

Labyrinth Project Update

13 June 2017



Highlights

- Labyrinth and Mouse prospects estimated to contain ~400 million barrels of recoverable oil each (Pmean)
- Total of over 1.5 billion barrels of recoverable prospective resource identified in the block to date
- Analogue to the Browse Basin where 34 Tcf and over one billion barrels have been discovered
- Carnarvon uniquely positioned to draw on proprietary data from, and on trend with, the successful Roc and Phoenix discoveries in the neighbouring permits

Carnarvon Petroleum Limited (“Carnarvon”) (ASX:CVN) is pleased to provide an update on the timing and extent of technical work that is being completed on the WA-521-P exploration block (Labyrinth project) on the North West Shelf offshore Western Australia.

WA-521-P is located in the Rowley Sub-basin, offshore North West Shelf, north of Carnarvon’s Roc and Phoenix South hydrocarbon discoveries, with water depths between 200 and 500m (refer to Figure 1 for the permit map).

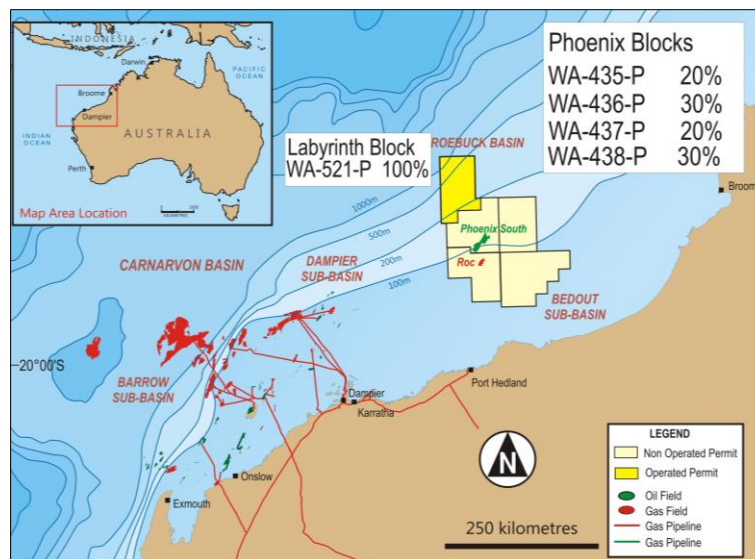


Figure 1. Permit map - Labyrinth is located to the North West of the play opening Phoenix Blocks

Carnarvon’s Managing Director, Mr Adrian Cook said:

“The results from the technical work in this project demonstrate the value of having a strong regional geological understanding. The significant volume estimates for the prospects and leads identified to date also make it a very attractive asset in the Carnarvon portfolio.”

Interpretation of the reprocessed 2D seismic survey

The interpretation of newly reprocessed 2D seismic on the permit, as part of the WA-521-P first year work program, has revealed several significant prospects and many leads, in the middle and early Jurassic deltaic reservoirs. The largest prospect identified is Labyrinth, with an aerial extent of 90Km² at the Lower Depuch Formation level. A further seven prospects and leads have been high-graded and are listed in the table below, with at least a dozen additional structures identified.

Geological similarities with the highly prospective southern Browse Basin are clearly apparent from the early technical work and provide a very exciting analogue to the prospectivity of the WA-521-P permit. The Browse Basin contains extensive petroleum resources, with discovered ultimate recovery of hydrocarbons totalling over 1 billion barrels of oil and condensate, 34 Tcf of gas and 350 million barrels of LPG within the Ichthys, Poseidon, Brecknock/Calliance/Torosa, Prelude, Argus, Cornea, Crown, Crux and Gwydion fields¹.

(Refer to Figure 2 and 3 for the prospect and leads maps).

