Geophysical Research Abstracts,
Vol. 11, EGU2009-7329-3, 2009
EGU General Assembly 2009
© Author(s) 2009

Detection of permeable Fracture Corridors from Borehole Image Log Data

G. Burmester (1) and J. Behrend (2)

(1) Fronterra Integrated Geosciences GmbH, Vienna, Austria, (2) OMV Austria Exploration & Production GmbH, Gänserndorf, Austria

A borehole image log analysis using micro-resistivity and acoustic images indicated a correlation between highly fractured intervals and increased gamma ray log response. Spectral gamma ray logs indicated that increased uranium correlated with the highly fractured intervals. This association of uranium and highly fractured intervals was interpreted as a result of uranium-rich fluids that have circulated through the fractures at some time in their geologic history. Production logs after completion of the image interpretation were subsequently integrated with the image data. Deformation bands characterized by high uranium are associated with increases in production log spinner. These fractures are interpreted to be permeable. More generally, integration of the production log data with the formation image interpretation showed that the presence of certain fault types, the dip of bedding in specific structural domains and the thickness of the uranium-enriched zone also have an influence on the production behavior.