

## SAMSON OIL & GAS OPERATIONAL ADVISORY

Denver 1700 hours Dec 15th, 2014, Perth 0700 hours Dec 16th, 2014



**SAMSON**  
OIL & GAS LIMITED

### TOTAL COMPANY PRODUCTION

Samson net production for 2014 is as follows:

	Q1	Q2	Q3	October	November
OIL, BO	29,408	50,553	35,576	6,016	17,619
GAS, MCF	48,518	50,928	46,710	12,086	9,363
BOE	37,494	59,041	43,361	8,030	19,180
BOEPD	416	656	481	260	639

The North Stockyard field saw an increase in production for November as wells were returned to production. We are expecting that the field will be largely "on stream" in January 2015 as the infill development comes to a close. In-field operations has necessitated, for safety and operational reasons, existing wells to be shut in whilst this activity was undertaken.

With the completion of Ironbank 6 expected later this week, Frontier 24 will be laid down and no further drilling in the field is contemplated in light of the recent slide in the oil price. We are however anticipating that the existing inventory of 3 wells will be fracked, and the 5 wells that have been fracked will require a clean out. This means that 8 wells will be brought on line in the near term.

### HEDGE BOOK

Samson has the following hedges in place:

Calendar year	Volume bbls.	Floor	Ceiling
2014	1,672	\$90.00	\$99.30
2015	18,270	\$85.00	\$89.85
2016	2,788	\$85.00	\$89.85
Calendar year	Volume bbls.	Average per month	Swap
2014	4,588	4,488	\$97.92
2015	39,791	3,316	\$92.61

As at December 15th, 2014 the book value of the hedge was \$2.4 million as valued by Samson's counterparty.

### NORTH STOCKYARD PROJECT, WILLIAMS COUNTY, NORTH DAKOTA

The infill development plan for North Stockyard consists of 8 middle Bakken wells that have been drilled and 22 Three Forks wells of which 9 have been drilled (8 in the First Bench and 1 in the Second Bench). Given the infill development curtailment there will remain an undrilled balance of 13 wells. For ease of reference, the current status of each well is set out below with separate tables for each drill pad:

TOFTE 1 PAD	Lateral length	Objective	Status	IP rate BOPD	Avg. Rate BOPD#	Cum to Date BO
Billabong 2-13-14HBK	6,147 ft.	Bakken	Frack scheduled for January	NA	NA	NA
Sail and Anchor 4-13-14HBK	6,375 ft.	Bakken	Shut in for frack program	1,323	SI	54,978
Blackdog 3-13-14 HBK	8,383 ft.	Bakken	Shut in for frack program	1,995	SI	109,878

[www.samsonoilandgas.com.au](http://www.samsonoilandgas.com.au)

#### Samson Oil & Gas USA

1331, 17<sup>th</sup> Street, Suite 710, Denver Colorado 80202 Tel + 1 303 295 0344 Fax + 1 303 295 1961

#### Samson Oil & Gas Limited

Level 16, AMP Building, 140 St Georges Terrace, Perth Western Australia 6000 / PO Box 7654, Cloisters Square Perth Western Australia 6850  
Tel + 61 8 9220 9830 Fax + 61 8 9220 9820 ABN 25 009 069 005 ASX Code SSN

	<b>Lateral length</b>	<b>Objective</b>	<b>Status</b>	<b>IP rate BOPD</b>	<b>Avg. Rate BOPD#</b>	<b>Cum to Date BO</b>
Tooheys 4-15-14HBK	6,740 ft.	Bakken	On production	1,078	340	62,805
Coopers 2-15-14HBK	6,360 ft.	Bakken	On Production	556	288	53,476
Little Creature 3-15-14HBK	7,578 ft.	Bakken	Shut in for frack program	501	SI	72,284

<b>MATILDA BAY PAD</b>	<b>Lateral length</b>	<b>Objective</b>	<b>Status</b>	<b>IP rate BOPD</b>	<b>Avg. Rate BOPD#</b>	<b>Cum to Date BO</b>
Matilda Bay 2-15-HBK	4,215 ft.	Bakken	On Production	1,117	110	29,159
Matilda Bay 1-15-HBK	4,215 ft.	Bakken	On Production	318	184	8,979

