

30 January 2009

Company Announcements Office Australian Stock Exchange Limited

Via ASX Online

Dear Sirs,

### **QUARTERLY REPORT FOR DECEMBER 2008**

Please find attached Carnarvon Petroleum Limited's Quarterly Activities Report for the quarter ended 31 December 2008.

Yours faithfully, Carnarvon Petroleum Limited

RA Anderson Company Secretary

## REPORT FOR THE DECEMBER 2008 QUARTER

"Development drilling in Carnarvon's 40% NSE oil field continued during the December quarter with a further 4 development wells completed. Development drilling was interrupted prior to year end to concentrate on potential reserve additions at the Bo Rang field and at appraisal sites outside of the 2P Reserve Areas.

Increasing cashflow from high margin production is building a significant cash position for Carnarvon, ensuring the Company is fully funded to progress its ongoing development, appraisal and exploration programme, and well placed to capitalise on growth opportunities during 2009."

#### **SUMMARY**

- ✓ Full field development of NSE continues
  - o NSE-B1 flows on test at 2,650 bopd (08 Oct 2008)
  - o NSE-D1 flows on test at 710 bopd (29 Oct 2008)
  - o NSE-A4 flows on test at 830 bopd (19 Nov 2008)
  - o NSE-D3 flows on test at 1,130 bopd (28 Nov 2008)
  - o Additional 5-7 well sites ready to drill
- ✓ Ongoing appraisal and exploration drilling complements full field development
  - o NSE-C1 flows on test at 575 bopd (28 Nov 2008)
  - o NSE-E1 flows on test at 173 bopd (11 Dec 2008)
  - o NSE appraisal outside of 2P reserve area continues
  - o Bo Rang appraisal commenced
  - o L44-R appraisal pending
  - o WB volcanic and sandstone appraisal continues
  - o Si Thep volcanic and sandstone appraisal to commence
  - o Several exploration prospects ready to drill
- ✓ Finished 2008 with production rate of 13,500 bond (gross to JV)
  - o Current sales around 5,400 bopd (net to Carnarvon)
- ✓ Revenue for December quarter A\$28.9 million(net to Carnarvon)
  - High margin oil production
- ✓ Cash in bank A\$71 million
  - o Nil debt and strong cashflow building a significant cash position
  - o Development, appraisal and exploration drilling fully funded
  - o Established a strong position to capitalise on growth opportunities

#### REVENUE AND PRODUCTION

Carnarvon achieved revenue for the December quarter of A\$28.9 million, with an average price of A\$67.55 per barrel.

Net oil production, sales and revenues for the past two quarters are as follows:

	Dec 08 quarter	Sept 08 quarter	Qtrly % Change	Comments
Net sales volumes – (bbls)	428,212	263,179	+ 63 %	Development drilling continues
Net sales revenue – (A\$ 000)	28,925	31,171	- 7 %	Decreased US\$ oil price
Average sale price achieved – (A\$/bbl)	67.55	118.44	-43 %	Decreased US\$ oil price; A\$ stable
Net average daily - (bopd)	4,654	2,860	+ 63 %	

At the end of 2008 Carnarvon's Thailand assets were producing at a rate of 13,446 bopd gross (5,378 bopd net to Carnarvon) which was below the year end 2008 target of 15,000 bopd gross (6,000 bopd net). The target was not met due mainly to a year end focus on wells targeting reserves additions rather than production, and NSE-D2ST1 intersecting a gas cap and requiring further drilling operations. The year end production rate of 5,378 bopd net to Carnarvon, represents an 83% increase over the production rate at the end of 2007.

