Hartleys

**CVN.asx**
**Speculative Buy**

Oil & Gas: Producer / Explorer

# CARNARVON PETROLEUM LTD (CVN)

## Keep the drill bit spinning

Following the success of Roc-2 well, Carnarvon Petroleum (CVN) and operator Quadrant Energy have decided to immediately proceed to drill the Phoenix South-2 well. From a market perspective this is arguably the most exciting well to be drilled by the JV to date. Not only is the well appraising the oil discovered in the Phoenix South-1 well in 2014, but will also drill through the gas prone Caley formation, which recently flowed at above 50MM scf/d (constrained) from the Roc-2 well. We have increased our 12-month target price to 21cps, from 16cps. Other near term catalyst include an upgrade of the Roc resource.

## Immediate drilling of Phoenix South-2

Quadrant Energy has advised CVN that the drill rig Ocean Monarch is expected to be on location to drill the Phoenix South-2 well within the next 7 days. The well is located in around 100m of water, 2km east of the Phoenix South-1 well. The well will be drilled to a depth of 5,500m and is expected to take approximately 70 days to complete. The well will be evaluated using LWD and wireline tools but will not be cored or flow tested. CVN's net cost for the well is estimated to be A$20m of which $15m will be deferred to future elements of the broader work program. In 2015 DeGolyer and MacNaughton estimated that Phoenix plus Phoenix South contained a Contingent Resource (2C) of 31MM bbls with a 3C estimate of 78MM bbls (gross).

## Roc-2 – who doesn't love a flare?

CVN has reported very strong flow rates from the Roc-2 well. The well flow tested at rates opto 51.2 mmscf/d of gas and 2,943 b/d of condensate – this equates to approximately 11,500 boe/d equivalent (The well was constrained through 96/64" choke). The flow test was from this uppermost 35m of the sand of the Caley formation. Average permeability of 130 milidarcy was better than pre-drill estimates. CVN believe under a standard commercial scenario, the well could be capable of producing at 100 mmscf/d.

## September Quarterly

This week CVN released the September quarterly report. The Company had a closing cash balance of A$65m after spending $20m on exploration associated with the Outtrim East-1 and Roc-2 wells. Cash outflows for the December quarter are estimated at $6m. Other activity during the quarter included CVN being awarded permit WA-524-P (CVN 100%) on which three prospects within similar stratigraphy to the Phoenix and Roc wells have been identified.

## Valuation and Target Price

We have increased our valuation of CVN to 21cps, from 16cps, to reflect the de-risking achieved from the recent flow testing of the Roc-2 well. Upside to our valuation comes from resource upgrades plus further de-risking from additional drilling. The key elements of our valuation are Phoenix South, Roc and cash less 12-months of spend (see table on page 3). The ley risks to our valuation are generic to most exploration and development stories and include geological, funding and commodity price risk.

| | 26 Oct 2016 |
|---|---|
| **Share Price:** | $0.13 |
| **12mth Price Target:** | $0.21 |

**Brief Business Description:**
Oil and gas explorer with assets in Australia

**Hartleys Brief Investment Conclusion**
CVN has drilled three successful wells within the Greater Phoenix exploration area. The next well will be the Phoenix South-2 well which is expected to spud imminently.

**Chairman & CEO:**

| | |
|---|---|
| Adrian Cook | CEO |
| Peter Leonhardt | Chairman |

**Substantial Shareholders:**
None

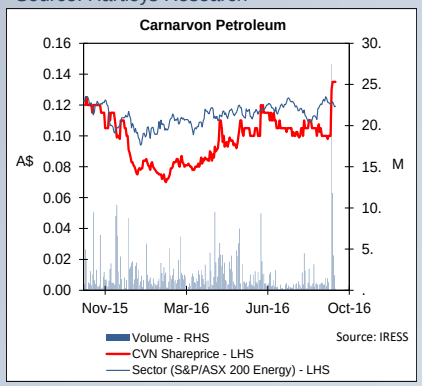
**Company Address:**
Level 2, 76 Kings Park Road

