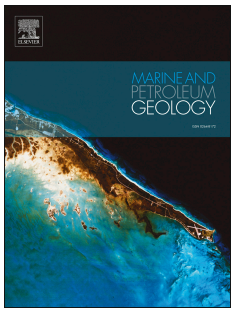
Accepted Manuscript



An investigation into pore structure and petrophysical property in tight sandstones: A case of the Yanchang Formation in the southern Ordos Basin, China

Zhen Li, Shenghe Wu, Dongling Xia, Shuangcai He, Xiaofang Zhang

PII: S0264-8172(18)30292-7

DOI: 10.1016/j.marpetgeo.2018.07.014

Reference: JMPG 3418

To appear in: *Marine and Petroleum Geology*

Received Date: 21 May 2018

Revised Date: 13 July 2018

Accepted Date: 16 July 2018

Please cite this article as: Li, Z., Wu, S., Xia, D., He, S., Zhang, X., An investigation into pore structure and petrophysical property in tight sandstones: A case of the Yanchang Formation in the southern Ordos Basin, China, *Marine and Petroleum Geology* (2018), doi: 10.1016/j.marpetgeo.2018.07.014.

An investigation into pore structure and petrophysical property in tight sandstones：A case of the Yanchang Formation in the southern Ordos Basin, China

Zhen Li[a], Shenghe Wu[a,] *, Dongling Xia[b], Shuangcai He[a], Xiaofang Zhang[c]

[a]Faculty of Geosciences, China University of Petroleum, Beijing. 18 Fuxue Road, Changping, Beijing, P.R. China, 102249

[b]Research Institute of Petroleum Exploration and Development, SINOPEC

[c]No.2 Oil Production Company of Daqing Oilfield Company Ltd., Daqing, China

* Corresponding author

E-mail: reser@cup.edu.cn

Phone number: +8613701135182, +861089733324

Present address: China University of Petroleum, Beijing. 18 Fuxue Road, Changping, Beijing, P.R. China, 102249

ABSTRACT

The complex and heterogeneous pore structures, caused by complex diagenesis and sediment properties (such as rock compositions and grain size), play a critical role in macroscopic evaluating tight sandstone reservoir performance. In order to gain insight into the genetic mechanism of the pore structure and evaluate reservoir quality in tight sandstone reservoirs, this study investigated the impacts of diagenesis and sediment properties on pore structures and the relationship between microscopic pore structure parameters and macroscopic petrophysical performance, based on the analysis of pore structure features (including the morphology, pore