

Paper Number: 4719

## **The three-dimensional description for fracture-cavity carbonate reservoirs in Tahe Oilfield, Tarim Basin**

Changcheng Han Chengyan Lin

School of Geosciences, China University of Petroleum, Qingdao, Shandong 266580, China, E-mail:517892849@qq.com

Ordovician carbonate rocks of Tahe Oilfield were uplifted to be exposed and be denuded many times, and suffered strong karstification, formed strong heterogeneity of fracture-vug types reservoirs. There are differences in shape, size and spatial distribution of carbonate reservoirs, so it is necessary to find an effective method to accurately describe and characterize fracture-vug system characteristics.

Based on integrated analysis of data of seismic data, core and well logging, to sculpture and describe of fracture-cave body. Firstly, processing migration keeping amplitude seismic data, then according to seismic attributes optimization technology, choose ant tracking to predict faults and fractures, The caves were predicted use arc length attributes. Select the appropriate threshold according to the drilling data and logging data, accurately sculpture and describe the fracture and cave body, fusion and display the fracture and cave body, and time-depth conversion. On the basis of seismic modeling, statistical the width and height of correction coefficient between the different size cave body model and the predicted fracture-cave body, and volume correction. So, we can get the actual spatial shape, location and distribution (Fig.1).

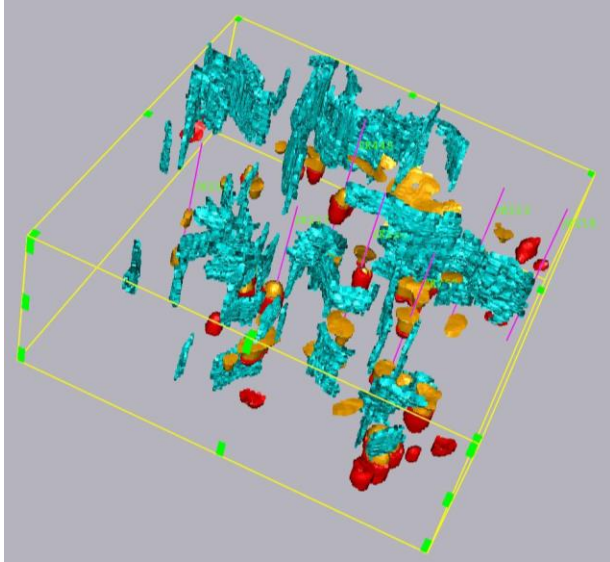


Figure.1 The three dimensional of fracture-cave body

*References:*

- [1] Wenzhi Z et al. (2012) Petroleum Exploration and Development 39(1):1-12.
- [2] Zhiqian G et al. (2012) Journal of Jinlin University:Earth Science Edition 42(3):657-665.
- [3] Zhenhong L and Hongbin Z (2004) Natural Gas Geoscience 15(6):604-609.
- [4] Yinde Z et al. (2014) Acta Petrologica Sinica 30(3):757-767.