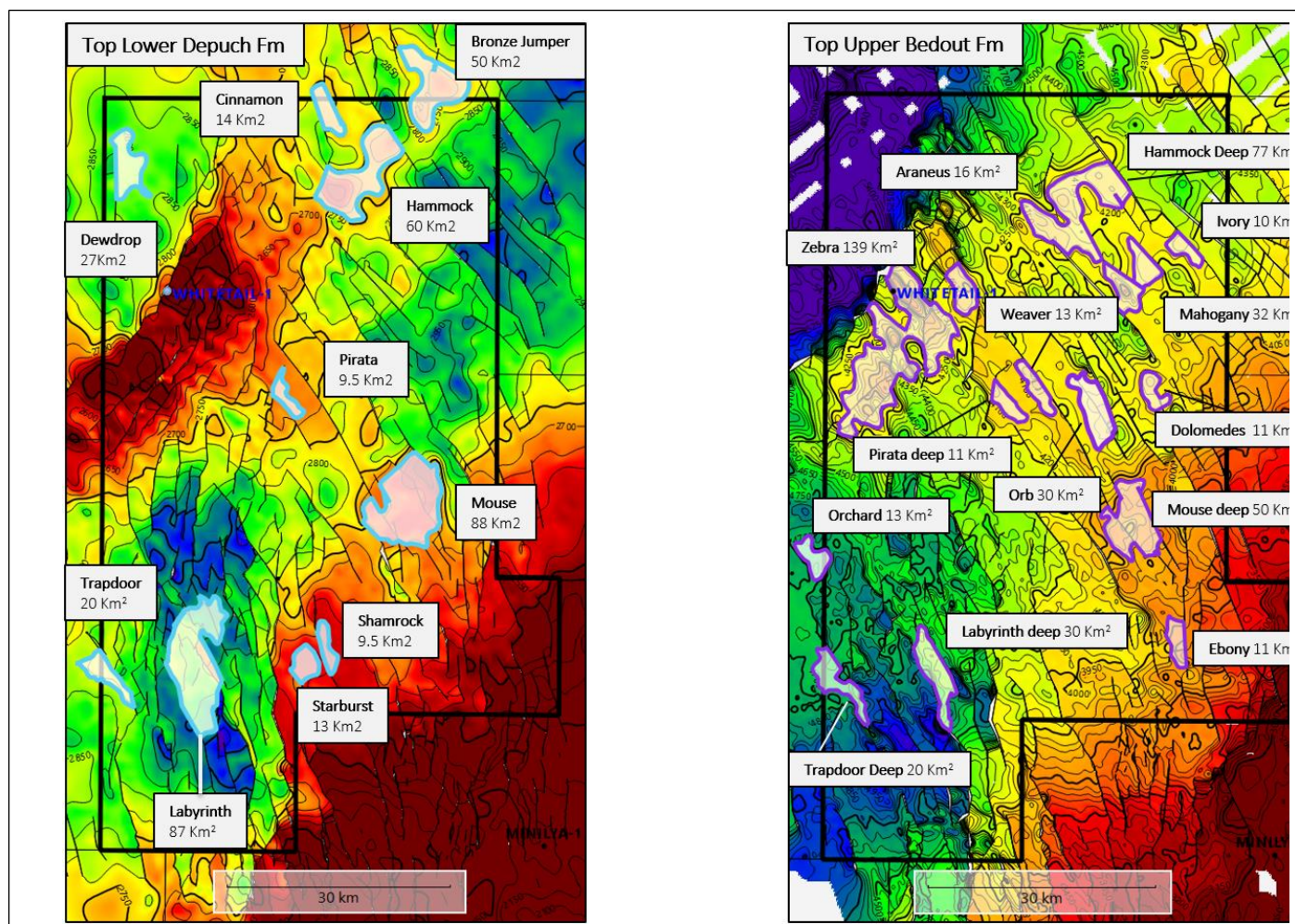


Figure 2. Prospect and lead inventory for WA-521-P

¹ Le Poidevin, S. R., Kuske, T. J., Edwards, D. S. and Temple, P. R. 2015. Australian Petroleum Accumulations Report 7 Browse Basin: Western Australia and Territory of Ashmore and Cartier Islands adjacent area, 2nd edition. Record 2015/10. Geoscience Australia, Canberra.

