A 3-step approach to effective training can help tame the unpredictable nature of HPHT environments, wells, kicks

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OVER THE PAST few years, Aberdeen Drilling School (ADS) has conducted dedicated HPHT training for challenging wells around the world, in the UK sector of the North Sea (Conoco Phillips, Shell UK and Talisman Energy), the Azeri sector of the Caspian Sea (BP, JAOC), Egypt (BP, BG/Rashpteco, ENI), Norway (Statoil, ENI Norge, Norske Shell), Canada (Canadian Superior), India (Transocean, Reliance, GSPC) and Nigeria (Shell).

The difficulties and hazards associated with drilling in HPHT environments are universally recognised in the industry. The unpredictable nature of the kicks and the speed at which a well can become underbalanced requires that drillers accept a new philosophy. The key to preventing an HPHT kick is to create an atmosphere within the operation – especially at the rig site – that enables and motivates the team involved to concentrate on the small changes in surface response during the drilling of the transition section through to the target sections.

Communication to the driller from everyone monitoring returns is of the utmost priority. This is where value can be added to this type of operation tour-by-tour. This enablement encourages the driller to get the well shut-in as quickly as possible at the very first indication that the well is flowing for any reason.

It is no longer acceptable for HPHT wells to be flow-checked with the well open during the drilling of these pressure transition sections. Getting the well shut-in and flow-checking on the trip tank through the choke has become accepted practice in the HPHT section of the well.

Once the well is shut-in with the BOP, drilling supervisors can assess the situation to allow for proper well control and gather the evidence that enables the well to be properly controlled.

It will take time to gather the evidence. What are the shut-in conditions (shut-in

In HPHT environments, the unpredictable nature of the kicks and the speed at which a well can become underbalanced requires special crew training.

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