

# Download Miscible Displacement

Introduction. Miscible displacement can be used as a secondary recovery process just after primary recovery of the oil or as a tertiary recovery method at the end of water injection process. The main oil recovery mechanisms during miscible flood are extraction, dissolution, vaporization, solubilization, condensation,...A miscible displacement process maintains reservoir pressure and improves oil displacement because the interfacial tension between oil and water is reduced. The effect of gas injection is similar to that of a solution gasdrive. Miscible displacement is a major branch of enhanced oil recovery processes. Miscible Three Phase Displacement at 1,350 psig (9.38 Mpa) Pressure The next photograph shows a fully developed miscible displacement at 2,000 psig (13.90 Mpa). The photograph shows a light colored band of oil (highlighted with an arrow in the direction of the flow) that is fingering through darker, bypassed oil. Fundamentals of Fluid Flow in Porous Media . Chapter 5 Miscible Displacement Fluid Properties in Miscible Displacement. The performance of a miscible displacement process depends on fluid physical properties that affect flow behavior in a reservoir.