



## QUARTERLY REPORT

*for the period ended 31 December 2010*

### HIGHLIGHTS

#### FINANCIAL

- A 54% increase in oil production in the quarter as a result of the commencement of production from the Bakken formation in Samson's Gary #1-24H well in the North Stockyard Field, North Dakota
- Cash receipts for the quarter from sales were A\$2.0million, compared to the prior quarter of A\$1.6 million. The increase in cash receipts is largely associated with the production from Samson's Gary well in North Stockyard Field.
- Samson has recorded a closing cash balance for the quarter of A\$68 million after recording pre payments for field operations of A\$1,806,750.
- Samson received a final payment US\$5.6 million in relation to its sale of approximately 60% of its leasehold in Goshen County, Wyoming.
- During the quarter the debt facility was reduced by A\$0.6 million (current balance is US\$10.1 million) and the cash resources available will enable the Company to be debt free when the debt facility matures in May 2011.

#### OPERATIONAL

- Samson is seeking to independently secure a frac crew which will frac the Bakken formation in both the Rodney #1-14H and Earl #1-13H wells in early February. These wells are in the North Stockyard Field, North Dakota.
- Samson's average net production from the North Stockyard Field for the quarter was 212 BOEPD. This includes production from both the Bakken and Bluell Formations and was higher than the previous quarter due to more production days for the Gene and Gary wells.
- The Gary #1-24H well, has performed better than the Gene well at the same point in time. This is due to advances in completion technology and should be reflected in future fracture stimulations.
- The drilling of the Diamondback prospect in Jefferson County, Texas has been delayed due to title issues. Samson is in the process of curing these issues and intends to spud the well by June 2011.
- Samson has completed the acquisition of its 63 square mile North Platte 3-D seismic survey in Goshen County, WY, Samson's Hawk Springs project. The survey was designed to map subsurface faulting and fracture lineaments of particular relevance to the Cretaceous Niobara tight oil play in addition to aiding in the delineation of proven more conventional plays such as the J channel sands. Interpretation of the 3-D data has begun on a Brute (preliminary) Post-Stack Migration processing volume. A final Post-Stack Migration processing volume should be completed by the end of January and a Pre-Stack Time Migration volume should be completed by mid-February. Reservoir characterization products should be available by late-March or early-April. Samson, Mountain Energy, and Halliburton have executed a Participation Agreement that covers 11,277 acres within Samson's 63 square mile North Platte 3-D seismic survey. Under the terms of the agreement, Samson and Mountain Energy will be free-carried through the drilling of two 4,500 foot horizontal wells and will also be reimbursed for the

costs incurred in the acquisition and processing of the North Platte 3-D seismic data over 24 square miles.

- Also within our Hawk Springs project, we are in the final stages of securing a source of water for drilling and completion operations. Water, which is vital to the overall operation, has been a topic of intense discussion on local, state and national levels. We will continue to secure additional sources to ensure supply and reduce the cost.
- The rental of twenty-five acres of non-agricultural ground is also under negotiation to use as a storage and staging area for equipment, supplies, and vehicles.

## **DRILLING PROGRAMME 2011**

### **North Dakota – Williston Basin – North Stockyard Project (Williams County) – Mississippian Bakken oil *Samson 31% Average Working Interest in 6 sections***

Samson is pursuing an infill Bakken program, which would see an additional four development wells drilled within the field. In addition Samson is looking to drill an appraisal well to evaluate the production performance of the Three Forks Formation.

### **Wyoming - Northern D-J Basin Hawk Springs Project (Goshen County) – Cretaceous Niobrara oil**

Samson has two contiguous areas in the Hawk Springs Project. One is a joint venture with a private company and is subject to the Halliburton Joint Venture. Prior to the Halliburton completion of their earn in program, Samson has a 58.4% Working Interest in 11,277 acres. The second area consists of 9,941 acres which is held 100% by Samson.

The recently acquired 3D seismic data is currently being interpreted and processed to evaluate both conventional targets and the unconventional Niobrara Formation. The initial interpretation has been completed and an attractive J-Sand prospect has been mapped which is in the process of being evaluated for drilling in the March quarter.

The initial Niobrara drilling is being scheduled towards the end of the March quarter following the receipt of the processing products that will be used to identify natural fractures.

