

## Fortnightly drilling report – Senex kicks off its 12 well unconventional gas program with Paning-2

Release Date: 5 December 2012

### Key points

- Senex Energy Limited (**Senex**) will begin its 12 well unconventional gas exploration program in the next week when Weatherford Rig 826 drills Paning-2 in northern Cooper Basin permit PEL 90.
- In the last fortnight, Senex cased and suspended the unconventional gas exploration well Kingston Rule-1 in PEL 115 ahead of fracture stimulation and production testing.
- Senex will re-enter the Hornet-1 gas exploration well, also in PEL 115, as part of a large scale fracture stimulation program in the southern Cooper Basin to test the quality and deliverability of its unconventional gas prospects.
- Senex is continuing its completion program for successful appraisal and development wells at Snatcher, Growler and Spitfire oil fields to bring on additional production in early 2013.
- The successful Mustang-1 oil exploration well produced at a constrained rate of over 2,400 barrels of oil per day (bopd) before being placed on extended production test.
- Data capture commenced on the 310 square kilometre Lignum 3D seismic survey to identify the next targets in PEL 104 and PEL 111 on the western flank oil fairway.
- Senex and its joint venture partners propose to undertake an extensive 3D seismic survey across Senex's northern Cooper Basin permits.

### UNCONVENTIONAL GAS EXPLORATION

Senex will commence its 12 well unconventional gas exploration program in the coming week when Weatherford Rig 826 arrives in northern Cooper Basin permit PEL 90 (Senex 100%) to drill the Paning-2 unconventional gas exploration well. The well is located 1.3 kilometres south west of Paning-1, a gas exploration well drilled by Delhi Petroleum in 1980, which exhibited numerous gas shows during drilling in the Toolachee, Epsilon, Patchawarra and Tirrawarra formations.

Paning is a very large structural and stratigraphic target in a proven hydrocarbon province. Paning-2 will assess the unconventional gas potential of the tight sands and coals of the Toolachee, Epsilon, Patchawarra and Tirrawarra formations, targeting a total depth of 3,175 metres.

In the last week, Senex completed drilling its fourth operated unconventional gas exploration well, Kingston Rule-1, on behalf of the PEL 115 joint venture (Senex 80% and Operator, Orca Energy Limited (Orca, ASX: OGY) 20%) in the southern Cooper Basin. Very high gas readings were recorded during drilling and coring, with a total of 53 metres of net gas pay recorded in the sands of the Epsilon and Patchawarra formations. The well also intersected 150 metres of shale in the Roseneath and Murteree shales and almost 20 metres of coal in the Patchawarra Formation. The well has now been cased and suspended ahead of fracture stimulation and production testing.

On the strength of successful exploration at Kingston Rule-1, Senex and Orca have agreed to re-enter the Hornet-1 exploration well as part of Senex's large scale hydraulic fracture stimulation program of its unconventional gas wells in the southern Cooper Basin. Hornet-1, which is located approximately 2.5 kilometres south of Kingston Rule-1 in PEL 115, flowed gas to surface when Victoria Petroleum drilled the well in 2004.

#### **OIL EXPLORATION, APPRAISAL AND DEVELOPMENT**

The successful Spitfire-2 exploration well in PEL 104 (Senex 60% and Operator; Beach Energy Limited (Beach) 40%) was cased and suspended after intersecting an interpreted net oil pay of 6.5 metres. The well is scheduled to be completed before Christmas and planning is underway for an initial production test at the oil field in the new year.

Senex's last exploration success, Mustang-1 in PEL 111 (Senex 60% and Operator; Beach 40%) successfully commenced extended production testing on 30 November 2012, following the construction of a facility designed for longer-term production. Following its return to production, the well produced through a 27/64<sup>th</sup> inch choke at a rate of more than 2,400 bopd before being further constrained to produce at a rate of approximately 800 bopd.

Following its release from Spitfire-2, Ensign Rig 48 was temporarily released to other operators. Senex will review the results of its drilling programs and new 3D seismic data, and confirm its next oil targets on the western flank before recommencing its oil drilling campaign in the new year.

