### **Corporate Presentation**

7 September 2011



#### ASX ANNOUNCEMENT

Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to provide shareholders with the attached Corporate Presentation given by Mr Philip Huizenga, Carnarvon Chief Operating Officer, at the Good Oil Conference, Australia's pre-eminent oil and gas investment forum for explorers and producers, Esplanade Hotel, Fremantle on Wednesday 7 September 2011 at 11.40am.

This presentation and further information on the Company please visit the CVN website at: <a href="https://www.carnarvon.com.au">www.carnarvon.com.au</a>

For all enquiries please contact:

Adrian Cook
Managing Director - Carnarvon Petroleum
08 9321 2665

Email: admin@cvn.com.au

Yours faithfully

Adrian Cook

**Managing Director** 

**Carnaryon Petroleum** 



## Good Oil Conference 6 & 7 September 2011



Mr Philip Huizenga
Chief Operating Officer

#### Disclaimer

The information in this document, that relates to oil exploration results and reserves, is based on information compiled by the Company's Chief Operating Officer, Mr Philip Huizenga, who is a full-time employee of the Company. Mr Huizenga consents to the inclusion of the reserves and resource statements in the form and context in which they appear.

This presentation contains forward looking statements which involve subjective judgement and analysis and are subject to significant uncertainties, risks and contingencies including those risk factors associated with the oil and gas industry, many of which are outside the control of and may be unknown to Carnarvon Petroleum Ltd.

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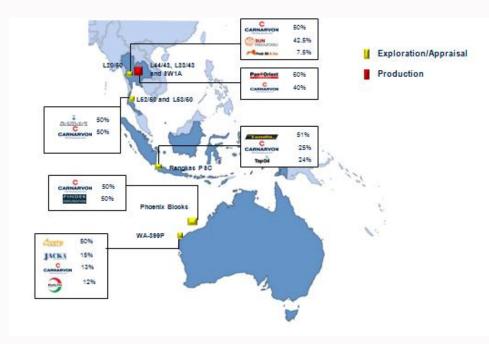


## **Corporate Overview**

## **Corporate Strategy & Overview**

- Our strategy is to build a profitable company, from a diversified portfolio of exploration & production assets, which creates value for our shareholders over the long term
- Carnarvon currently has low cost, high margin, oil production in Thailand
- Carnarvon is investing for growth in new oil & gas production and exploration projects

Current assets	Status of each asset
L44 & L33	Continuous drilling of 25-35 wells per year covering production & reserves.
Phoenix blocks	Completing 3D seismic interpretation; then farm-out for drilling high impact wells.
Rangkas PSC	Interpreting new seismic data
L52/50 & L53/50	Currently acquiring new seismic data
L20/50	Assessing new information to determine forward program
WA-399-P	Processing new 3D seismic data

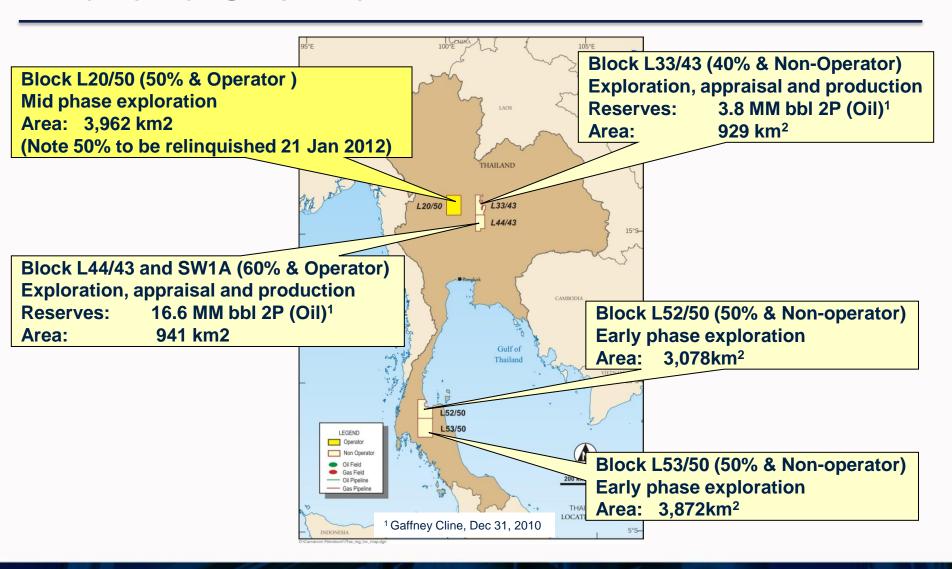


Market Cap (\$0.155 @ 24 Aug 2010)	A\$107m
Cash (30 June 2011) (no debt)	A\$14.8m
Profit before exploration write offs (YE 30 June 2011)	A\$13.4m
2P Reserves (31 Dec 2010)	20.4 mmbbls