# **Quarterly Production BOPD (Net)** 5000 4500 4000 3500 Net Oil Rate (BOPD) 3000 2500 2000 1500 500 Q4 07 Q1 08 Q2 08 Q3 08 ■SW1 ■L44/43

Figure 1: Carnarvon net quarterly production for Jan 2007 to Dec 2008

#### DEVELOPMENT AND APPRAISAL ACTIVITY

- Development of the NSE oil field continued through most of 4Q 2008, increasing average quarterly production from 2,800 bopd to 4,600 bopd net to Carnarvon.
- A total of nine development wells are now producing from the NSE Central lobe, with further production from several appraisal wells.
- A total of 22 well slots are ready for drilling, incorporating 5 development, 10 appraisal and several exploration wells.
- The development plan is targeting a production plateau from NSE of around 15,000 bopd from the 2P reserves base of 20.8 million bbls.
- Due to an end of year focus on appraisal and reserves replacement, the Joint Venture is now targeting gross production of 15,000 bopd for early 2Q 2009.
- A comprehensive geological study is nearing completion, with a 3D geological reservoir model being populated.
- A reservoir simulation model is being concurrently developed.
- The results from the geological and engineering studies will aid in defining reserves, recovery factor and the development plan and will assist in the optimum placement of further development and appraisal wells.

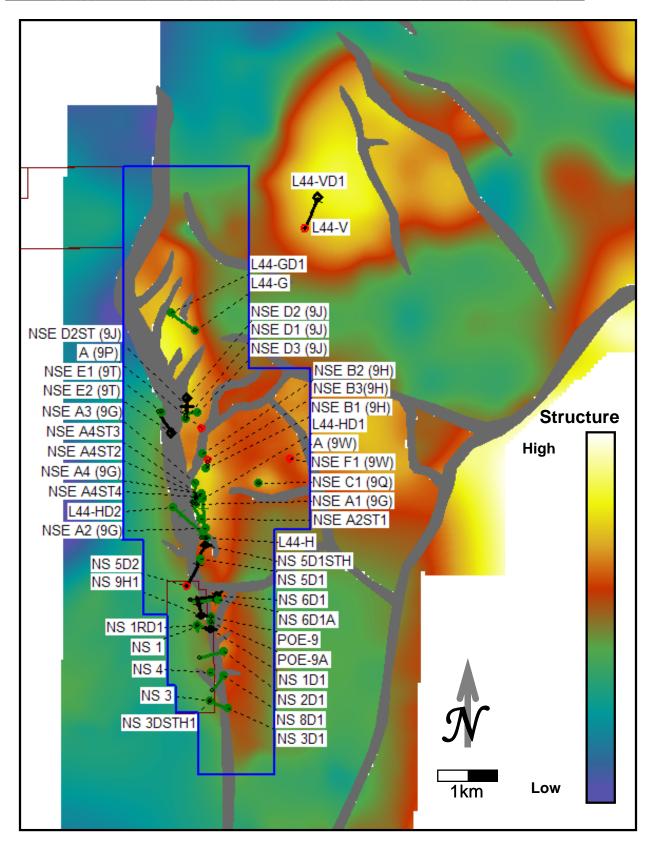


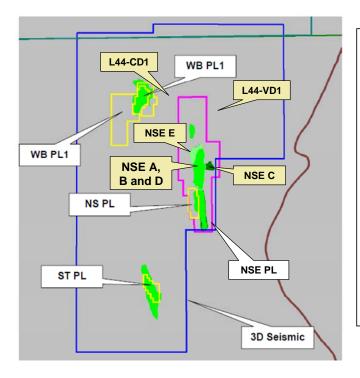
Figure 2: NSE oil field showing exploration, appraisal and development wells drilled to date

### DRILLING AND EXPLORATION

## (a) Wells drilled and/or completed during quarter:

Well Permit	Status
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NSE-A4 (development)	L44/43	Successfully tested at 830 bopd
NSE-B1(development)	L44/43	Successfully tested at 2,650 bopd
NSE-C1 (appraisal)	L44/43	Successfully tested at 575 bopd
NSE-D1 (development)	L44/43	Successfully tested at 710 bopd
NSE-D2 (development)	L44/43	Testing commenced in second sidetrack
NSE-D3 (development)	L44/43	Successfully tested at 1,130 bopd
NSE-E1 (appraisal)	L44/43	Successfully tested at 173 bopd
	L44/43	Main reservoir faulted out, second reservoir to be
NSE-E2 (appraisal)		tested
L44-VD1 (appraisal)	L44/43	Testing to commence post workover
L44-CD1 (appraisal)	L44/43	Sub-commercial discovery – requires appraisal



