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### **Uncertainty Approach for the Geological and Petrophysical Modeling of a Structurally Complex Field**

A static evaluation of HIP of a large oil rimmed gas syrian field has been done with a 3-D uncertainty approach from a big and various amount of static and dynamic data.

This geological model has been built with a dynamical view : heterogeneities modelling, faults modelling, cut-off definition. Two cases were performed for the static evaluation :

A deterministic case computed from the base case map of the top reservoir and kriging of the petrophysical parameters.

A probabilistic case, where uncertainties linked to the bad quality of seismic and structural data and to the lack of sedimentological analysis and production behaviour of the field, was quantified and translated in term of volumes within a consistent model. The data analysis and the geostatistical model controlled by geological concept tempt to make the model the more realistic.

The deterministic model is built in order to validate the result of the distribution of the probabilistic model. This deterministic model has been exported to Eclipse compositional simulator, in order to obtain an evaluation of reserves and production profiles.