### **New Mexico – Western Permian Basin (Lea County) – State GC Oil and Gas Field**

#### ***Samson 27% Working Interest***

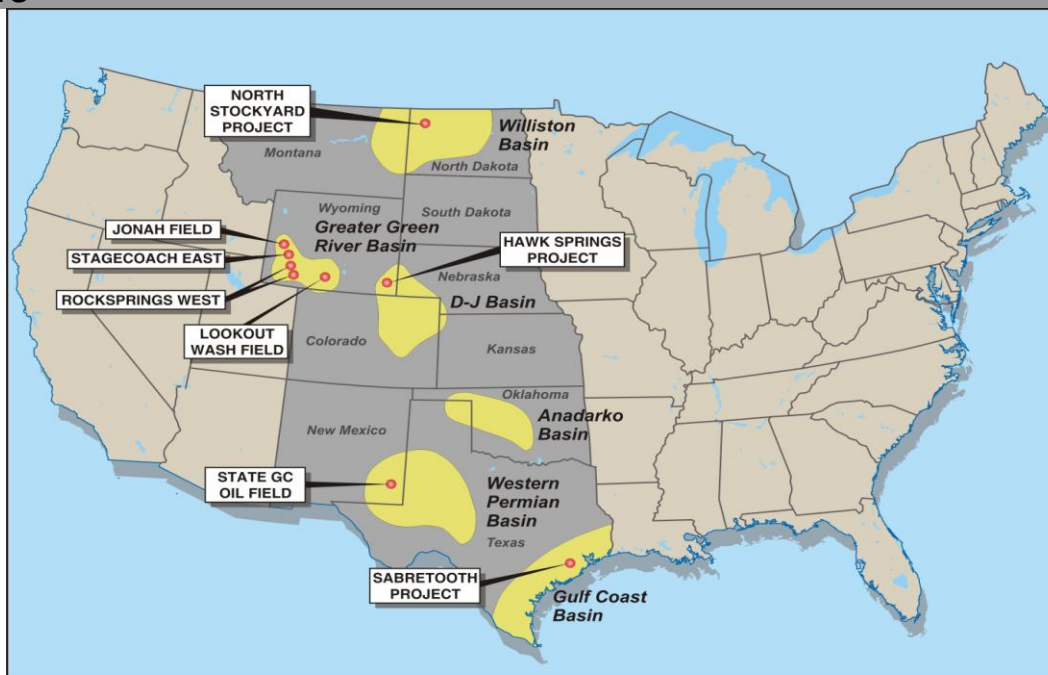
The Permian Bone Spring Formation in State GC#2 well will be fracture-stimulated as soon as a frac crew becomes available to the operator.

### **Texas – Onshore Gulf Coast Basin**

#### ***Samson 100% Working Interest***

Samson is anticipating drilling the Diamondback prospect by June 2011.

## PROJECTS



PROJECT LOCATION MAP

### TEXAS – ONSHORE GULF COAST BASIN

#### Sabretooth Project

##### *Samson 12.5% Working Interest*

The Davis Bintliff #1 well's production increased to 3.9 MMcf/D and 48.4 BOPD for the quarter. Cumulative production to date is approximately 2.57 Bcf and 31,526 STB.

#### Diamondback Prospect

##### *Samson 100% Working Interest*

The Diamondback #1 well is scheduled to spud by June 2011. The well will be located in Jefferson County, Texas approximately 9.5 miles south of the town of Fannett. The well has been permitted to a depth of 8,900 feet to test a bright spot anomaly in the prolific Oligocene Marginulina Frio sand.

### NORTH DAKOTA –WILLISTON BASIN

#### North Stockyard Project

##### *Samson various Working Interests*

Samson has four producing wells and two wells waiting fracture stimulation treatment of the Bakken formation in this project: These wells are located in Williams County, North Dakota, in Township 154 N Range 99 W.

1. The Harstad #1-15H well (34.5% working interest) averaged 10.5 BOPD net (40 BOPD and 3 Mscf/d gross) for the quarter from the Mississippian Bluell Formation. The well has performed as expected.
2. The Leonard #1-23H well (10% working interest, 37.5% after non-consent penalty) averaged 10.5 BOPD net (61 BOPD gross and no gas reported) during the quarter. This well was drilled as a horizontal lateral into the highly productive middle member of the Bakken Formation in Williams County, North Dakota. To date, the Leonard #1-23H well has produced gross volumes of approximately 73 MSTB and 78 MMcf.
3. The Gene #1-22H well (30.6% working interest) was completed as a 5,500 foot horizontal well in the middle Bakken Formation. The Gene well averaged 38.6 BOPD (164.5 BOPD and 252 Mscf/d

Gross) during the quarter. To date, the Gene #1-22H well has produced gross volumes of approximately 74 MSTB and 92 MMcf.

