.04	0.04	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	10.14	0.13	Satisfactory

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

#### (2) Temperature

Reading of Ref. thermometer ( °C )	Display Reading ( °C )	Tolerance	Result
15	15.0	0.0	Satisfactory
30	30.0	0.0	Satisfactory
40	39.9	-0.1	Satisfactory

Tolerance of Temperature should be less than  $\pm\,2.0$  (  $^{\circ}C$  )

#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance ( % )	Result
10	10.10	1.00	Satisfactory
20	19.82	-0.90	Satisfactory
30	30.55	1.83	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

LEE Chun-ning

Assistant Manager (Chemical Testing)

This report shall not be reproduced unless with prior written approval from this laboratory



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

Test Report No.	: R-BC030055		
Date of Issue	: 20 March 2023		
Page No.	: 2 of 2		

#### (4) Dissolved oxygen

Expected Reading ( mg/L )	Display Reading (mg/L)	Tolerance	Result
8.17	8.31	0.14	Satisfactory
5.28	5.29	0.01	Satisfactory
1.86	1.56	-0.30	Satisfactory
0.30	0.39	0.09	Satisfactory

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

#### (5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10		Satisfactory
10	9.86	-1.4	Satisfactory
. 20	19.73	-1.4	Satisfactory
100	98.87	-1.1	Satisfactory
800	790.41	-1.2	Satisfactory

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

#### (6) Conductivity

Expected Reading ( µS/cm at 25°C )	<b>Display Reading</b>	Tolerance ( % )	Result
146.9	148.7	1.23	Satisfactory
1412	1511	7.01	Satisfactory
12890	12994	0.81	Satisfactory
58670	60395	2.94	Satisfactory
111900	111890	-0.01	Satisfactory

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

#### Remark(s)

•The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards. •The results relate only to the calibrated equipment as received

•The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

•The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

--- END OF REPORT ---