

# Phoenix update

24 November 2011



## ASX ANNOUNCEMENT

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to provide shareholders with the attached extract from a corporate update prepared by the Operator of the WA-435-P and WA-437-P permits, Finder Exploration Pty Ltd ("Finder"). The relevant corporate update is available on Finders' website at [www.finderexp.com](http://www.finderexp.com). The attached extract includes updated information on the Phoenix South and Roc prospects, particularly in relation to their reservoir potential and high-side volumetric estimates.

These estimates are have not been assessed by Carnarvon at this stage.

For further information on the Company please visit the CVN website at: [www.carnarvon.com.au](http://www.carnarvon.com.au)

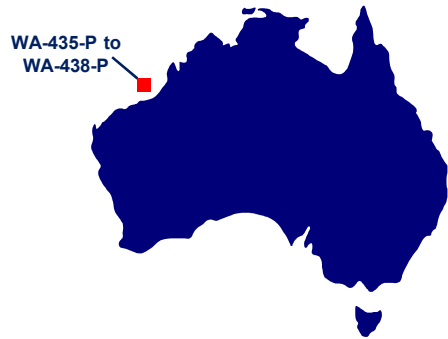
**For all enquiries please contact:**

**Adrian Cook**  
**Managing Director - Carnarvon Petroleum**  
**08 9321 2665**  
**Email: [admin@cvn.com.au](mailto:admin@cvn.com.au)**

Yours faithfully

A handwritten signature in black ink, appearing to be "Adrian Cook", written over a light blue horizontal line.

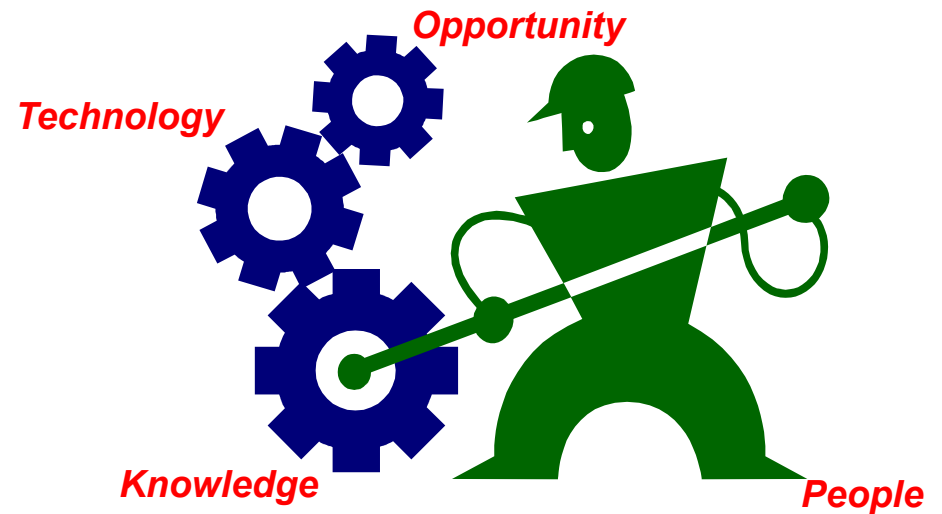
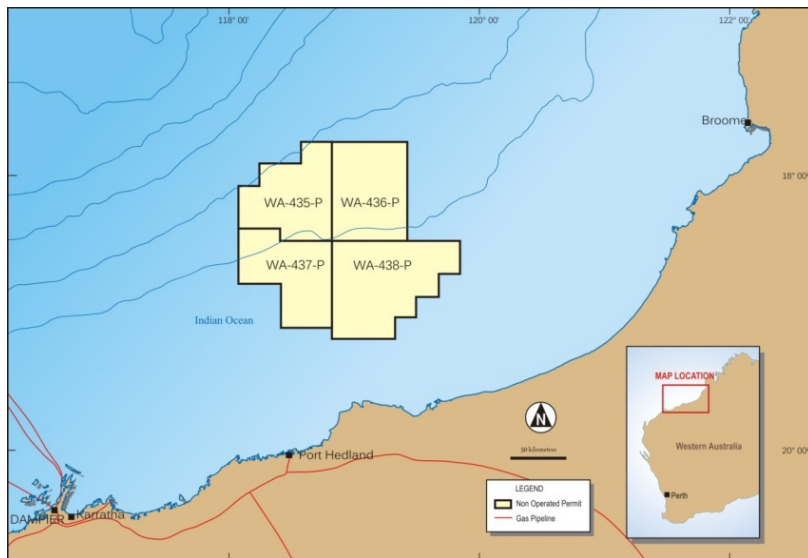
**Adrian Cook**  
**Managing Director**  
**Carnarvon Petroleum**



