



# Monthly drilling report – February 2014

Release Date: 5 March 2014

## **Key points**

- 22 wells drilled of more than 30 wells planned for FY14, with 20 cased and suspended for further testing and production
- Vintage Crop-4 appraisal well in PEL 516 to be cased and suspended as a future oil producer after intersecting 2.5 metres of net oil pay in the McKinlay Member
- Mirage-6 appraisal well in PPL 213 cased and suspended as a future oil producer after intersecting 11.6 metres of net oil pay in the Murta Formation
- Snatcher-11 appraisal well in PEL 104 cased and suspended by Senex after intersecting an oil-saturated interval in the Birkhead Formation
- Ensign Rig 48 drilling ahead on Worrior-10 appraisal well in PPL 207

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

Senex Energy Limited (Senex, ASX: SXY) continued its successful FY14 oil drilling campaign in February, with appraisal wells at Mirage, Snatcher and Vintage Crop oil fields to be cased and suspended for further testing and production. Since 1 July 2013, Senex and its joint venture partners have drilled 22 oil wells and 20 have been cased and suspended for future production and testing.

# Vintage Crop-4 appraisal well (PEL 516: Senex 100%)

The Vintage Crop-4 appraisal well will be cased and suspended as a future oil producer after intersecting approximately 2.5 metres of net oil pay in the McKinlay Member and approximately 8 metres of net oil pay in the Murta Formation.

EDA Rig 3 spudded the Vintage Crop-4 appraisal well on 21 February 2014 and reached total depth of 1,707 metres on 2 March. The well was drilled 500 metres west of Vintage Crop-1, primarily targeting the McKinlay Member oil accumulation. The Murta and Birkhead formations were secondary targets.

# **ASX Announcement**



### Mirage-6 appraisal well (PPL 213: Senex 100%)

Senex has cased and suspended the Mirage-6 appraisal well as a future Murta oil producer after the well intersected 11.6 metres of net oil pay in the sandstones of the Murta Formation.

EDA Rig 3 commenced drilling on the Mirage-6 appraisal well on 1 February 2014 and reached total depth of 1,458 metres on 5 February. The well was drilled approximately 850 metres south east of the Mirage-4 well to test the extent of the Mirage oilfield, which produces from the Murta Formation.

# Snatcher-11 appraisal well (PPL 240: Senex 60% and operator)

Ensign Rig 48 began drilling the Snatcher-11 appraisal well on 31 January 2014 and reached total depth of 1,869 metres. The well was designed to appraise the northerly extent of the Birkhead Formation channel approximately 430 metres to the north of Snatcher-9, which intersected 11.2 metres of net pay.

Senex has cased and suspended the Snatcher-11 appraisal well at its sole risk after an oil-saturated interval of approximately 4.5 metres was intersected in the Birkhead Formation. Pressure data indicates the sand is in pressure communication with other Snatcher production wells. However, net oil pay could not be confirmed by petrophysics.

As with the Growler-12 appraisal well, Senex will use Snatcher-11 to trial drilling and production enhancement techniques that have proven to deliver commercial production rates from similar reservoirs in North America and elsewhere.

#### Worrior-10 appraisal well (PPL 207: Senex 70% and operator)

Drilling on the Worrior-10 appraisal well commenced on 27 February 2014 to test the lateral extent of oil in the Patchawarra Formation, which was first discovered in the Worrior-8 well where the reservoir flowed oil at 670 barrels per day and gas at 0.7 million standard cubic feet per day during testing.

Worrior-10 is located to the west of the main Worrior oil field and approximately 40 metres north of the Pando-1 well. Ensign Rig 48 will drill Worrior-10 to a total depth of 1,790 metres. Core will be collected through the Patchawarra interval to provide data for reservoir modelling and correlation with wireline logs.

# **ASX Announcement**



#### FORWARD OIL DRILLING PROGRAM

In March 2014, EDA Rig 3 will continue appraisal drilling at the Vintage Crop oil field in the southern Cooper-Eromanga Basin and Ensign Rig 48 will commence drilling appraisal and development wells at the Spitfire oil field on the western flank.

Upcoming drilling targets include:

## Vintage Crop-5 appraisal well (PEL 516: Senex 100%)

Vintage Crop-5 will be drilled 550 metres south west of Vintage Crop-1. It will primarily target the McKinlay Member oil accumulation and additionally appraise the Birkhead Formation oil accumulation recently intersected in Vintage Crop-3, targeting total depth of approximately 1,720 metres. The well is expected to enhance field recovery and increase proved and probable reserves.

# Spitfire-3 appraisal well (PEL 104: Senex 60% and operator)

Spitfire-3 will be drilled as a deviated well to test the extent and quality of the mid-Birkhead reservoir encountered by the previous Spitfire wells approximately 830 metres north of the Spitfire-2 surface location. Spitfire-3 will also test the hydrocarbon potential of the Poolowanna Formation, which contained oil shows in Callabonna-1, south of PEL 104. Total depth is expected to be approximately 2,030 metres.

#### **Spitfire-5 development well** (PEL 104: Senex 60% and operator)

Spitfire-5 will be drilled 440 metres south east of Spitfire-2 and will act as an additional drainage point for oil in the mid-Birkhead reservoir encountered in previous Spitfire wells. Total depth is expected to be approximately 1,820 metres.

