

## OIL BASINS

## RESOURCESTOCKS

# SCORING WITH THE FIRST WILDCAT

Fortune favours the brave. A first hole jackpot for junior Oil Basins has opened up a whole new world for the plucky risk-taker.

**I**N JUST A FEW MONTHS, fledgling oil and gas explorer Oil Basins has emerged with a serious new onshore oil play, extensive coal seam and shale gas potential, and potentially up to 4 million barrels of recoverable offshore oil in Western Australia.

In identifying a potential company-maker, the aspiring junior has also partially rewritten the hydrocarbon geological and petrophysical rule books for the Fitzroy Trough area of the onshore Canning Basin.

The new oil, coal seam and shale gas bearing permits surround Derby in northern WA, with the focus now squarely on the company's \$4 million Backreef-1 wildcat well within Licence-6.

Backreef-1, Oil Basins' first exploration well, has unexpectedly yielded a potential reservoir between 915-965 metres containing a possible interval of about 48.9m with a possible net oil pay of about 39.2m and a risked conservative (unstimulated) moveable oil interval, within the lower dolomites, of about 3.9m.

The route to this discovery has been somewhat unusual.

After previously announcing that Backreef-1, drilled to a total depth of 1800m, was being cased and suspended for further evaluation, a new independent petrophysical report

revealed the potential for a low-cost, significant new oil play.

Independent experts Weatherford was brought in to assist with post well analysis wireline log interpretation because of its local expertise in assessing carbonate/dolomite reservoir systems, like that at the Blina oilfield (some 7 kilometres to the west) discovered back in 1981, and its expertise in North American shale gas.

Weatherford's findings were based on reservoir fluid properties being similar to Blina's as Backreef-1 remains cased and suspended awaiting evaluation/stimulation testing which is likely during 2011.

Oil Basins chief executive and experienced petroleum engineer Neil Doyle told *RESOURCESTOCKS* that when the well passed its 1500m "farm-in drill or drop" target, it was decided to run 7-inch casing to suspend the well for future re-entry, rather than go to the expense of returning the equipment to Broome.

Previously, the company had reviewed historical work on the Backreef area and applied new 3D techniques to assess vintage 2D seismic results, which provided greater clarity and almost marine quality.

Backreef-1 had also revealed 223m of continuous hydrocarbon fluorescence in the Lower Laurel

formation to the Yellow Drum Equivalent formation over an interval of 889-1112m.

These are the similar productive reservoir formations to those at nearby Blina and the Meda oil field, 40km north-northeast, which produce a light 38-degree API crude, with characteristics similar to diesel.

"Running the production casing was a bit of a punt, but you don't get 223 metres of continuous fluorescence without there being something. So we plugged the hole back to 1155 metres, ran the casing and suspended the hole," Doyle said.

It was never the company's intention for the well to be open-hole tested as this is not permitted under the WA drilling and completions approvals.

The latest petrophysical assessment revealed that the Lower Laurel formation from 894-910m was predominantly a tight limestone likely to be an effective seal for the hydrocarbon trap delineated by Backreef-1, and thus a possible important top to map for future exploration within the Kimberley Downs Embayment.

Backreef-1 was the first exploration well ever drilled within this embayment area, a natural syncline between two carbonate platforms being the Blina and ancient coastal platforms.

Below this, the Yellow Drum Equivalent/Gumhole formations from 910-1243m were found to be similar to the adjacent Blina oil field with good porosity dolomites and tight limestone intervals.

There was also "effective water saturation" of 20%, with porosity up to 22%, in the Yellow Drum/Gumhole formations.

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**NEIL DOYLE**  
OIL BASINS

Doyle said the petrophysics were “very encouraging” and he was surprised at the sheer size of the unexpected oil column.

“This new oil play appears to be entirely within the predominantly dolomitic section of the Yellow Drum Equivalent and Gumhole formations, and these hydrocarbon reservoirs correlate some 230 metres shallower and updip of the similar and nearest offset oil-producing zones in the Blina field,” he said.