- Wichian Buri (WB PL1), Na Sanun (NS PL) and Si Thep (ST PL) Production Licenses all within SW1A
- Na Sanun East (NSE PL) Production License within L44/43
- No Production License within L33/43

Figure 3: Phetchabun Basin license location map (CVN 40%) showing indicative position of wells drilled.

- The NSE-A4 development well has been completed and tested at a rate of approximately 830 bopd after a number of operational difficulties related to the severity of the fracturing of the main volcanic reservoir. This resulted in the loss of over 64,000 barrels of drilling fluid into the reservoir while attempting to complete the well on three side tracks. In the final side track completion, the production liner was unable to be set through the reservoir section after encountering an obstruction above the reservoir interval. A drill bit was then attached to the end of the production tubing and drilled through to the top of the main reservoir. The resultant production rate is constrained given that oil is being produced through production tubing with a drill bit still attached to the end of the tubing.
- The **NSE-B1** development well has been drilled to a total depth of approximately 713 metres True Vertical Depth (TVD) at a subsurface location approximately 100 metres south of the NSE-B drilling pad, structurally located across a large fault at the ultimate crest of the NSE central fault compartment. Approximately 87 metres of total volcanic section was drilled. The well was tested at a stabilised rate of **2,650 bopd**.
- The NSE-C1 appraisal well, which is located 1,248 metre east of the NSE-B drill pad, encountered the top of the main volcanic objective at a depth of 775 metres TVD. Lost circulation was encountered within the main volcanic target with drilling fluid losses of approximately 1,900 barrels. The NSE-C1 appraisal well was tested at an initial rate of 575 bopd.
- **NSE-D1** is a vertical well located in the northern portion of the Central NSE oil field, approximately 900m north of the NSE-A drill pad. NSE-D1 was designed to extract a whole core sample from the reservoir before being converted to a development well. The NSE-D1 appraisal well has been completed and was tested at an initial rate of approximately **710 bopd**.
- The original **NSE-D2** appraisal well, located approximately 330 metres north of the NSE-D1 well, encountered the top of the main volcanic reservoir at a depth of 754 metres TVD. Approximately 34 metres of highly fractured volcanic reservoir was drilled with mud losses of approximately 1,200 barrels. The well was put on test, flowing mainly gas with some oil, suggesting close proximity to an interpreted gas/oil contact. A first side track (**NSED2ST1**) encountered the main volcanic reservoir approximately 30 metres structurally lower than in the original well bore and was therefore believed to be below the gas/oil contact. Severe drilling fluid losses were encountered indicating good fractured reservoir to be present. However, subsequent testing confirmed that the volcanic reservoir encountered at NSE-D2ST1 is also above the gas/oil contact. A second sidetrack, **NSE-D2ST2**, has now been completed, once again targeting a deeper oil leg in the reservoir below the gas/oil contact. Testing has commenced on the second sidetrack.
- The **NSE-D3** well was initially tested at rates of **1,130 bopd** via pumping through the tubing and free flowing through the casing. The NSE-D3 appraisal well was drilled into the main volcanic reservoir at a depth of approximately 823 metres TVD at a sub surface location approximately 315 metres northwest of the NSE-D1 location. A highly fractured volcanic reservoir section was encountered that resulted in over 6,000 barrels of drilling fluid and water losses. An 8 metre highly fractured oil stained core was cut through the main reservoir objective.

