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## The Dalia Development Challenges and Achievements

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### Abstract

This paper sets the scene for a full suite of papers which will summarise the main challenges and achievements of the Dalia Development, which was managed by an integrated project team. An overview of the development will be presented in this paper, which will be complemented by a further six papers providing details covering:

- Subsurface, Drilling and Well Completions
- System Design and Flow Assurance
- Subsea Production System
- Flowlines, Risers and Umbilicals
- FPSO
- Oil Offloading Export System

Spanning from pre-award to first oil, this paper will highlight some of the many challenges faced, describe the major technological innovations adopted (including some “world firsts”. It will also comment on how lessons learned from Girassol development were incorporated, and comment on HSE management, the development schedule and contracting strategy. Finally the integration of the project into Angola including the new industrial bases, training and environmental commitment will be described.

### Introduction

#### Setting the Scene

Building on the success of Girassol, Total have continued, together with the Concessionaire and Partners, to push the boundaries of deep water technology in the Dalia development, by using innovative technology to execute this multi-well heavy oil development. The development has been performed in accordance with the Company HSE and Quality Charters.

The field is located 210 km north west of Luanda, about 140 km from shore (Figure 1). It was the second major discovery out of 15 made in the prolific Block 17 (Figure 2).



Figure 1 – Block 17 Geographical Location and Reservoirs

The project chronology has been marked by some significant dates:

- 1997: Field discovery
- 1999: Declaration of commercial discovery
- 2003: Project launch
- 2005: Commencement of drilling campaign
- 2006: Offshore installation
- 13<sup>th</sup> December 2006: First Oil