Abstract

In order to assess more precisely the risks associated to the exploitation of its assets, Gaz de France aims at using new technologies included the experimental theory. This theory aims at replacing time-cumbersome reservoir simulations by an analytical model thanks to an optimal set of simulations covering the domain of uncertain parameters.

This approach was used successfully for two real cases studies which are presented hereafter :

- Gas project in the Norwegian sea : Optimization of production key dates (put on stream new fields, adding a compressor on the platform, adding a new well) with the goal to maintain the production rate at the plateau as long as possible.

- Evaluation of the effect of condensate drop-out on the production of a tight gas reservoir in the Norwegian sea.

Two new studies are currently performing :

- Channelized gas project in the south basin of the North Sea : Evaluation of the impact of stochastic uncertainties as channel models in the production profiles by using the joint modeling method.

- Integration of technical and economical uncertainties in the same analytical model in the frame of basic gas contracts.

Depending on their status in June during the workshop, the two previous studies could be presented.