



BIG STAR ENERGY

ASX ANNOUNCEMENT

29 April 2019

PERCY CREEK FARMIN AND DRILLING OPTION

- Farmin and drilling option agreement executed over 5,228 gross acres in Wyoming, USA
- 75mmbbl total best case gross prospective oil resource* in 4 vertically-stacked drilling objectives
- High geological chance of success with both conventional and unconventional play targets
- US\$275k 2D/3D seismic program secures 20% working interest in leases and overriding royalties
- Drilling option to acquire 100% working interest in the leases
- Seismic acquisition 3Q2019 and drilling targeted 4Q2019
- Area of Mutual Interest in over 29,900 additional gross acres covering extensions to the unconventional plays and potential follow up conventional targets

*The estimated quantities of petroleum that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Big Star Energy Ltd (“Big Star” or the “Company”) (ASX:BNL) is pleased to announce that its wholly owned subsidiary, BNL (Percy Creek) LLC, has entered into a farmin and option agreement with Percy Creek Partners LLC (**PCP**) to earn interests in 5,228 gross acres of contiguous oil and gas leases situated in Wyoming, USA (**Farmin Agreement**).

Big Star Managing Director, Joanne Kendrick, commented “I am excited to report our first acquisition since the restructure of the Company. The Percy Creek exploration leases contain 4 stacked oil plays which may be evaluated with a single vertical well. Drilling through stacked plays in this way substantially increases the geological chance of success and multiplies the potential upside.”

“We think the acquisition metrics are very attractive. The deal has been structured to give us exceptional optionality with respect to our forward strategy. For a very low-cost seismic work program, we immediately secure a meaningful entry into the asset as well as earn an exclusive option to drill to earn 100% working interest at our sole election. All going well, we could see the well drilling in 4th quarter 2019.”

Percy Creek Prospects

The Percy Creek prospects are located in Carbon County, Wyoming in the Hanna Basin as shown in Attachment A.

The four stacked prospects are within independent formations, all of which are proven hydrocarbon plays in the area. As an example, the UPRR Anschutz #1 well located 8.5 miles away in the Elk Mountain Field, had an initial production rate from the Sundance Formation of 450 barrels of oil per day. This well has produced almost 1 million barrels of oil to date.

The table below summarises the 100% gross exploration potential of the Percy Creek prospects at an evaluation date of 26 April 2019. The Company currently has nil working interest in the project. Under the terms of the Farmin Agreement, Big Star will acquire a 20% working interest in the Leases on completion of the seismic acquisition and processing programme and the remaining 80% working interest on exercise of the option.

Geologic Formation	Prospect Areal Size ² (acres)	Reservoir Thickness ³ (ft)	Recoverable oil per acre foot ³ (bbl/ac.ft)	100% Gross Best Case Prospective Resource ^{1,4,5} (mmbbl)	Geological chance of success ⁶	Distance to nearest analogue production (miles)
Tensleep (conventional)	926	16	210	3.1	25%	8.5
Sundance (conventional)	1055	35	166	6.1	25%	8.5
Frontier (unconventional)	4780	190	25.7	45.2	80%	6
Niobrara (unconventional)	5080	95	24.5	20.7	80%	6
Total Best Case Prospective Resources⁵				75.1		

Note 1: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Note 2: The areal extent within the Leases of each potential hydrocarbon accumulation has been interpreted from limited 2D seismic data that does not fully cover the prospects and expressions at surface of geologic features. Prospect area size for the Frontier and Niobrara represent the areal extent of the leased upper structural block of these unconventional play intervals. The prospective intervals of the Frontier and Niobrara are expected to be repeated in a lower structural block adding 4,480 acres and 3,840 acres of prospective area respectively.

Note 3: There has been no penetration of the target formations on the Leases. Recoverable oil per acre foot and reservoir thickness have been estimated from log analysis of analogue reservoir information from nearby wells and oil fields for each formation. Analogue fields are shown in Attachment A.

Note 4: The estimates have been presented on a gross project basis. The current resources net to Big Star are nil. Big Star's working interest and therefore its net prospective resource may increase under the terms of the Farmin Agreement which permit Big Star to increase its share in the project to a total of 100% working interest with a future work program.

Note 5: The best case prospective resources have been prepared using the deterministic method and are presented on an unrisks basis. Resource totals have been arithmetically added.

Note 6: The geological chance of success is equivalent to the chance of discovering hydrocarbons within the respective formation. The chance of development is assessed as moderate to high. The acreage is within a mile from both the interstate highway and gas pipeline infrastructure and the Sinclair Oil Refinery is 35 miles west along the highway.

