Exploration Opportunity in the Roebuck Basin, Offshore WA

Pathfinder Energy Pty Ltd
10 September 2014

www.pfenergy.com.au
Roebuck Basin

Northern Carnarvon Basin

Pathfinder Exploration Permits

Hannover S Prospect (Triassic) 1st Well

Anhalt Prospect (Triassic) 3rd Well

Steel Dragon Prospect (Triassic) 2nd Well

Detmold Prospect (Triassic)

Pina Colada Prospect
Triassic Oil Potential
264 MMbbl (P50) Recoverable

Phoenix South 1
Triassic Oil Discovery

Roc Prospect Follow up to Phoenix S-1

WA-487-P

WA-479-P

Steel Dragon
Prospect (Jurassic)

Roc Prospect

Offshore Canning

Broome

South Hedland

South Hedland
Roebuck Basin – Oil Discovery

New oil province offshore Australia confirmed –
the most significant new oil play on the North West Shelf since the Enfield discovery
opened up the Exmouth Basin 15 years ago

Phoenix South-1

- 6 oil samples from 3 intervals in the Lower Triassic
- 46-48 API gravity
- Potential of 300 MMbbl OIP
Roebuck Basin – Source Rocks

- Past modelling based on gas-prone Lower Triassic source rocks of Keraudren Fm.
- Locker Formation has not been sampled in current wells

- Seismic character consistent with marine shale signature. Is there a marine, oil-prone Locker Shale in the Early Triassic?

What is the source of the light oil recovered at Phoenix South-1?
Roebuck Basin
WA - 487
WA - 479
Northern Carnarvon Basin

Pathfinder Exploration Permits

Hannover S Prospect (Triassic) 1st Well
Anhalt Prospect (Triassic) 3rd Well
Steel Dragon Prospect (Jurassic) 2nd Well
Detmold Prospect (Triassic)

Phoenix South 1 Triassic Oil Discovery

Extensive Lower Triassic Locker SR?
Restricted Lower Triassic/Permian SR?

Facies change in Locker SR?

Pina Colada Prospect Triassic Oil Potential 264 MMbbl (P50) Recoverable

Offshore Canning
Broome

South Hedland

Potential New Oil Basin

South Hedland
Permo-Triassic Oil Fairway

Likely oil prone source kitchens

Not to scale
Roebuck Basin Modelling

- Source Rocks in Lower Triassic in peak oil window (VR < 1.2) in Pina Colada fetch area.
- Large fetch area; easy to fill Pina Colada structure
- Predicting significant liquid generation.
Pina Colada – Seismic Dip Line
Pina Colada – Seismic with Interpretation

East Mermaid-1 (projected)

Anhalt A

Jurassic

Early Jurassic

Upper Triassic

Lower Triassic

Permian

Basement

Mai Tai
Fine-grained Sst with variable porosities ranging from 6-15%. Phoenix South-1 reported 6-8% av porosity with good permeabilities.

Pina Colada Prospect – Depositional Environment

- Flood plain, amalgamated channels and shallow marine sand
- Sediment Entry Point
- Fitzroy Trough
- Lower Keraudren (Anisian-Ladinian, S. quadrificus)
Upper Keraudren Fm (Carnian-Norian, M. Crenulatus)

Coarse-grained fluvio-deltaic Sst 15% av. Porosity
Proximal setting

Pina Colada Prospect – Depositional Environment

Pina Colada Prospect
Predicted delta front; near-shore reservoir sands
Proximal setting
North Rankin Equivalent (Early Jurassic, Pliensbachian, C.torosa)
Upper Triassic Keraudren Formation. Good reservoir potential in proximal delta setting.

Lower Triassic Keraudren Formation in proximal delta setting.

North Rankin Beds with good reservoir development regionally and intersected in Huntsman-1.

Murat Formation with potential for basin-floor fan development; below TD of East Mermaid-1.

Athol Shale
Permian
Pina Colada – Depth Structure Maps

Early Jurassic (Rankin equivalent)

Pina Colada Prospect: large, low-relief, fault-controlled closures at Lower Jurassic and Triassic levels

- Closure: 360 km² at JP1 level; Top of structure @4200 m TVDSS
- Closure: 210 km² at Top Lower Keraudren Formation; Top of structure @4820 m TVDSS
- Water depth: 400 m

Mid Triassic (Cossigny)

210 km²
## Pina Colada - Resource Potential

### Single Reservoir Unit Only

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<th>P10</th>
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P50: 18m net pay, Phi 12%, Sw 38.5%, Bo 1.35, Rf 25%

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P50: 10m net pay, Phi 10%, Sw 40%, Bo 1.6, Rf 25%
Summary

Pina Colada Prospect potentially part of a New Oil Fairway/Basin

Opportunity to participate as JV partner or purchase of assets
Exciting times ahead –

Cheers to it!

Pina Colada