

# New NWS exploration acreage secured

6 April 2016



## Highlights

- Carnarvon awarded WA-521-P offshore exploration permit in the Roebuck Basin
- Adjacent to the successful permits containing the Phoenix South and Roc discoveries
- Several structures are larger in area than the Phoenix / Roc discovery areas
- Targeting the recently proven Lower Triassic petroleum systems found in the Phoenix and Roc discoveries

Carnarvon Petroleum Limited ("Carnarvon") (ASX: CVN) is pleased to announce it has secured a 100% interest in a newly awarded offshore exploration permit, WA-521-P, located in the Roebuck Basin and positioned immediately adjacent to the Phoenix/Roc acreage on Western Australia's North West Shelf ("NWS").

Carnarvon Managing Director and CEO, Adrian Cook said, *"Carnarvon continues to build its North West Shelf portfolio, which now includes the Cerberus blocks (100% CVN), the Phoenix/Roc acreage (20-30% CVN), the Outtrim block (28.5% CVN) and now WA-521-P (100% CVN). As we continue to unlock the potential of the Lower Triassic petroleum systems along the North West Shelf, Carnarvon has demonstrated its strategic focus by securing low-cost acreage in highly prospective locations that are capable of being matured ahead of a rising oil price cycle."*

For the past five years Carnarvon has been studying the potential of the Lower Triassic petroleum system that Carnarvon believes lies along the entire length of the NWS. The discovery of hydrocarbons (oil, condensate and gas) at the Phoenix South-1 and Roc-1 wells in this Lower Triassic stratigraphy validates this theory and provides the justification for securing WA-521-P.

Carnarvon secured WA-521-P for the following technical reasons (also refer figures 2 and 3):

- 1) The potential for the proven Lower Triassic petroleum systems and source rocks from the Phoenix and Roc area to extend into WA-521-P;
- 2) Lower Triassic generated hydrocarbons can directly charge into the overlying Jurassic Sands;
- 3) Jurassic sands are sealed by regionally extensive Cretaceous shales; and
- 4) Numerous structural closures and initial seismic mapping indicates the structures to be larger in area than the Phoenix South and Roc discovery closure areas

Carnarvon's technical team was excited to be awarded WA-521-P because the Lower Triassic source rocks have potentially generated and trapped oil and gas into shallower overlying Jurassic sands, and they have identified several target structures that are significantly larger than the Phoenix South and Roc discovery areas.

Carnarvon applied to the Government for WA-521-P during the current low oil price cycle, with a low-cost bid of purchasing 4,000km of reprocessed 2D seismic during the first three year term, and acquiring an optional 300km<sup>2</sup> 3D seismic survey in year 5 of the following discretionary three year term.

Like the Phoenix area, WA-521-P has seen very little exploration activity in the last decade and Carnarvon believes the area would benefit from modern exploration processes and technologies together with the new information that has arisen from the Phoenix South and Roc discoveries.