# Bedout/Phoenix

## Summary presentation materials

23 November 2011



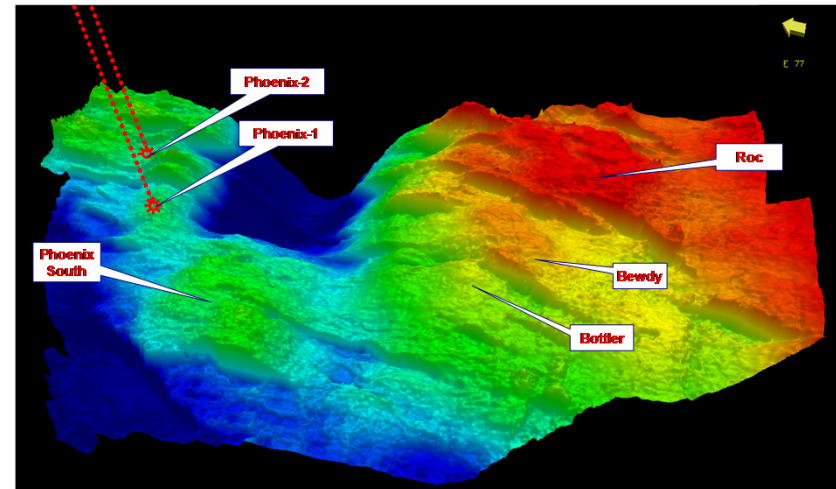
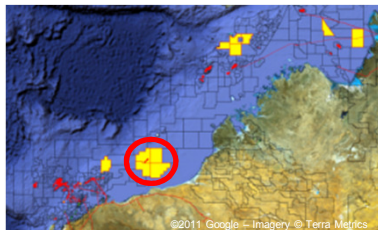
# Bedout Sub-basin – WA-435, 436, 437 & 438-P

## Permits Overview

- Awarded on 4 August 2009 – Permit Year Three
- 50% Finder equity (& Operator)  
Carnarvon Petroleum (50%)
- Large Permits (total 21,720 km<sup>2</sup>) with water depth ranging from 50 to 265 metres
- Low remaining commitments – **3D in 2010/2011**
- Discretionary wells (Years 5/6)

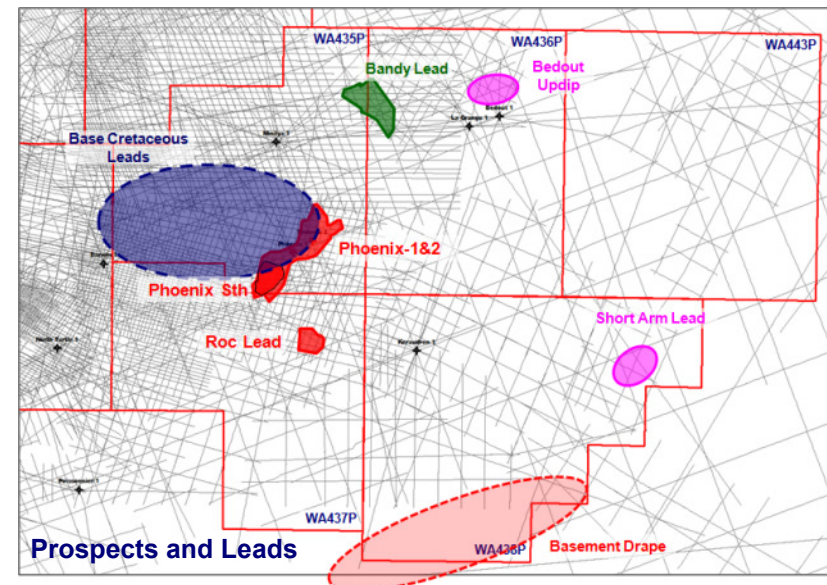
## Technical Summary

- Proven petroleum systems with mid Triassic Phoenix Gas Field in WA-435-P
  - Gas charged in all sands below 4,113 mRT (>767 m)
- Gas appraisal and exploration targets and possible oil
- Underexplored with no recent drilling (last well in 1983)
- Potential multiple reservoir/seal pairs and trap types through stratigraphic section from Lwr Cretaceous to Permian

