We consider the Muskat Problem with surface tension in two dimensions over the real line, with $H^s$ initial data and allowing the two fluids to have different densities and viscosities. We take the angle $\theta$ between the interface and the horizontal, and derive an evolution equation for it. In the periodic case, Ambrose used energy methods to prove local existence for $\theta$. We extend his methods to the real line, obtaining an energy estimate and proving that a solution $\theta$ exists locally and can be continued while $||\theta||_s$ remains bounded and the arc chord condition holds. Furthermore, when the viscosity is constant and the initial data is sufficiently small, we show the energy is non-increasing, and that the solution $\theta$ exists globally in time. (Received September 15, 2015)