**Valuation:**

| | |
|---|---|
| **Issued Capital:** | 1019.9m |
| - fully diluted | 1020.9m |
| **Market Cap:** | $132.6m |
| - fully diluted | $132.7m |
| **Current Debt** | $0.0m |
| **Current Cash** | $65.0m |
| **EV** | $67.7m |

| **Valuation Summary** | **$m** | **$ps** |
|---|---|---|
| Phoenix South | 28 | 0.04 |
| Roc-1 +exploration | 71 | 0.09 |
| Royalty | 15 | 0.02 |
| Cash | 45 | 0.06 |
| **Sub total** | **159** | **0.21** |

Source: Hartleys Research





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# SUMMARY MODEL

**Carnarvon Petroleum**
**CVN**

**Share Price**
**$0.13**

**CVN.asx**
**Speculative Buy**

## Key Market Information

| | |
|---|---|
| **Share Price** | **$0.13** |
| Market Capitalisation | $133m |
| Current Cash est. (ex-royalty) | $65m |
| Issued Capital | 1019.9m |
| ITM options | 0.0m |
| Options | 1.0m |
| Issued Capital (fully diluted ITM options) | 1020.9m |
| Issued Capital (fully diluted all options) | 1020.9m |
| **EV** | $67.7m |
| | |
| **12Mth Price Target** | **$0.21** |

| Projects | Project | Operator | CVN Interest |
|---|---|---|---|
| WA-435-P | Greater Phoenix | Quadrant Energy | 20% |
| WA-437-P | Greater Phoenix | Quadrant Energy | 20% |
| WA-436-P | Greater Phoenix | Quadrant Energy | 30% |
| WA-438-P | Greater Phoenix | Quadrant Energy | 30% |
| WA-521-P | Greater Phoenix | CVN | 100% |
| WA-523-P | Buffalo | CVN | 100% |
| WA-524-P | Maracas | CVN | 100% |
| WA-155-P(1) | Outtrim East | CVN | 28.5% |
| EP-490 | Cerberus | CVN | 100% |
| EP-491 | Cerberus | CVN | 100% |
| EP-475 | Cerberus | CVN | 100% |
| TP/27 | Cerberus | CVN | 100% |

## Valuation Summary

| | A$ m | Ac/share |
|---|---|---|
| Phoenix South | 28 | 0.04 |
| Roc-1 +exploration | 71 | 0.09 |
| Royalty | 15 | 0.02 |
| Cash | 45 | 0.06 |
| **Sub-total** | **159** | **0.21** |

## Directors

| | |
|---|---|
| Peter Leonhardt | Chairman |
| Adrian Cook | Managing Director |
| Ted Jacobson | Non-executive Director |
| Bill Foster | Non-executive Director |
| Dr Peter Moore | Non-executive Director |

## Substantial Shareholders

No substantial shareholders

## Investment Summary

Carnarvon Petroleum ( CVN) is a conventional oil & gas explorer with key assets off-shore north-west Australia.

## Expected News flow

| | |
|---|---|
| 4Q CY 16 | Phoenix South-2 well |
| | Resource upgrade - Roc-2 |

## Quarterly Cash Flow

| | FY16 | | | FY17 |
|---|---|---|---|---|
| | 2Q | 3Q | 4Q | 1Q |
| **Cash (Beginning)** | **103.2** | **100.0** | **95.5** | **87.7** |
| A$ m | | | | |
| Operating Cash flow | 0.9 | -2.9 | 0.0 | 0.0 |
| Exploration / Development | 0.1 | 0.9 | -9.6 | -20.2 |
| Corporate overheads | 0.1 | 1.9 | -0.8 | -1.1 |
| Other | -4.3 | -4.4 | 2.5 | -1.2 |
| | | | | |
| **Cash (End)** | **100.0** | **95.5** | **87.7** | **65.1** |

