



**THE 4TH GEOLOGICAL CONFERENCE
OF
THE GEOLOGICAL SOCIETY OF TRINIDAD AND TOBAGO**

**June 17-22, 2007, Hilton Trinidad & Conference Centre
Port-of-Spain, Trinidad and Tobago**

“Caribbean Exploration – Planning for the Future”

ABSTRACT

**SHORT OFFSET 3D VS HIGH FREQUENCY 2D FOR SHALLOW
HAZARD IDENTIFICATION IN BLOCK 22**

N. Mundell, R. Logsdail

Petro-Canada, 1 London Bridge, London, SE1 9BG, England

A recent full-block 3D seismic survey (>3000 km²) has allowed several prospects to be mapped in Block 22, Trinidad & Tobago and a number of these will be drilled in an exploration campaign scheduled to commence in late 2007. In preparation for this, routine site surveys were carried out, including the acquisition of high resolution 2D seismic data, over two of the proposed exploration well locations, namely Well-A and Well-B (Fig 1).

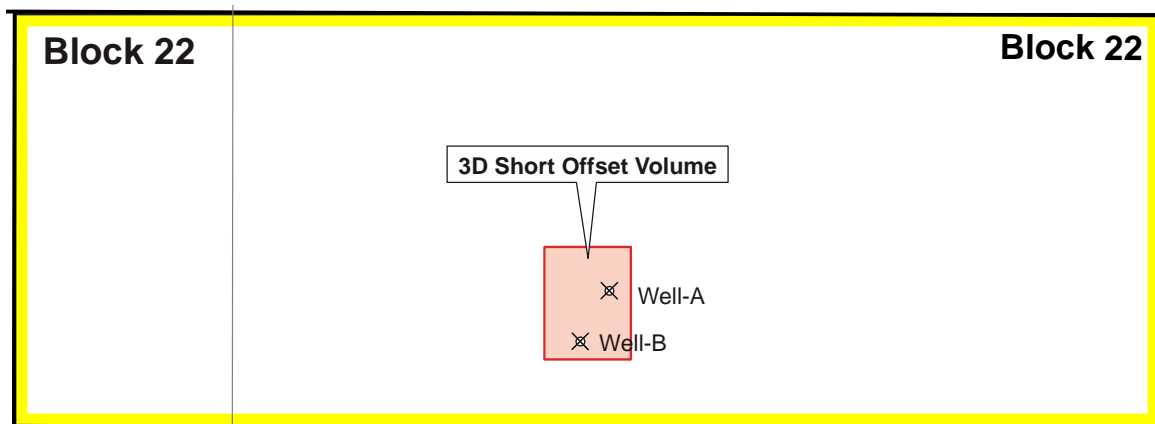


Fig 1. 3D Short Offset Volume over Well-A and Well-B proposed well locations

The 2D High Resolution site survey data were compared to a short-offset subset (~63 km²) of the initial 3D full block survey. The results of the comparison show that the 3DSO cube can be used to identify the same hazards as high-frequency 2D site survey lines, with the additional benefit of permitting real attribute extractions. The potential operational impact of the comparison is the replacement of 2D high frequency data by 3DSO, to identify shallow hazards in the proximity of the remaining proposed well locations in the block. The impact of the replacement is a reduction in acquisition costs and an increase in understanding of the distribution of drilling hazards

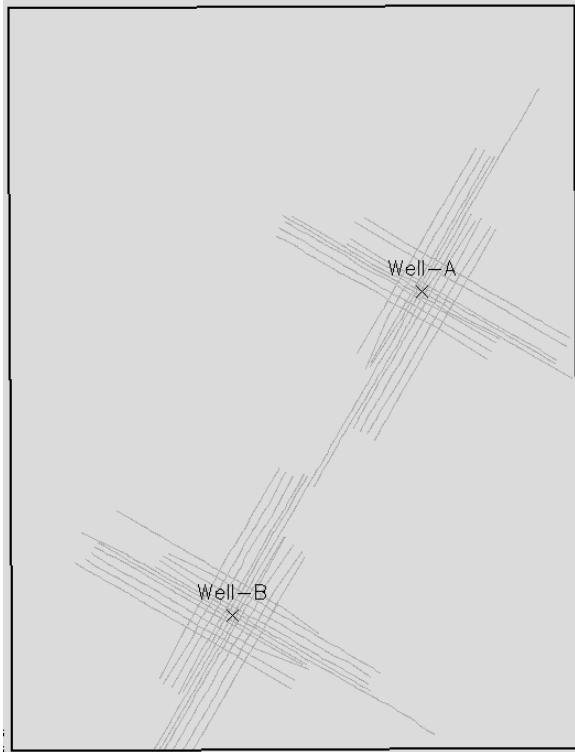


Fig 2. 2D Site survey lines and outline of the 3D Short Offset Volume over the two wells