Continued Extension of the Pinda Trend in Block 14, Deep Water, Angola

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In 1997, the first exploration well in Angola's Block 14 (D14-1X well) encountered small amounts of poor quality reservoir in the Pinda Group that is Albian (Cretaceous) in age. Subsequent exploration in Block 14 focused on Miocene slope valley complexes leading to 10 new field discoveries. In 2005, Albian paleogeographic models were revised to incorporate eight years of Pinda exploration and development in adjacent areas including analysis of kilometers of Pinda core in Block 0 and new 3D seismic coverage. These data helped clarify depositional patterns in the Pinda Group. In December of 2006, CABGOC and partners spudded the Malange-1 well 6.5km northeast of the D14-1X. The discovery of an excess of 200ft of net oil pay in Upper Pinda shoreface sandstones confirmed our new paleogeographic models. The Malange-1 discovery well tested almost 7700 BOPD of 40o API oil.

Although the Upper Pinda shoreface reservoir was then established in Block 14, additional appraisal was required to plan for potential development of the field. Pinda facies are highly variable both vertically and spatially and are further complicated by syn-depositional tectonics. To address reservoir uncertainties, as well as fault compartmentalization and reservoir diagenesis, the Malange-2 well was spudded 4 km WNW of Malange-1 in an un-drilled fault block. The well encountered oil in a continuation of the prograding shoreface facies, and confirmed paleogeographic maps for Upper Pinda shoreface sands. The highest shoreface sandstones in Malange 2 are stratigraphically equivalent to lagoonal facies in Malange 1. Data acquired in the Malange 2 well helped to define the fluid properties and resource size. This has helped to reduce the uncertainties associated with the commercial assessment and associated development planning.