4. The Gary #1-24H (37% working interest) was completed in September using 20 frac stages. The well has averaged 117.9 BOPD net (416 BOPD and 634 Mcf/D gross) during the quarter; and has averaged 30 BOPD more than the Gene well over the first 100 days of production. To date, the Gary well has produced gross volumes of approximately 45.8 MSTB and 66.9 MMcf.
5. The Rodney #1-14H (27% working interest) was drilled in August and is currently waiting on a frac crew.
6. Earl #1-13H (32% working interest) well was drilled in October and is currently waiting on a frac crew.
7. The Harstad #2-15H well will be the sixth Bakken well in our acreage and will be the next well in the North Stockyard Field in which Samson has an interest. A spud date has not been set.

Samson's net average daily (after royalties) production rate for the quarter is set out below:

Well	Net Mcf/D	Net BOPD	Net BOEPD
Harstad #1-15H	1	10.5	10.7
Leonard #1-23H	0	4.7	4.7
Gene #1-22H	59	38.6	48.4
Gary #1-24H	179	117.9	147.8
<b>Total</b>	<b>239.4</b>	<b>171.6</b>	<b>211.5</b>

## NEW MEXICO - WESTERN PERMIAN BASIN

### State GC Oil and Gas Field

#### *Samson 27% Working Interest*

The State GC oil and gas field is located in Lea County, New Mexico, and includes two producing wells, which produced at an average gross rate of 50.7 BOPD and 88.2 Mcf/D. This rate is expected to be increased after the Permian Bone Spring Formation interval in the State GC#2 well is fracture stimulated in the first quarter of the 2011 calendar year.

## WYOMING- GREATER GREEN RIVER BASIN

Samson has continued discussions with view to the divestiture of its gas assets, including its interest in the Jonah and Lookout Wash fields. This sale will be concluded by 30 June 2010.

### Lookout Wash Field

#### *Samson 18.2% Working Interest*

The Lookout Wash Field is currently producing from 20 wells and is located in the Washakie Basin, which is also part of the Greater Green River Basin. This field produces principally from a stratigraphic trap of the Cretaceous Almond Bar sandstone. Geologic mapping has suggested that this unit can be developed further as a thick porous reservoir extends to the north of the existing well development. Eight new probable well locations have been determined as a result of this new mapping; however only four are carried on the Ryder Scott reserves report.

Average production during this quarter was down slightly from last quarter at a gross rate of 3.6 MMcf/D.

### Jonah Field

#### *Samson 21% Working Interest in 240 acres*

The Jonah Field is located in the northern part of the Green River Basin and is one of the largest discoveries in recent decades in continental USA and has produced in excess of 1.0 trillion cubic feet of gas since production commenced in 1992. Development of this field has resulted from the application of advanced fracture stimulation techniques. The field has undergone several iterations of development with some

sections of the field currently being developed on a 10 acre well spacing. The current well spacing is around 20 acres.

The field produces from a series of stacked reservoirs within the Cretaceous Mesaverde and Lance Formations. The field is trapped between two faults forming a wedge shaped field.

Average production from the field during this quarter was at a gross rate of 2.1 MMcf/D. The rate is declining in line with the reserve production forecast.

## WYOMING DENVER-JULESBURG (D-J) BASIN

Samson has completed the acquisition of its 63 square mile 3-D seismic survey in Goshen County, Wyoming and is now in the process of interpreting some of the preliminary processed data. Final processing products will follow which will give Samson a more detailed picture of the subsurface beneath the 16,000 net acres it has under lease. The purpose of shooting the 3-D survey is to allow Samson to image and map fracture swarms within the Cretaceous Niobrara Formation so that proper well path trajectories are designed and drilled. A well trajectory perpendicular to fracturing will produce more hydrocarbons than a well trajectory parallel to the fracturing. The 3-D seismic survey will also help identify conventional-type prospects in the Cretaceous Codell, Muddy, and Dakota sands.

