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Gimboa, Angola Block 4 — First Deep Water Challenge for Sonangol P&P

H. Wime, Y. Nogueira, L. K. Fernandes, G. Eriksen, Sonangol Pesquisa & Produção; J. O. Bondevik, Sonangol P&P/StatoilHydro

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Abstract

The deep-water (700 m) Gimboa field in offshore Angola was discovered in 2004. With approximately 50 million barrels of recoverable oil in place, this project is marginal at best. The development required accurate resources determination, cost effective implementation, and maximum recovery of the reserves. This is also the first deep water development by Sonangol Pesquisa & Produção, the National Oil Company of Angola, as Operator.

The short-term project (approximately 4 years from discovery to production) was loaded with uncertainties and risks. Among the technical challenges were performing the conversion of an oil trading tanker to an FPSO, the manufacturing and deployment of subsea production facilities as a tie-back to the FPSO, and the solution of issues related to low reservoir pressure, gas lift, water injection and insulation.

In order to tackle these difficulties and quickly build expertise, the Operator formed a technical assistance agreement with one of the concession partners. Engineers, geoscientists, and managers from both companies worked together, as one co-located team with shared objectives. Effective communication using the web and management were key factors to ensure that the project team and the globally distributed team of vendors could focus on the work at hand. After successfully meeting all the challenges, the field is scheduled to enter into production at the start of 2009.

An equally important result of the Gimboa development was the self-realization by a relatively young national oil company that they could manage and develop complex projects in difficult environments. This project also demonstrates that regional and global organizations can equally benefit from the introduction of innovative and more open partnership models.

The paper summarizes the Gimboa experience, and describes how national oil companies, with the appropriate focus and technical assistance, can successfully and quickly develop their marginal discoveries, making the most of the available fiscal incentives, using national resources, and promoting local content.

General Overview and Description of the Field



Map of Angola showing Block 4 location

Focus so far by the Operators in West Africa has been on major oilfields, initially in the shallow water regions or on land in the north of Angola. But, in the last decade this has moved into the deep water environment. However most of the major discoveries, being in deep water are currently under development or are already in production. Focus, will therefore soon be turning to develop fields of smaller sizes in this type of environment.

Recent high oil prices driven by several factors is providing the opportunity for small and independent Operators such as emerging national oil companies to be able to develop those smaller fields which otherwise would be deemed uneconomical especially if they are located in deepwater or far away from offshore infrastructure.