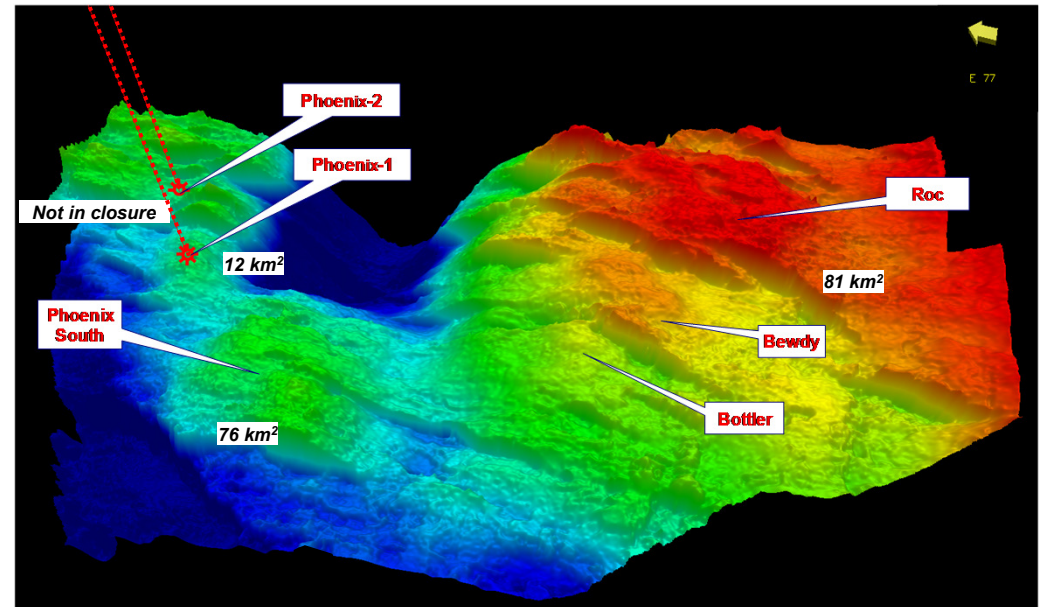
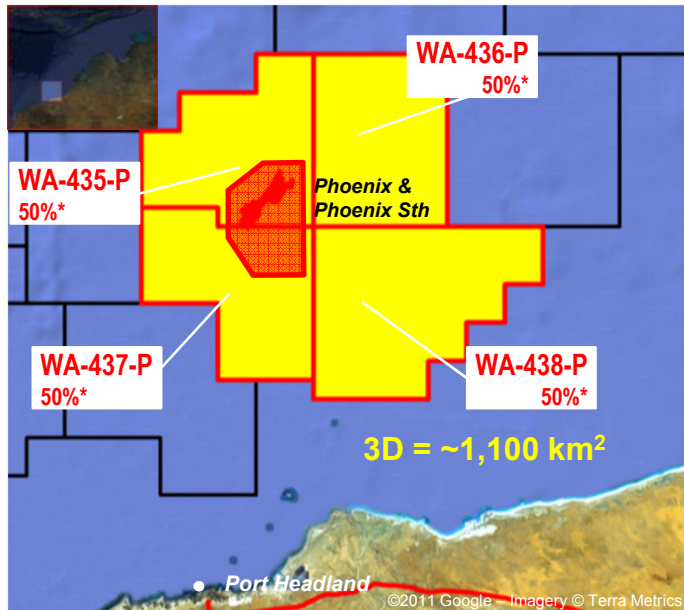


3D visualisation of the Phoenix 3D seismic survey  
Near top gas (241T) depth surface