<b>TF NORTH PAD</b>	<b>Lateral length</b>	<b>Objective</b>	<b>Status</b>	<b>IP rate BOPD</b>	<b>Avg. Rate BOPD#</b>	<b>Cum to Date BO</b>
Bootleg 4-14-15TFH	7,211 ft.	Three Forks 1	On Production	NA	650	41,178
Bootleg 5-14-15TFH	7,495 ft.	Three Forks 1	On Production	NA	690	31,909
Ironbank 4-14-13TFH	7,466 ft.	Three Forks 1	Flowback commenced needs a CTU cleanout	NA	NA	NA
Ironbank 5-14-13TFH	7,495 ft.	Three Forks 1	Flowback commenced needs a CTU cleanout	NA	NA	NA

TF SOUTH PAD	Lateral length	Objective	Status	IP rate BOPD	Avg. Rate BOPD#	Cum to Date BO
Bootleg 6-14-15TFH	6,867 ft.	Three Forks 1	Frack completed	NA	NA	NA
Bootleg 7-14-15TFH	6,973 ft.	Three Forks 1	Frack completed	NA	NA	NA
Bootleg 8-14-15TFH	6,771 ft.	Three Forks 2	Frack completed	922	NA	922
Ironbank 6-14-13TFH	7,434 ft.	Three Forks 1	Drilling lateral at 18,464 ft.	NA	NA	NA
Ironbank 7-14-13TFH	7,458 ft.	Three Forks 1	Drilling completed	NA	NA	NA

#The Avg. Daily rate is an average of the last week's production or the average after the well was put back into production.

BO: Barrels of oil

BOE: Barrels of oil equivalent (gas converted at its heating value)

BOPD: Barrels of oil per day

MCF: Thousand cubic feet

BOEPD: Barrels of oil equivalent per day

NA: Not available

APD: Application for Permit to Drill

IP Rate: Gross first 24 hour oil rate

Current rate BOPD: Barrels of Oil per Day

Cum to Date: Cumulative gross BO

Samson's working interest and its net revenue interest for the North Stockyard Project is set out in the following table:

Well	Working interest	Net revenue Interest
Billabong 2-13-14HBK	28.77220%	22.01073%
Sail and Anchor 4-13-14HBK	25.028509%	19.146809%
Blackdog 3-13-14H	24.863526%	19.020597%
Tooheys 4-15-14HBK	28.232033%	21.597505%
Coopers 2-15-14HBK	28.232033%	21.597505%
Little Creature 3-15-14H	27.759719%	21.236185%
Matilda Bay 2-15-H	32.972255%	25.223775%
Matilda Bay 1-15-H	32.972255%	25.223775%
Bootleg 4-14-15TFH	28.386344%	21.715553%
Bootleg 5-14-15TFH	28.386344%	21.715553%
Ironbank 4-14-13TFH	26.746521%	20.461089%
Ironbank 7-14-13TFH	26.746521%	20.461089%
Bootleg 6-14-15TFH	28.386344%	21.715553%
Bootleg 7-14-15TFH	28.386330%	21.715553%
Bootleg 8-14-15H	28.386330%	21.715553%
Ironbank 6-14-13TFH	26.746521%	20.461089%
Ironbank 7-14-13TFH	26.746521%	20.461089%

**RAINBOW PROJECT, WILLIAMS COUNTY, NORTH DAKOTA**  
**Gladys 1-20H (SSN 23%)**

The Gladys 1-20 H well has been drilled by Continental Resources to a total depth of 19,994 feet. The well is a 1,280 acre lateral (approximately 10,000 feet) in the middle member of the Bakken Formation.

