**SPE 91940:** [**Dynamic Behavior of Discrete Fracture Network (DFN) Models**](http://www.spe.org/elibrary/servlet/spepreview?id=00091940).

H. Araujo, P. Lacentre, T. Zapata, A. Del Monte, F. Dzelalija, J. Gilman, H. Meng, H. Kazemi, and E. Ozkan.

**Presented at the 2004 SPE international Petroleum Conference in Puebla, Mexico, 8-9 November 2004**

**Abstract: This work** shows that discrete fracture network modeling is very desirable for the characterization of naturally fractured reservoirs but it is only a highly subjective starting point. Thus, calibration against short and long term pressure transient tests is most crucial. This paper shows how the dynamic behavior of a discrete fracture network model of Margarita gas field compared against pressure transient measurements in a sidetrack delineation-well. The performance comparison of a very fine-grid reservoir model, which included the discrete fracture network information, versus a much coarser upscaled grid model is also documented*.*