#### Spitfire-6 development well (PEL 104: Senex 60% and operator)

Spitfire-6 will be drilled approximately 450 metres north east of Spitfire-2 and will act as an additional drainage point for oil in the mid-Birkhead reservoir at the Spitfire oil field. Total depth is expected to be approximately 1,820 metres.

# **ASX Announcement**



## **DRILLING REGISTER**

Exploration, appraisal and development drilling undertaken in FY14 is shown below. The location of Senex oil fields is shown in Figure 1.

## Oil

Well	Location	Spud date	Type	Result*
Worrior-8	PPL 207	22-Jun-2013	Development	Up to 18 metres in the McKinlay, Namur,
				Birkhead and Patchawarra
Worrior-9	PPL 207	4-Jul-2013	Exploration	Plugged and abandoned
Burruna-2	PEL 115	6-Aug-2013	Exploration	5.3 metres of net pay in the Namur
				3,600 bopd during testing
Acrasia-7	PPL 203	24-Aug-2013	Development	7.1 metres of net pay in the Hutton,
				Poolowanna, Tinchoo and Arrabury
Ventura-2	PPL 214	28-Aug-2013	Development	13.4 metres of net pay in the Murta and
				McKinlay
Kobari-2	PEL 516	14-Sep-2013	Exploration	Oil shows over 22 metres
Pirie-1 <sup>1</sup>	PEL 105	30-Sep-2013	Exploration	Moderate oil shows in the Birkhead Formation
Dunlop-1	PEL 113	1-Oct-2013	Exploration	Approx 3 metres of net pay in the McKinlay
				1,200 bopd during drill stem testing
Moothandella-4 <sup>2</sup>	ATP 794P	5-Oct-2013	Appraisal	10 metres of net pay Murta, Namur and
				Westbourne
Sprigg-1	PEL 514	6-Oct-2013	Exploration	6.3 metres of net pay in the Murta
Pirraminta-2	PEL 514	22-Oct-2013	Exploration	Residual oil. Cased and suspended as a future water well
Burruna-3	PEL 115	8-Nov-2013	Appraisal	Interpreted net pay of approximately 3 metres in the lower Birkhead
Acrasia-6	PPL 203	14-Nov-2013	Appraisal	32.8 metres of net pay in the Hutton,
				Poolowanna and Tinchoo
Vintage Crop-3	PPL 241	24-Nov-2013	Appraisal	4.2 metres of net pay in the Murta and
				McKinlay
Growler-13	PPL 242	27-Dec-2013	Exploration	Oil-saturated interval intersected
Acrasia-8	PPL 203	30-Dec-2013	Development	29.8 metres of net pay in the Birkhead,
				Hutton, Poolowanna and Tinchoo
Mirage-5	PPL 213	04-Jan-2014	Appraisal	12.1 meters of net pay in the Murta
Spitfire-4	PEL 104	09-Jan-2014	Appraisal	13.8 metres of net pay in the Birkhead
Growler-12	PRL 15	17-Jan-2014	Appraisal	Intersected an oil saturated interval
Snatcher-11	PPL 240	31-Jan-2014	Appraisal	Approximately 4.5 metre oil-saturated interval intersected in the Birkhead





Well	Location	Spud date	Туре	Result*
Mirage-6	PPL 213	01-Feb-2014	Appraisal	11.6 metres of net pay in the Murta
Vintage Crop-4	PEL 516	21-Feb-2014	Appraisal	2.5 metres of net pay in the McKinlay
				8.0 metres of net pay in the Murta
Worrior-10	PPL 207	27-Feb-2014	Appraisal	Drilling ahead

<sup>\*</sup> Net pay figures represent the latest calculations and may differ from originally published numbers.

#### Gas

Well	Location	Spud date	Туре	Result
Paradise Downs-10 <sup>3</sup>	PL 171	13-Aug-2013	Appraisal	Cased and suspended
Kato-3 <sup>4</sup>	ATP 593P	13-Oct-2013	Exploration	Plugged and abandoned after testing
Kato-4 <sup>4</sup>	ATP 593P	27-Oct-2013	Exploration	Plugged and abandoned after testing
Indy-3 <sup>4</sup>	ATP 771P	22-Nov-2013	Exploration	Plugged and abandoned after testing
Indy-4 <sup>4</sup>	ATP 771P	9-Dec-2013	Exploration	Plugged and abandoned after testing

- 1 Operated by Tellus Resources
- 2 Operated by Bridgeport Energy

- 3 Operated by QGC
- 4 Core hole not designed for gas production

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# Competent person

Information about Senex's reserves and resources estimates have been compiled in accordance with the definitions and guidelines in the 2007 SPE PRMS. The information is based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr James Crowley BSc (Hons) who has consented to the inclusion of this information in the form and context in which it appears in this report. Mr Crowley is a qualified petroleum reserves and resources evaluator, a member of Society of Petroleum Engineers and full time employee of Senex.





QUEENSLAND Senex gas field SOUTH AUSTRALIA Senex oil field MOOMBA • Gas pipeline Oil pipeline Senex permit interests Senex permit application interests Cooper Basin Eromanga Basin WESTERN FLANK OIL FAIRWAY Acrasia Snatcher -**Sprigg** Mustang Spitfire Growler Pirie MOOMBA Hornet Worrior Harpoono Padulla **Fury** Derrilyn Toporoa Burruna Vintage Crop Mirage Dunlop **COOPER BASIN** Kobari **NEW SOUTH** Ventura WALES Senex SENEX-CORP-GI-MAO-070-3

Figure 1: Senex conventional oil fields (operated and non-operated)

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