- The **NSE-E1** exploration well, located approximately 260 metres due west of the NSE-D1 drill pad, was tested at a rate of approximately **173 bopd** from the main volcanic reservoir target. Both oil gravity and pressure measurements confirm the well is located in a distinctly separate pool on the downthrown side, west of a large fault relative to the NSE field.
- The **NSE-E2** appraisal well was targeting potential volcanic reservoirs at a location approximately 365 metres south east of the NSE-E1 discovery well. The well failed to encounter the main volcanic objective due to the reservoir being faulted out at this location. However, the well encountered deeper, oil stained volcanic reservoir approximately 25 metres thick. Testing of this deeper zone has commenced.
- The **L44-VD1** appraisal well was drilled from a surface location approximately 1.3 kilometres south west of the Bo Rang-1 gas discovery. L44-VD1 is targeting a potential down dip oil leg within a volcanic reservoir that tested 5.5MMcfg/d at the structurally higher Bo Rang-1 well. The main volcanic objective was encountered at a TVD of approximately 720 metres and penetrated an approximately 55 metre thick volcanic section that had oil shows and very high mud gas spikes exhibiting good hydrocarbon shows. A shallower secondary volcanic objective was also encountered at a depth of approximately 500 metres TVD with mud losses while drilling of approximately 100 bbls in combination with a minor gas kick. Testing of the lower volcanic target had been attempted however significant fill of the wellbore was encountered preventing completion of the testing. Testing will recommence once a workover has been completed, scheduled for after the next well is completed.
- The **L44-CD1** vertical appraisal well was drilled to a depth of 1,210 metres through multizone objectives within the F and G sandstones, and a deeper fractured volcanic interval, at a location 1.15 kilometres north of the POE-6 oil discovery. Minor indications of oil and gas along with large quantities of water were observed from the uppermost interval of the deep volcanic zone. Several flow tests were carried out over the lower volcanic and main sandstones potential reservoirs, with encouraging shows and oil samples but failing to flow commercial volumes of hydrocarbons. The well has been suspended ahead of potential sidetrack drilling in early 2009 to chase the structure updip.

## (b) Status of near term exploration / appraisal / development programme (Q1 - Q2 2009)\*

Well	Permit	Well Type	Status
NSE Central	L44/43	Ongoing Development	Site construction complete
L44-R2	L44/43	Appraisal – L44-R Oil Discovery	Site construction complete
NSE-F1	L44/43	Appraisal – NSE Central "A"	Site construction complete
NSE-N1	L44/43	Appraisal - NSE North "A"	Construction commenced
NSE-L1	L44/43	Appraisal - NSE North "B"	Site construction complete
NSE South	L44/43	Infill Development Wells	Site construction complete
L44-W	L44/43	Appraisal/Exploration Bo Rang North	Site construction complete
Si Thep (Deep)	SW1A	Volcanic Exploration	Awaiting approvals
L44-K	L44/43	Si Thep SST Appraisal / Exploration	Location being finalised
L44-CD2	L44/43	Wichian Buri SST / Volcanic Appraisal	Site construction complete

- \* Final well numbers, locations and order of drilling subject to ongoing Joint Venture discussion.
- Two rigs are currently being used full-time and will likely continue through 2009. A smaller workover rig is also being utilised to minimise appraisal and development rig costs.
- Development drilling was interrupted at year end to concentrate on further exploration and / or appraisal wells targeting reserves additions.
- Development drilling will re-commence in the Na Sanun East oil field (NSE Central) in 1Q 2009 and continue until field management is satisfied a sustainable rate of around 15,000 bopd has been achieved from all wells within the Phetchabun licenses. A number of well sites are ready for drilling.
- The L44-R2 appraisal well will be evaluating the L44-R oil pool discovered in March 2008. The original L44-R well flowed on test at sub commercial rates of around 30 bopd. L44-R2 will be targeting potentially better developed reservoir section.
- NSE-F1, NSE-N1 and NSE-L1 are appraising contingent oil resources outside of current mapped closure of the NSE oil field. These wells have a high confidence of success due to the recent successes of NSE-E1 and NSE-C1.
- Further infill wells are being planned to fully develop the southern lobe of the NSE oil field.
- L44-C2 is a planned appraisal of the sandstones extending from the Wichian Buri field in the area of the POE-6 discovery well.
- L44-W is an appraisal/exploration well north-east of the Bo Rang gas field.
- Si Thep (Deep) is an appraisal of the volcanics below the producing Si Thep oil field. During drilling of the Si Thep-1 oil discovery well by the previous JV, severe losses were experienced in the volcanics however these were not tested and the well was completed in the sandstone reservoir at a shallower depth.

