

The impact of Ural fold belt on salt tectonics in the eastern edge of Pre-Caspian Basin

Xiaoqun Yang, Liangjie Tang, and Yixin Yu

Pre-Caspian Basin is prolific and dominated by salt tectonics. Typical salt-related structures are the site of potential hydrocarbon accumulations charged from presalt source rocks. Ural fold belt lies at the eastern edge of the Precaspian salt basin, then, how Ural fold belt affect on the salt tectonics in the eastern edge of Pre-Caspian Basin? The interpretation of seismic profiles and geological evolution profiles analysis of the study area revealed the salt tectonics styles and evolution. Based on the deformation mechanism of different periods, salt-tectonic deformation phase had been divided. Eventually reached the following conclusions: (1)With the Ural Ocean close to a turning point, the eastern margin of Pre-Caspian basin has experienced dumping strata east to west, dumping a seesaw movement;(2)The salt tectonic deformation styles mainly contains salt diapir , salt pillows, salt roll, salt weld, Turtle construction, etc., and divided into gravity deformation and different load-deformation; (3)Ural fold belt control stratigraphic inversion, salt layer deposition, salt tectonic deformation of gravity and different load deformation in the eastern edge of the basin.