### **Thailand Assets**

### **Thailand Overview**



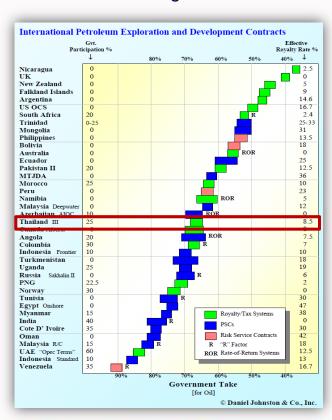
### Why is Carnarvon in Thailand?

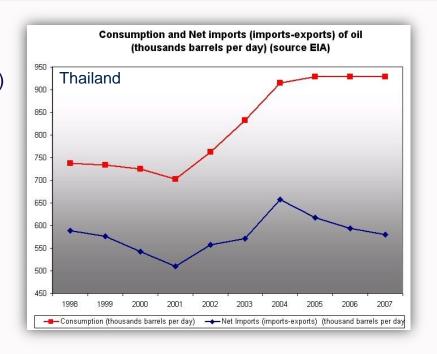
#### Stable concessionary fiscal regime

Thailand I Regime: 1971-1981

★ Thailand II Regime: 1981-1989 (outdated)

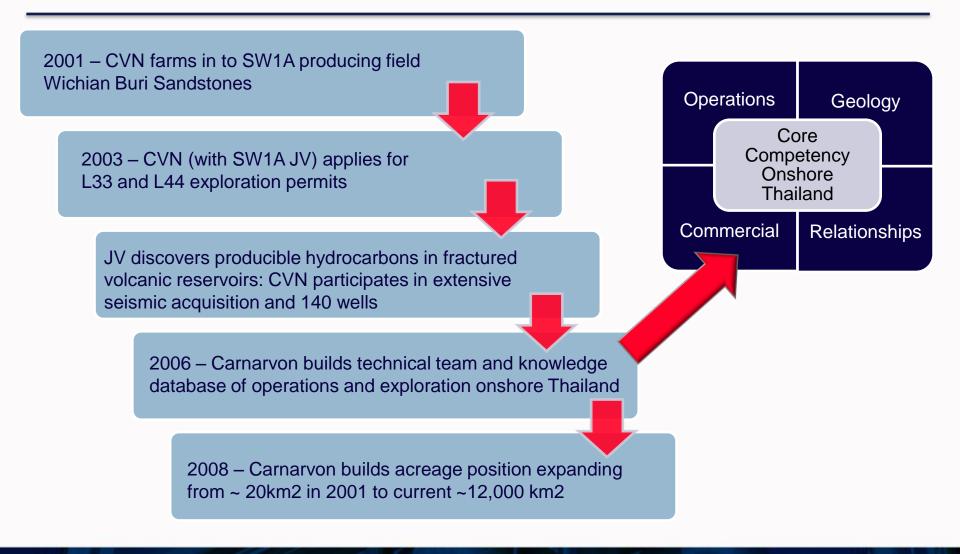
Thailand III Regime: Post 1989



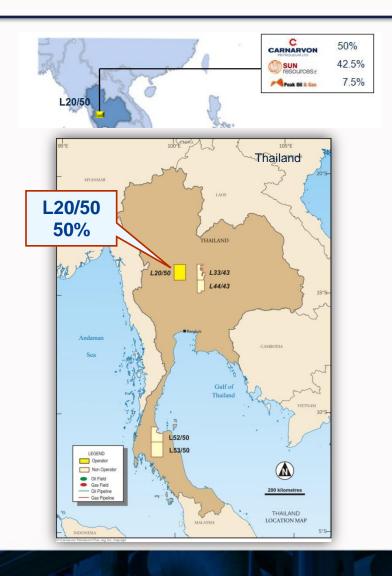


- Overall contractor take about 'middle of the road'
- Thailand net importer of hydrocarbons strong demand for local oil and gas
- Department of Mineral Fuels (DMF) supportive of international oil companies