• L44-K is an appraisal of the sandstones surrounding the Si Thep producing reservoir. Si Thep-1 is producing at a nominal rate of around 10 bopd from a poorly developed sandstone that appears to improve away from the well as interpreted by modern 3D seismic technology. Several wells are planned in the vicinity of the production well.

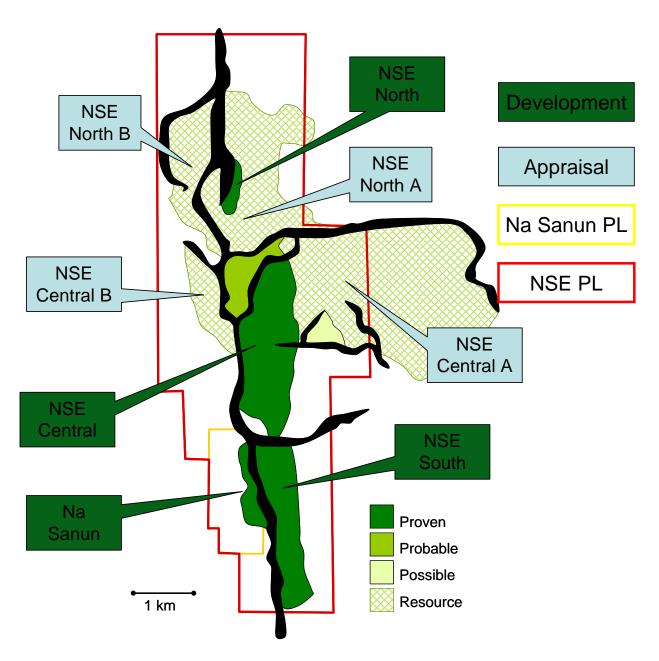


Figure 4: Indicative appraisal locations around NSE oil field.

#### EXPLORATION BLOCKS

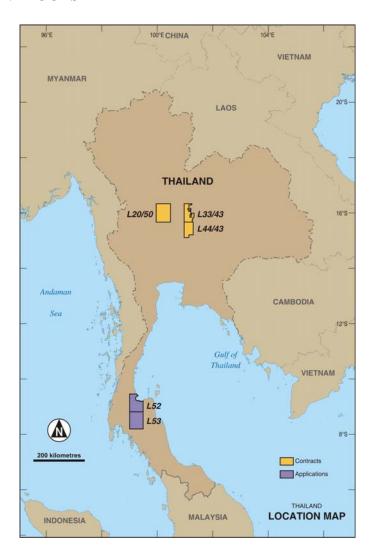


Figure 3: Thailand concessions – location map

## (a) L20/50 Concession - Thailand (Carnarvon Petroleum 50% and Operator / Sun Resources 50%)

The L20/50 concession is situated approximately 30 kms to the southeast and on trend with the largest onshore oil field in Thailand at Sirikit. Previous drilling has demonstrated that oil has been generated within the L20/50 concession.

Carnaryon has completed reprocessing available seismic data within the permit.

Interpretation and mapping of the existing 2D seismic data is currently underway. Mapping of several horizons has been completed and maps generated. New petrophysical analysis results from a well previously drilled in the permit is being incorporated into the seismic interpretation.

The initial results are very encouraging and a comprehensive 2D seismic survey is currently in planning for acquisition by mid year. An Environmental Impact Assessment (EIA) over the proposed seismic area has commenced.

