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CALCULATIONS OF DILATANTIONAL PLASTIC FAILURES AROUND RUNNING WELL

Abstract

Self-model solution of the problem on sand recovery at bringing open bottom hole well in elastico-plastically failed formation is constructed by numerical method.

Development of elastico-plastic radius, porosity variation, reservoir pressure and effective stresses distribution along the formation are studied. Sand showings in fluid flow is determined by initial adhesion and internal friction, ratio of production rate of fluid and solid masses is determined both by decreasing adhesion of failed part of the plate and alternative dilatant coefficient.