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Core and geophysical criteria of carbonate facial successions within Bashkirian formation, Eastern Slope of Melekess Depression

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One of the main Bashkirian carbonate susccessions problems is to understand facies heterogeneities and porosity distribution on exploration and production scales.
Present paper consists of a core investigation combined with geophysical data (logs and seismics) on a lot of oil fields of Eastern Slope of Melekess Depression. Cores from wells provide an opportunity to assess the sequence stratigraphic distribution of facies and diagenetic modification in platform carbonate reservoirs represented by rocks from micrite to sorted biosparite. Log and laboratory data from these wells calibrate the rock properties and provide insights into porosity/permeability in platform Bashkirian carbonates. It was regarded the spatial heterogeneity within a carbonate platform, a facies belt or individual facies bodies, while simultaneously exploring the fundamental controlling processes. The main results of the present paper are 1) to illustrate the processes that produce heterogeneities in carbonates, 2) to improve the interpretation of subsurface data sets of carbonate systems and 3) to outline solutions for the construction of carbonate reservoir models.