

SEQUENCE STRATIGRAPHY OF THE MESOZOIC-CENOZOIC SEDIMENTS OF THE PETROLIFEROUS KOPET DAGH BASIN OF NORTHEAST IRAN

*Moussavi Harami, R. and Mahboubi, A.
Mashad University*

The Kopet-Dagh intracontinental basin of northeast Iran was formed in the Early Mesozoic. From Jurassic to Tertiary, sedimentation was relatively continued and more than 6000 meters of sediments were deposited in this basin.

Based on 32 measured stratigraphic sections along the outcrop belt (about 400 km), as well as subsurface and all published and unpublished information, 5 unconformity bounded sequence boundaries has been identified. In addition, 21 third cycles in the eastern, 18 in the central and 22 in the western parts of the basin were recognized. It should be noted that numerous small scale shallowing-upward cycles (parasequences) are present. The major cause of these cycles are mainly tectonic, as well as eustatic. Since the Upper Jurassic and Lower Cretaceous intervals are the gas-producing zones in the Khangiran Gas Field in the northeastern part of this basin, the result of this study can be used for further exploration and production in the Kopet-Dagh Basin of Iran and Turkmenistan to the north where there is no outcrops.