

Geological and stratigraphical studies of dimension and cutstone around Khanu Brohi and Khadhar areas, district Jamshoro, Sindh, Pakistan

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The Geological and stratigraphical investigations of the Ranikot and Laki formations, ranging in age from upper Paleocene (Lakhra Formation) to Middle Eocene (Meting limestone), have been carried out with special emphases on the dimension and cutstones of the lower Tertiary rocks of Jamshoro district. These rocks are exposed in the Khanu and Khadhar areas between latitude 25° 25' 24" to 25° 26' 06" N and longitude 68° 11' 05" to 68° 09' 10" E, and are dominantly composed of detrital shale facies and non-detrital limestone. Three undisturbed sections from the studied areas were selected for the columnar sections and correlation of dimension stones. The limestone, mainly used as dimension stone, is of orange yellow to pinkish yellow color and is exposed above the Lakhra formation. It is very hard, compact, thick to massive bedded, and shows sugary texture. This limestone bed represents an important marker bed at the top of Paleocene and the base of Eocene formations. It is of medium quality in comparison to the dimension stones of other areas of Sindh.

Geological mapping and lithofacies variation among the sections have been studied. The possible divisions of various facies in the studied formations have also been made. Their quality has been evaluated in the context of their use as dimension and cut stones. On the basis of hardness and chemical composition, these limestones have been classified into different classes for their valuable use in decoration and construction purposes. Besides this, structural and tectonic aspects, and economic importance of the study area are also discussed.