## Why expand in Thailand?



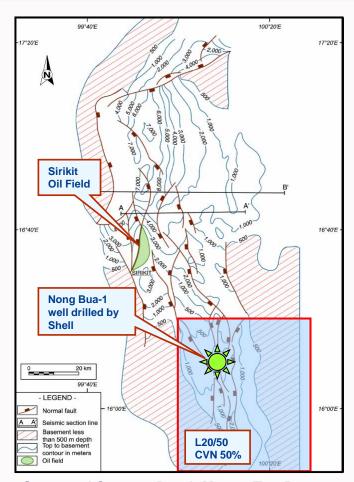
## **L20/50 Concession - Thailand**



## Why L20/50?

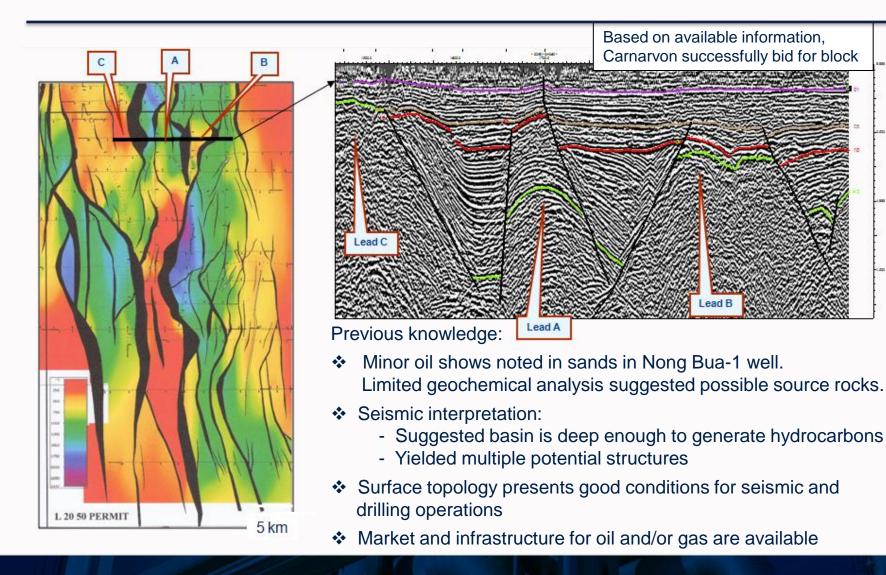
- Southeast and on trend of large, 200 million barrel Sirikit Oil Field (produced over 150 mmbbls and still producing ~20,000bopd)
- ~1,000km 80's vintage 2D seismic interpreted
- Nong Bua-1 drilled by Shell with oil shows & potential oil column in sandstone
  - Well test performed without pump
  - Initial analysis suggests a simple pumping operation may have been commercial
- Onshore infrastructure allows quick tie-in

