

Appendix F Water Quality Equipment Calibration Certificate



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA020068
Date of Issue : 26 February 2021
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit C, 11/F, Ford Glory Plaza
37-39 Wing Hong Street
Cheung Sha Wan, Kowloon, Hong Kong
Attn: Mr. Nelson TSUI

PART B – DESCRIPTION

Name of Equipment : Multi Water Quality Checker U-53
Manufacturer : Horiba
Serial Number : A55XB7UP
Date of Received : Feb 25, 2021
Date of Calibration : Feb 26, 2021
Date of Next Calibration^(a) : May 25, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

| Parameter | Reference Method |
|-------------------------------|--|
| pH at 25°C | APHA 21e 4500-H ⁺ B |
| Dissolved Oxygen | APHA 21e 4500-O G |
| Salinity | APHA 21e 2520 B |
| Turbidity | APHA 21e 2130 B |
| Temperature | Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure. |
| Oxidation-Reduction Potential | APHA 22e 2580 B |

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

| Target (pH unit) | Displayed Reading ^(d) (pH Unit) | Tolerance ^(e) (pH Unit) | Results |
|------------------|--|------------------------------------|--------------|
| 4.00 | 4.11 | 0.11 | Satisfactory |
| 7.42 | 7.36 | -0.06 | Satisfactory |
| 10.01 | 10.16 | 0.15 | Satisfactory |

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature


| Reading of Ref. thermometer (°C) | Displayed Reading (°C) | Tolerance (°C) | Results |
|----------------------------------|------------------------|----------------|--------------|
| 16 | 16.84 | 0.84 | Satisfactory |
| 21 | 20.80 | -0.20 | Satisfactory |
| 39 | 38.74 | -0.26 | Satisfactory |

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

- ^(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
^(b) The results relate only to the calibrated equipment as received
^(c) The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
^(d) "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
^(e) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA020068
Date of Issue : 26 February 2021
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) | Results |
|-------------------------|--------------------------|------------------|--------------|
| 0.26 | 0.60 | 0.34 | Satisfactory |
| 3.87 | 4.10 | 0.23 | Satisfactory |
| 7.18 | 7.10 | -0.08 | Satisfactory |
| 8.49 | 8.49 | 0.00 | Satisfactory |

Tolerance limit of dissolved oxygen should be less than ± 0.50 (mg/L)

(4) Salinity

| Expected Reading (g/L) | Displayed Reading (g/L) | Tolerance (%) | Results |
|------------------------|-------------------------|---------------|--------------|
| 10 | 9.80 | -2.00 | Satisfactory |
| 20 | 18.30 | -8.50 | Satisfactory |
| 30 | 31.70 | 5.67 | Satisfactory |

Tolerance limit of salinity should be less than ± 10.0 (%)

(5) Turbidity

| Expected Reading (NTU) | Displayed Reading ⁽¹⁾ (NTU) | Tolerance ⁽²⁾ (%) | Results |
|------------------------|--|------------------------------|--------------|
| 0 | 0.00 | -- | Satisfactory |
| 10 | 10.5 | 5.0 | Satisfactory |
| 20 | 21.2 | 6.0 | Satisfactory |
| 100 | 104 | 4.0 | Satisfactory |
| 800 | 813 | 1.6 | Satisfactory |

Tolerance limit of turbidity should be less than ± 10.0 (%)

(6) Oxidation-Reduction Potential

| Expected Reading (mV) | Displayed Reading (mV) | Tolerance (mV) ⁽²⁾ | Results |
|-----------------------|------------------------|-------------------------------|--------------|
| 229 | 227 | -2 | Satisfactory |

Tolerance limit of Oxidation-Reduction Potential should be less than ± 10 (mV)

~ END OF REPORT ~

Remark(s): -

⁽¹⁾ "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

⁽²⁾ The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AJ120034
Date of Issue : 11 December 2020
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit C, 11/F, Ford Glory Plaza
37-39 Wing Hong Street
Cheung Sha Wan, Kowloon, Hong Kong
Attn: Mr. Nelson TSUI

PART B – DESCRIPTION

Name of Equipment : Multi Water Quality Checker U-53
Manufacturer : Horiba
Serial Number : L20550GA
Date of Received : Dec 08, 2020
Date of Calibration : Dec 10, 2020
Date of Next Calibration^(a) : Mar 09, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

| Parameter | Reference Method |
|------------------|--|
| pH at 25°C | APHA 21e 4500-H ⁺ B |
| Dissolved Oxygen | APHA 21e 4500-O G |
| Salinity | APHA 21e 2520 B |
| Turbidity | APHA 21e 2130 B |
| Temperature | Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure. |

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

| Target (pH unit) | Displayed Reading ^(d) (pH Unit) | Tolerance ^(e) (pH Unit) | Results |
|------------------|--|------------------------------------|--------------|
| 4.00 | 4.12 | 0.12 | Satisfactory |
| 7.42 | 7.59 | 0.17 | Satisfactory |
| 10.01 | 10.19 | 0.18 | Satisfactory |

Tolerance of pH should be less than ± 0.20 (pH unit)