	Lateral length	Objective	Status	IP rate BOPD	Avg. Rate BOPD#	Cum to Date BO
Gladys 1-20H	9,558 ft.	Middle Bakken	flowing	717	270	30,781



**SAMSON**  
OIL & GAS LIMITED

## **HAWK SPRINGS PROJECT, GOSHEN COUNTY, WYOMING BLUFF 1-11 (SSN 25%)**

As previously reported the 9500 ft. sand was flow tested at 8 mmcfpd and then the well was shut-in for 10 day build-up using down hole gauges. Samson has a 25% interest in the Bluff well but owns a 52% of the entire Bluff prospect, the differential is due to Bluff being drilled with some partners who don't lease in the whole project.

### **Gas Analysis**

As expected the gas samples have returned a high concentration of nitrogen with some helium present and a small amount of hydrocarbons:

Element	Chemical mol. %
Nitrogen	97.58
Hydrocarbon	2.08
Helium	0.152
Carbon dioxide	0.17
Argon	0.012

### **Reservoir Pressure**

The buildup data has determined that the original reservoir pressure within the 9500 ft. sand is 3,459 psi. This data and that obtained from the water saturated 9500 ft. sand in the nearby SOA#2 well enables a column height calculation to be undertaken. The SOA#2 well provides an insight into the water gradient in the area and using that and the reservoir pressure in Bluff establishes a column height of approximately 1,400 feet, assuming that both the Bluff and SOA#2 are in the same hydraulic system. Whilst there are inherent inaccuracies in this calculation, the column height is consistent with the 1,400 feet of closure mapped within the stratigraphic trap, as determined by the amplitude anomaly.

### **Reservoir Parameters**

The 9500 ft. sand returned an impressive flow rate and the buildup data has established a permeability of 330 md or a total of 5.3 darcy feet for the completed interval.

### **Pressure Transient Analysis**

This analysis is complex and is still in a preliminary stage, but there are some early conclusions that can be reached:

- 1) There is an apparent fluid boundary within the total reservoir. The analysis can't distinguish between that fluid boundary being oil or water, but given the column height calculated from a different data set, it would be logical for this fluid boundary to be oil rather than water.
- 2) The total reservoir volume represents a gas in place (GIP) of 35 BCF if the entire container was gas filled. This compares well with the volumetrics calculated from the 3D derived map which returned a GIP of 37 BCF. It is recognized that in both of these calculations, the gas can be replaced by a quantity of oil depending on the establishment of the nitrogen/oil contact.
- 3) One solution in the transient analysis suggests that the gas reservoir has a volume of 5.3 BCF and accordingly the balance of the reservoir volume would be occupied by oil and would be estimated at 20 million barrels of oil in place. Typical recovery factors are around 25% and thus 5 million barrels might be recovered in this scenario.

[www.samsonoilandgas.com.au](http://www.samsonoilandgas.com.au)

#### **Samson Oil & Gas USA**

1331, 17<sup>th</sup> Street, Suite 710, Denver Colorado 80202 Tel + 1 303 295 0344 Fax + 1 303 295 1961

#### **Samson Oil & Gas Limited**

Level 16, AMP Building, 140 St Georges Terrace, Perth Western Australia 6000 / PO Box 7654, Cloisters Square Perth Western Australia 6850  
Tel + 61 8 9220 9830 Fax + 61 8 9220 9820 ABN 25 009 069 005 ASX Code SSN



It should be emphasized that the discussion above represents our current understanding and should not be construed as an opinion as to a reserve estimate. This will come in due course, and will require the drilling of a down dip appraisal well to prove reservoir continuity and fluid content.

### **Forward Program**

The data gathered thus far from the Bluff flow test has been very encouraging and we are pursuing several avenues to establish an investment case for down dip appraisal well:

