JXSN#4 FLOWS HELIUM (6.5% He) TO SURFACE GALACTICA/PEGASUS

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Highlights

- JXSN#4 exploration well completed in Blue Star's Galactica/Pegasus prospect.
- Analysis of gas obtained during drilling shows a calculated air-free gas composition of 6.5% helium in the Lyons formation.
- Both the upper and lower Lyons sands are gas charged with helium.
- JXSN#4 is the fourth consecutive well on the Galactica prospect to identify helium in the targeted Lyons formation.

PERTH, Sept. 29, 2022 - Blue Star Helium Ltd. (ASX:BNL) (Blue Star or the Company) provides an update on the JXSN#4 exploration well drilled on its Galactica prospect in Las Animas County, Colorado.

The well was successfully drilled to a final total depth (TD) of 1,043 feet on 27 September encountering both the upper and lower Lyons sands, which both flowed gas to surface.

Preliminary gas composition analysis shows 6.5% helium (He). Additional gas samples collected during operations will also be delivered to a second laboratory for composition analysis, which is expected to be returned within the next two weeks.

The upper Lyons sand was encountered at a measured depth of 756 feet and appears to be gas filled down to the base of the sand at 859 feet. The lower Lyons sand was encountered at 898 feet and also flowed gas to surface. The well TD'ed at the base of the lower Lyons. Wireline log interpretation is expected by the end of next week to determine if any gas-water-contacts (GWCs) were encountered in the well.

Three exploration wells drilled earlier this year at Galactica/Pegasus - JXSN#1, JXSN#2 and JXSN#3 - discovered significant helium bearing gas columns of up to 230 feet containing up to 3.14% helium (refer Table 1). These wells also proved the Company's previous interpretations of gas on logs at historic wells, Denton B #1 and Colorado #B-1, also located on the Galactica/Pegasus structure.

Blue Star Managing Director and CEO, Trent Spry, commented:

"Our exploration program at Galactica/Pegasus prospect continues to deliver. We are delighted to have returned high-concentration helium from a fourth consecutive exploration well in this area.

"The result reconfirms Galactica/Pegasus as one of our high-priority development areas in Las Animas. This dynamic is reflected in our current development well scheduling activities for this field.

The results of this well will be integrated into current resource update process for Galactica/Pegasus which is expected to culminate in the declaration of contingent resources for this field."

Table 1: Key results from recent Galactica/Pegasus wells

Key parameter	JXSN#1	JXSN#2	JXSN#3
Helium concentration (%)	1.98	3.14	2.14
Gas column in Lyons formation (ft)	217.5	101+	230
Net pay in Lyons formation (ft)	143.5	101	153.5
Stabilized initial flow rate (mcfd)	412	202	412

JXSN#4 is located approximately 1.7 miles to the northwest of the JXSN#1 helium discovery well. The JXSN#4 location was strategically selected to provide the structural and stratigraphic control and reservoir gas composition (6.5% He) for the planned offsetting development wells shown on the map below and

announced on 15 September 2022.

This ASX Announcement has been authorised for release by the Board of Blue Star Helium Ltd..

About Blue Star Helium:

Blue Star Helium Ltd. (ASX:BNL) is an independent helium exploration and production company, headquartered in Australia, with operations and exploration in North America. Blue Star's strategy is to find and develop new supplies of low cost, high grade helium in North America. For further information please visit the Company's website at www.bluestarhelium.com

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.

About wells:

JXSN#4 has been permitted by a rancher as a water well. Water wells are drilled by a contractor pursuant to a drilling contract between the contractor and the rancher. Neither the Company nor its subsidiaries are a party to this contract. The well is the property of the rancher and the Blue Star group does not have an economic interest in it. The Company will agree to fund water wells if the rancher selects a location that may be of interest to the Company, the Company has leased the underlying minerals and the rancher agrees to let the Company obtain any available data from the drilling program. Water wells are drilled for the purpose of producing water for use by the rancher. Water wells may not produce helium and may not be converted into producing helium wells.

Schedule

JXSN#4 well details

The JXSN#4 well was drilled and is owned by the rancher and Blue Star does not have any interest in it. The rancher agreed to permit Blue Star to collect data in consideration of it agreeing to fund the rancher's drilling costs.

The JXSN#4 well is located in Township 30 Range 54 Section 5. The minerals are the subject of a mineral leases entered into between Las Animas Leasing Inc (LAL) and a private mineral owner. The first lease has an effective date of 22 January 2022, the total area of the lease is 3,361 gross acres, the term is 5 years from the effective date, the rental was paid in advance, the royalty is 17.5% and LAL's working interest in the lease is 100%.

The JXSN#4 well was not conventionally tested. The Company ran a suite of logs including gamma ray, resistivity (induction), micro log, density and neutron logs.

Gas analysis of samples obtained while drilling was performed using mass spectrometry. Samples most representative of the reservoir gas had an estimated air-free gas composition from the Lyons formation in JXSN#4 of 6.55% helium (He), 52.33% nitrogen (N) and 40.46% carbon dioxide (CO_2), 0.66% argon (Ar) has been calculated.

The miniRuedi mass spectrometer was operated by Geochemical Insight. The instrument was calibrated with

two certified standard gas mixtures comprised of. Standard 1: 4% He, 2% Ar, 1% CH4, 18% CO2, 5% O2 in a nitrogen (70%) balance. (Expiration Date May 20, 2024). Standard 2: 0.000524% He, 0.934% Ar, 0.05% CH4, 0.2% CO2, 20.95% O2 in a nitrogen (77.87%) balance. (Expiration Date October 21, 2023). The standards were prepared and certified by Global Calibration Gases, LLC out of Sarasota, Florida, USA.

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