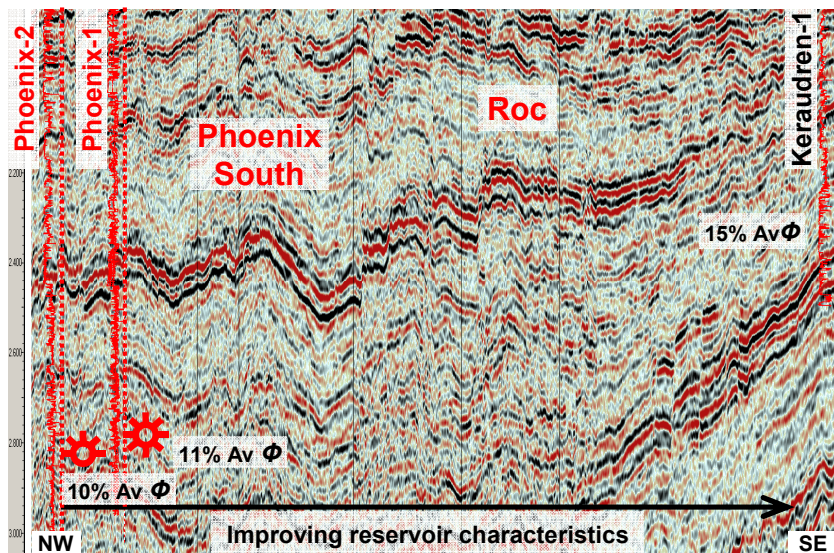
**\*\* Permit Yr 4 “Commitment”: 400 km<sup>2</sup> 3D in ‘12/’ 13 \*\***  
**Upgraded/accelerated to 1,100 km<sup>2</sup> 3D + 410 km 2D in 2010/11**



# Phoenix South (WA-435-P) and Roc (WA-437-P) Prospects



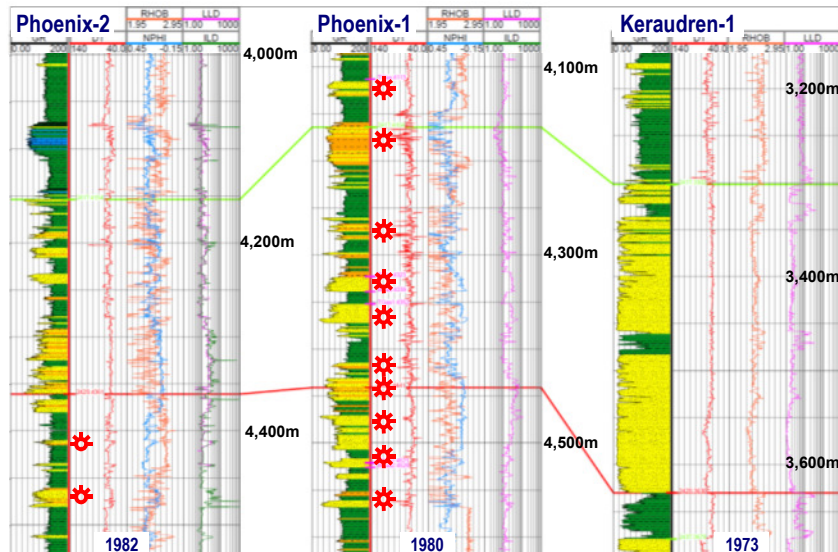
3D visualisation of the Phoenix 3D seismic survey  
Near top gas (241T) depth surface



Preliminary processing of 2010 2D/3D seismic data – courtesy of Fugro

- Joint farmout to commence Q1 2012
- pSTM 3D interpretation finalised
  - ➔ QI to identify reservoir sweet spots
- Proven Triassic Phoenix gas resource with **870 BCF** highside OGIP
- Phoenix South (~5.5 TCF) + Roc (~5.5 TCF)
- Drill in 2012/2013?

