

## **Opportunities and Challenges on Our Way to Integrated Solutions for Geosteering and Its Optimization**

**J. M. Denichou**

### **Abstract**

Drilling horizontal wells successfully required to address various challenges, and accurate well position monitoring and trajectory adjustment are certainly ones highly affecting future production and recovery. Due to the versatility and the uncertainty attached to the precise location and description of the reservoir targeted, it is often necessary, to minimize risk on the overall project, to adopt a fit for purpose strategy for geosteering horizontal wells.

Specifics of each project will drive the selection of the measurements required. Nevertheless, it is already possible to categorize options based on three main type of compulsory information needed in real time:

- Delineation of the reservoir and evaluation of the geological structure drilled
- Evaluation or confirmation of the reservoir petrophysical properties
- Identification of the fluid type as well as pressure regimes along the borehole

In parallel to those technology developments, the industry is quickly gaining experience for planning and conducting geosteering operations. Benefiting many operators in all type of environments, rigorous procedures are getting in place that cover planning, real time operations and post job analysis.

This communication will shares views regarding coming technology development and integrated solutions design experience, through the presentation of various project where innovative interpretation methods has been used and/or new measurements technology field-tested.