Senex has now completed the successful Snatcher-8 development well at Snatcher oil field in PPL 240 as part of a program to accelerate the development of its oil fields on the western flank of the Cooper Basin. Before Christmas, Senex plans to complete the Growler-5 development well in PRL 15. After Christmas, the rig will return to the Snatcher oil field to complete the successful Snatcher-9 and Snatcher-10 appraisal wells. The three new wells at Snatcher are expected to contribute to Senex production in the March 2013 quarter.

Also on the western flank of the South Australia Cooper Basin, Senex commenced data capture on the 311 square kilometre Lignum 3D seismic survey of acreage within PEL 104 and PEL 111, adjacent to the successful Growler and Snatcher oil fields. The purpose of the survey is to cover areas that have not previously been surveyed and to further define areas covered in 2009 as part of the Mollichuta 3D seismic survey.

In Queensland Cooper Basin permit ATP 752P (Barta Block) (Senex 15%, Santos Limited 45% and Operator), the joint venture continued the data capture phase of a 224 square kilometre 3D seismic survey of the acreage north of the Cuisinier oil field. The survey aims to identify the next generation of oil targets for the joint venture in the Murta Formation, Birkhead Formation and Hutton Sandstones. Data capture is approximately 83% complete.

Senex and its joint venture partners propose to undertake an extensive 3D seismic survey of northern Cooper Basin. The Dundinna survey will cover more than one thousand square kilometres of the western flank oil fairway to identify oil and gas prospects. Work on the survey is expected to commence in the second quarter of 2013.

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Figure 1: Senex unconventional gas exploration activities

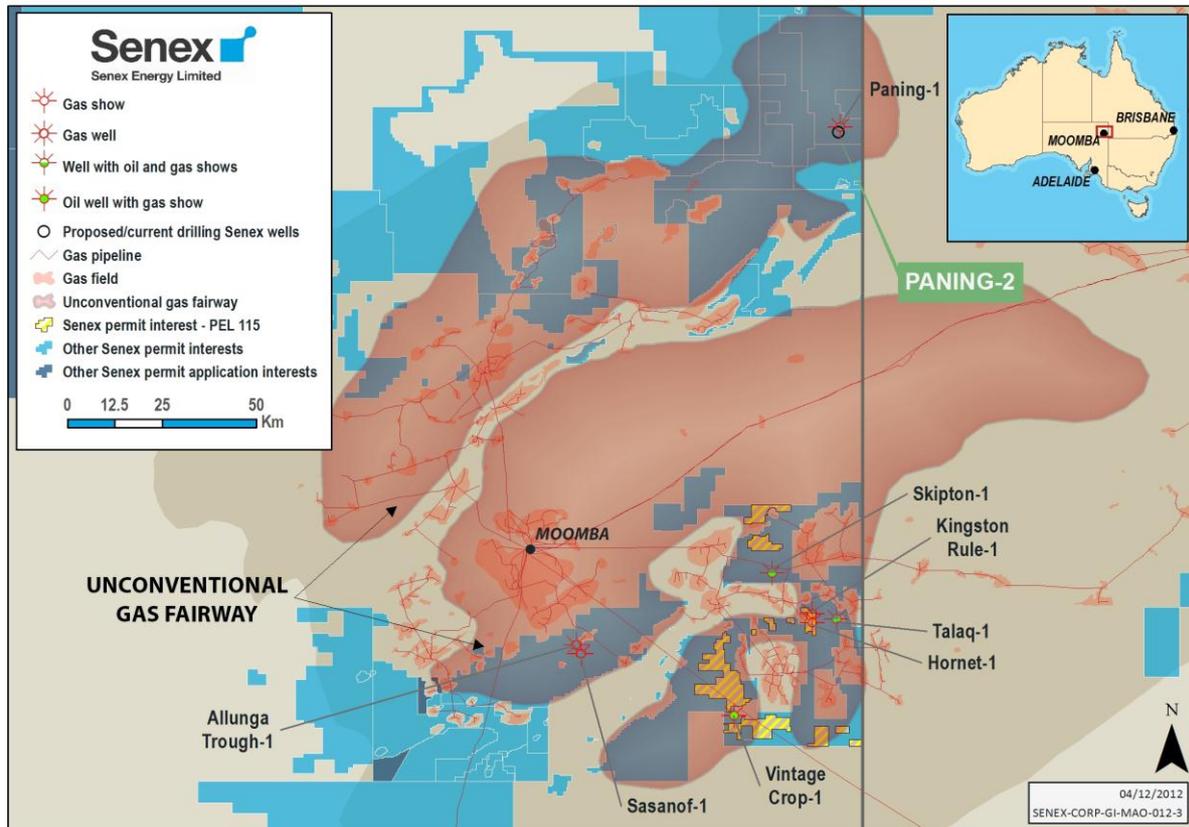


Figure 2: Senex conventional oil exploration, appraisal and development activities

