

Annex G1

Calibration Certificates for Water Quality



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

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Email: info@qualityprotest.com; Website: www.qualityprotest.com
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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB100113
Date of Issue : 28 October 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

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 16H104233
Date of Received : 28 October 2022
Date of Calibration : 28 October 2022
Date of Next Calibration : 27 January 2023
Request No. : D-BB100113

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	7.50	0.08	Satisfactory
10.01	10.18	0.17	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
20	19.9	-0.1	Satisfactory
40	39.9	-0.1	Satisfactory

Tolerance of Temperature should be less than ± 2.0 (°C)


(3) Salinity

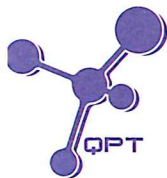
Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.19	1.90	Satisfactory
20	20.33	1.65	Satisfactory
30	30.48	1.60	Satisfactory

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

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AUTHORIZED
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LEE Chun-ning
Assistant Manager (Chemical Testing)



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(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.65	8.00	0.35	Satisfactory
4.65	4.33	-0.32	Satisfactory
2.18	2.00	-0.18	Satisfactory
0.46	0.50	0.04	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 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	20.28	1.4	Satisfactory
100	100.59	0.6	Satisfactory
800	797.25	-0.3	Satisfactory

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

(6) Conductivity

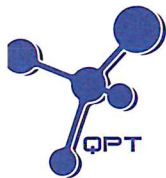
Expected Reading ($\mu\text{S}/\text{cm}$ at 25°C)	Display Reading	Tolerance (%)	Result
146.9	138.6	-5.65	Satisfactory
1412	1370.9	-2.91	Satisfactory
12890	12684	-1.6	Satisfactory
58670	57921	-1.28	Satisfactory
111900	111663	-0.21	Satisfactory

Tolerance of Conductivity should be less than ± 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 ---



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB090082
Date of Issue : 19 September 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

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17E100747
Date of Received : 16 September 2022
Date of Calibration : 16 September 2022
Date of Next Calibration : 15 December 2022
Request No. : D-BB090082

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 2520B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130B
Conductivity	APHA 21e 2510B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	3.95	-0.05	Satisfactory
7.42	7.37	-0.05	Satisfactory
10.01	9.94	-0.07	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer ($^{\circ}\text{C}$)	Display Reading ($^{\circ}\text{C}$)	Tolerance	Result
40	40.1	0.1	Satisfactory
30	30.1	0.1	Satisfactory
10	10.0	0.0	Satisfactory

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

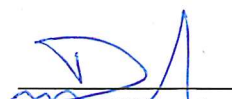
(3) Salinity

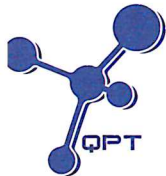
Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.19	1.90	Satisfactory
20	20.43	2.15	Satisfactory
30	30.33	1.10	Satisfactory

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

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(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.38	7.58	0.20	Satisfactory
4.70	4.86	0.16	Satisfactory
1.48	1.81	0.33	Satisfactory
0.45	0.39	-0.06	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10	--	Satisfactory
10	9.86	-1.40	Satisfactory
20	19.85	-0.70	Satisfactory
100	98.96	-1.00	Satisfactory
800	817.32	2.20	Satisfactory

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

(6) Conductivity

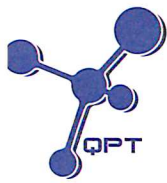
Expected Reading ($\mu\text{S/cm at } 25^\circ\text{C}$)	Display Reading	Tolerance (%)	Result
146.9	136.8	-6.88	Satisfactory
1412	1372.4	-2.8	Satisfactory
12890	12522.6	-2.85	Satisfactory
58670	56891	-3.03	Satisfactory
111900	112764	0.77	Satisfactory

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-BB120080
Date of Issue : 20 December 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

PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17E100747
Date of Received : 20 December 2022
Date of Calibration : 20 December 2022
Date of Next Calibration : 19 March 2023
Request No. : D-BB120080

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	4.02	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 ± 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 ± 2.0 (°C)

(3) Salinity

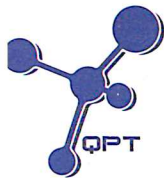
Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.94	-0.60	Satisfactory
20	20.21	1.05	Satisfactory
30	30.20	0.67	Satisfactory

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

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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Date of Issue : 20 December 2022
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(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 ± 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 ± 10.0 (%)

(6) Conductivity

Expected Reading ($\mu\text{S}/\text{cm}$ 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 ± 10.0 (%)

Remark(s)

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