## **Accepted Manuscript**

Fracture and mechanical stratigraphy in naturally fractured carbonate reservoirs-A case study from Zagros region

R. Dashti, H. Rahimpour-Bonab, M. Zeinali

PII: S0264-8172(18)30270-8

DOI: 10.1016/j.marpetgeo.2018.06.027

Reference: JMPG 3396

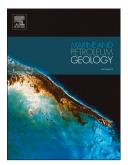
To appear in: Marine and Petroleum Geology

Received Date: 20 January 2018

Revised Date: 23 June 2018 Accepted Date: 26 June 2018

Please cite this article as: Dashti, R., Rahimpour-Bonab, H., Zeinali, M., Fracture and mechanical stratigraphy in naturally fractured carbonate reservoirs-A case study from Zagros region, *Marine and Petroleum Geology* (2018), doi: 10.1016/j.marpetgeo.2018.06.027.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



R.Dashti et al. / Journal of Marine and Petroleum Geology

Fracture and Mechanical Stratigraphy in Naturally Fractured Carbonate

Reservoirs-A Case Study from Zagros Region

R. Dashti<sup>1</sup>, H. Rahimpour-Bonab<sup>1\*</sup>, M. Zeinali<sup>2</sup>

<sup>1</sup>University of Tehran Geology College, Enghelab Square, Tehran. Iran.

<sup>2</sup>Iranian Central Oilfields Company, 390, Taleghani St., Tehran, Iran

Correspondence\*: Rahimpor@ut.ac.ir

**Abstract** 

Fracture stratigraphy and mechanical stratigraphy are investigated in a naturally fractured carbonate reservoir in

the Zagros region. In this study, borehole images are used to identify and to characterize the existing natural and

induced fractures in terms of orientation and attributes. Mechanical properties of the interval are analyzed using

conventional and dipole sonic logs. This analysis also considers stratigraphic characteristics of the rock such as bed

thickness to improve the mechanical stratigraphic description. The relationship between the fracture stratigraphy

(both natural and induced) and the mechanical stratigraphy as a critical input in fracture prediction process is

elaborated. This study shows that while fracture stratigraphy can discriminate intervals based on fractures attributes,

mechanical stratigraphy should be viewed from two different angles, either natural or induced fractures. Natural

fractures are representative of mechanical properties of the rock in time of fracturing, while current mechanical

stratigraphy is primarily portrayed by contemporary failure features such as drilling-induced fractures. This

distinction is of prime importance in any process requiring a predictive knowledge of fractures such as static

modeling and wellbore stability in naturally fractured carbonates reservoirs.

**Keywords:** Mechanical stratigraphy, fracture stratigraphy, carbonate reservoirs, Zagros.

## Download English Version:

## https://daneshyari.com/en/article/8908987

Download Persian Version:

https://daneshyari.com/article/8908987

Daneshyari.com