- 1) Isotope analysis of the gas samples: this analysis will deliver an understanding as to the source of the gas, principally if it is inorganic or organic. The presence of hydrocarbons would suggest an organic source, however confirmation of this will allow the presence of an oil column to be theoretically possible.
- 2) Seismic attribute processing: the 3D seismic data is now able to be fine-tuned with the knowledge of the contained fluids at the Bluff and SOA#2 wells. This reprocessing may enhance the ability of the 3D data to distinguish between gas and a fluid, which in turn would lead to a better choice of a step-out location.
- 3) In the event that the entire Bluff prospect is filled with nitrogen it is possible that this gas can be commercialized. Very preliminary discussions with an industrial gas company would suggest that there is a market for this gas in the oil field service sector where it is used as a frack and cleanout fluid. Whilst liquid nitrogen is typically manufactured from the atmosphere this process requires the gas to be compressed from an atmospheric pressure of 14.7 psi and that process accounts for about 50% of the cost which would largely be avoided using the Bluff well head pressure. We understand that liquid nitrogen supplied to the energy sector is priced at around \$20 per mcf. This final product pricing would suggest that there is a significant margin available for field produced nitrogen.
- 4) In the event that a cryogenic plant to produce liquefied nitrogen is economically feasible then that process would enable the small amount of helium to be extracted as adjunct to that process. We understand helium has a current market value of around \$185 per mcf.

Samson's Ordinary Shares are traded on the Australian Securities Exchange under the symbol "SSN". Samson's American Depository Shares (ADSs) are traded on the New York Stock Exchange MKT under the symbol "SSN". Each ADS represents 20 fully paid Ordinary Shares of Samson. Samson has a total of 2,837 million ordinary shares issued and outstanding (including 230 million options exercisable at AUD 3.8 cents), which would be the equivalent of 141.85 million ADSs. Accordingly, based on the NYSE MKT closing price of US\$0.20 per ADS on December 15<sup>th</sup>, 2014, the Company has a current market capitalization of approximately US\$27.7 million (the options have been valued at an exchange rate of 0.8236). Correspondingly, based on the ASX closing price of A\$0.012 for ordinary shares and a closing price of A\$0.005 for the 2017 options, on December 15<sup>th</sup>, 2014, the Company has a current market capitalization of approximately A\$34.9 million.

### **SAMSON OIL & GAS LIMITED**

**TERRY BARR**  
Managing Director

For further information please contact,  
Terry Barr, CEO on  
303 296 3994 (US office) or 970 389  
5047 (US cell)

[www.samsonoilandgas.com.au](http://www.samsonoilandgas.com.au)

#### **Samson Oil & Gas USA**

1331, 17<sup>th</sup> Street, Suite 710, Denver Colorado 80202 Tel + 1 303 295 0344 Fax + 1 303 295 1961

#### **Samson Oil & Gas Limited**

Level 16, AMP Building, 140 St Georges Terrace, Perth Western Australia 6000 / PO Box 7654, Cloisters Square Perth Western Australia 6850  
Tel + 61 8 9220 9830 Fax + 61 8 9220 9820 ABN 25 009 069 005 ASX Code SSN



Statements made in this press release that are not historical facts may be forward looking statements, including but not limited to statements using words like “may”, “believe”, “expect”, “anticipate”, “should” or “will.” Actual results may differ materially from those projected in any forward-looking statement. There are a number of important factors that could cause actual results to differ materially from those anticipated or estimated by any forward looking information, including uncertainties inherent in estimating the methods, timing and results of exploration activities. A description of the risks and uncertainties that are generally attendant to Samson and its industry, as well as other factors that could affect Samson’s financial results, are included in the prospectus and prospectus supplement for its recent Rights Offering as well as the Company’s report to the U.S. Securities and Exchange Commission on Form 10-K, which are available at [www.sec.gov/edgar/searchedgar/webusers.htm](http://www.sec.gov/edgar/searchedgar/webusers.htm).

**Samson Oil & Gas USA**

1331, 17<sup>th</sup> Street, Suite 710, Denver Colorado 80202 Tel + 1 303 295 0344 Fax + 1 303 295 1961

**Samson Oil & Gas Limited**

Level 16, AMP Building, 140 St Georges Terrace, Perth Western Australia 6000 / PO Box 7654, Cloisters Square Perth Western Australia 6850  
Tel + 61 8 9220 9830 Fax + 61 8 9220 9820 ABN 25 009 069 005 ASX Code SSN