Carnarvon 50% (Operator)
Sun Resources 42.5%
Peak Oil and Gas 7.5%

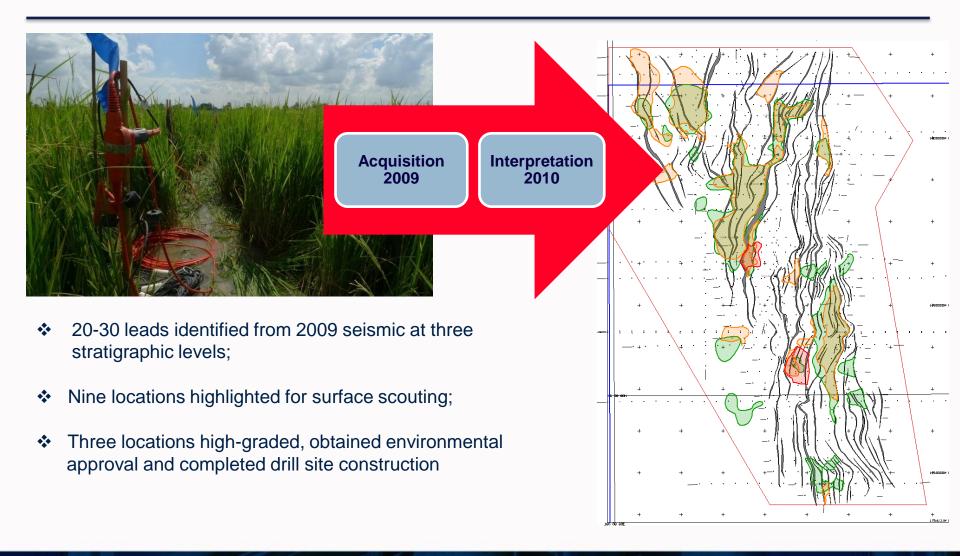


Structural Contour Depth Map to Top Basement and Major Faults (Modified after Bal et al. 1992)

### L20/50 Bid Thailand



## Seismic acquisition and interpretation



## Rotary lie detector put into action in 2011



#### Tapao Kaew-1:

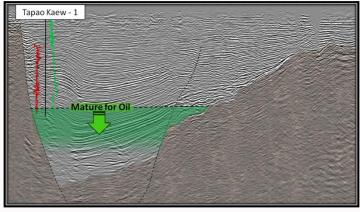
- Several thin, potentially reservoir quality sands were intersected
- analysis of wireline logs, cutting samples, gas readings and other data indicate sands are not hydrocarbon bearing.

#### **Krai Thong-1**

- Weak oil shows observed in cuttings suggest migration of hydrocarbons through section at some time.
- Wireline testing of several zones of potential hydrocarbon bearing intervals in Krai Thong proved water as the mobile fluid.

## **Encouraging results**

- No commercial result yet, but.....we have significantly de-risked other elements required to prove a working petroleum system
- Benefits of core competency onshore Thailand





#### 7rap...?

Wells drilled in the basin to date have likely not been drilled on viable structures, due to complex geology and sparse 2D data coverage



#### Reservoir:

Intersection of several thin, reservoir quality sands (better then pre-drill expectations) in Tapao Kaew, Krai Thong, and Nong Bua, suggest a good chance of encountering reservoir in future wells



#### Seal:

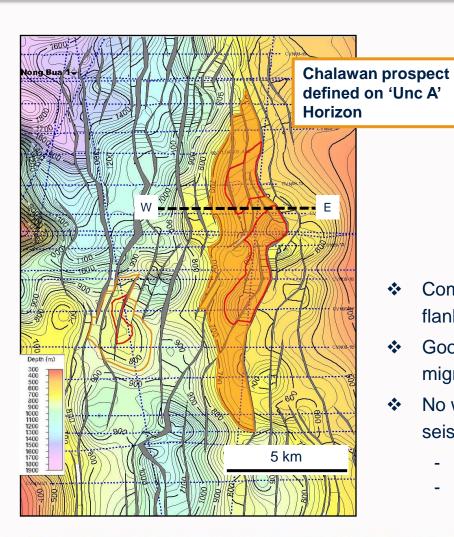
All wells to date have penetrated stratigraphy with good sealing potential

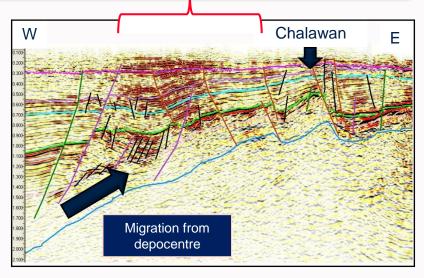


#### Source:

Geochemical analyses from recent wells suggest good to excellent quality, mature source rocks.

# New Focus: Finding a valid Trap Complex faulting on basin margin: good potential for structural closures





- Complex faulting and multiple fault terraces on eastern flank of basin
- Good potential for trapping along likely hydrocarbon migration pathways
- No well defined closures have been resolved by available seismic to date, so:
  - Currently reprocessing 2D data
  - Planning 3D seismic acquisition to better define structures and de-risk the trap

