

## ***Geology of subsheets J, P and V of the Yabello map sheet (NB37-14)***

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### **ABSTRACT**

The report describes the geology of an area of approximately 2250sq.km in extent, in Southern Ethiopia. It is bounded by latitudes 4°00"N and 4°45"N and longitudes 38°00"E and 38°15"E.

Crystalline basement, tertiary volcanic and associated sedimentary rock and younger superficial deposit cover the area.

Most of the area is underlain by Precambrian crystalline basement rocks, exposed largely in the north and south part of the area, comprises various high grade gneisses and migmatites, metasedimentary unit and mafic-ultramafic complex, intruded by post tectonic granite and pegmatite.

The basement rocks of the area display varying tectonic style, intensity and phase, and affected by early deformation resulted in planar metamorphic fabric and mesoscopic folds and subsequent folding (D2-3). The rocks have been subjected to regional metamorphism and granitization, undergone three phases of metamorphism (M1-M3). M1 and M2 signify prograde metamorphism that reached to granulite/upper amphibolite facies (M2). M3 is the final metamorphic event characterized by retrogression associated with uplift and fluid invading.

Tertiary volcanic in the southern part and superficial deposit in various parts of the area cover the basement rocks.