

# Thailand Operations Update

25 November 2011



Carnarvon Petroleum Limited ("Carnarvon") (ASX:CVN) is pleased to provide shareholders an update on operations in the L33/43, L44/43 and SW1A concessions onshore Thailand where Carnarvon has a 40% equity interest.

## Technology - pilot well increases oil production 300%

The joint venture is reviewing several types of technology to stabilize production from the fractured volcanic reservoirs and has had recent encouraging success from the first pilot project, using a downhole inflow control device.

An Inflow Control Device (ICD) is hardware that is deployed as a part of well completions aimed at distributing the inflow of fluids evenly across horizontal well sections, especially in instances where there is permeability contrasts along the wellbore. A non-uniform influx of fluids along the wellbore can often lead to early break-through of water or gas, resulting in a reduction in oil recovery and uneven sweep of the drainage area

To eliminate these problems, ICDs have been increasingly used in the oil and gas industry as part of well completions to control and optimize individual wells. To date, their most common applications have been in long horizontal wells or high permeability contrast sandstone wells.

The majority of reservoirs in the L44/43 group of fields are volcanic, with the flow primarily from fractured zones within the reservoir. The production trends of these wells have consistently resulted in the early incursion of water. In addition, the highly permeable fractured zones result in high contrast inflow along the wellbore. The joint venture decided to trial the ICD technology in one of these wells to determine whether it was capable of evenly distributing oil inflow along the length of the borehole. It was interpreted that the implementation of ICDs in the fractured volcanic would both delay incursion of water from the major fractured zones and simultaneously encourage oil production from the micro-fractures and matrix along the remainder of the borehole thereby increasing oil production and expected ultimate recovery.

The initial results of the ICD implementation in the pilot well BR-1RDST1 have been encouraging with production of over 200 barrels of oil per day gross, which is an increase of 150 barrels of oil per day gross from the 50 barrels of oil per day gross production rate prior to the ICD recompletion. This is an increase of over 300% as a result of the implementation of an ICD in the pilot well. These early results are encouraging for the future application of these technologies.

Current plans are to run one additional ICD recompletion prior to year end on an existing horizontal well within the Bo Rang "B" field and evaluate the results prior to making a decision on the redevelopment using ICD technology of the NSE Central, NSE South, NSE-E1, Bo Rang A and Bo Rang B fields.

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Recent flooding in Thailand related to the historically high annual monsoon rains has had, and is expected to have, no impact on Thailand production and drilling operations.

Thailand production is currently approximately 1,000 BOPD net to Carnarvon with four new wells and one sidetrack well planned to be completed prior to year-end 2011 on Concession L44 in addition to one new ICD technology recompletion on an existing well in L44 within the Bo Rang "B" volcanic reservoir. The vast majority of the production declines since the last update are attributed to a single well (NSE-F6) which declined from 1000 BOPD to 60 BOPD in the intervening period.

Each of the remaining four development wells and 1 sidetrack well are estimated to be capable of initial production rates in excess of 500 BOPD per well gross (200 BOPD net to Carnarvon). Total production for the December quarter will be heavily influenced by the initial production rates observed in these yet to be drilled wells and the decline rates these wells exhibit prior to year end.

Environmental approval is anticipated for up to 15 wells in the WBEXT "E" and "D" sandstone reservoir area at the end of December 2011, with a targeted sandstone development program to follow in January 2012 (assuming environmental approval is granted at the upcoming December 30, 2011 meeting with the Government of Thailand environmental regulator). At least three sandstone exploration targets in close proximity to the WBEXT reservoir area are also planned to be drilled in 2012 and these exploration well locations are covered by the environmental approval referred to above.

## Thailand Drilling Update

### L33-2A Exploration Well

The L33-2A exploration well targeted the unproven WBV2 volcanic zone below the proven oil producing WBV1 volcanic reservoir. Excellent fracturing was indicated by the drilling mud losses observed while drilling; however, only water was recovered on test.

### BR-2ST3 Development Well

The BR-2ST3 deviated development well tested at an initial rate of approximately 500 BOPD gross (200 BOPD net to Carnarvon) and no water from the Bo Rang "A1" volcanic reservoir. The current production rate is approximately 120 BOPD gross (50 BOPD net to Carnarvon) with a stable water cut of approximately 30%.

### BR-4ST1 Development Well

The BR-4ST1 development was targeting the Bo Rang "A1" reservoir at a location approximately 850 meters east of BR-2ST3 development well. Just prior to drilling the main target section the directional assembly ("MWD") was removed as is common practice in order to reduce the risk of sticking the MWD in the hole when massive drilling fluid losses are experienced in the target reservoir. A subsequent deviation survey indicated that the well deviated coming out of the casing shoe, just missing the top of the intended target. The well has been suspended with plans to re-enter the hole and drill into the intended target prior to year end.