(2) Temperature

| Reading of Ref. thermometer (°C) | Displayed Reading (°C) | Tolerance (°C) | Results |
|----------------------------------|------------------------|----------------|--------------|
| 16 | 17.15 | 1.15 | Satisfactory |
| 27 | 27.27 | 0.27 | Satisfactory |
| 33 | 32.26 | -0.74 | Satisfactory |

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

- ^(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
^(b) The results relate only to the calibrated equipment as received
^(c) The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
^(d) "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
^(e) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AJ120034
Date of Issue : 11 December 2020
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) | Results |
|-------------------------|--------------------------|------------------|--------------|
| 0.14 | 0.00 | -0.14 | Satisfactory |
| 3.62 | 3.27 | -0.35 | Satisfactory |
| 4.48 | 4.68 | 0.20 | Satisfactory |
| 8.26 | 8.57 | 0.31 | Satisfactory |

Tolerance limit of dissolved oxygen should be less than ± 0.50 (mg/L)

(4) Salinity

| Expected Reading (g/L) | Displayed Reading (g/L) | Tolerance (%) | Results |
|------------------------|-------------------------|---------------|--------------|
| 10 | 9.76 | -2.40 | Satisfactory |
| 20 | 20.08 | 0.40 | Satisfactory |
| 30 | 31.08 | 3.60 | Satisfactory |

Tolerance limit of salinity should be less than ± 10.0 (%)

(5) Turbidity

| Expected Reading (NTU) | Displayed Reading ^(f) (NTU) | Tolerance ^(g) (%) | Results |
|------------------------|--|------------------------------|--------------|
| 0 | 0.62 | -- | Satisfactory |
| 10 | 10.1 | 1.0 | Satisfactory |
| 20 | 19.0 | -5.0 | Satisfactory |
| 100 | 98.0 | -2.0 | Satisfactory |
| 800 | 779 | -2.6 | Satisfactory |

Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

^(f) "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

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



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

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

Report No. : AJ120011
Date of Issue : 04 December, 2020
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit C, 11/F, Ford Glory Plaza
37-39 Wing Hong Street
Cheung Sha Wan, Kowloon, Hong Kong
Attn: Mr. Nelson TSUI

PART B – DESCRIPTION

Name of Equipment : YSI ProDSS Multi Parameters
Manufacturer : YSI (a xylem brand)
Serial Number : 15M101091
Date of Received : Nov 30, 2020
Date of Calibration : Dec 04, 2020
Date of Next Calibration^(a) : Mar 03, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

| Parameter | Reference Method |
|------------------|--|
| pH at 25°C | APHA 21e 4500-H ⁺ B |
| Dissolved Oxygen | APHA 21e 4500-O G |
| Salinity | APHA 21e 2520 B |
| Turbidity | APHA 21e 2130 B |
| Temperature | Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure. |

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

| Target (pH unit) | Displayed Reading ^(d) (pH Unit) | Tolerance ^(e) (pH Unit) | Results |
|------------------|--|------------------------------------|--------------|
| 4.00 | 4.12 | 0.12 | Satisfactory |
| 7.42 | 7.32 | -0.10 | Satisfactory |
| 10.01 | 10.12 | 0.11 | Satisfactory |

Tolerance of pH should be less than ±0.20 (pH unit)

(2) Temperature


| Reading of Ref. thermometer (°C) | Displayed Reading (°C) | Tolerance (°C) | Results |
|----------------------------------|------------------------|----------------|--------------|
| 9 | 8.6 | -0.40 | Satisfactory |
| 24 | 23.2 | -0.80 | Satisfactory |
| 36 | 35.3 | -0.70 | Satisfactory |

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

- ^(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.
^(b) The results relate only to the calibrated equipment as received
^(c) The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
^(d) "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
^(e) 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.


LEE Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : AJ120011
Date of Issue : 04 December, 2020
Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

| Expected Reading (mg/L) | Displayed Reading (mg/L) | Tolerance (mg/L) | Results |
|-------------------------|--------------------------|------------------|--------------|
| 0.00 | 0.28 | 0.28 | Satisfactory |
| 2.98 | 2.52 | -0.46 | Satisfactory |
| 5.88 | 5.81 | -0.07 | Satisfactory |
| 8.48 | 8.05 | -0.43 | Satisfactory |

Tolerance limit of dissolved oxygen should be less than ± 0.50 (mg/L)

(4) Salinity

| Expected Reading (g/L) | Displayed Reading (g/L) | Tolerance (%) | Results |
|------------------------|-------------------------|---------------|--------------|
| 10 | 10.03 | 0.30 | Satisfactory |
| 20 | 21.02 | 5.10 | Satisfactory |
| 30 | 29.50 | -1.67 | Satisfactory |

Tolerance limit of salinity should be less than ± 10.0 (%)

(5) Turbidity

| Expected Reading (NTU) | Displayed Reading ^(f) (NTU) | Tolerance ^(g) (%) | Results |
|------------------------|--|------------------------------|--------------|
| 0 | -0.67 | -- | Satisfactory |
| 10 | 10.09 | 0.9 | Satisfactory |
| 20 | 19.32 | -3.4 | Satisfactory |
| 100 | 104.00 | 4.0 | Satisfactory |
| 800 | 822.41 | 2.8 | Satisfactory |

Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

^(f) "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

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