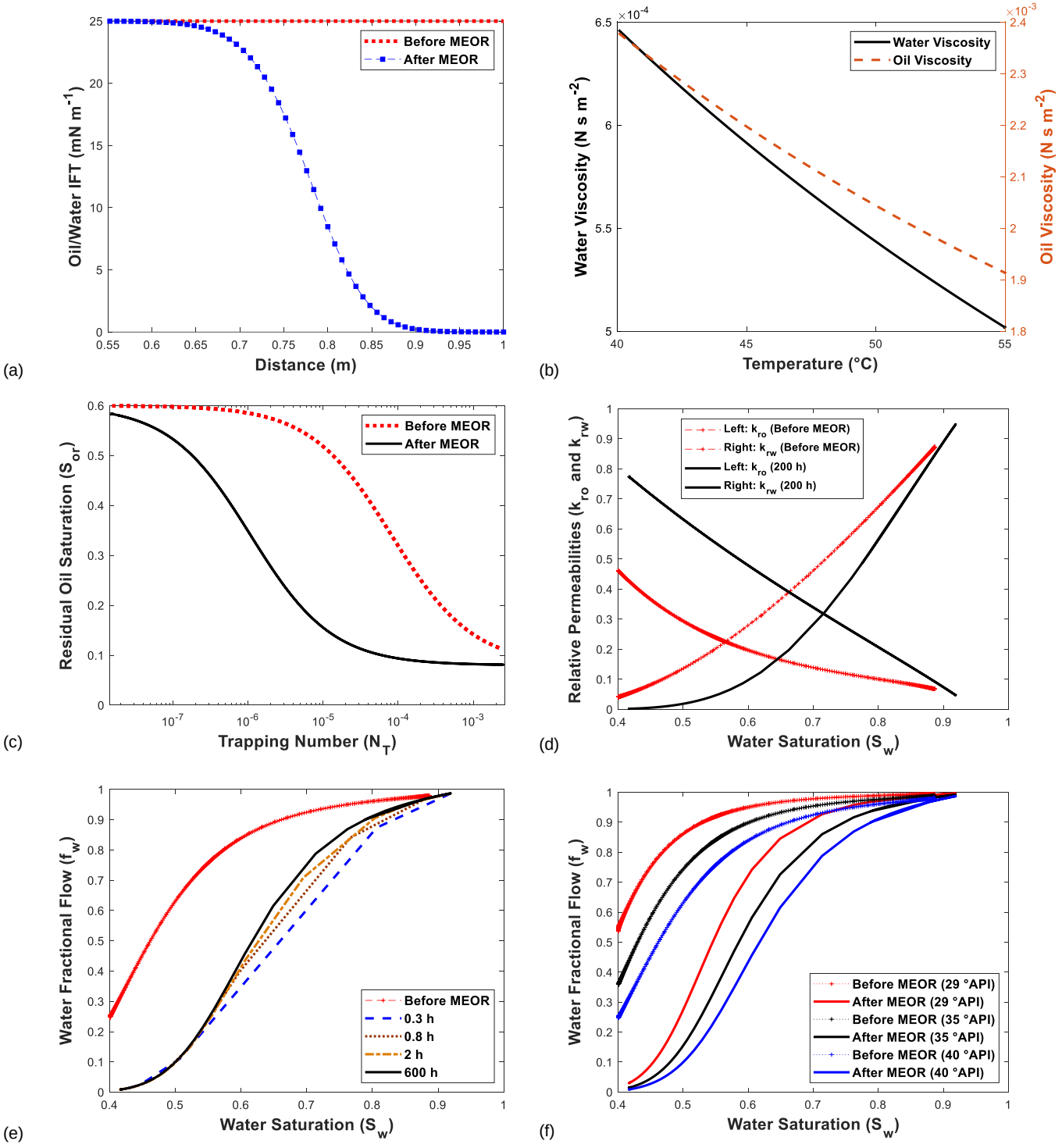

Fig. 10 – During MEOR within sandstone core under varying temperature, salinity and pH conditions, using Microbe 3, d_X = 2.88×10^{-2} h^{-1}, t_{pulse} = 57.6 h and k_a/k_d = 6.40: (a) spatial distribution of oil/water interfacial tension (IFT, mN m^{-1}) at t = 200 h; (b) variations of oil and water viscosities (N s m^{-2}) with increasing *in-Situ* temperature from 40 °C to 55 °C, when specific gravity of crude oil (γ_{API}) is maintained at 40 °API; (c) variation of residual oil saturation (S_{or}) with increase in trapping number (N_T) before microbial flooding and at t = 200 h after microbial flooding; (d) variations of oil and water relative permeabilities (k_{ro} and k_{rw}) with water saturation (S_w) before microbial flooding and at t = 200 h after microbial flooding; (e) variation of fractional flow of water (f_w) with S_w before microbial flooding and at t = 0.3 h, 0.8 h, 2 h and 600 h after microbial flooding, while using γ_{API} = 40 °API; and (f) variation of f_w with S_w before microbial flooding and at t = 200 h after microbial flooding while using γ_{API} values of 29 °API, 35 °API and 40 °API.