Samson has also entered into a joint-venture partnership with Mountain Energy and Halliburton Energy Services, Inc. in a portion of its Goshen County project. Under the terms of the agreement Samson and Mountain Energy will be free carried through the drilling of two 4,500 foot horizontal wells and will be reimbursed for the cost incurred in the North Platte 3D seismic over an area of 24 square miles. Halliburton will acquire 25% equity in the farmin area. The transaction has been structured such that the acquisition cost is at a rate of \$3,275 per acre. Halliburton has the right to not drill the second farmin well, but the acquired acreage would be reduced prorate.

The Halliburton farmin area consists of a gross area of 11,277 acres of which Samson currently owns 6,589 net acres. Subsequent to the completion of both wells Samson's acreage holding inside the Halliburton area will be reduced to 4,941 acres (or 25%), however Samson's total holding in the Project will be 14,353 acres, (compared to approximately 16,000 acres currently held). Samson will remain Operator; however Halliburton as part of the Agreement will be providing project management services along with regular oil field services to effect the drilling, completion and fracture stimulation of the wells drilled.

## PRODUCTION

September quarterly net production and estimated net revenue was lower during the quarter due to operational downtime of the Harstad #1-15H and delayed timing of the remaining Bakken wells to come on line. The Gary #1-24H came online on September 23rd, 2010 and the increase in oil production from this well is projected in the following quarter:

	<b>GAS Mcf</b>	<b>GAS A\$</b>	<b>OIL Bbls</b>	<b>OIL A\$</b>	<b>TOTAL A\$</b>
September Quarter *	166,542	706,145	12,222	900,423	1,606,568
December Quarter**	173,082	809,494	18,916	1,384,130	2,193,624

In some cases revenue is yet to be received and is therefore an estimate

\*Average Exchange Rate for Sept Qtr A\$: US\$ 0.90

\*\* Average Exchange Rate for Dec Qtr A\$: US\$ 0.99

Average commodity prices:

	<b>GAS US\$/Mcf</b>	<b>OIL US\$/Bbl</b>
September 2010 Quarter	\$3.82	\$66.30
December 2010 Quarter	\$4.63	\$72.44

## FINANCIAL

### Treasury management

Given that Samson business is conducted in the US the Directors determined that the company's cash balance should be maintained largely in that currency. In order to diversify the deposit risk a treasury management policy was adopted such that the cash was distributed as follows:

Bank of the West (Samson's trading bank)*	US\$9,256,402
Bank of New York Mellon*	US\$30,000,000
US Treasury's*	US\$15,000,000
National Australia Bank*	US\$10,000,000
National Australia Bank	A\$5,453,961

\*Elsewhere in this document, US\$ denominated cash balances have been translated to A\$ at the exchange rate on 31 December 2010 of 1.0163 (A\$:US\$).

### Hedges

#### Current hedging profile

The following hedges were in place during the quarter. A\$59,000 was received from Macquarie Bank Limited, as counterparty to the hedges as a result of the CIG and Henry Hub gas prices falling below the put value.

The mark to market value of all of the hedges at the end of the quarter was positive US\$73,620.

#### Oil – Ratio Collar priced at West Texas Intermediate

Date	Call/Put	Volume – barrels	Price – \$ per Barrel
Dec 2009 – Dec 2011	Put	21,431	60.00
Dec 2009 – Dec 2011	Call	21,431	102.90

#### Natural Gas – Ratio Collar priced at Henry Hub

Date	Call/Put	Volume – mmbtu	Price – \$ per MCF
Dec 2009 – Dec 2011	Put	125,149	4.75
Dec 2009 – Dec 2011	Call	125,149	6.15

#### Natural Gas – Ratio Collar priced at Colorado Interstate Gas

Date	Call/Put	Volume – mmbtu	Price – \$ per MCF
Dec 2009 – Dec 2011	Put	440,884	4.25
Dec 2009 – Dec 2011	Call	440,884	5.80

### Loan Facility


During the quarter, the Company repaid US\$600,000 of its outstanding debt facility.

Date	US\$ Balance	Spot Rate (A\$:US\$)	A\$ Equivalent
30 September 2010	10,786,248	0.9667	11,157,802
31 December 2010	10,186,248	1.0163	10,352,283

The Company's cash at 31 December 2010 were as follows:

Cash at bank and on deposit	A\$ ('000's)
	: 68,680
	: _____

For and on behalf of the Board of  
**SAMSON OIL & GAS LIMITED**



**TERRY BARR**  
Managing Director

31 January 2011

**For further information please contact  
Denis Rakich, Company Secretary, on 08 9220 9882**

*Information contained in this report relating to hydrocarbon reserves was compiled by the Managing Director of Samson Oil & Gas Ltd., T M Barr a Geologist who holds an Associateship in Applied Geology and is a fellow of the Australian Institute of Mining and Metallurgy who has 30 years relevant experience in the oil & gas industry.*

## Appendix 5B

*Mining exploration entity quarterly report*

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001, 01/06/10.

