

**GEOLOGICAL REPORT
FOR AREA No. HQ-P27847 AT MABUKI IN MISUNGWI.**

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1.0 INTRODUCTION

This concession was issued to **Hellena Robert Nyingi** for mineral prospecting. This concession is located in Mabuki area in Misungwi district, Mwanza region in the Northern part of Tanzania. The current report pertains to the geological assessment of the concession area based on the review and interpretation of the available information from literatures, field data collections, online reference materials and the previous geological works carried out at regional scale within and in the neighbourhood areas.

2.0 GEOGRAPHICAL LOCATION AND ACCESSIBILITY.

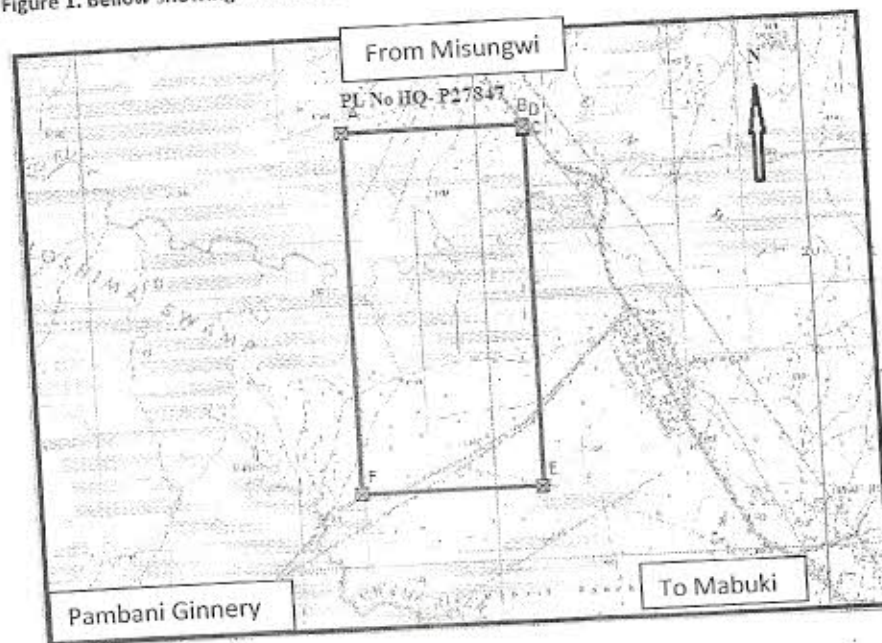
➤ Location

This concession is located in Mabuki area, Misungwi district, Mwanza region in the Northern part of Tanzania district. The area fall on Quota Degree Sheet, QDS, 34 and covering a total area of 15.29km² and bounded by six corner coordinates, **Table 1**.

Corner	Latitude	Longitude
A	2° 55' 00"	33° 08' 00"
B	2° 56' 00"	33° 08' 00"
C	2° 56' 00"	33° 08' 29.64"
D	2° 58' 00"	33° 08' 29.64"
E	2° 58' 00"	33° 07' 00"
F	2° 55' 00"	33° 07' 00"

Table 1: Corner coordinates for area No HQ-P27847 (Arc 1960 Datum, 36s), Mabuki, Misungwi, Mwanza Region.