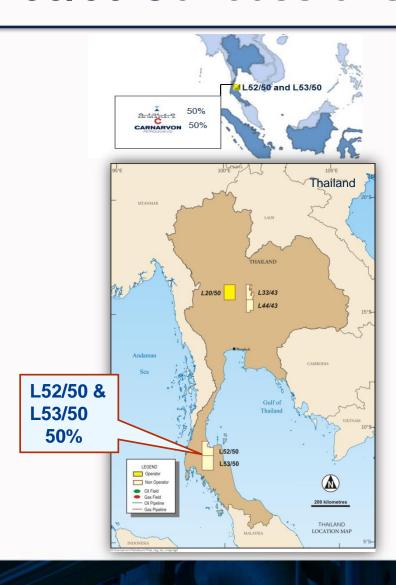
### **Future**





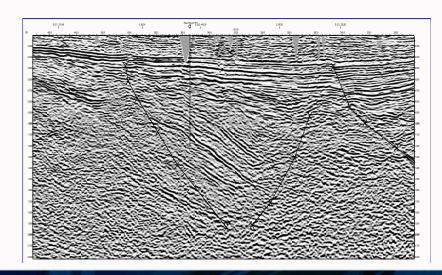
- Clearly defined path ahead for progressing exploration in L2050
- Post well analysis and reprocessing seismic 2011
- 3D Data Acquisition 2012
- Drilling 2013

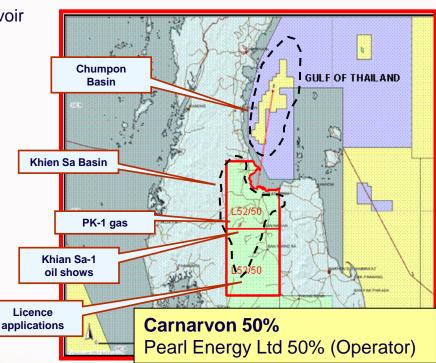
### L52/50 & L53/50 Concessions - Thailand



## Why L52/50 and L53/50?

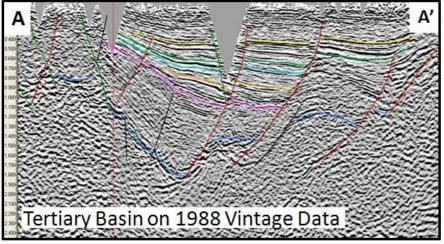
- Onshore in area of focus for Carnarvon
- Tertiary basin
- Anticipate low cost exploration
- On trend with similar sized Chumphon Basin to the north which has proven oil kitchen with numerous wells encountering oil shows and 4.3 MM bbls recovered from Nuan Nuan at rates up to 10,000 bopd
- Some leads but recognise risk on source and reservoir
- Under explored with only two wells drilled to 2,000m
- Previous CBM exploration





## **Initial work - encouraging**

- Review of old wells show fair to excellent potential source rocks
  - Khian Sa-1 (1988, TD 2438m) sidewall core containing interpreted dead oil
  - PK-1 (2004, TD 1032m) Coal Bed methane tests reported gas discovery
- Surface geological study undertaken in 2010
  - Outcrops confirm multiple reservoir potential (sandstone and limestone)





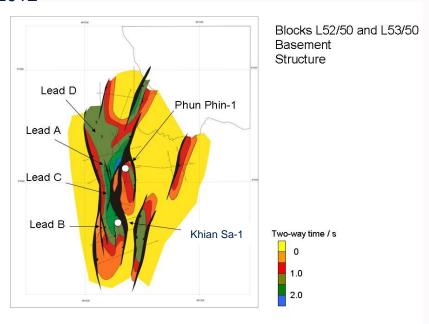
Limestone

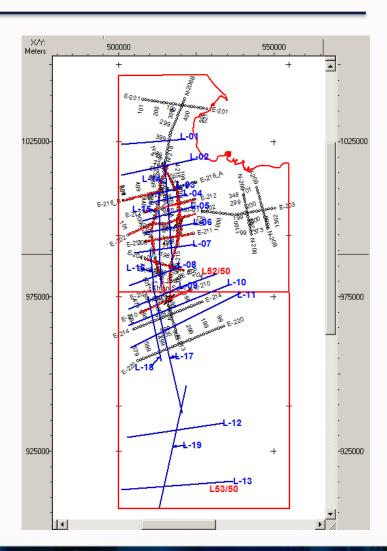


Sandstone interbedded with Siltstone (sandstone dominated)

