



# BIG STAR ENERGY

## ASX ANNOUNCEMENT

3 September 2019

### HELIUM SOIL GAS SURVEY UPDATE

**Big Star Energy Ltd (“Big Star” or the “Company”) (ASX:BNL)** is pleased to provide an update on its helium soil gas survey where samples were collected over several of its 30 helium prospects and leads in its initial focus area in the USA.

- 167 samples measured between 10-100% above normal atmospheric concentrations of helium across a number of prospects
- Enterprise prospect confirmed by 8 helium anomalies and expanded by integration with gravity and magnetics data
- Each additional prospect sampled returned helium anomalies
- Preliminary integration of the data shows good correlation with the recent structural prospect modelling

Big Star Managing Director, Joanne Kendrick, commented “This is excellent news. It confirms the presence of helium at our Enterprise prospect and our preliminary view is that this prospect is larger than originally mapped. We are likely to expand our leasing programme to target this extended area.

“A number of other prospects and leads in our portfolio were also sampled and the presence of helium was confirmed at each of them. Encouragingly, the anomalies associated with our prospects are similar to those seen over other produced accumulations in the Four Corners area where the same soil gas survey technique was applied.”

### Helium soil gas sampling laboratory testing

Big Star has collected 188 soil gas samples across its focus area. The laboratory has confirmed that 187 of the 188 helium soil gas samples have recorded helium at greater than atmospheric levels (5.24ppm) of which 167 returned between 10-100% above normal atmospheric levels. This new information supports the geologic model and the extent of an active helium system across the focus area covering the Company’s prospects and leads portfolio.

As announced on 29 August 2019, ambient helium anomalies at concentrations around 50% greater than atmospheric levels were found over 7 prospects and leads throughout the survey area during the sample collection. The laboratory data enables the correlation of each ambient anomaly with specific surface locations over the prospects.

The more sensitive laboratory equipment has also identified significant elevated helium readings over prospects that were not highlighted in the previous announcement.

The soil gas sampling over the Enterprise prospect has returned 8 anomalous readings from 11 collected samples. Additional anomalies in soil gas samples in areas immediately surrounding Enterprise along with the reprocessed geophysical data support a potential expansion of the areal size of the prospect. The Company is likely to expand its current leasing programme to target this additional area.

Helium anomalies at surface 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 and strongly support high concentrations of helium in the subsurface.

### **Future work**

The Company is integrating the helium soil gas survey data into the geologic model in order to further define the prospects and leads portfolio.

Big Star will use this data to further its on-going programme to lease the prospects and leads identified in its work programme. Big Star announced the acquisition of its first lease at its Enterprise prospect on 22 August 2019. The Company is pursuing further leasing opportunities at this 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](http://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.