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Overpressure In Indian Sedimentary Basins: A Candidate for Reevaluation To trap Untapped Hydrocarbon

A pore fluid is overpressured if its pressure exceeds that of the hydrostatic gradient at a specific depth. overpressure observed in rocks owes its distribution not only to the mechanism of generation but also to the redistribution of fluids during and after the creation of overpressures. The causatives of overpressure are different in different sedimentary basins of India. Authors have studied the major producing basins viz. Krishna-Godavari, Bengal, Assam-Arakan & Cambay Basins to understand the reasons of high pressure generation and estimated the amount of hydrocarbon still lying untapped due to lack of technology. It is being envisaged that Positive pressure anomalies play a major role in the origin and concentration of hydrocarbons. Because of their high potential such anomalies are able to contribute for expulsion of fluids, facilitate deep fracturing or alternatively act as a seal or serve as lubricant in tectonic deformation. the risk associated and likely gains are being discussed and an attempt has been made to break the thought barrier taking the case history from K.G. basin regarding presence of porosity pods holding substantial amount of hydrocarbon in hitherto known high pressure areas. Changes in formation relief and geometry and their bearing on pressure redistribution in these basins; role of faults in pressure distribution/redistribution is also being discussed in detail.