2003 Petronas Tinjar 2d Land Seismic Survey Onshore Sarawak : Field Experiences

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PETRONAS had acquired 520km of 2D Land Seismic Survey over Tinjar Province, onshore Sarawak in 2003 with the objective of identifying potential leads. Land seismic survey over Malaysia is rarely acquired by PETRONAS or other PSCs. The last survey was conducted over ten to fifteen years ago.

The survey area covered different areas which include thick tropical jungle, swampy area and acacia plantations. A total of 520 kilometers of 2D seismic data was acquired within 9 months or equivalent to two hundred fifty five (255) days of operational work.

Prospective areas or leads were identified based on Gravity and Magnetic Survey and Synthetic Aperture Radar (SAR) image studies conducted by PETRONAS. Trap styles in the Tinjar Province are large anticlinal trap with complex wrench-related faults. The structural closures are associated with NW-SE dextral faults and NNE-SSW sinistral faults. Principal reservoir plays in the Tinjar province are the Oligocene-Lower Miocene (Cycle I/II) clastics located approximately 1500m deep.

In the field, we were assisted by PETRONAS Representatives to explain regarding the procedures and workflow sequences of Land seismic operations such as Rintis, Bridging, Recording, etc. In conclusion, we have gathered good field experience and better understanding of land seismic survey operations from the PETRONAS Tinjar Land Seismic Survey.