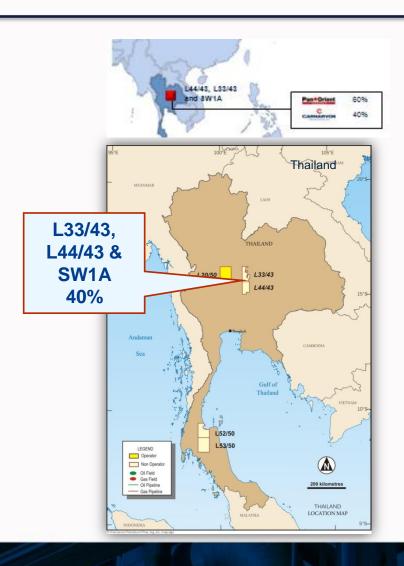
## **Ongoing work**

- Initial structural maps
   (based on old 2D scanned data) shows multiple leads
- Currently acquiring new 2D seismic to infill sparse 1988 vintage data – concentrating on areas over known leads
- Drilling of two wells planned for 2012





## L33/43, L44/43 & SW1A Concessions



### 2006 - L33/43 and L44/43

#### 2000

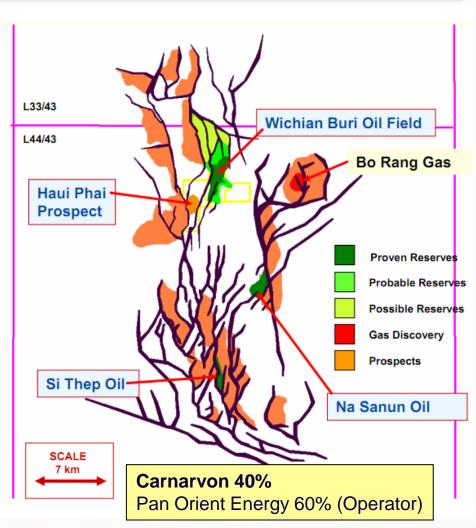
 Carnarvon Petroleum acquired a 40% working interest in SW1A via farm-in of 2 wells

#### 2003

Carnarvon subsequently acquired 40% of two exploration concessions with the operator

#### 2006

- Net 2P Reserves of around 3 MM bbls
  - Wichian Buri field on production since 1996
  - Small sandstone oil field at Si Thep
  - Gas discovery in volcanic at Si Thep
  - Oil discovery in volcanics at Na Sanun
  - Recently discovered Na Sanun East oil field
- Significant number of prospects
- Recently acquired new 3D survey



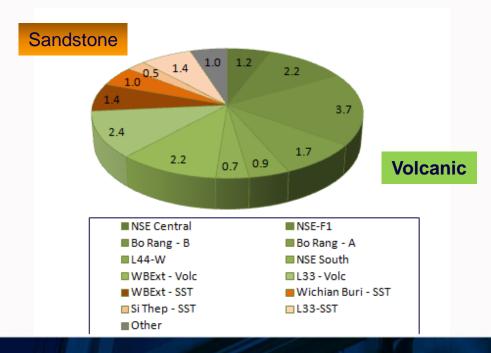
### 2010 - L33/43 and L44/43

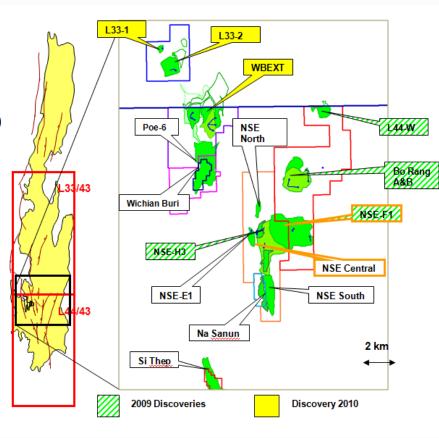
#### Fast forward to end 2010

- Over additional 100 wells drilled
- Over 10 additional oil fields discovered

#### Significant reserves increase

- ❖ 4.7 mmbbls proved (1P);
- 20.4 mmbbls proved and probable (2P); and
- 51.9 mmbbls proved, probable and possible (3P)





### Future potential – L33/43 and L44/43

#### **Sandstone Reservoirs**

- Historical data going back to initial production in 1995
- Produced to date from sandstone reservoirs is around 400,000 bbls and 2P reserves as at end 2010 was in the order of 4 million bbls
- Currently undertaking studies for optimal development however will continue to produce in the meantime
- Recent reserve additions (particularly in WBEXT area) waiting on EIA approval for additional development well sites