Analyst: Simon Andrew
Phone: 618 9268 3020

Last Updated: 26/10/2016

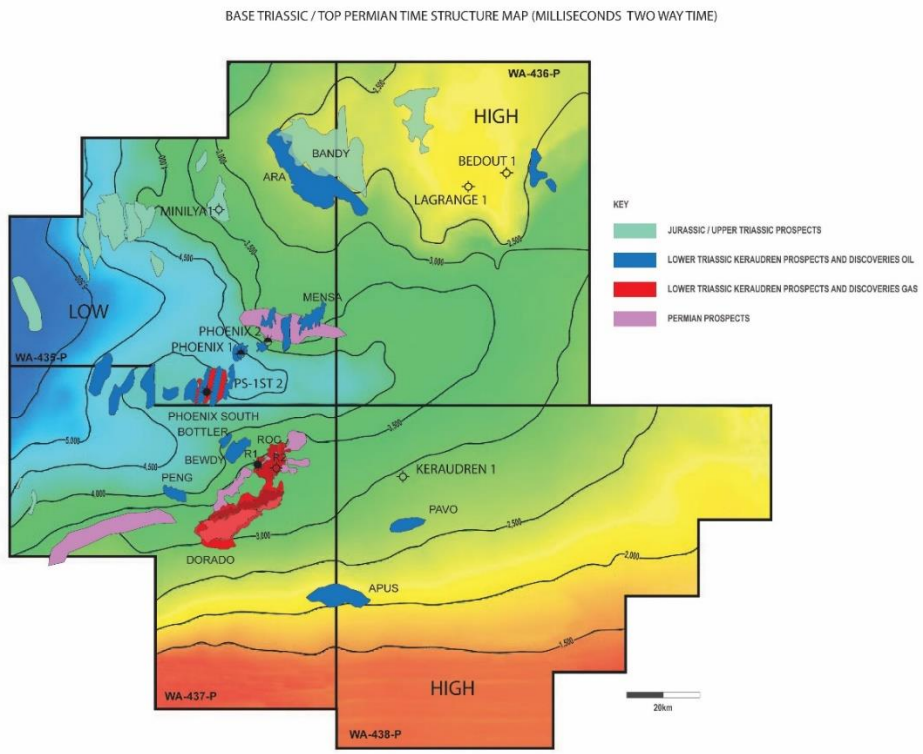
*Sources: IRESS, Company Information, Hartleys Research*

## *Fig. 1: CVN Valuation Summary*

| Asset | Country | Type | W.I. | GCoS | CCoS | CoS | Gross MM boe | Net MM boe | NPV/boe US$/bbl | Net Risked Value US$m | A$/share |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Phoenix South / Phoenix | Australia | Liquids | 20% | 100% | 60% | 60% | 31 | 6.2 | 7.5 | 28 | 0.037 |
| Roc + other leads | Australia | Gas | 20% | 100% | 60% | 60% | 62 | 12 | 7.5 | 56 | 0.073 |
| Exploration | | | | | | | | | | 15 | 0.020 |
| Thai Roaylty Stream | | | | | | | | | | 15 | 0.020 |
| Current Cash - less 1-yr spend | | | | | | | | | | 45 | 0.059 |
| | | | | | | | | 19 | | 159 | 0.208 |

