

We present a technico-economical simulation model focusing on enhanced recovery in oil fields.

Enhanced oil recovery (E.O.R.) is one of the main interest points of today's petroleum research. It consists in injecting fluids which possess peculiar physical properties in an hydrocarbon field. These fluids push the oil towards the surface, gaining a better recovery of the accumulations of the underground reservoirs.

The E.O.R. process can be represented by physical (recovered oil, annual flow, residual saturation) technical (volume of injected fluid, special equipments, operating methods), and economical characteristics,(valorisation of supplementary oil, costs, fiscal advantages).

The model simulates several assumptions on the quantity of injected fluids, the operation's start date, as well as their incidence on recovery.

It is also possible to place one's interest on financial and economical parameters. It can be used for any oil field for which precise physical data may be obtained.

Written in Dynamo III, the model treats simultaneously in one simple run a set of hypotheses combining the quantity of pore volume injected and the beginning of E.O.R..

It is integrated in an interactive software package, allowing to enter the base data with a number of full-screen images asking questions in common language. The system can be linked to a Goupil micro-computer which draws color graphics either on screen or on paper, so that the user may directly obtain slides of the results as they are given by the model.