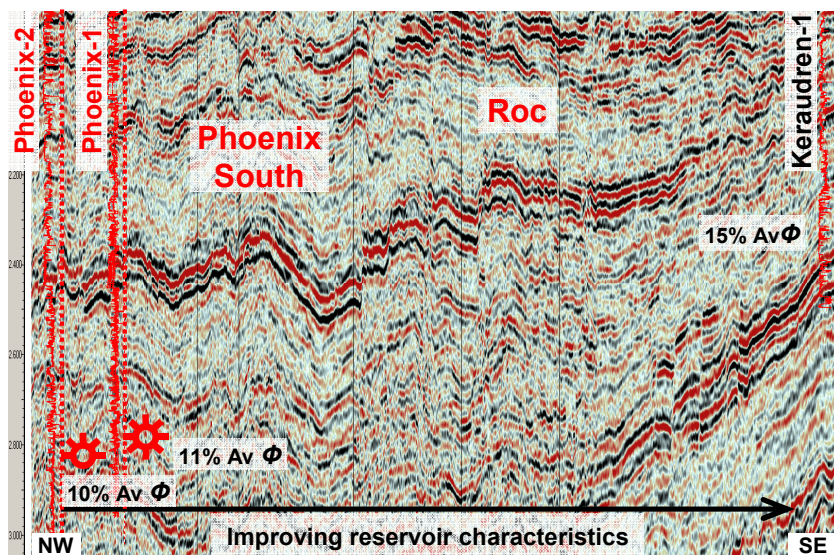
# Phoenix South (WA-435-P) and Roc (WA-437-P) Prospects



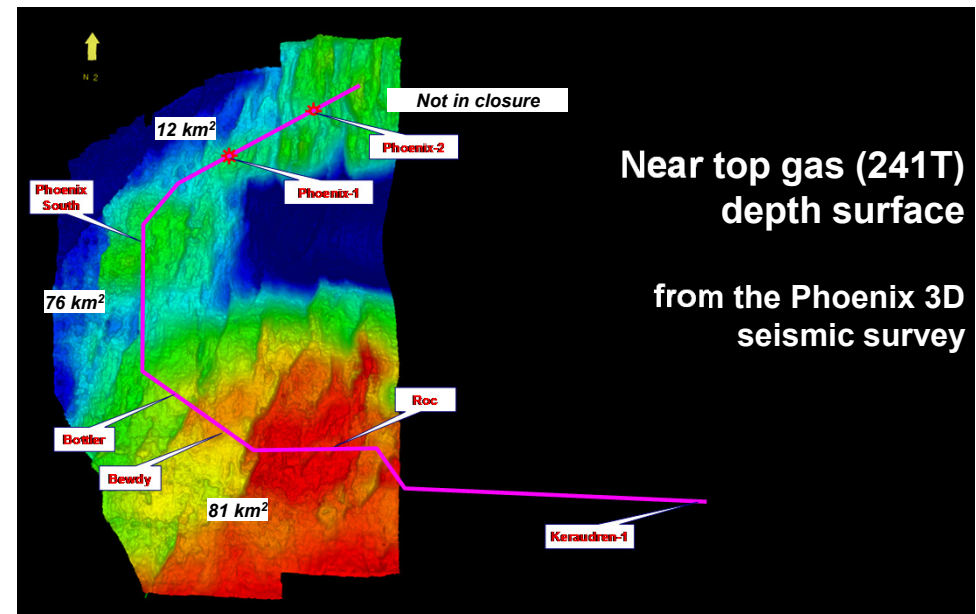
Correlation Flattened on Base Cossigny-239T

## Phoenix-1, drilled by BP in 1980

- intersected a significant 11% porosity gas column in Mid to Late Triassic sandstones
- gross 767 metre interval – 4,113 to 4,880 metres (gas influx at TD)
- BP petrophysical evaluation considered a total net pay thickness of 110.5 metres
- Phoenix-2 - lesser quality reservoir to north
- Keraudren-1 - excellent porosity to south-east