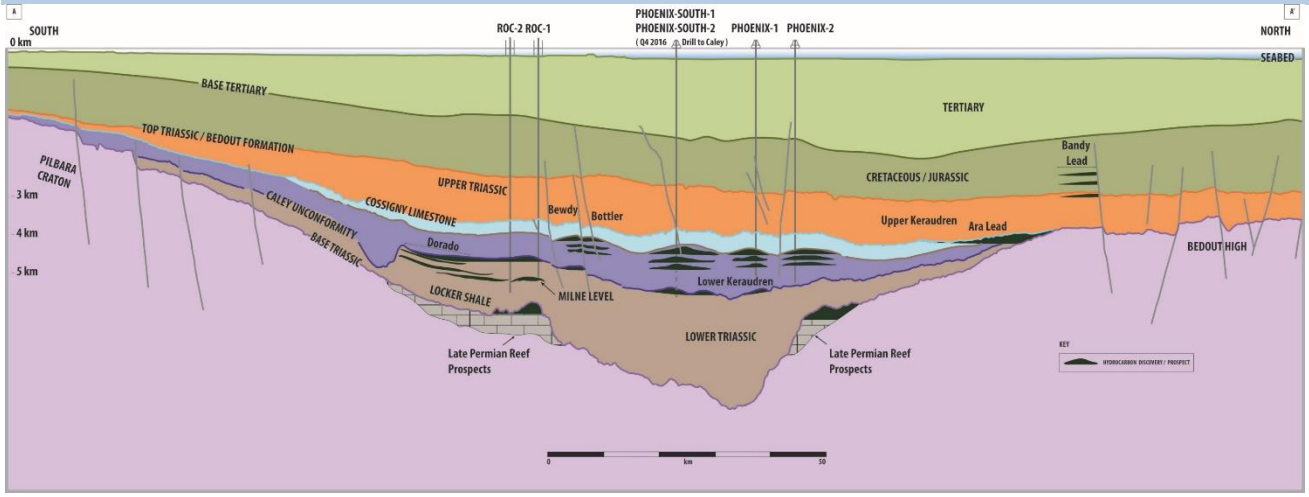
*Source: Hartleys Research*

## *Fig. 2: Location of proposed Phoenix South-2 well*



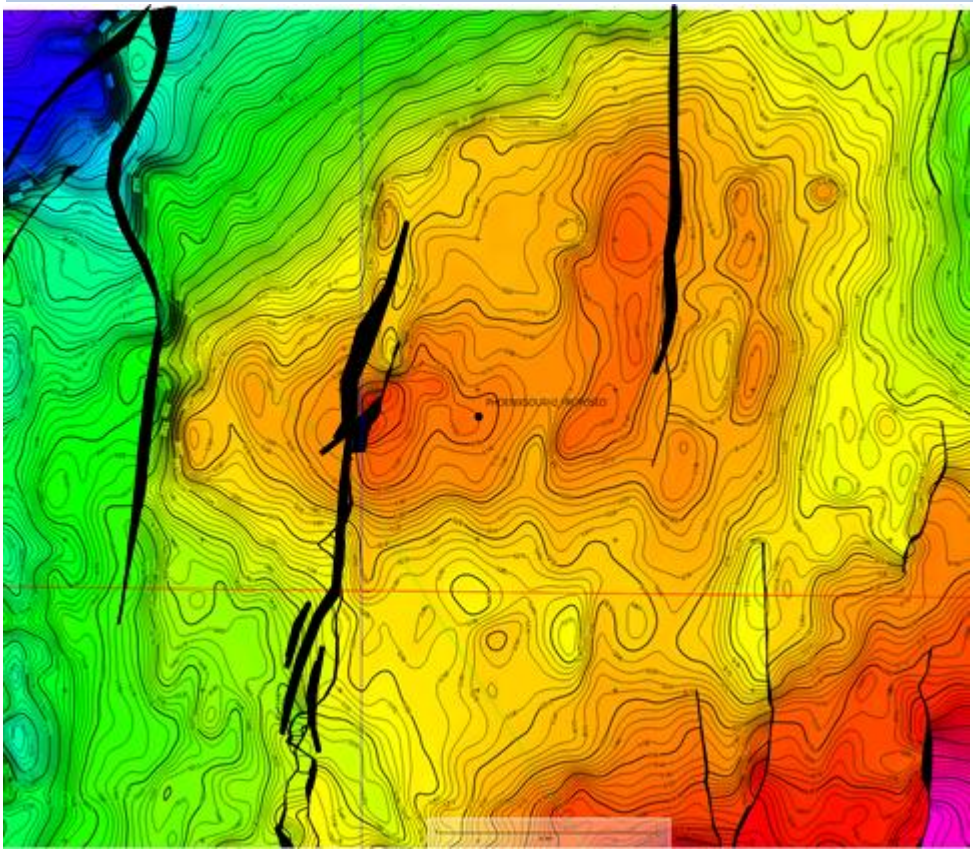

*Source: CVN*

## *Fig. 3: Cross section of Bedout-sub Basin*




*Source: CVN*

*Fig. 4: Caley formation – depth map*



*Source: CVN*

## RISKS

The key risks for CVN (like most oil & gas exploration and development companies) is making an economic discovery and obtaining the funding for ongoing exploration. Other risks include delays, key person risk, country/sovereign risk, weather, JV partner obligations, cost inflation. Investing in explorers is very risky given the exploration value of the company in essence assumes that the market will recognise a portion of potential value before the results of an exploration program are known, conscious that the ultimate chance of success is low (typically 1%-20%) and that failure is much more likely, in most cases. Other risks are earnings disappointments given the industry is volatile and earnings can disappoint due to cost overruns, project delays, cost inflation, environmental regulations, resource estimate errors and management performance and contract negotiation skills. High financial leverage (if it exists at that time) would add to the problem.

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## Hartleys Recommendation Categories

| | |
|---|---|
| Buy | Share price appreciation anticipated. |
| Accumulate | Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy". |
| Neutral | Take no action. Upside & downside risk/reward is evenly balanced. |
| Reduce / Take profits | It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period. |
| Sell | Significant price depreciation anticipated. |
| No Rating | No recommendation. |
| Speculative Buy | Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk. |

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