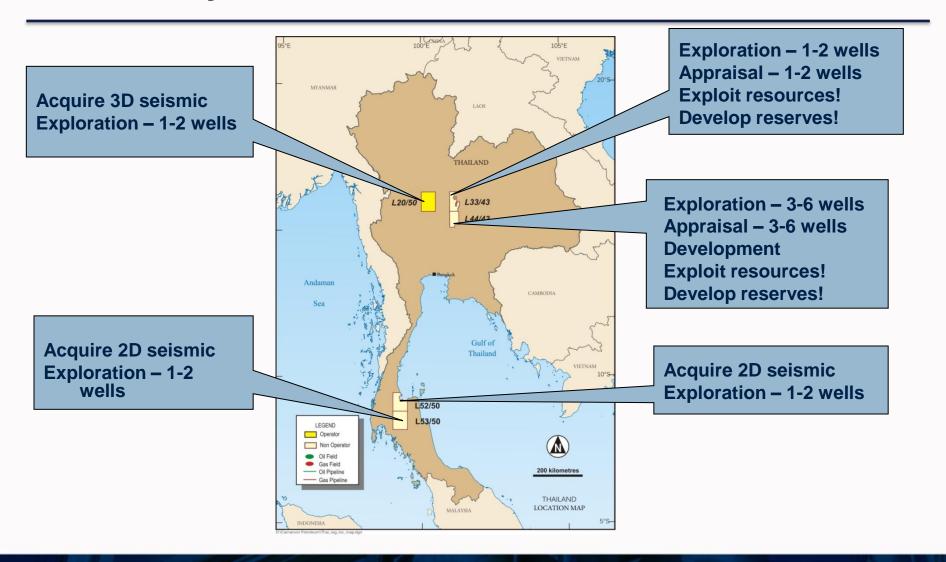
#### **Volcanic Reservoirs**

- Understanding of the fractured reservoirs remains a challenge but also a great potential
- Currently undertaking fracture analysis and stress regime studies
- Produced to date from volcanics around 4 million bbls with 2P reserves as at end 2010 nearly four times that amount

#### **Forward Potential**

- Aside from 2P reserves, Carnarvon has substantial 3P reserves and resources required to be delineated
- Exploration potential still exists

## **Next 1-2 years in Thailand**



## **Long Term Thailand Commitment**



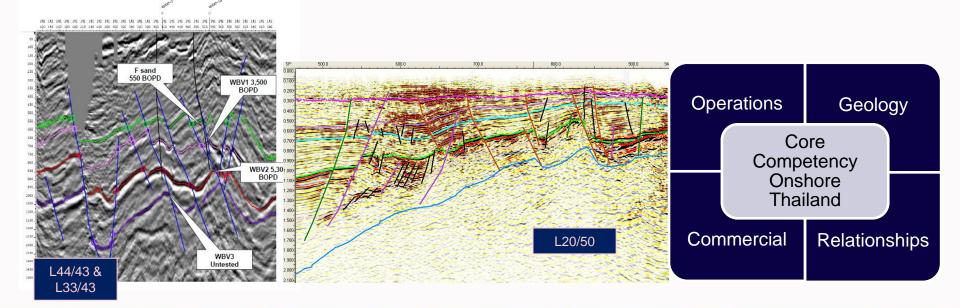
## **Strong Community Involvement**



### Conclusion

#### **Thailand priorities:**

- Steadily improve the base production from sandstone reservoirs (L44/43 & L33/43 Concession).
- Continue drilling high flowing volcanic reservoirs (L44/43 & L33/43 Concession).
- Acquire 3D seismic to enhance exploration success after positive news (L20/50 Concession).
- Complete exploration activities in promising blocks(L52/50 & L53/50 Concession).
- Continue to review expansion opportunities (Thailand and beyond)



#### **Good Oil Conference 2011**

Philip Huizenga







Any questions come and join us for a free coffee



Ground Floor 1322 Hay Street West Perth WA 6005

Telephone: +61 (8) 9321 2665

Fax: +61 (8) 9321 8867

www.carnarvon.com.au