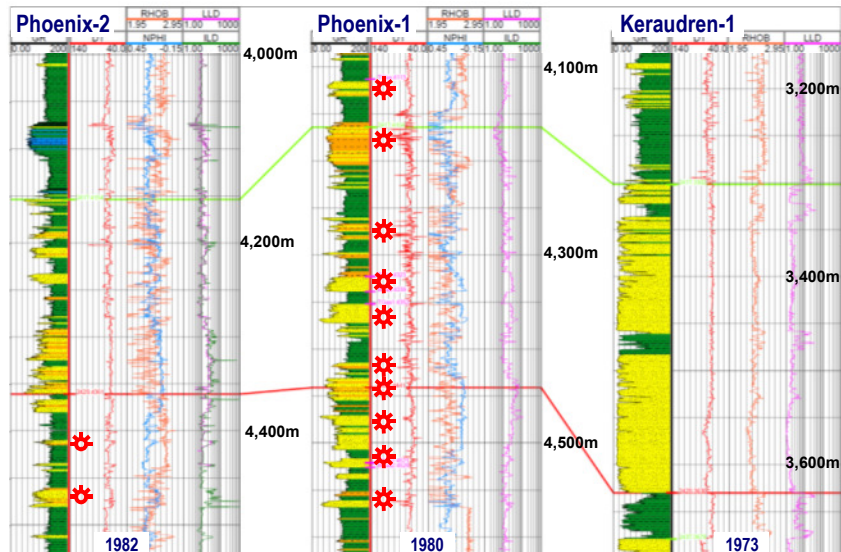
Preliminary processing of 2010 2D/3D seismic data – courtesy of Fugro



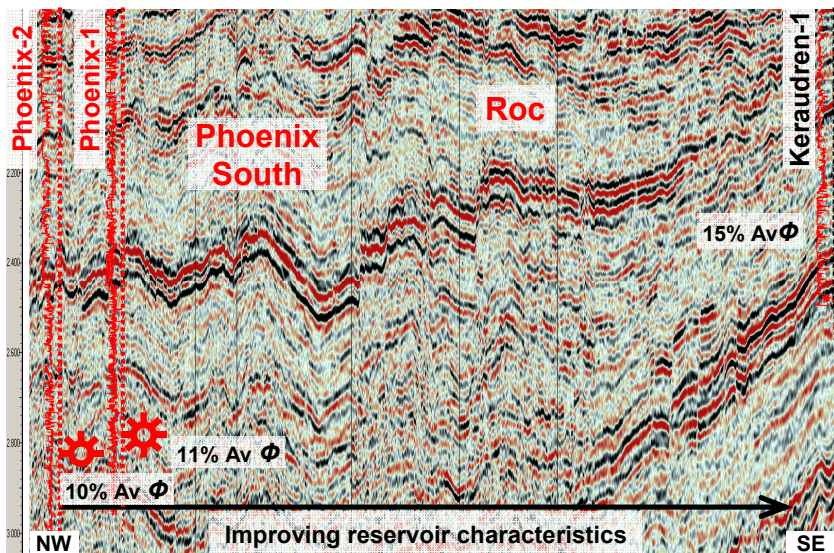
Near top gas (241T)  
depth surface

from the Phoenix 3D  
seismic survey

# Phoenix South (WA-435-P) and Roc (WA-437-P) Prospects



Correlation Flattened on Base Cossigny-239T



Preliminary processing of 2010 2D/3D seismic data – courtesy of Fugro

## Low risk – proven gas

Phoenix-1 well de-risks multi-TCF structures, particularly Phoenix South & Roc

extracts from BP's Phoenix-1

“Geological Completion Report” (July '80),  
 “Drilling Completion Report” (July 1980) and  
 “Evaluation Report” (November 1980):

•“Thicker sandstones below 4113m yielded significant gas shows”, “All sandstones below 4113m are gas bearing” and “Net gas-bearing pay is estimated to be 110.5 m”;

•“Drilling was suspended (at total depth 4,880m) without testing when it was deemed unsafe to continue operations with available pressure control equipment” – due to gas influx;

At 4880m, the mud weight was increased from 1.18 to 1.20 sp.gr. (10 lb/gal) to attempt to hold back higher pressures in this interval. Mud losses occurred as a result, probably to weaker zones around 3737m. An L.C.M. plug was spotted after diluting back to 1.19 sp.gr. and losses stopped. Gas influx, and the resulting high gas readings recorded when circulating off bottom, required 300 bbls. of 1.38 sp.gr. mud (11.5 lb/gal) to be spotted prior to logging.

•“**WELL STATUS:** Suspended with gas shows” – subsequently abandoned

