

## **IDENTIFICATION OF FRACTURES PLAY ENHANCES THE SUCCESS RATE IN THE UPPER INDUS BASIN**

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The Upper Indus Basin is commercially producing hydrocarbon since 1914 with oil production not more than 4000 bbl/day up to 1983. During year 1982-83 annual production of the region was 3.206 Million barrels of oil. (less than 8800 BOD). This production increased sharply up to 5.179 million barrels of oil (more than 14000 BOD) in year 1985-86 and gradually increased up to 11.086 Million barrels of Oil 1991-92 (more than 30,000 BOD). This change was mostly attributed to the inception of fracture plays in the carbonate reservoirs. Previously Sakesar I limestone (Eocene), Lockhart Limestone (Paleocene) and Jutana Dolomite (Cambrian) were considered tight but same now yielded hydrocarbon in commercial quantity after identification of fractures. Besides drilling of new wells, oil companies re-opened dry wells and economically marginal producing well to side-tracking or re-testing. Fim Kassar, Chak Naurang Missa Keswal, Turkwal, Pariwali and Rajian are the fields , which can be quoted as examples. Latest fractures identification techniques played vital role in all above quoted examples.

This paper presents brief history of the discovery of Chak Naurang and Fim Kassar fields. It also describes history of oil wells and basis of reopening of these wells and the ways the new technology helped to find fractured reservoirs and change the wells into commercial producers. The cumulative production of the region can further be enhanced if fractures orientation and their density is considered with good production techniques.