ABSTRACT

RECOVERY OPTIMIZATION FROM SOME TURBIDITE SANDS OF SOUTH TRINIDAD
A SYNERGISTIC APPROACH

IAN T. SIMON

Geologic models, combined with geophysical and engineering data, provide the modern approach to reservoir description. This demands close interdisciplinary cooperation between geoscientists and petroleum engineers, to achieve maximum recovery from petroleum reservoirs.

This technical study investigates how additional oil recovery can be achieved, based on the geology, rock and fluid properties and the history of the oilfield.

Approximately twenty (20) million barrels 3.2 MMm³) of medium to light grade (avg. = 35.1 ° API) crude oil, have been produced from turbidite reservoirs in the area of study. This represents a recovery factor of 31.0%.

Of the five (5) sand units mapped, the uppermost two (2) are thought to be discontinuous (different facies); while the others are believed to be continuous, separated only by faults. The discontinuous facies are also of poorer quality and thus are suitable only for primary production and formation stimulation. Better quality, continuous units, are suitable for enhanced recovery by fluid injection.