

# CERTIFICATE OF ACCREDITATION

## TANZANIA BUREAU OF STANDARDS (METROLOGY LABORATORY)

*Established by the Standards Act No. 2 of 2009*

**Facility Accreditation Number: CAL-9 005**

is a SADCAS accredited Calibration Laboratory  
provided that all SADCAS conditions are complied with

This certificate is valid as per the scope stated in the accompanying schedule of accreditation,  
Annexure "A", bearing the above accreditation number for

### **VOLUME METROLOGY**

*The facility is accredited in accordance with the recognized International Standard*

### **ISO/IEC 17025:2017**

*The accreditation demonstrates technical competency for a defined scope and the operation  
of a laboratory quality management system*

*SADCAS is a subsidiarity organization of SADC. A memorandum of understanding between SADC and  
SADCAS serves as the basis for the recognition of SADCAS by SADC Member States  
as a multi-economy accreditation body*

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**Mrs Pinkie J Malebe**  
**For SADCAS Chief Executive Officer**

**Date of Renewal of Accreditation** 16 February 2021  
**Effective Date (Issue No: 2):** 16 February 2021  
**Certificate Expires:** 15 February 2026

## ANNEXURE A

### SCHEDULE OF ACCREDITATION VOLUME METROLOGY

Laboratory Accreditation Number: **CAL-9 005 (ISO/IEC 17025:2017)**

<p><b>Permanent Address of Laboratory</b> Tanzania Bureau of Standards Metrology Laboratory Morogoro / Sam Nujoma Road, Ubungo Dar es Salaam Tanzania</p> <p><b>Postal Address</b> P O Box 9524 Dar es Salaam Tanzania</p> <p><b>Tel</b> : +255 22 2450206 <b>Cell</b> : +255 784 806 143 <b>Fax</b> : +255 22 245 0959 <b>Email</b> : <a href="mailto:joseph.mahilla@tbs.go.tz">joseph.mahilla@tbs.go.tz</a></p>	<p><b>Technical Signatories</b> : Mr S H Bussara (All Items) Ms E E Kamala (All Items) Mrs J E Ishabangazi (All Items) Ms Z G Juma (Items 2 &amp; 3)</p> <p><b>Nominated Representative</b> : Mr J J Mahilla</p> <p><b>Issue No</b> : 02 <b>Date of Issue</b> : 13 December 2022 <b>Expiry Date</b> : 15 February 2026</p>
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ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	METHOD	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ )
				At TBS
1	Piston Pipettes	Internal: <i>MET-VOL-04</i> Reference: <i>Measurement Good Practice Guide No. 69, NPL, UK; SADCAS TR 19</i>	5 $\mu\text{l}$ to 100 $\mu\text{l}$ 100 $\mu\text{l}$ to 250 $\mu\text{l}$ 250 $\mu\text{l}$ to 500 $\mu\text{l}$ 500 $\mu\text{l}$ to 1 000 $\mu\text{l}$ 1 000 $\mu\text{l}$ to 3 000 $\mu\text{l}$ 3 000 $\mu\text{l}$ to 5 000 $\mu\text{l}$ 5 000 $\mu\text{l}$ to 10 000 $\mu\text{l}$	1.0 $\mu\text{l}$ 2.0 $\mu\text{l}$ 4.0 $\mu\text{l}$ 8.0 $\mu\text{l}$ 20 $\mu\text{l}$ 40 $\mu\text{l}$ 60 $\mu\text{l}$
2	Glassware	Internal: <i>MET-VOL-01; MET-VOL-02</i> Reference: <i>SADCAS TR 19 ISO 8106-2004(E)</i>	1 mL to 5 mL 5 mL to 50 mL 50 mL to 250 mL 250 mL to 1000 mL 1 000 mL to 5 000 mL	0.05 mL 0.10 mL 0.20 mL 0.50 mL 2.0 mL
3	Metal Strike Measures	Internal: <i>MET-VOL-01</i> Reference: <i>SADCAS TR 19</i>	1 000 mL to 2 000 mL 5 000 mL	2.0 mL 4.0 mL

Original date of accreditation: 04 November 2010

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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%.

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**Pinkie J Malebe**  
**SADCAS Technical Manager**