

POSTER PRESENTATION

Myanmar PSC H Block – Fresh Insights from the Reprocessing and Interpretation of Legacy Gravity and Magnetic Data

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An airborne gravity and magnetic survey over the PSC H area was carried out in 1990 by Carson Services Inc. on behalf of BHP Petroleum (Myanmar) Inc. The original digital survey data had been lost in-country with no record of where the data might be found. Pacific Hunt Energy eventually recovered the original survey data with the help of BHP Petroleum, whose geoscientists spent weeks searching their archives before finding the original digital copy of the 27-year-old dataset. Subsequently, Getech reprocessed the data to diminish line noise and develop a suite of derivatives for interpretation.

The reprocessed gravity and magnetic data together with Getech's regional gravity data were integrated with selected legacy seismic, well, Landsat and other data sets to provide a comprehensive, detailed and reliable understanding of structural framework and sediment thickness to help further our understanding of the tectonic evolution of the area.

The influence of Sagaing Fault in the area and its precise location were investigated in our interpretation. The N-S trending Sagaing Fault divides the exploration block into two contrasting domains comprising two plates with distinctively different compositions, as evidenced by a clear density contrast, fundamental differences in the magnetic character and rapid changes in sediment thickness. In addition, based on the regional gravity data and 2D gravity and magnetic profile modelling work, we demonstrate that the Wuntho-Popa Volcanic Arc which is evident to the north of the block may extend further to the south than previously thought, manifesting as a high-density body in the lower crust. These conclusions potentially impact on models for sediment dispersal and source rock maturity and hence have a fundamental impact on the evaluation of hydrocarbon potential of the area.