Yours faithfully



**Adrian Cook**  
Managing Director  
Carnarvon Petroleum

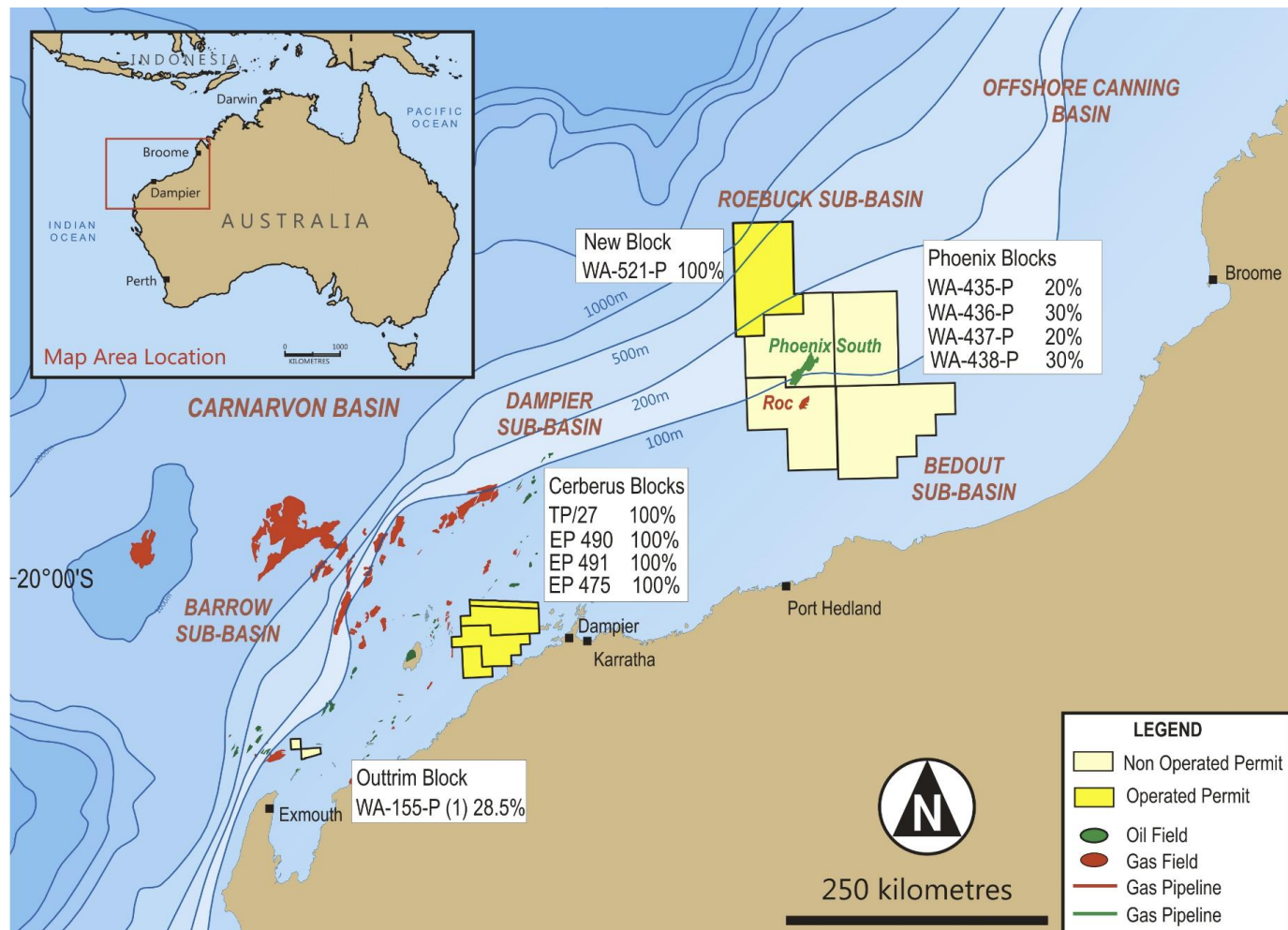
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**Figure 1: Location map of Carnarvon Petroleum’s acreage and WA-521-P**



**Figure 2: Prospects within WA-521-P (bold) in comparison to the Phoenix South and Roc discoveries.**

The Whitetail-1 well was drilled in 2003 into Jurassic reservoir with the resultant interpretation being that thinning Cretaceous seal in the northern portion of the permit failed to effectively trap hydrocarbons. Carnarvon interprets the Cretaceous seal increases in thickness away from the Whitetail well across the permit to act as an effective seal across the Jurassic prospects marked in yellow below.