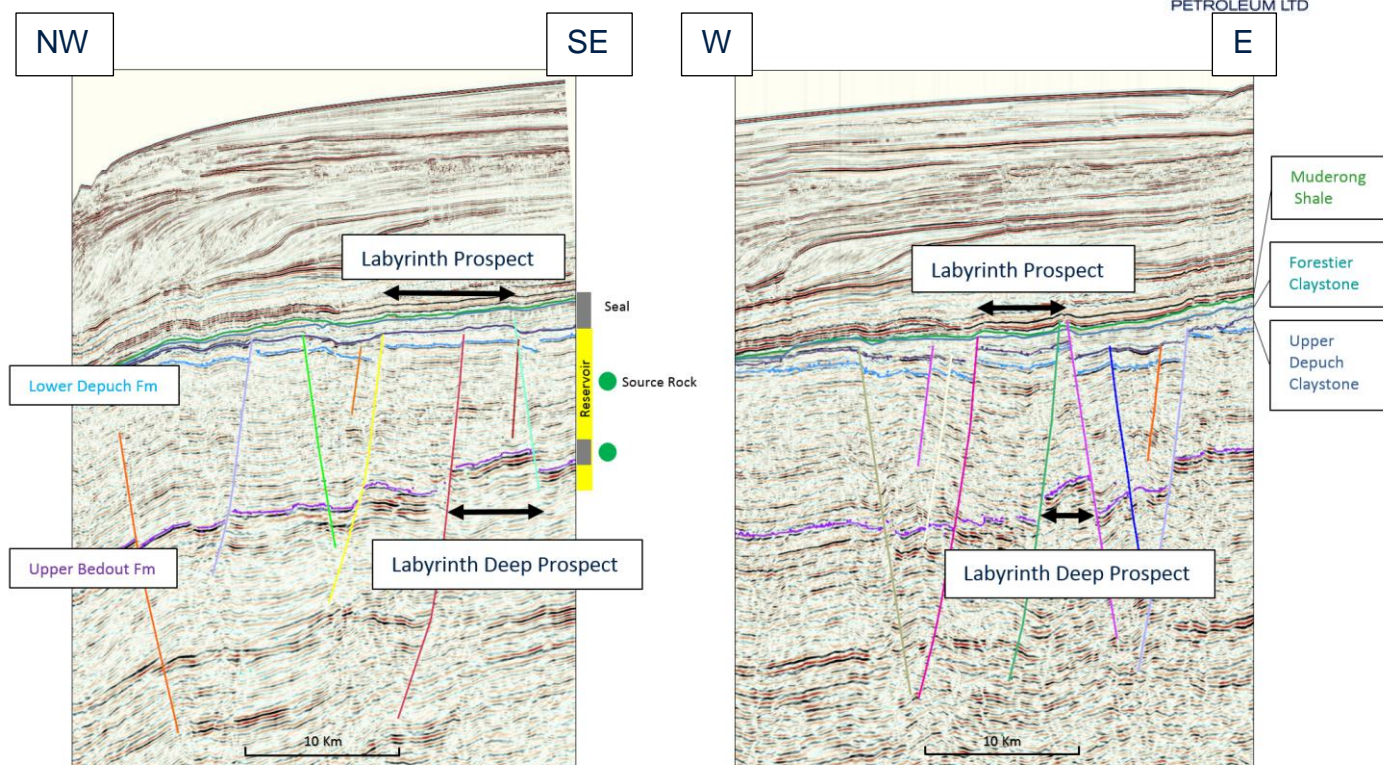


Figure 3. Interpreted reprocessed seismic lines over Labyrinth prospect

Labyrinth Prospect

The Labyrinth Prospect is located in 200m water depth, with the target reservoir, the mid-Jurassic Lower Depuch sandstone, occurring at a relatively shallow depth of burial, approximately 2,700 metres below sea level. The Lower Depuch reservoir is typically of excellent quality, with porosities averaging around 30% and consists of hundreds of metres of thick deltaic sandstones. At the Labyrinth location, these sandstones are overlain with seismically mapped approximately 200m-300m sealing facies, indicating an effective seal.

Examples of the high quality of this Lower Depuch reservoir is evidenced by the number of developments in the vicinity and the peak production rates, including the Perseus gas/condensate field, Fletcher Oil Field and Reindeer/Caribou gas field. Additionally, the nearby discovery at Nebo de-risks some of the fundamental petroleum elements with a successful flow test. The geoscience data all points to a relatively high chance of success at Labyrinth.

(Refer to Figure 4 for the Labyrinth prospect).

