

## عنوان مقاله:

Effect of different failure criteria on sand onset prediction

## محل انتشار:

اولین همایش ملی توسعه تکنولوژی در صنایع نفت، گاز و پتروشیمی (سال: 1389)

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## خلاصه مقاله:

Sand production is an important challenge in upstream oil and gas industry, causes operational and safety problems and costs producers tens billions of dollar annually. Selection of appropriate failure criteria is necessary for any sand prediction study. Two dimensions (2D) failure criteria are used in literature like Mohr-Coulomb failure criteria and Hoek-Brown failure criteria. Mohr-Coulomb is most commonly applied failure criterion in sanding onset prediction. As this criterion does not consider the effect of intermediate principal stress, they are conservative in sanding onset prediction. 3D failure criteria like Modified Lade and Drucker-Prager failure criteria which consider effect of intermediate effective principal stress have recently use in sanding onset potential prediction. The aim of this study is comparing of different failure criteria in sanding onset prediction that shows 3D failure criteria are less conservative than other 2D failure criteria. Also effect of depletion considered that reveals sanding potential increase with depletion.

## کلمات کلیدی:

failure criteria, sand onset potential, maximum sand free drawdown, in situ stresses, rock strength

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/111165>

