



ABSTRACT

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THE OPEN ACREAGE OF SOUTH VIETNAM CONTINENTAL SHELF - NEW DEVELOPMENT AND OPPORTUNITY.

The southern continental shelf of Vietnam covers an area of almost one million sq km. This comprises a series of Tertiary basins which include the Cuu Long, Nam Con Son, Malay-Tho Chu, Phu Khanh, Truong Sa and Hoang Sa basins. Oil and gas have been found in more than 40 fields and prospects with resources of approximately 4 billion barrels of oil and 18 trillion cubic feet of gas.

At present, oil and gas are produced from six oil fields and one gas field. In the near future, PetroVietnam plans to bring further eight fields into production. Annual crude oil and natural gas output has reached 130 million barrels (MMBLS) of crude oil and 100 billion cubic feet (BCF) of natural gas in the year 2002, and will steadily increase.

Recent studies indicate that the estimated oil and gas resources, both onshore and offshore Vietnam, are 3-4 billion cubic meters of oil equivalent, comprising 6.5-8.5 billion barrels of oil and 75-100 trillion cubic feet of natural gas. With the exception of the Cuu Long Basin which is now considered to be mature, the probability that more than 50% of the total resources of such submature regions as the Nam Con Son and Malay-Tho Chu Basins, remain to be discovered, is greater than 50%, despite the considerable density of seismic and drilling in these areas. The deepwater area, including the Phu Khanh, Hoang Sa and Truong Sa Group of basins are viewed by many to have considerable hydrocarbon potential, but remain underexplored by comparison.

The major features of the petroleum systems in the sedimentary basins of southern Vietnam are briefly described below:

- Sources: Oligocene-Early Miocene lacustrine shales and deltaic coals and coaly shales, kerogen type I, II, III potential for both oil and gas generation; plus the Early Miocene carbonates.
- Reservoirs: Clastics including delta plain, fluvial channel, submarine slope fan and turbidite sandstones developed throughout the Oligocene-



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- Pliocene, Middle Miocene- Pliocene carbonate build-ups and fractured / weathered granite basement.
- Seals: Pliocene-Pleistocene marine claystones and Early Miocene “Rotalia shale” (regional), Oligocene-Miocene non-marine claystones, marine clastics and carbonates.
 - Traps: fault blocks, which were formed under the tectonic extension (tilted fault blocks, flower structures, rollover or inversion anticlines, etc.), fractured / weathered basement traps, stratigraphic traps (fluvial-alluvial fan complexes, submarine slope fans, pinch-out zones, reservoir beds dipping beneath angular erosional unconformities and carbonate build-ups or platforms.

Currently there are almost 60 open blocks in the southern Vietnam are available for data review. The recent significant discoveries in the Cuu Long Basin and in the basement of the Nam Con Son Basin have encouraged future exploration and production in the region. The Government of Vietnam and PetroVietnam have created many improvements in administrative procedures, terms of the petroleum agreement and incentive / preferential conditions. They have also made efforts to develop the local gas market as well as the required infrastructure in order to make the petroleum industry more attractive to foreign investors. This presentation provides a brief overview of the oil and gas potential of the open acreage in the southern continental shelf of Vietnam and the incentives that may help you to make a decision to become our partner in the upstream business of Vietnam.