Papua New Guinea – PRL 15: Recent Appraisal, Exploration Highlights and Technological implications in Foothills Exploration

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Total is present both within the M&S and E&P branches within PNG with presence in M&S since 2012 and E&P since 2014 with the closing of Total’s entry to the PRL15 license. Total’s E&P activity in PNG covers both exploration and appraisal activity in the Onshore PRL 15 license as well as Deep and Ultra Deep Offshore Exploration in the recently awarded PPL 576 license.

This presentation will focus on activity within the PRL15 license where Total operates activity with 40.13% interest with joint venture partners Oil Search and InterOil*. PRL 15 hosts the Elk-Antelope Field, one of the most significant discoveries in Asia over the last 20 years. The license lies within a fold and thrust belt domain and approximately 120km inland from the township of Kerema and 360km northwest from Port Moresby. The location within a complex fold and thrust belt leads to significant subsurface and operational difficulties.

This presentation will aim to provide an update to Total’s position in PNG and a recent appraisal update on the Elk-Antelope Field as well as discussing the forward exploration potential of the license. We will also address how Total tackles the operational complexities in such a complex environment by optimising technological input and global foothills experience.

Final appraisal is under completion with the recent drilling of the Antelope-6 and 7 wells in 2016 and early 2017. Antelope-6, located to the eastern flank of Antelope, has been drilled to aid definition of the eastern extension of the reservoir. Top reservoir was encountered shallower than prognosis and the well proved dolomite presence as per prognosis. Antelope-7, located to the West of Antelope-5 on the western field margin was drilled to assess the limit of the carbonate reservoir on the western flank of the structure.

Additional exploration potential remains significant on PRL 15 and Primary exploration focuses on Miocene carbonates equivalent to the reservoir of Elk-Antelope. A number of further exploration targets have been identified for near term drilling and maturation with additional data acquisitions. The complex strucuration results in difficult data acquisition and resulting imagery. Total has significant global foothills experience combined with onshore operational expertise. For optimal prospectivity de-risking over PRL 15 Total uses modern technology and data acquisition advantages. Recent and additional future activity includes, in-house 2D seismic PSDM reprocessing, high resolution surface imagery, airborne gravity gradiometry, Magneto-telluric techniques, and processing technologies combined with detailed geological studies using in-house experts and collaboration with global and joint ventures experts.
This presentation will cover an overview of Total’s current E&P activity on PRL 15 and how exploration and appraisal activity is optimised with the use of global experience and technological advantage.

* Under acquisition by ExxonMobil