

AN OVERVIEW OF THE KANYIKA NIOBIUM MINE PROJECT IN MALAWI

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ABSTRACT

The Kanyika Niobium Project is owned by Globe Metals and Mining Limited, through its wholly owned subsidiary Globe Metals and Mining Africa Limited. After extensive drilling, detailed engineering was carried out in 2012 and a definitive feasibility study was commenced in 2013, updated in 2018 and published. After the promulgation of a new Mines Act in 2018, a mining license was issued by the Government of Malawi in August 2021.

The Kanyika deposit comprises a JORC (2012) compliant mineral resource estimate of 68.3 Mt with grade of 0.283% Nb₂O₅ at a cut-off grade of $1\,500$ ppm Nb₂O₅. The concentrator design includes standard unit operations to crush, grind and float niobium ore. The concentrate will be leached with sulphuric acid to reduce the uranium content to be below the Class 7 transportation class for NORM. Washed residue will be exported to an offshore refinery for recovery of niobium and tantalum pentoxides. It is planned to investigate the option to concentrate the soluble uranium using IX, precipitate it and sell it as a yellow cake.

Keywords: Globe Metals, Kanyika, Malawi, Niobium, Tantalum, Uranium, Floatation, Leaching. Feasibility.