

Historic Bedout Sub-basin flow test

19 October 2016



Image of the Ocean Monarch flow testing at the Roc-2 well

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) advises that the Roc-2 well test successfully flowed gas and condensate to surface over the course of a sustained test program.

Highlights

- **Flow rates and reservoir pressure conditions exceed Carnarvon's expectations**
- **Test confirmed quality conventional reservoir that flows strongly without intervention**
- **Gas and condensate ratios were at the higher end of the range of pre-drill estimates**

Quadrant Energy, as operator of the permit, undertook controlled flow test operations in the Roc-2 well. The well flow tested at rates up to 51.2 million scf per day of gas and 2,943 barrels of condensate per day, that is approximately 11,500 barrels of oil equivalent* per day. These rates were achieved through an approximate 1 1/2" choke and were equipment constrained flow rates; meaning the well flowed at the maximum rate possible in the equipment being used.

Testing operations were undertaken at controlled flow rates to enable the monitoring of the field including reservoir pressures, gas and condensate ratios and the presence of other substances such as CO₂, H₂S, water and sand. Encouragingly, there were insignificant levels of these other substances in the gas and condensate recorded during the flow test.

Managing Director's comments

Commenting on the result, Carnarvon's Managing Director, Adrian Cook said *"our drilling results to date in the Bedout Sub-basin have been extraordinary. Carnarvon and its partner and operator, Quadrant Energy have made substantial progress in this new oil and gas province since exploration began in earnest in 2014.*

The Roc-2 well has provided us with a significant amount of valuable new information, and the flow test result very clearly and unequivocally demonstrates the capability of these hydrocarbons to flow from quality reservoir

within the basin. We are very happy with the Roc-2 well flow test results which are at rates that are significant in our industry.

There is great potential within this basin for significant hydrocarbon volumes to exist as I have referred to on numerous occasions. These results provide Carnarvon and its partner with enormous blue sky potential and a platform within the Phoenix South and Roc area in which to test and develop this potential.”

The Roc-2 well is located within the WA-437-P exploration permit in the North West Shelf of Australia. The equity interest holders are:

Carnarvon Petroleum	20%
Quadrant Energy (Operator)	80%

Yours faithfully



Adrian Cook
Managing Director
Carnarvon Petroleum

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Annexure 1: Images of the Ocean Monarch undertaking flow test operations, with gas and condensate successfully being flowed to surface.



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Annexure 2: Technical

Drill Stem Testing

The Roc-2 well was temporarily completed and tested using a Drill Stem Test (“DST”) in order to determine the flow potential from the Caley formation in the Roc-2 well.

The uppermost 35 metres of sand in the Caley formation were sealed off from the rest of the reservoir and completed with casing, before being perforated to allow the formation fluids to flow into the wellbore.

Under natural formation pressure, the hydrocarbons flowed to surface through a restricted series of tubing and chokes where formation pressures and fluids are measured. DST are run at various rates in order to determine ultimate potential for the reservoir. For the Roc-2 DST, the equipment utilised on the rig had an upper limit of around 51 MM scf/day.

Roc-2 DST results

The Roc-2 DST was undertaken over a period of around five days.

The maximum flow rate achieved was 51.2 million scf/day of gas with associated condensate rate of 2,943 barrels per day, flowing through a 96/64” choke. The drawdown for this flow rate was only around 500 psi indicating good productivity. This maximum flow is comparable to an approximately 11,476 barrels of oil equivalent* per day. The condensate to gas ratio (“CGR”) achieved during the maximum flow rate was 57.5 bbls of condensate per million scf of gas.

Interpretation of the pressure and flowing capability of the well has resulted in an average permeability of approximately 130 millidarcy across the perforated interval. This has exceeded the pre-drill expectations by quite some margin and has resulted in a reassessment of the quality of the reservoir at different depths in the basin.

An extensive fluid sampling campaign was also successfully completed.

Roc-2 Commercial Interpretation

The Roc-2 DST was constrained by both the temporary nature of the downhole equipment and the physical limitations of the surface test equipment.

If a development well was drilled into the Roc-2 formation, and completed using industry standard equipment for the North West Shelf, that well should be capable of producing in excess of 100 MM scf/day plus the associated condensate. To put that into perspective, that would be around 10% of the entire domestic gas demand in Western Australia, achievable with one well.

The Roc-2 DST has clearly shown that the Caley formation is capable of production at commercial flow rates. The Roc-2 DST has also demonstrated that significant amounts of condensate are also able to be produced from the reservoir.

* barrels of oil equivalent converted at 6,000 scf gas to 1 bbl oil.