Figure 1. Bellow showing the location of area No HQ-P27847



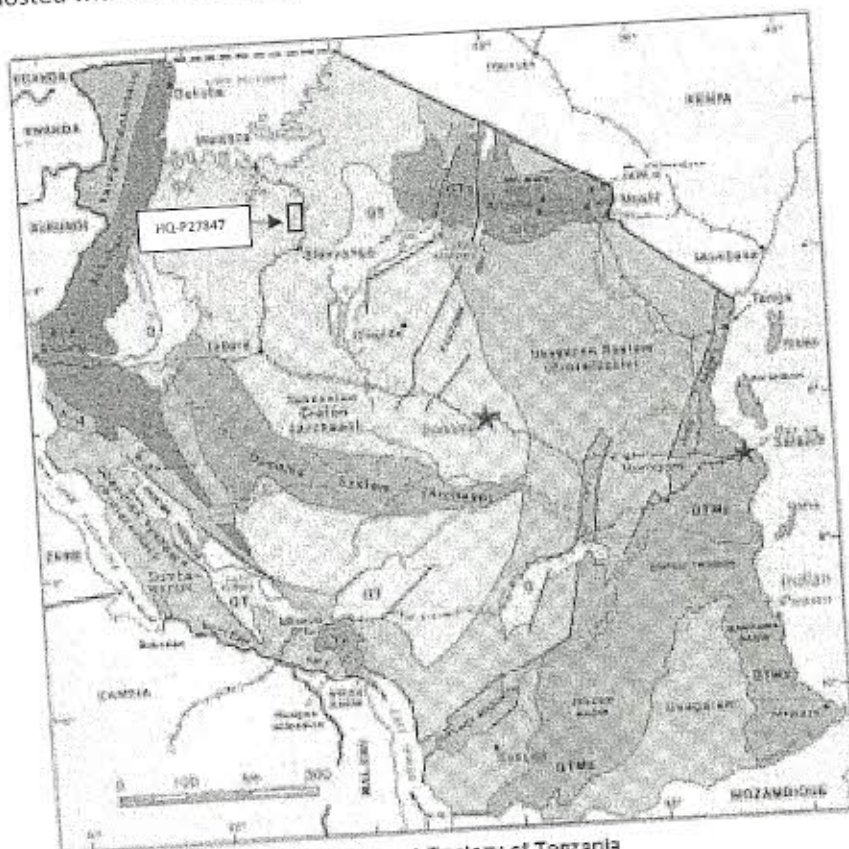
➤ Accessibility

Access to the concessions is easy from Misungwi- Shinyanga tarmac road 10.08km, and then you will be at the north eastern corner of the concession.

3.0 GEOLOGICAL SETTING

3.1 REGIONAL GEOLOGY

Geologically this concession is located within the Nyanzian system which predominantly comprises a series of typical Archean volcano-Sedimentary sequences, or greenstone belts, within a much larger area of granite-gneiss complexes, it is between 2.6 to 3 billion years in age. Evolved volcanic complexes comprising mafic through to felsic submarine and subaerial volcanic rocks, derived volcanic clastic and sedimentary rocks, iron formation etc, along with associated intrusive of variety of intermediate to felsic compositions, comprise the greenstone belts. The rock can be divided into a Lower and Upper series on the basis of recognizable upward transition from mafic to felsic lavas within minor tuffs and interbedded sediments. The lower series consist of basalt andesite and dacite pillow lavas. The sediments include banded iron formation (BIF) recrystallized cherts and some shale and conglomerate. The upper series characterised by an assemblage of felsic lavas, tuffs and ferruginous cherts, BIF and subordinate meta-pelites. The greenstone are generally metamorphosed to greenschist facies and are folded about steeply dipping axial planes which define a generally east-west fabric. The Nyanzian greenstone are of major economic importance, as the host of most of Tanzanian gold deposits and almost all Tanzania's known kimberlite-diamondiferous or not, are hosted within rock of this system.

