Paper 18

SEAS-95, the First Commercial International Seismic Programme in the South China Sea

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PGS Nopec's extensive experience in the North Sea, where the realisation that regional geophysical data along with the integration of existing data from neighbouring countries has led to the development of successful geological models, has drawn us to conclude that the South China Sea is a prime area for the such a programme. In this light, PGS Nopec has generated a project and procured the authorisation from several national authorities to acquire a multi-national regional seismic grid in the southeastern part of the South China Sea. The driving philosophy is that seismic coverage unconstrained by PSC boundaries or national borders will enable the oil industry to compare different sedimentary basins and to build a consistent structural model, incorporating all existing knowledge. The resulting project has been named

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the "South East Asia Supertie", or "SEAS" for short.

This new concept, the first in the region's history, involved the dynamic contribution of farsighted representatives within the State oil companies and directorates. It has been an honour for PGS Nopec to work with such personnel. In particular, the efforts of PETRONAS have been instrumental in changing the attitudes necessary to procure the seismic work permits. These, in turn, have ploughed new ground in Peninsular and Eastern Malaysia.

The SEAS-95 project has been supported, professionally as well as financially, by the oil industry. The Norwegian state oil company, STATOIL has sponsored the programme thus enabling PGS Nopec to deploy the necessary resources required to pull the programme together. Ultimately, the project is financed via license sales where the purchaser obtains the right to use the data.

After three years of extensive planning and negotiations, a final grid of 8,500 km stretching across Malaysian, Vietnamese and Indonesian waters was acquired in the summer of 1995. The longest seismic profile is close to 700 km in length. The result is that explorationists are now able to construct profiles between any and all the major sedimentary basins in the southern South China Sea. Seismic data profiles have been recorded for 8, 10 and 14 seconds of two-way time. This unique dataset has revealed features which, to date, have been unidentified due to the limitations of conventionally designed seismic programmes. Through the integration of a consistent dataset, the petroleum plays in the Malay, Penyu and Sarawak Basins can now be directly compared to the West Natuna, Nam Con Son and Cuu Long Basins.