

CERTIFICATE OF ACCREDITATION

ALFRED H KNIGHT ZAMBIA LIMITED

Company Registration No. 41960

Facility Accreditation Number: TEST-5 0069

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 subsidiary 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*

Mrs Maureen P Mutasa
SADCAS Chief Executive Officer

Effective Date (Issue No: 1): 28 March 2022
Certificate Expires: 27 March 2027

ANNEXURE A

SCHEDULE OF ACCREDITATION

CHEMICAL ANALYSIS

Laboratory Accreditation Number: **TEST-5 0069 (ISO/IEC 17025:2017)**

<u>Permanent Address of Laboratory</u> Alfred H Knight Zambia Limited Corner Mindola Golf Club Roads Nkana West Kitwe Copperbelt Zambia		<u>Technical Signatories:</u> Mr Z Kabwe (Petroleum) Mr J Luchele (Minerals) Ms A Nyambi (Minerals) Mr A Chitete (Minerals) Mr F Zonde (Water) Mr A Chitele (All methods) Mr E Bansa (Water) Mr N Kaela (Minerals) Mr L Lubamba (Petroleum) Mr Sekelani (Petroleum)	
<u>Postal Address</u> P O Box 20303 Kitwe Copperbelt Zambia		<u>Nominated Representative</u> : Ms R Lombe	
<u>Tel</u> : +260 212 226 433 <u>Cell</u> : +260 97 300 1988 <u>Email</u> : rita.lombe@ahkgroup.com		<u>Issue No</u> : 06 <u>Date of Issue</u> : 03 April 2026 <u>Date of Expiry</u> : 27 March 2027	
MATERIALS/PRODUCTS TESTED	TYPES OF TESTS/PROPERTIES MEASURED, RANGE OF MEASUREMENT	STANDARD SPECIFICATIONS, EQUIPMENT/TECHNIQUES USED	
Petroleum Products	Kinematic Viscosity	AHK/99/ECM09	
	Total Base Number	AHK/99/ECM10 by Potentiometric Perchloric Acid Titration	
	Total Acid Number	AHK/99/ECM11 by Potentiometric Titration	
	Specific Gravity	AHK/99/ECM13 by Hydrometer Method	
	Wear Metals of Silicon	AHK/99/ECM05 by Emission Spectrometry	
Copper Concentrates	Copper	AHK/99/AG01 by Electrogravimetry Method including Sample Treatment to AHK/99/GA/HTCSS1	
	Copper in Concentrates	AHK/99/AG02 by Volumetric Method including Sample Treatment to AHK/99/GA/HTCSS1	

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Laboratory Accreditation No: TEST-5 0069 (ISO/IEC 17025:2017)

Issue No: 06

Date of Issue: 03 April 2026

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MATERIALS/PRODUCTS TESTED	TYPES OF TESTS/ PROPERTIES MEASURED, RANGE OF MEASUREMENT	STANDARD SPECIFICATIONS, EQUIPMENT/ TECHNIQUES USED
Silica in Ores, Concentrates and Tails	Silica In Ores, Concentrates and tails	AHK/99/AG06 by Gravimetric Method including Sample Treatment to AHK/99/GA/HTCSS1
Copper and Cobalt in Ores and Mine Grade Samples	Copper and Cobalt in Ores and Mine Grade Samples	AHK/99/AG21 by Atomic Absorption Spectrometry including Sample Treatment to AHK/99/GA/HTCSS1
Acid Soluble Copper and Cobalt in Ores and Concentrate samples	Acid Soluble Copper and Cobalt	AHK/99/AG23 by Atomic Absorption Spectrometry including Sample Treatment to AHK/99/GA/HTCSS1
Natural Water, Effluents and Potable Water Sample	pH (4.00 - 9.20)	AHK/99/AW07
	Electrical Conductivity	AHK/99/AW08
	Determination of Sulphates (mg/l) and Phosphates	AHK/99/AW05
	Total Dissolved Solids	AHK/99/AW10
	Total Alkalinity	AHK/99/AW16
	Total Suspended Solids	AHK/99/AW11
	Total Hardness	AHK/99/AW15
	Nitrite	AHK/99/AW20
	Metals: Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Se, Sr, Sn, Sb, Th, Tl, U, V, Zn	AHK/99/AW12 by ICP

Original date of accreditation: 28 March 2022

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Natural Water, Effluents and Potable Water	Fluoride	AHK/99/WE/AW24 by Ion-Selective Electrode
	Chloride	AHK/99/WE/AW38 by Argentometric method
Mining and Geological Samples	Metals: Ag, Al, As, Ca, Co, Cu, Fe, Mg, Mn, Na, Pb, and Zn after 4 acid digestion	AHK/99/AG39 by ICP-OES including sample Treatment to AHL/99/GA/HTCSS1
Copper, Lead, and Zinc Ores And Concentrator Commodities	Silver (Ag) after aqua regia digestion and AAS finish	AHK/99/AG09 by Atomic Absorption Spectrometry

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Pinkie J Malebe
SADCAS Technical Manager