



BIG STAR ENERGY

ASX ANNOUNCEMENT

29 August 2019

HELIUM PROSPECTS TECHNICAL UPDATE

Big Star Energy Ltd (“Big Star” or the “Company”) (ASX:BNL) is pleased to provide an update on positive interim results of technical work undertaken on its 30 helium prospects and leads in its initial focus area in the USA.

- Helium soil gas sampling complete
 - significant helium anomalies (concentrations around 50% greater than atmospheric levels) over 7 prospects and leads throughout the survey area
 - the results prove an active helium system across the area extending significantly beyond the wells known to have high helium concentrations
- Reprocessing and interpretation of gravity and magnetics data complete
 - refines our understanding of the structure and the size of the prospects
 - identifies multiple potential helium migration pathways across the area

Big Star Managing Director, Joanne Kendrick, commented “Our recent work has significantly enhanced our understanding of our prospects and leads. It has confirmed an active helium system beyond the previously drilled wells and will be used to define prospective resources in our portfolio of prospects and leads and set priorities in our on-going leasing programme.”

Helium soil gas sampling complete

Big Star has collected 188 soil gas samples across its focus area. The gas samples have been sent to a laboratory and are being analysed for helium content and the results are expected in September and will be announced in due course.

During the survey ambient helium anomalies at concentrations around 50% greater than atmospheric levels were found over 7 prospects and leads throughout the survey area. Importantly, these anomalies can only be related to helium generated deep in the section that has migrated to the surface through the stratigraphic column. Wells previously drilled in the area have confirmed subsurface helium accumulations with concentrations above 5%. These new anomalies prove and extend this active helium system across the area significantly beyond the previously drilled wells.

New basement structural depth map complete

Big Star engaged a specialist geophysical group to deploy their state-of-the-art proprietary reprocessing algorithms and interpretation methods to reprocess gravity and magnetics data in the Company’s area of interest. This work has produced a basement depth map that refines

the structural definition of potential helium traps within Big Star's prospects and leads portfolio.

In addition, the work has identified volcanic intrusions and deep-seated bodies, most likely magma chambers, that have fed the volcanic intrusives. These are key elements to understanding the charge of helium into traps as it is believed they provide the mechanisms for significant release of helium from the basement. This information enables Big Star to map helium focused migration pathways out of the basement and into potential reservoirs.

Big Star is confident that these techniques are capable of providing structural depth maps at a confidence level that does not require the acquisition of seismic.

Big Star will use these results to further its on-going programme to lease the prospects and leads identified in its work programme. Big Star has announced the acquisition of its first lease in its initial prospect which is referred to as the Enterprise Prospect (see announcement of 22 August 2019). The Company is pursuing further leasing opportunities at its Enterprise Prospect as well as a number of its other prospects.

For further information, please contact:

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About Big Star:

Big Star Energy Ltd (ASX:BNL) is an independent oil and gas exploration and production company, headquartered in Australia, with operations and exploration in North America. Big Star's strategy is to provide its shareholders with exposure to multiple high-value helium projects and conventional oil assets in North America. For further information, please visit the Company's website at www.bigstarenergy.com.au

About Helium:

Helium is a unique industrial gas that exhibits characteristics both of a bulk, commodity gas and of a high value specialty gas and is considered a "high tech" strategic element. Due to its unique chemical and physical qualities, helium is a vital element in the manufacture of MRIs and semiconductors and is critical for fibre optic cable manufacturing, hard disc manufacture and cooling, space exploration, rocketry, lifting and high-level science. There is no way of manufacturing helium artificially and most of the world's reserves have been derived as a by-product of the extraction of natural hydrocarbon gas.