### **NSE-F7 Horizontal Development Well**

The NSE-F7 well encountered extensive fracturing within the target volcanic formation with over 2,000 barrels of fluid losses observed while drilling. The well is currently on production at a stabilized rate of 440 barrels of oil per day gross (175 BOPD net to Carnarvon) with a stabilized water cut of 40%. This well is a likely candidate for future ICD recompletion.

### **NSE-F5 Horizontal Development Well**

The NSE-F5 horizontal well is currently setting casing just above target approximately 1.4 kilometers east of the NSE-F7 well.

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Yours faithfully



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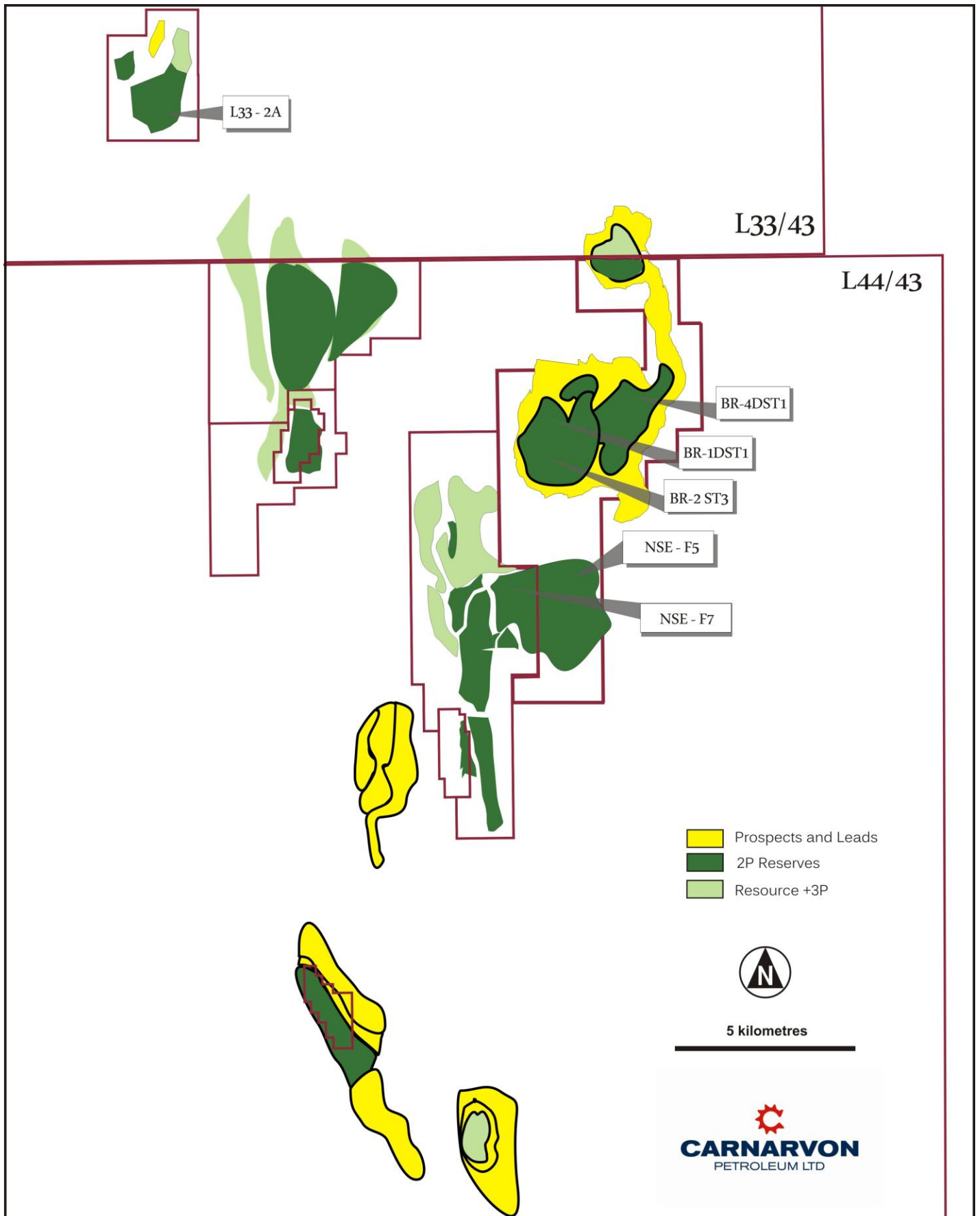


Figure1: Approximate location of wells onshore Thailand in L33/43 and L44/43 permits.