

Paper Number: 19

GEOLOGICAL MAPPING, STRUCTURAL SETTING AND PETROGRAPHIC DESCRIPTION OF THE ARCHEAN VOLCANIC ROCKS OF MNANKA AREA, NORTH MARA, TANZANIA.

Author: Kavana, E

¹Acacia Mining PLC, Technical Services, Department of Geology, P. O. Box 75864, Dar es Salaam, Tanzania, East Africa. Email: ezrakavana2@gmail.com

ABSTRACT

The Mnanka area is situated within the Musoma Mara Greenstone Belt, the area is near to Nyabigena, Gokona and Nyabirama Gold mines. Mnanka area comprises of the sequence of predominant rhyolitic volcanic rocks, chert and metasediments. Gold mineralizations in Mnanka area is structure controlled and occur mainly as hydrothermal disseminated intrusion related deposits. Hence the predominant observed structures are joints and flow banding. Measurements from flow banding plotted on stereonet using win-TENSOR software has provided an estimate for the general strike of the area lying 070° to 100° dipping at an average range angle of 70° to 85° while data from joints plotted on stereonet suggest multiple deformation events one of which conforms to the East Africa Rift System (striking WSW-ENE, NNE-SSW and N-S).

Keywords: *Musoma Mara Greenstone Belt, Mnanka volcanics, Archaean rocks and lithology.*

References:

- [1] Gerard Tripp et al., 2007 Geological assessment of the Gokona/Nyabigena gold deposit, 10-16
- [2] Dr. Andrew Allibone, March-April 2000. Regional Geologic Mapping in the North Mara Region, 15-20
- [3] Ikingura et al., 2010 Atlas of Gold Deposits in Tanzania. Dar es Salaam: DUP, 88 pp.

