

SPG Vadodara Chapter Organise a Technical Talk by Mr. R. R. Tiwari on 5th September 2016

A technical talk was delivered by Mr. R.R. Tiwari, DGM (Geophysics-Wells), CEWELLS, ONGC, Vadodara on "Geomechanics: from Exploration to Abandonment" on 5th Sept'16.

The talk focused on the importance of Geomechanics in the oil industry beginning with exploration phase to abandonment. A geomechanical model is required to address the issues of drilling instability, well placement, hydraulic fracturing and sand cut. These models can also be used to forecast events like reservoir compaction, fault slippage or reactivation, cap-rock seal failure and surface subsidence during the production phase of a field.

Oriented Perforations in the direction of maximum horizontal stress are preferred in high stress anisotropy areas so that set of fractures are favourably oriented to fail in shear under present day stress field are said to be critically stressed. These fractures exhibit very good flow characteristics consequently their identification is essential for optimal development.

Mr. Tiwari explained how in a normal faulting region faulting

may be induced if stress path becomes more than the critical value due to depletion. Also as fluid pressure is reduced due to production, unconsolidated or poorly consolidated reservoirs may face compaction and even surface subsidence. Shallow reservoirs with large areal extent (low D/R ratio) will exhibit maximum surface subsidence with respect to total reservoir compaction, shallow gas reservoirs being the most vulnerable. Gas bearing Bandra formation may witness such an event.

Gas producing fields of KG-DWN-98/2 block may also be prone to deformation, compaction and consequently subsidence as they are shallow and unconsolidated.

Mr. Arun Kumar, Patron of SPG, Vadodara chapter emphasized the importance of such technical programs and desired that it shall be held more frequently. President, SPG Mr. S. Panigrahi congratulated SPG, Vadodara chapter for doing the good job of educating the geoscientific community through its various programs. Program was ably compared by Mr. K.P. Singh, Secretary, SPG, Vadodara Chapter.



Mr. Tiwari being felicitated by Patron, audience listening attentively and Mr. Panigrahi giving away the memento

