

Weight of this project is 35%.

Project Description:

Develop a 2-phase simulator for a two dimensional reservoir, where fluids and reservoir are all incompressible. Use physical data that you have used for your Projects 1 and 2. See slides of Lecture 3 (IMPES) for detailed description of the IMPES strategy steps.

Study the simulation results for different mobility ratios. Also, perform simulations for homogeneous and heterogeneous reservoirs.

Perform grid and time sensitivity study (run for different grid resolutions and time steps).

Boundary Conditions: Quarter-five-spot pattern as following:

No-flow everywhere, 2 wells: 1 Injector at cell (1,1) and 1 Producer at cell (Nx,Ny).

Any well condition (Pressure or Rate Constraint) is accepted.

							X
X							