# (b) L52/50 & L53/50 Concession Applications - Thailand

(Carnarvon Petroleum 50% / Pearl 50% and Operator)

The Company has applied to the Department of Mineral Fuels ("DMF") in Thailand for concession rights in petroleum exploration and production for two areas described as Blocks L52/50 and L53/50 ("the Concessions") onshore Thailand within the Surat-Khiensa Basin.

Pearl Oil (Petroleum) Ltd ("Pearl"), an independent oil and gas company with exploration and production activities focused exclusively in South East Asia, submitted the bid as operator on behalf of Pearl and Carnarvon, each company participating at a 50% equity level.

The combined area of the two blocks is large, comprising approximately 6,950 km2. However, both are lightly explored, with only two deep wells and limited seismic data available.

Carnarvon and Pearl were together the sole bidders for this block. The awarding of this, and other outstanding blocks in the 20<sup>th</sup> Thailand Bid Round, will be delayed further due to the recent change in government in Thailand. Carnarvon still anticipates the block being formally awarded in early 2009.

#### **NEW VENTURES**

Carnarvon maintains an active programme screening and evaluating growth opportunities predominantly in SE Asia where it can add value with its highly recognised technical strength. In particular, Carnarvon is looking at several opportunities in Thailand using its knowledge of the area and where it has tax advantages out of production from the Wichian Buri and Na Sanun oil fields.

#### **CORPORATE ACTIVITIES**

#### Cash balance

The consolidated cash balance at quarter end was A\$71.0 million, compared to A\$41 million at the end of the previous quarter, boosted by receipts from oil sales. The cash balance includes cash required to meet the anticipated remaining liabilities for the 2008 Petroleum Income Tax and the SRB, which will not be finalised until the December 2008 Reserves Statement has been completed.

Carnarvon's share of the planned March 2009 quarter production, exploration, evaluation and development expenditure is currently estimated at A\$6.75 million, primarily consisting of ongoing drilling and testing operations in Thailand. Ongoing field expenditure will be funded by sale proceeds from producing wells.

#### Top 20 Shareholders

An updated top 20 shareholders list as at 29 January 2009 is attached.

### **CARNARVON PETROLEUM LTD**

### **Top Holders**

Rank	Name	Units	% of Units
1.	J P MORGAN NOMINEES AUSTRALIA LIMITED	41,325,170	6.130
2.	NATIONAL NOMINEES LIMITED	34,428,815	5.110
3.	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	31,379,647	4.660
4.	MR EDWARD PATRICK JACOBSON	14,917,903	2.210
5.	ANZ NOMINEES LIMITED	11,517,771	1.710
6.	CITICORP NOMINEES PTY LIMITED	10,824,652	1.610
7.	ARNE INVESTMENTS PTY LTD	8,916,906	1.320
8.	MR PETER JAMES LEONHARDT	7,700,000	1.140
9.	MACQUARIE BANK LIMITED	7,199,379	1.070
10.	ATHOL STEEL PTY LTD	6,800,000	1.010
11.	ARNE INVESTMENTS PTY LTD	6,710,493	1.000
12.	PENDOMER INVESTMENTS PTY LTD	6,400,000	0.950
13.	MR EDWARD PATRICK JACOBSON	6,000,000	0.890
14.	MR GREGORY JOHN MUNYARD	5,950,000	0.880
15.	MACQUARIE BANK LIMITED	5,653,712	0.840
16.	CITICORP NOMINEES PTY LIMITED	5,271,720	0.780
17.	KAYMAC NOMINEES PTY LTD	4,939,372	0.730
18.	MR BRETT STEELE WILLIAMSON	4,900,000	0.730
19.	MR LAWRENCE ADDISON BROWN	4,589,681	0.680
20.	COGENT NOMINEES PTY LIMITED	4,326,886	0.640
Totals:	Top 20 Holders of ORDINARY SHARES (GROUPED)	229,752,107	34.104
Total R	Remaining Holders Balance	443,922,527	65.896