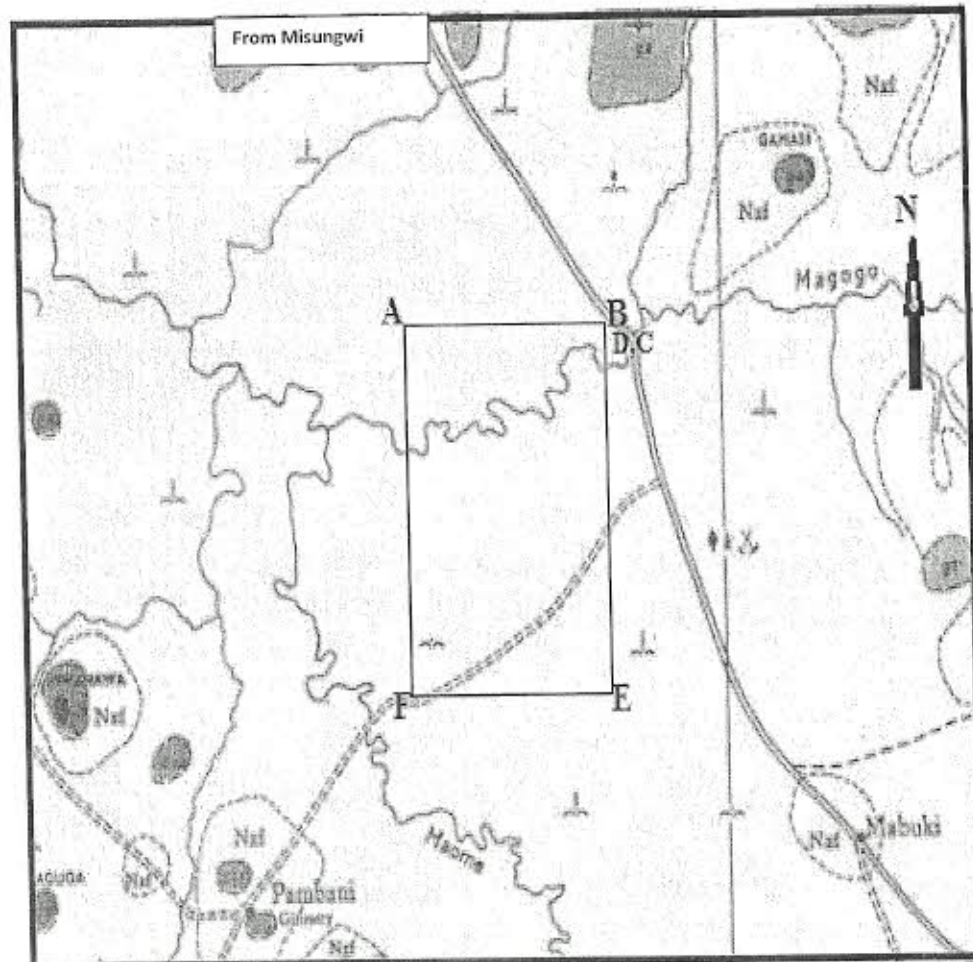


Generalized Geology of Tanzania
(from Samkwa P.M. et al, 2005)

3.2 LOCAL GEOLOGY

Topographically the area rise to an elevation between 1140m to 1146m above mean sea level. Magogo river is the main drainage channel which flow south westely crossing the concession(**figure 2**) .The main part of the concession is covered by Ng'holoshima swamp. Geologically the concession is almost covered by superficial deposits. Grey sandy clay soil (mbuga) is widespread and shows distinct bedding in the blanks of some incised river valleys, suggesting that it may have been deposited locally under lacustrine conditions. This soil-type grades into the heavier blac cracking clays in the low-lying wetter areas, where surface concretionary limestone are commonly found.

GEOLOGICAL MAP OF PL No.HQ P27847 NEAR MABUKI AREA



4.0 CONCLUSION AND RECOMMENDATION

The geological setting in this concession reveals that the concession is worth further geological investigation for detailed assessment of their mineral potential the location of this concession in the Nyanzian supergroup may clearly guarantee the possibility of presence of mineral deposits in the concession particularly gold and diamond.

In view of the information presented in this report, a combined geological investigation is required to be undertaken in the concessions for a systematic assessment of their mineral potential. Among other activities the investigations should include the following:-

- ❖ Geochemical survey (stream sediments and soil sampling)
- ❖ Detailed geological survey for soil sampling (trenching and pitting) and structural feature studies.
- ❖ Conduct magnetic and induce polarization survey for target generation

The above three line of activities are dependent on one another and need to be carried out in such a way that the information obtained from one line of activity is employed to the next activity.

5.0 REFERENCES

- Survey and Mapping Division: *Topographical Map QDS number 34/3-Misungwi.*
- P.M.Semkiwa et al, 2005: *Generalized Geology of Tanzania*
- W.I.Naylor, 1960-61: *Geological map Quarter degree Sheet 34-NGUDU (BUKWIMBA).*
- Harris, J. F. (1981): *Summary of geology of Tanganyika: Part IV Economic geology Geological survey Department of Tanganyika.*