

عنوان مقاله:

Simulation of Hydraulic Fracturing Operation and Its Effect on Fluid Flow and Production Rate in One of The Fracture Reservoir in Iran

محل انتشار:

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خلاصه مقاله:

In cases where the reservoir rock is partially fractured, hydraulic fracturing method is used for connecting cracks and thus increasing the production rate. In this study, based on available information, the direction of hydraulic fracturing is set with using FLAC software. In the next step fractured area around the well and also the hydraulic fracturing operation can be simulated by UDEC software. For indicating the effect of this process on the production rate, five oil samples with different viscosity are considered and fluid flow of each case into the fractures is modeled and we will discuss about rate changes in the each oil. Effect of oil viscosity on fluid flow in fractured reservoir and subsequently on the production rate before and after the hydraulic fracturing operation, is also analyzed in this study. Results show that in the hydraulic fracturing operation, the changes of fluid flow regime is a function of position and reservoir oil viscosity, so that an oil with low viscosity applied more increase in the production rate after the hydraulic fracturing operation

کلمات کلیدی:

Hydraulic Fracturing - UDEC - FLAC - Production Rate - Simulation

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