

Borehole Techniques for Fracture Evaluation

M.A. Lamb*

University of Calgary, Calgary, AB

Schlumberger Oilfield Services, 525, 3rd Ave S.W. Calgary, AB T3A 4Z3

malamb@ucalgary.ca

ABSTRACT

Fractured reservoirs can be either economically unviable or prolific producers depending on the characteristics of the fractures and their relation to the reservoir as a whole. Recent Geophysical techniques have allowed some investigation of the fracture properties of the reservoir, however these still remain too large scale to examine the properties of fracture sets and how they might produce. In order to achieve the detail required, we need to use methods that examine fractures on a more detailed, such as is available through borehole investigations.

These methods can include both physical examination of extracted core and / or down hole geophysical measurements of the rock properties. By examining how each of these measurements can be related to rock fracture properties and to each other, a much more complete picture of the fracture system can be achieved.

The core of this presentation will be examining the different borehole techniques for fracture evaluation and how they can be used. As well, this presentation will evaluate these methods using various core and data sets.