Table 1: Percy Creek Project – Gross Best Case Prospective Resources

Percy Creek Forward Work Program

The committed work program under the agreement is expected to cost US\$275,000 and comprises:

- 2D and 3D seismic acquisition and processing over the prospects; and
- Pre-investment in drilling permits and planning to enable a possible 2019 drilling date.

The seismic acquisition utilises state of the art design and processing techniques. 2D seismic lines will be acquired with geophones remaining in place on each line during the entire acquisition process. This technique allows for the processing of a 3D seismic volume over the critical part of the potential structure.

Additional to the committed work program, Big Star plans to supplement the 18miles of 2D lines with strategically located infill geophone lines to allow for pseudo 2D seismic line processing, effectively increasing the 2D processed seismic to 42miles over key structural zones, as well as significantly increasing the fold of the 3D seismic for very little additional cost. The high quality area of the resulting 3D processed volume will be approximately 1,700acres and cover the prospect as currently defined.

The dry hole cost of the well is anticipated to be circa US\$1.2million. It is Big Star's current intention (subject to technical support from the seismic program and funding) to exercise the option and drill the well in 4Q2019.

Should the well discover hydrocarbons, Big Star intends to conduct a full evaluation program in the well including well testing. If commercial production rates are indicated during the well testing, it is anticipated that the well will be completed as a producer.

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Corporate									
Farmin & Option Agreement									
Potential Option Exercise									
Seismic									
Permitting and Planning									
Acquire Seismic									
Process & Interpret Seismic									
Drilling Option									
Permitting and Planning									
Drill Exploration Well (subject to BNL Option)									

Table 2: Percy Creek Project – Net Best Case Prospective Resources

Summary of the Farmin Agreement

Big Star's subsidiary, BNL (Percy Creek) LLC (**Big Star Wyoming**) shall earn a 20% interest in the mineral leases described in the table below (**Leases**) and overriding royalties described below (**ORRI**) by undertaking and funding a seismic acquisition programme and funding associated third party and permitting costs (**Initial Work Programme**). Big Star Wyoming's obligation to fund the Initial Work Programme is subject to adequate financing being obtained by no later than 30 June 2019.

Big Star Wyoming has an option to earn the remaining 80% working interest in the Leases by:

- (i) paying US\$100,000;
- (ii) paying PCP's historical third party costs incurred in connection with the acquisition of the seismic and Leases and any future costs (including for any additional leases acquired after the date of the agreement) provided such future amounts have been pre-approved by Big Star Wyoming. We estimate these costs to be approximately US\$500,000; and
- (iii) spudding a well to be drilled to the lesser of 9,000 feet and the Tensleep Formation before 1 January 2021.

The option may be exercised at any time up to the later of 31 October 2019 and 30 days after receipt of the final seismic interpretation.

The additional 80% working interest will be assigned to Big Star Wyoming in tranches on the following milestones:

- (i) 20% on paying US\$300,000 of the amounts referred to in paragraphs (i) and (ii) above;
- (ii) 10% on paying the remaining amounts referred to in paragraphs (i) and (ii) above; and
- (iii) 50% on spudding the well.

The parties have agreed an area of mutual interest comprising an additional 29,900 gross acres (**AMI**) and each party has agreed to offer any mineral interest acquired in the AMI to the other on the same terms and in proportion to their respective interests in the Leases.

The Leases will be subject to a total royalty burden of 20% comprising the mineral owner royalties and the ORRI as set out in the table below. The ORRI is equal to the difference between the total royalty burden of 20% and the royalties payable to the mineral owners. Big Star Wyoming's share of the ORRI is more fully described below in Table 3.

