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Focus on Value Competitiveness for Aphrodite Well towards an Accelerated First Gas Development

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Aphrodite is the second well in a 2 well near field exploration campaign in Shell's operated Block 5a, East Coast Marine Area (ECMA), Columbus Basin. It is a combination stratigraphic-structural trap with expected biogenic gas. Cost competitiveness and accelerated development maturation are key success factors to unleash the full value chain of Aphrodite for T&T's gas supply needs. Not only will this realize gas to market in a reduced timeframe, it also potentially reveals additional stratigraphic trap potential in the basin. Aphrodite can further unlock stranded discovered volumes via new infrastructure.

The prospect represented an easier path to commercialization with a QI validated Class III AVO anomaly with fair amplitude conformance to structure. However, the limited GIP means there is a commercially established challenged scope unable to support an appraisal well or more than one development well. To ultimately deliver maximum value for project competitiveness, a 'One Subsurface' team was formed to accelerate development planning for an exploration success case. The alignment boosted productivity, and increased innovation as it reduced time by 25% with an estimated cost synergy using standardization SURF hardware, single rig sequence and SURF execution.

The key steps include: - Collaborative knowledge sharing of geological models, trap and volume assumptions - Overview of Value to Volumes data and geological inputs to quantify the distribution of GIIP across the possibly segmented structure and considering reservoir variability - Realistic, data-supported Scenario Generation to de-risk potential compartmentalization and amplitude data quality - VOI led data acquisition - Appraisal opportunities including pros and cons of an appraisal sidetrack - Development well concept to optimally access and drain resources. - Lessons learnt from global analogs.



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This presentation will highlight the methodology that allows the unlocking of nearfield value in a low volume, high-cost scenario with time and budget constraints.