KENAS Delivering Trust | KENYA ACCREDITATION SERVICE

P. O. Box 47400 – 00100 | TEL. +254 - 20 484 0000 | Nairobi, Kenya

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# SCHEDULE OF ACCREDITATION

# BIOLOGIC CALIBRATION SOLUTIONS LIMITED

## ISO/IEC 17025:2017

Calibration Laboratory Number: **KENAS/CL/043**

**PERMANENT ADDRESS OF LABORATORY**
SABAKI LANE OFF MOMBASA ROAD,
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NAIROBI

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**Laboratory Contact Person:**

Mr Emmanuel Wekesa

**Technical Signatories:**

1. Emmanuel Wekesa - Mass/Vol/Temp/Rotary Speed/Time & Frequency/Pressure
2. Brian Chepsego - Mass/Vol/Temp/Rotary Speed/Time & Frequency/Pressure
3. Samuel Simiyu - Mass/Volume & Flow
4. Moses Ouko – Temperature/Pressure
5. Edwin Muloma – Rotary Speed/Volume/Time
6. Samuel Nzioka - Volume and Flow
7. Russell Locho – Speed/Time/Volume
8. Pius Ojara – Volume/Speed/Time
9. John Wamala – Mass/Volume/Speed/Time

Expiry Date: 7-October-2028

Approved by: _____ Date: 03-September-2026

KENAS ~~CEO~~/ Authorized Representative

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# SCHEDULE OF ACCREDITATION – BIOLOGICAL CALIBRATION SOLUTIONS LIMITED

## 1.0 Calibration Field: Volume and Flow

| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Micropipettes | Volume | Gravimetric method<br>**Reference method:**<br>ISO 8655 | $F_1$ Masses<br>**Traceability:**<br>KEBS/MET/02/03/01/606<br>Weighing balance S/No BCSL/E-001<br>**Traceability:**<br>BS/MET/02/03/01/326<br>Weighing balance<br>S/No. BCSL/E-003<br>**Traceability:**<br>RS/MET/02103<br>BS/MET/02/03/01/327 | 0.1 µl to 320 ml | ±2.0 µl (up to 30 ml)<br>±5 ml (up to 320 ml) | Biological Solutions Laboratory and Clients Sites |
| Volume Tanks | | Volumetric Strapping & EORD | Prover Tanks Prover Tanks, Tape Measure / Dipping Tape & Scanner | 5 litres to 2,000,000 litres | ±0.5 l(up to 200 l)<br>±1 l (up to 20,000 l) ±2 l (up to 100,000 l)<br>±5 l (up to 2,000,000 l) | |
| Flow Meters | Volume and Flow | Volumetric & Master Meter (Ultrasonic) | Volumetric Tanks & Ultrasonic Flowmeter | Pipe Size: 15mm to 2000mm Flow rate: 10 l/m to 3000 l/m | ±1 l/m (up to 100 l/m) +2.5l/m (up to 3000 l/m) | |

## 2.0 Calibration Field: Revolution

| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Centrifuges | Revolution | Internal: BCSL/LTP/002<br>**Reference method:**<br>IEC 61010-2 :2016 | Digital Tachometer<br>**Traceability**<br>BS/MET/7/3/52/252 | 100 rpm to 50000 rpm | ±1.2 rpm | Biological Solutions Laboratory and Clients Sites |

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## 3.0 Calibration Field: Mass

| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Non-Automatic Weighing Balances | Mass | In house<br>BCSL/LTP/005<br>**Reference Methods:**<br>a) EA-4/02,<br>b) EURAMET Calibration Guide No.18v4:201 | Standard masses OIML class F1<br>**Traceability:**<br>KEBS/MET/2/3/02/727<br>KEBS/MET/2/3/02/668<br>KEBS/MET/2/3/02/728<br>KEBS/MET/2/3/02/729<br>KEBS/MET/2/3/02/730<br>KEBS/MET/2/3/02/731 | Up to 40 kg | $\pm 1.8*10^{-6}$ kg | Biological Solutions Laboratory and Clients Sites |
| | | | Standard masses OIML Class $M_2$<br>**Traceability:**<br>KEBS/MET/2/3/03/201 | Up to 200 kg | $\pm 5.5*10^{-5}$ kg | |

## 4.0 Calibration Field: Time and Frequency

| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)<br>±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Digital and Analog Timing Device | Time | **Reference:**<br>NIST PUBLICATION | Timer | 1 sec to 3600 sec<br>3600 sec to 86,400 sec | ±0.285 sec<br>±5.32 sec | Biological Solutions Laboratory and Clients Sites |

## 5.0 Calibration Field: Temperature

| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Self-indicating Thermometers (Contact Thermometers) | Temperature | **Internal method:**<br>BCSL/LTP/001<br>**Reference:**<br>a) EA-4/02<br>b) OIML 133R,<br>c) Technical Manual | Low temperature Thermocouple Sensor, S/N. BCSL/E-01, 02, 03, Model: TCK<br>**Traceability:**<br>BS/MET/4/3118/078<br>Calibrator<br>S/N. 4058049 (BCSL/E-033), Model: 725,<br>**Traceability:**<br>3000100328<br>Thermo-hygrometer /Data Logger<br>S/No. BCSL/E-009<br>**Traceability:**<br>KEBS/MET/4/3/118/077 | -20 °C to 130 °C | ±1.5 °C | Biological Solutions Laboratory and Clients Sites |

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| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Conditioned Chambers (Ovens, Incubators, Refrigerators, Freezers, Cold Rooms) | | **Internal method:** BCSL/LTP/001<br>**Reference method:**<br>a) EA-4/02<br>b) BS2648:1955<br>c) Technical Manual | | -80 °C to 250 °C | ±2.0 °C | |

## 6.0 Calibration Field: Temperature

| Equipment to be calibrated | Measurand | Calibration Method | Reference Standard | Range | Calibration measurement capability (CMC)<br>±expanded uncertainty | Calibration Site |
|---|---|---|---|---|---|---|
| Bourdon Tube and Pressure Gauges | Gauge Pressure | **Internal method:** BCSL/LTP/006<br>**Reference Method:**<br>DKD-R 6-1:2014 EURAMET Cg 17 | Digital Pressure Test Gauges S/No. NAIT1607137 & 938149<br>**Traceability:** BS/MET/5/3/82/067 BS/MET/5/23/84/029 | 0 MPa to 40 MPa | ±0.061 MPa | Biological Solutions Laboratory and Clients Sites |
| Pressure Devices (Blood Pressure Machines) | Pressure | **Internal method:** BCSL/LTP/006<br>**Reference:**<br>DKD-R 6-1:2014 EURAMET Cg 17 | **Rigel UNI-SIM Hand-Held Vital Signs Simulator**<br>**Traceability**<br>KEBS/MET/5/3/82/220 | 0 mmHg to 350 mmHg | ±0.050 mmHg | |

*The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor k = 2, corresponding to a confidence level of approximately 95%.

## Accreditation History

| Type | Decision Date | Effective Date | Expiry |
|---|---|---|---|
| **Initial Accreditation** | 8-Oct-2020 | 8-Oct-2020 | 7-Oct-2024 |
| **1st Re-Accreditation** | 18-July-2024 | 8-Oct-2025 | 7-Oct-2028 |

This schedule is issued subject to the terms and conditions of KENAS Accreditation. It supersedes any other schedule(s) issued in the past

Approved by: _____ Date: 03-September-2026

KENAS ~~CEO~~/ Authorized Representative