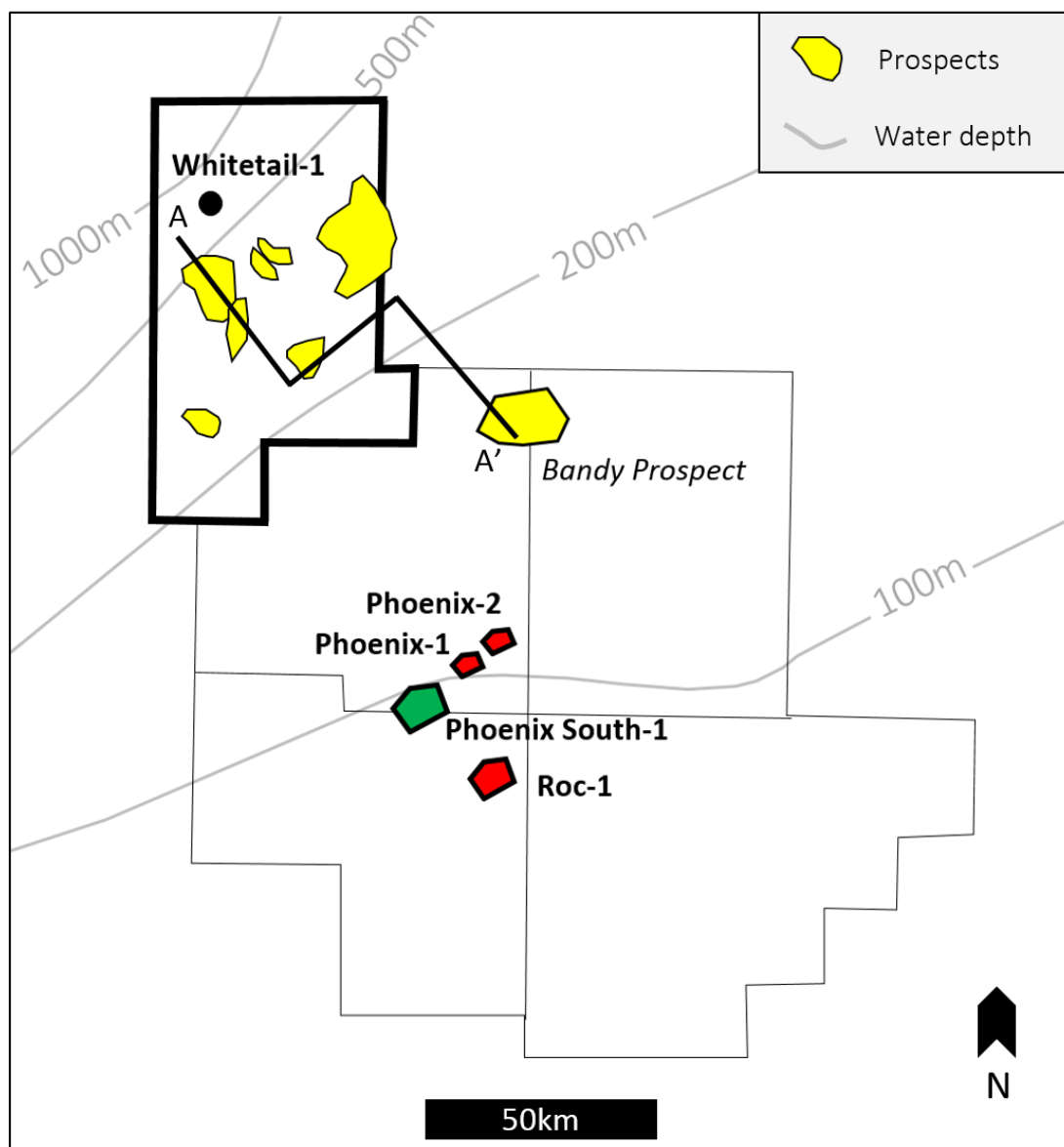


Figure 3: Seismic line A-A' through WA-521-P and a schematic cross-section highlighting the level of the Lower Triassic source rocks, upward and lateral hydrocarbon migration into the overlying Jurassic reservoirs sands and Cretaceous seals that can trap the migrating hydrocarbons from below.

