

**AAPG Annual Meeting  
March 10-13, 2002  
Houston, Texas**

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## **Extended reach drilling & implementation of new technology in the Chirag field, Azerbaijan**

Extended reach drilling & implementation of new technology in the Chirag field, Azerbaijan.

The Chirag Field, offshore Azerbaijan in the Caspian Sea, is part of the most capital intensive BP project worldwide, and a world-class giant field in its own right.

The Chirag team is in the process of drilling a challenging series of 9 ERD wells. These are aimed at accessing additional reserves in the northwest part of the field and at providing low GOR production in order to honour our aggressive targets for production growth.

The planned wells are at the edge of BP ERD drilling experience in terms of step-out and depth, the wells planned to date being planned to a maximum of 6500m step-out at a depth of 3100mTVDSS. Ultimately the targets may be placed up to 8000m from the platform. The wells also face a number of other challenges, for example formation stability problems caused by a combination of high pore pressures and low rock strength. Achieving best in class drilling performance will rely heavily on effective implementation of new technology.

New technology that is being implemented in the Chirag field during well planning and operations includes:

? Highly Immersive Visualisation Environment (HIVE). ? 3D visualization software (EarthVision). ? Real time data link (Schlumberger IWW) and net meeting. ? Integration and forward modelling of geological, petrophysical and drilling data. Real time correlation and updates (Schlumberger INFORM modeling).

The advantages of this have been seen in the following areas:

? Improved efficiency of well planning through improved visualisation and inter-disciplinary integration. ? Better well plans in difficult circumstances. ? Identification, visualisation and analysis of drilling hazards during drilling. ? Improved communication during operations in a team split between Sunbury and Baku. ? Improved well targeting accuracy in high angle wells.