Name of entity

SAMSON OIL & GAS LIMITED

ABN

25 009 069 005

Quarter ended ("current quarter")

31 December 2010

### Consolidated statement of cash flows

<b>Cash flows related to operating activities</b>		Current quarter \$A'000	Year to date (sixmonths) \$A'000
1.1	Receipts from product sales and related debtors	2,036	3,697
1.2	Payments for (a) exploration & evaluation (b) development (c) production (d) administration	(4,252) - (552) (1,635)	(5,016) (4,522) (1,003) (2,933)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	100	138
1.5	Interest and other costs of finance paid	(248)	(526)
1.6	Income taxes paid	(4,745)	(4,745)
1.7	Other (provide details if material) Cash received from fixed forward gas swap	59	125
<b>Net Operating Cash Flows</b>		<b>(9,237)</b>	<b>(14,785)</b>
<b>Cash flows related to investing activities</b>			
1.8	Payment for purchases of: (a) prospects (b) equity investments (c) other fixed assets	- - -	- - -
1.9	Proceeds from sale of: (a) prospects (b) equity investments (c) other fixed assets	5,712 - -	80,930 52 -
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	-	-
<b>Net investing cash flows</b>		<b>5,712</b>	<b>80,982</b>
1.13	Total operating and investing cash flows (carried forward)	(3,525)	66,197



1.13	Total operating and investing cash flows (brought forward)	(3,525)	66,197
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	5	3,333
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	(607)	(1,270)
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	(10)	(277)
<b>Net financing cash flows</b>		(612)	1,786
<b>Net increase (decrease) in cash held</b>		(4,137)	67,983
1.20	Cash at beginning of quarter/year to date	76,160	6,906
1.21	Exchange rate adjustments to item 1.20	(3,343)	(6,209)
1.22	<b>Cash at end of quarter</b>	68,680	68,680

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	379
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Monies paid to directors for salary and fees

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

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2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

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Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	10,352	10,352
3.2 Credit standby arrangements	-	-

**Estimated cash outflows for next quarter**

	\$A'000
4.1 Exploration and evaluation	3,800
4.2 Development	3,400
4.3 Production	373
4.4 Administration	865
<b>Total</b>	<b>8,438</b>

*Reconciliation of cash*

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	1,846	70,497
5.2 Deposits at call	66,834	5,663
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>	<b>68,680</b>	<b>76,160</b>

**Changes in interests in mining tenements**

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements acquired or increased			

**Issued and quoted securities at end of current quarter**

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference</b>				
<b>+securities</b>				
(description)				
7.2 Changes during quarter				
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	1,664,588,164	1,664,588,164		
7.4 Changes during quarter	658,572	658,572		
(a) Increases through issues				
(b) Decreases through returns of capital, buy-backs				
7.5 <b>+Convertible debt securities</b>				
(description)				
7.6 Changes during quarter				
(a) Increases through issues				
(b) Decreases through securities matured, converted				
7.7 <b>Options</b>			<i>Exercise price</i>	<i>Expiry date</i>
(description and conversion factor)	6,500,000	-	45c	31.05.2011
	5,379,077	-	30c	10.10.2012
	2,000,000	-	25c	11.05.2013
	331,422,633	-	1.5c	31.12.2012
	1,000,000	-	20c	20.11.2013
	29,000,000	-	8c	31.10.2014
7.8 Issued during quarter				
7.9 Exercised during quarter	658,572	-	1.5c	31.12.2012
7.10 Expired during quarter				

7.11	<b>Debentures</b> <i>(totals only)</i>		
7.12	<b>Unsecured notes</b> <i>(totals only)</i>		

*Compliance statement*

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does /does not\* (*delete one*) give a true and fair view of the matters disclosed.



Sign here: ..... Date: 31 January 2011  
(Director/Company secretary)

Print name: Denis Rakich

**Notes**

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 Issued and quoted securities. The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 Accounting Standards ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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