

CERTIFICATE OF ACCREDITATION

UMZAMO ANALYTICAL SERVICES (PTY) LTD - BOTSWANA

Company Registration No. UIN BW0000389996

Facility Accreditation Number: TEST-5 0097

is a SADCAS accredited Testing 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

CHEMICAL ANALYSIS

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*

Eve C Gadzikwa
SADCAS Chief Executive Officer

Date of Accreditation: 19 February 2025
Effective Date (Issue No: 1): 19 February 2025
Certificate Expires: 18 February 2030

ANNEXURE A

SCHEDULE OF ACCREDITATION

CHEMICAL ANALYSIS

Laboratory Accreditation Number: **TEST-5 0097 (ISO/IEC 17025:2017)**

<p><u>Permanent Address of Laboratory</u> Umzamo Analytical Services Proprietary LTD Plot 22037, Unit 5 Gaborone West Industrial Gaborone Botswana</p> <p><u>Postal Address</u> P.O Box 202875 Gaborone Botswana</p> <p><u>Tel</u> : +267 396 0471 <u>Cell</u> : +267 771 81459 <u>Email</u> : audrey@uas.co.bw : operations@u-a-s.co.za</p>		<p><u>Technical Signatories:</u> Ms A Mtetwa (All methods) Mr L Dinake (All methods, except 1) Mr T Mongwa (All methods) Ms A Kgasa (All methods, except 1, 4, 6 & 8) Ms B Masuku (All methods) Mr M Tiphe (All methods)</p> <p><u>Nominated Representative</u> : Ms Mtetwa</p> <p><u>Issue No</u> : 01 <u>Date of Issue</u> : 19 February 2025 <u>Expiry Date</u> : 18 February 2030</p>
MATERIALS/PRODUCTS TESTED	TYPES OF TESTS/ PROPERTIES MEASURED, RANGE OF MEASUREMENT	STANDARD SPECIFICATIONS, EQUIPMENT/ TECHNIQUES USED
Coal	<ol style="list-style-type: none"> 1. Manual Sampling 2. Sample Preparation 3. Total Moisture 4. Hardgrove Grindability Index 5. Particle Size Distribution 6. Float and Sink 7. Ash Content 8. Volatile Matter 9. Inherent Moisture 10. Calorific Value 11. Total Sulphur 12. Quick Ash 13. Fixed Carbon 	<p>ISO 18283 ISO 13909:4 ISO 589 ISO 5074 ISO 1953 ISO 7936 ISO 1171 ISO 562 SANS 5925 ISO 1928 ASTM D4239 Lab Developed Method By Calculation</p>

Original date of accreditation: 19 February 2025

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Pinkie J Malebe
SADCAS Technical Manager