

# Technical Lecture on 'Gas Hydrate'

## by Mr. A V Sathe, President, Vadodara

Mr A.V. Sathe, President Vadodara chapter and a distinguished geoscientist & Gas hydrate cognoscenti of ONGC delivered a talk on “Gas Hydrate” on 18.06.2013.

Mr Sathe started with the definition and the mechanism involved in the accumulation of gas in the unconventional reservoir-Gas hydrate. Gas Hydrate is an ice-like crystalline solid formed from a mixture of water and natural gas, usually methane. It occurs in the pore spaces of sediments and may form cements, nodules or layers. Methane trapped in marine sediments as a hydrate represents an immense hydrocarbon potential that can be considered a dominant factor in estimating and harnessing unconventional energy resources.

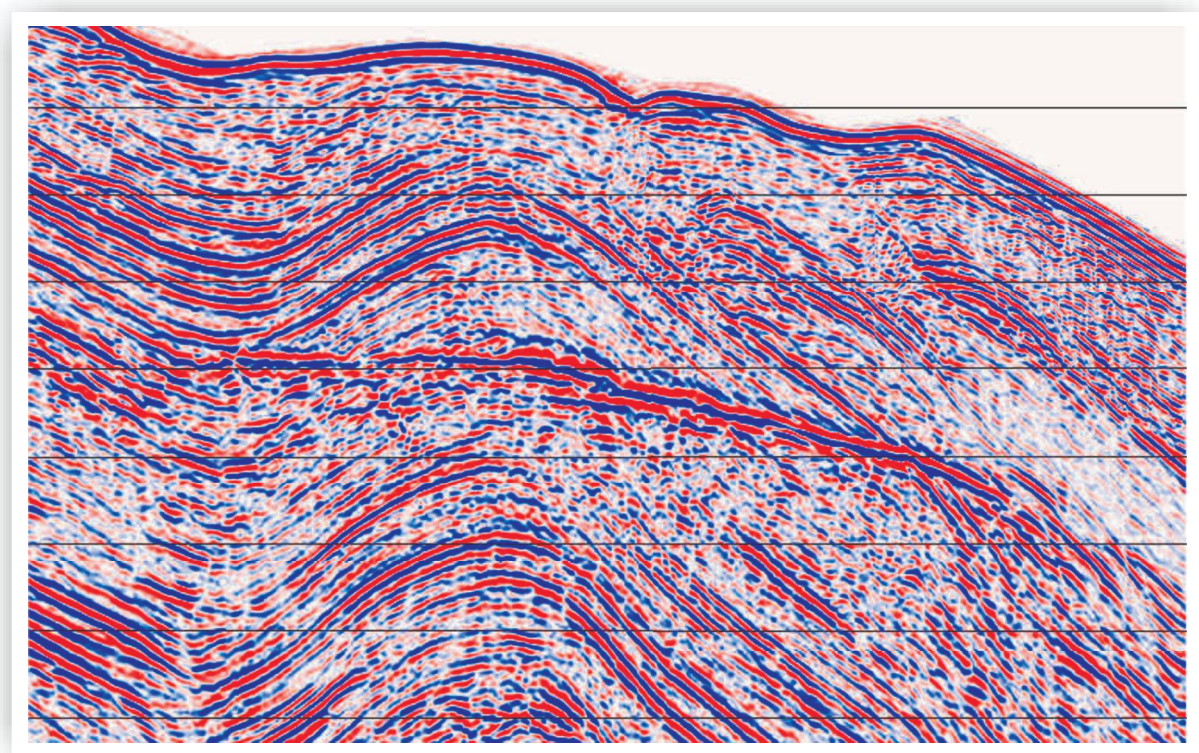
With favorable temperature and pressure conditions, gas hydrates start forming right from the seafloor down in the shallow sediments, to a certain depth until the pressure & temperature conditions allow Gas hydrates to be stable. In Indian offshore, gas hydrates mainly occur beyond a bathymetry of 900m. Study of marine seismic data of Indian offshore areas revealed that KG offshore and Andaman areas on east coast of India as very prospective area for Gas hydrate exploration. On seismic sections, gas hydrates seen as the seismic events mostly following sea bottom and cutting across the subsurface reflectors are identified as Bottom Simulating Reflector (BSR).

He stressed that with changing gas pricing policy and development of technology for extraction, Gas hydrate may be considered a future energy source not because the global volume of hydrate-bound gas is large, but because some individual gas hydrate accumulations may contain significant and concentrated resources that may be profitably recovered in the future.



Mr A V Sathe with SPG-team

Mr S.K. Das appreciated his efforts and thanked him for sparing time to deliver the valuable talk.



A seismic section from Andaman offshore showing BSR