Reservoir Quality Development in the Oligocene of the Topkhana-1 Well, Block 39, Kurdistan, Iraq

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Abstract

The Topkhana-1 exploration well was drilled by TALISMAN (BLOCK K39) B.V. in the Kurdistan Region of northern Iraq. The well identified and drill stem tested a significant gas/gas condensate resource in the Oligocene Kirkuk Group. This Group is regionally composed of back-reef and reef limestone, dominated by forams and red algae with abundant skeletal fragments. Outcrops of the Kirkuk Group in the nearby mountains reveal tight limestone intervals alternating with porous, partially to completely dolomitized intervals, suggesting a heterogeneous distribution of reservoir quality within the Group. Topkhana -1 was cored to better understand the distribution of reservoir rock in the subsurface. This paper presents the description of that core and additional studies in an effort to predict the distribution of the best reservoir rock.