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## **Tangguh - The First Major Pre-Tertiary Discovery in Indonesia**

Indonesia is a prolific oil and gas province in which more than 23 BBO and 150 TCFG of reserves have been discovered. Most of the hydrocarbons originate from and have been trapped in Tertiary rocks in western Indonesian basins on and offshore of Java, Sumatra and Kalimantan. Throughout the 20th Century, explorers searched less successfully for major accumulations in eastern Indonesia. This eastern search was finally rewarded in 1994 when ARCO discovered gas in pre-Tertiary rocks in the Bintuni Basin of Irian Jaya. A four-year appraisal and extension program (25 wells, 500 pressure measurements, more than a mile of cores and a 3D seismic survey) produced a mid-1998 reserves estimate by DeGolyer & MacNaughton of 24 TCF for the collection of pools that comprise this discovery, now called Tangguh. The discovery and appraisal of Tangguh was an intricate web of technical and commercial analyses, insights, and decisions whose interplay is a fascinating case study in how a modern, multidisciplinary, globally dispersed exploration team operates. Numerous individual initiatives ranging across petroleum geochemistry, drilling cost reduction, government relations, reservoir pressure analysis, negotiating strategy, porosity prediction and the like turned out in hindsight to be crucial in their accuracy and timing to keeping the project technically viable and commercially attractive. Since Tangguh is so recent, the thoughts and actions of the involved individuals and the linkage and details of successive events can be and have been precisely recorded. This talk will tell the story of the exploration team that discovered Tangguh.