“Backreef-1 has effectively de-risked the project. We’ve got the well sub-surface data and we’ve got the unprocessed vintage 2D seismic, so now all we have to do is map this prospect to define the extent of the contingent resource.”

Work will concentrate on reprocessing extensive vintage 2D seismic within Kimberley Downs, expected this quarter. The company has also begun scoping and planning to target the new oil play for rapid production assessment, possibly in the first half of 2011.

The options include delineating new prospects within this new play and drilling a series of shallow, relatively low-cost exploration wells of less than 1000m, perhaps 50-100m apart, with a smaller possibly mobile rig.

There is also the option of re-entering and stimulation/production testing the Backreef-1 well, especially if contingent 2C resources are delineated from this reprocessing.

Neighbouring Buru Energy has one-off back-in rights to Backreef L-6.

While the shale gas potential was a secondary objective at Backreef-1, the previously undrilled formation intervals have now been explored and defined to aid in the future mapping of the deeper section within the embayment feature ahead of drilling and coring of the deeper shales.

Doyle described the coal seam and shale gas potential within its large Canning Basin permit 5/07-8 EP (50% and designated coal seam gas operator) and neighbouring Backreef area as “works in progress,” albeit at an advanced stage. An independent expert’s report completed in 2010, the first such comprehensive study in the Canning Basin, isolated two thick coal centres, considered as having high coal seam gas potential, at depths from 300m and at least 3m thick across the entire permit.

The acreage is known to contain extensive Permian coal measures and carbonaceous shales, correlatives of



which are known to have sourced the gas and oil accumulations in central Australia’s Cooper Basin and the Bowen Basin in eastern Australia.

If the Liveringa coals are like the Permian-aged coals of eastern and central Australia, Doyle said they should be good coal seam gas targets.

The Lightjacket in-situ coal volumes have been estimated to range from 50.6 billion tonnes up to 118.2Bt, with a prospective total gross recoverable coal seam gas resource from 4.3 trillion cubic feet to 10.0Tcf.

The estimated gross potential unrisks shale gas in place resource ranges from 106Tcf to 527Tcf.

While no estimate of gross recoverable resources was possible at this early stage, Doyle said the sheer size of this potential new gas play was significant and could be more prospective than those reported by other more remote Canning Basin permit holders.

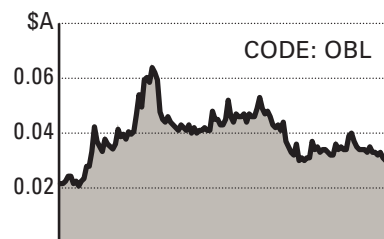
The application of newly proven modern gas extraction techniques, with long-reach horizontal, multi-lateral well drilling technologies and multiple fracking technologies, as used in the seven North American marine basins extracting seam gas, was worthy of further exploration assessment in both EP5/07-8 and the Backreef Area, he said.

In WA’s Carnarvon Basin, geological and geophysical studies are continuing on Oil Basins’ offshore Cyrano retention lease R3, about 40km off the WA coast, which has a net prospective 2C recoverable of up to 4 million barrels defined by 3D seismic and two discovery wells.

The Cyrano oilfield is a heavy 22-degree API crude oil pool on-trend and adjacent to Apache’s operated similar-sized Nasutus heavy oil pool. Both undeveloped fields are likely to be fairly valuable at current crude oil prices. – **Mark Mentiplay**

The successful Backreef-1 wildcat well

## OIL BASINS AT A GLANCE



6 months ending December 17, 2010

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### MARKET CAPITALISATION

\$A8.1 million (at press time)

### QUOTED SHARES ON ISSUE

269,532,000

### MAJOR SHAREHOLDERS

Liquefied Natural Gas 7.2%  
Neil Doyle 2.5%  
Kim McGrath 2%