Lessor ¹	Expiry	Gross Acres	BNL Net Acres Prior to Farmin ¹	BNL Net Acres After Farmin ¹	BNL Net Acres After Option Exercise / Well Spud ¹	Third Party Royalty Burden ²	BNL Net ORRI ³																		
State (of Wyoming)	1-Apr-20	640	0	128	640	19.33%	0.67%																		
Hooks Ranch LLC ⁴	1-Nov-21	2,708	0	265	1,327	18.5%	1.5%																		
BLM (The United States of America)	1-Dec-22	1,880	0	376	1,880	18.5%	1.5%																		
Total		5,228	0	769	3,847																				
Weighted Average						18.64%	1.36%																		
<p>Note 1: Big Star Wyoming currently holds nil acreage. Big Star Wyoming will acquire a 20% working interest in the Leases on completion of the seismic acquisition and processing programme and the remaining 80% working interest on exercise of the option in accordance with the Farmin Agreement.</p> <p>Note 2: The total royalty burden is the sum of the royalty payable to the mineral owner of each lease and the overriding royalty payable to third parties associated with PCP.</p> <p>Note 3: Big Star Wyoming will acquire 20% of the gross ORRI on completion of the seismic acquisition and processing program in accordance with the Farmin Agreement.</p> <p>Note 4: The Hooks Ranch lease permits the lessee to extend the term for a further 3 years. Hooks Ranch LLC retains mineral rights to 49% of the lands the subject of the Hooks Ranch Lease. The royalty payable to the mineral owner under the Hooks Ranch lease is variable as follows:</p> <table border="1"> <thead> <tr> <th>Oil</th> <th>Oil Price (US\$/bbl)</th> <th>Royalty %</th> </tr> </thead> <tbody> <tr> <td></td> <td><\$65</td> <td>12.5</td> </tr> <tr> <td></td> <td>\$65 to < \$85</td> <td>14</td> </tr> <tr> <td></td> <td>\$85 to < \$100</td> <td>15.5</td> </tr> <tr> <td></td> <td>\$100 +</td> <td>16</td> </tr> <tr> <td>Gas</td> <td></td> <td>14</td> </tr> </tbody> </table>								Oil	Oil Price (US\$/bbl)	Royalty %		<\$65	12.5		\$65 to < \$85	14		\$85 to < \$100	15.5		\$100 +	16	Gas		14
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	\$100 +	16																							
Gas		14																							

Table 3: Percy Creek Lease Summary

For further information, please contact:

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Competent Persons Statement:

The estimates of prospective resources in this announcement are based on and fairly represent information and supporting documentation prepared by, or under the supervision of, Mr Trent Spry who is employed as an Executive Director of Big Star Energy Limited and a member of the American Association of Petroleum Geologists and the Petroleum Exploration Society of Australia. Mr Spry meets the requirements of qualified petroleum reserves and resources evaluator as defined in Chapter 19 and rule 5.41 of the ASX Listing Rules and consents to the inclusion of this information in the form and context in which it appears in this announcement. The estimates of prospective resources have been prepared in accordance with the Petroleum Resources Management System (PRMS) sponsored by the Society of Petroleum Engineers (SPE) and American Association of Petroleum Geologists (AAPG).

About Big Star:

Big Star Energy Ltd (ASX:BNL) is an independent oil and gas exploration and production company, headquartered in Australia, with operations in Dawson County, Texas. For further information, please visit the Company's website at www.bigstarenergy.com.au



BIG STAR ENERGY

Attachment A

Stratigraphic Column

		FORMATION/GROUP NAMES		
ERA	PERIOD	EPOCH		
CENOZOIC	Quaternary	Holocene	Hanna, Laramie and Shirley Basins	
		Pleistocene	Undivided	
	Tertiary	Pliocene	Undivided	
		Miocene	White River Gp	
		Oligocene	Wagon bed Em	
		Eocene	Wind River Fm	
		Paleocene	Hanna Fm	
MESOZOIC	Cretaceous	Upper Cretaceous	Forty Fm, Medicine Bow Fm, Lewis Sh, Mesa Verde Group, Steele Sh, Niobrara Fm, Sage Breaks, Frontier Fm	
		Lower Cretaceous	Mowry Sh	
			Thurgood Sh, Dakota Fm, Lakota Fm, Morrison Fm	
		Jurassic	Upper Jurassic	Lower Sandstone, Lower Sandstone
			Lower Jurassic	Alcova L.S., Red Peak Fm
		Triassic	Triassic	Jelm Fm, Alcova L.S., Red Peak Fm
			Triassic	Chickadee Sh
	PALEOZOIC	Permian	Permian	Goose Egg Fm
		Pennsylvanian	Pennsylvanian	Tensleep Sv-Casper Fm
			Pennsylvanian	Fountain Lm
		Mississippian	Mississippian	Amundson Fm
		Devonian	Devonian	Madison Limestone
			Devonian	Devonian
		Ordovician	Ordovician	Ordovician
Cambrian		Cambrian	Lithic Sandstone	
PRE-CAMBRIAN	Proterozoic	Proterozoic	Metamorphic and Intrusive Rocks	
	Archean	Archean	Archean	

Hanna Basin – Showing Discoveries & Fields

