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Grain Size Analysis of Marh Formation from Bikaner Basin, Northwest India: Implications on Depositional Environments

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Abstract

The Cenozoic sediments of Bikaner Basin are well exposed in quarry sections in WSW of Bikaner. The Cenozoic sequence of Bikaner Basin has been classified into four formations viz., Palana Formation, Marh Formation, Jogira Formation and Kolayat Formation. Grain size studies of the sediments from the Marh Formation exposed in Chak-Chani Quarry are carried out. The sieve analysis is carried out to understand grain size distribution in the sediments from the Marh Formation. Geo-statistical parameters are calculated from the grain size data to understand depositional environment. The linear discriminant functions (Y1, Y2 and Y3) and bivariate plots prepared using grain size data from the Marh Formation (upper) suggest that the deposition was occurred in fluvial to marine environment.

Keywords: Grain Size, Marh Formation, Depositional Environment, Bikaner
