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Effect of hydrophobicity on the flow through a porous media O. CHAVEZ, R. ZENIT, Universidad Nacional Autonoma de Mexico, D. CHEHATA, Tecnología Aplicada en Exploración y Producción Petrolera, Inc. Mexico — We have experimentally studied the effect of hydrophobic conditions on the flow in a porous medium; our motivation arises from the flow of petroleum at well conditions, where the wettability can change drastically. A porous media made with glass beads was considered as reference to obtain the permeability. Subsequently the glass beads were coated with a hydrophobic agent in order to observe the effect on the coefficient of permeability of the porous medium, in the Darcy flow regime. Many experiments were conducted considering mixtures of sizes of beads and wettability conditions. Preliminary results will be presented and discussed. As expected, variations of the wettability of the grains affect the permeability in a significant manner.

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