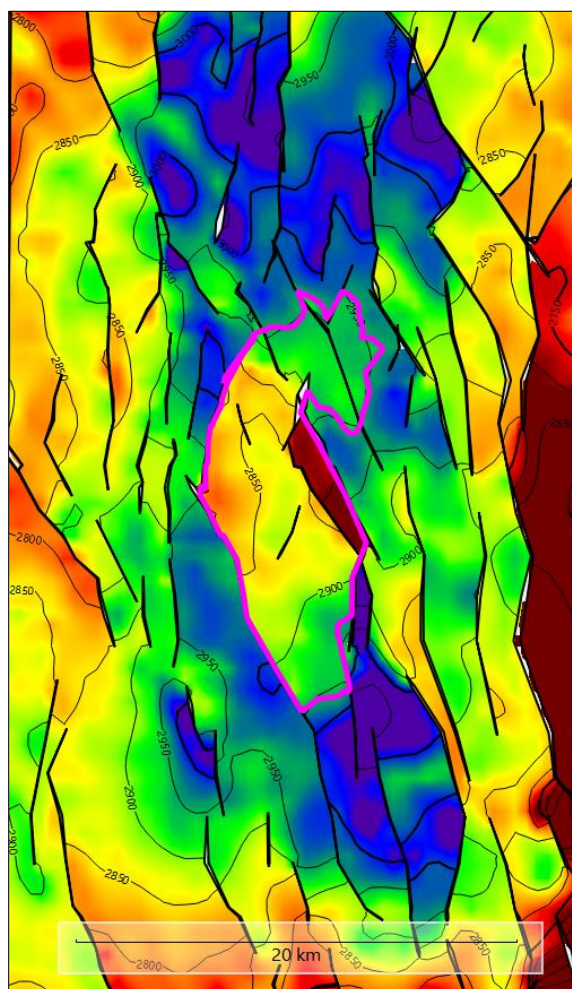


Figure 4. Outline of the Labyrinth prospect on the Lower Depuch depth map.

Prospects - Multiple stratigraphic levels

Resource analysis of the leads and prospects has resulted in meaningful estimates for a number of well-defined prospects and leads, as listed in the summary at the end of this report (Table 1), with the total unrisksed prospective resource of nearly 1.5 billion barrels at the Pmean confidence level.

In particular the Labyrinth and Mouse prospects, at the Lower Depuch stratigraphic level, are estimated to contain around 400 million barrels of oil recoverable in **each** prospect at the Pmean confidence level. At the Upper Bedout stratigraphic level further resource potential is also recognised in the 4 significant prospects in the permit.

Further prospective resources have been identified in a number of leads within the exploration block, consisting of a number of different petroleum plays. Additional work is ongoing to better define these opportunities.

Prospective Recoverable Resources

Prospect	Block	Target Reservoir	Pmean (mm bbls)	P90 (mm bbls)	P50 (mm bbls)	P10 (mm bbls)	Carnarvon Equity	Chance of Discovery	Risked Pmean (mm bbls)	
Labyrinth	WA-521-P	Mid Jurassic	420	27	226	1083	100%	34%	141	
Labyrinth deep	WA-521-P	Early Jurassic	81	8	55	186	100%	13%	11	
Mouse	WA-521-P	Mid Jurassic	361	50	267	793	100%	26%	95	
Mouse deep	WA-521-P	Early Jurassic	57	4	35	135	100%	9%	5	
Zebra	WA-521-P	Early Jurassic	214	6	113	541	100%	10%	22	
Hammock	WA-521-P	Mid Jurassic	297	33	217	667	100%	22%	65	
Hammock deep	WA-521-P	Early Jurassic	80	3	47	196	100%	9%	7	
Dewdrop	WA-521-P	Mid Jurassic	31	5	24	67	100%	21%	6	
			1541							351

Table 1. Prospective resources of high-graded prospects and leads in WA-521-P

The estimates of prospective resources included in this announcement have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS.

The resource estimates outlined in this report were reviewed by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the Company. Mr Huizenga has over 20 years' experience in petroleum exploration and engineering. Mr Huizenga holds a Bachelor Degree in Engineering and a Masters Degree in Petroleum Engineering. Mr Huizenga is qualified in accordance with ASX Listing Rules and has consented to the form and context in which this statement appears.

There are numerous uncertainties inherent in estimating reserves and resources, and in projecting future production, development expenditures, operating expenses and cash flows. Oil and gas reserve engineering and resource assessment must be recognised as a subjective process of estimating subsurface accumulations of oil and gas that cannot be measured in an exact way.

These prospective resource estimates have an associated risk of discovery and risk of development. Further exploration and appraisal is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

The prospective resources have been calculated using probabilistic methodology.

About WA-521-P

Carnarvon acquired the exploration permit in March 2016 by committing to undertake a work program that included the reprocessing of existing 2D seismic data and geological / geophysical studies.

The permit is located in the Roebuck Basin in the North West Shelf of Western Australia and covers an area of approximately 5,000 km².

Carnarvon holds the permit 100% and is the operator.

For all enquiries please contact:

Shareholder Enquiries

Mr Thomson Naude
Company Secretary
Phone: (08) 9321 2665
Email: investor.relations@cvn.com.au

Yours faithfully



Adrian Cook
Managing Director
Carnarvon Petroleum