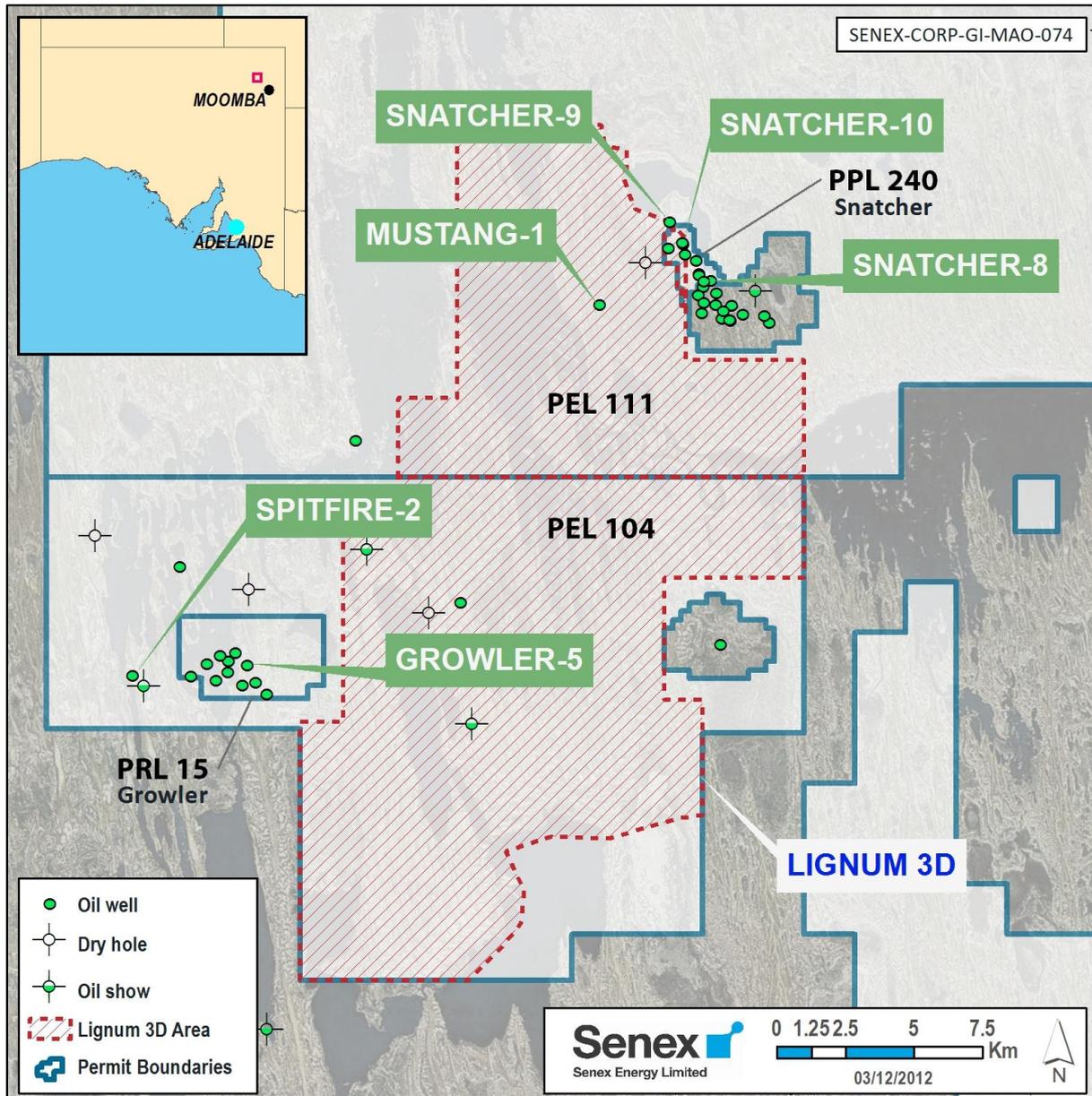
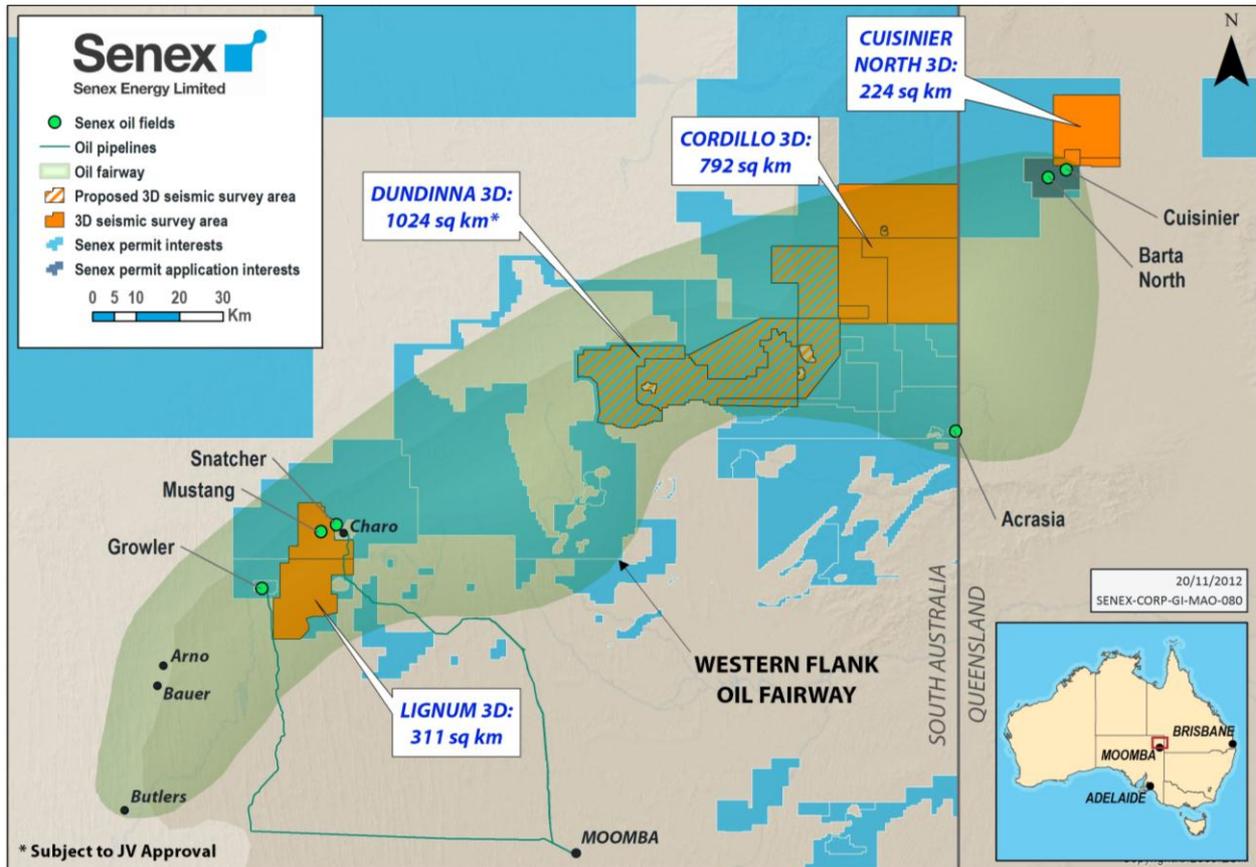


Figure 3: Current and proposed 3D seismic surveys on the western flank oil fairway



**Competent persons statement**

Unless otherwise indicated, the statements contained in this drilling report about Senex's reserves estimates have been compiled by Dr Steven Scott BSc (Hons), PhD, who is General Manager – Exploration, a full time employee of Senex, in accordance with the definitions and guidelines in the 2007 Petroleum Resources Management System approved by the Society of Petroleum Engineers (SPE PRMS). Dr Scott consents to the inclusion of the estimates in the form and context in which they appear. Senex's reserves and resources are consistent with the SPE PRMS.