



Source: Pulsar Helium

October 01, 2025 09:16 ET

Pulsar Helium Announces Helium-3 Discovery at Jetstream #1, Topaz Project, Minnesota

THIS ANNOUNCEMENT AND THE INFORMATION CONTAINED HEREIN IS RESTRICTED AND IS NOT FOR RELEASE, PUBLICATION OR DISTRIBUTION, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, IN, INTO OR FROM AUSTRALIA, JAPAN OR THE REPUBLIC OF SOUTH AFRICA OR TO BE TRANSMITTED, DISTRIBUTED TO, OR SENT BY, ANY NATIONAL OR RESIDENT OR CITIZEN OF ANY SUCH COUNTRIES OR ANY OTHER JURISDICTION IN WHICH SUCH RELEASE, PUBLICATION OR DISTRIBUTION MAY CONTRAVENE LOCAL SECURITIES LAWS OR REGULATIONS.

The following amendment has been made to the 'Helium-3 Discovery at Jetstream #1, Topaz Project' announcement released on 01 October 2025 at 02:00 a.m. (Eastern).

The number 14.5% has been corrected to 14.5.

All other details remain unchanged.

The full amended text is shown below.

CASCAIS, Portugal, Oct. 01, 2025 (GLOBE NEWSWIRE) -- Pulsar Helium Inc. (AIM: PLSR, TSXV: PLSR, OTCQB: PSRHF) ("**Pulsar**" or the "**Company**"), a leading helium project development company, is pleased to announce a landmark discovery of helium-3 at its Topaz Project in Minnesota. Laboratory results from the Jetstream #1 well have revealed sustained helium-3 concentrations up to 14.5 parts per billion (ppb) in produced gas. This level of helium-3 places Topaz amongst the highest accumulation of naturally occurring helium-3 ever publicly reported in a terrestrial gas reservoir worldwide. As previously reported (Pulsar News Release September 19, 2025) the Jetstream #1 well also had a sustained flow containing 7–8% helium-4 (the more common isotope of helium), confirming that Topaz's helium is not only high-grade in helium-4 but also highly enriched in the rare helium-3 isotope.

Helium-3: Value and Strategic Significance

Helium-3 is one of the rarest and most valuable isotopes on Earth, with reported prices of up to US\$18.7 million per kilogram, more than 100,000 times the price of common helium (helium-4). Against this backdrop, discovering a terrestrial source with sustained helium-3 content at up to 14.5 ppb is an extraordinary development.

NASA and the U.S. Government are actively funding lunar helium-3 extraction, with regolith concentrations estimated between 1.4 and 15 ppb, averaging around 4 ppb. Grants and early purchase agreements are supporting technologies for regolith heating, gas separation, and transport, reflecting helium-3's strategic importance. In this context, the significance of Pulsar's discovery is clear, with terrestrial helium-3 levels now comparable to, and potentially exceeding, average concentrations found on the Moon, without the need for lunar excavation.

Highlights

- **Exceptionally High:** Laboratory analysis of gas samples from the Jetstream #1 well at the Topaz Project (Minnesota) shows sustained helium-3 concentrations ranging from 1.3 to 14.5 ppb, amongst the highest naturally occurring helium-3 levels publicly reported in a terrestrial reservoir.
- **Consistent Isotopic Signature:** The $^3\text{He} / ^4\text{He}$ isotopic ratio in Jetstream #1 gas is consistently about 0.09 R_a across all samples measured in multiple labs. This steady isotopic signature indicates a single, stable helium gas source throughout the reservoir.
- **Pulsar Results vs. Peers:** Pulsar's helium-3 discovery vastly exceeds any previously reported by other helium explorers. For example, a recent discovery by an industry peer in Australia encountered helium-3 only in the sub-ppb range (with a low isotopic $^3\text{He} / ^4\text{He}$ ratio characteristic of crustal helium), underscoring the world-class significance of Topaz's results. Jetstream #1's helium-3 concentration now amongst the highest publicly disclosed in any land-based gas reservoir worldwide.
- **Strategic and Commercial Value:** Helium-3 is exceedingly rare and valuable, commanding ~US\$2,500 per liter in specialized markets. This discovery establishes a potential new terrestrial supply of this isotope.
- **Critical Applications:** Helium-3's unique properties make it crucial for cutting-edge technologies. It is sought after as a fuel for future fusion energy reactors, for enabling quantum computing and advanced cryogenics (ultra-low temperature cooling), and for high-efficiency neutron detection devices used in nuclear security and research.

Thomas Abraham-James, President & CEO of Pulsar, commented:

"We are thrilled to announce this remarkable helium-3 discovery, a result that firmly places Pulsar Helium on the map as a pioneer in the field. To encounter helium-3 concentrations of this magnitude at our Topaz Project in Minnesota is nothing short of extraordinary. This achievement not only validates the exceptional nature of the Topaz Project but also underscores the strategic importance of our exploration efforts. Helium-3 is a game-changer isotope with tremendous scientific and commercial value. The fact that we have discovered such high levels in the USA, when helium-3 is so scarce globally, is testament to the world-class potential of Topaz. Meanwhile, the next-richest naturally occurring source of helium-3 is arguably the surface of the Moon which has attracted interest from NASA and the U.S. Department of Energy – we believe that Minnesota will be a more reliable and economically viable option. This discovery positions Pulsar at the forefront of the helium industry not just as a supplier of conventional helium (helium-4), but potentially as a supplier of helium-3. It's a development of significance not only for our Company and shareholders, but also for the broader scientific and energy communities. We look forward to advancing this project and unlocking its full value in a responsible and impactful way."

Helium-3 Analytical Results

The analytical data indicate a consistent $^3\text{He} / ^4\text{He}$ isotopic ratio of approximately 0.09 R_a across all tested intervals of Jetstream #1. The $^3\text{He} / ^4\text{He}$ ratio is stable regardless of helium-4 concentration (i.e. from gas containing ~1% helium-4 up to the richest sample of 11.4% helium-4), suggesting a single, homogeneous source of helium charging the reservoir, rather than sporadic pockets or contamination. Notably, one sample containing 11.4% helium-4 by volume yielded approximately 14.5 ppb of helium-3, consistent with the overall isotopic trend. This uniform enrichment of helium-3, relative to helium-4, is a strong indicator of the unique genesis and high quality of the Topaz helium source, setting it apart from typical helium accumulations which often contain only trace helium-3.

Helium-3 analyses were conducted by Smart Gas Sciences LLC (Smart Gas) in Ohio and independently verified at Woods Hole Oceanographic Institution (WHOI) in Massachusetts –

accredited by the New England Commission of Higher Education.

At Smart Gas, helium isotopes were measured by first purifying gas samples on a high-vacuum line, where reactive species are removed with getters and cryogenic traps ensuring only helium reaches the detector apparatus. The purified helium is then analyzed on a Thermo Helix SFT static-vacuum noble-gas mass spectrometer, which simultaneously collects ^3He and ^4He at high resolution, eliminating interferences such as HD^+ . Results are calibrated against air standards and reported both as absolute $^3\text{He} / ^4\text{He}$ ratios and in R/R_a units (relative to the atmospheric reference ratio).

At WHOI, samples were measured for helium concentrations and isotope ratios on a Nu Instruments multi-collector Noblesse mass spectrometer, which was used to determine the isotope ratios of all 23 stable noble gases. Due to the resolving power of the instrument, ^3He was resolved from HD^+ , eliminating any mass interference during the helium measurement. The instrument is interfaced to an automated noble gas processing and purification inlet system, which allows for full separation and purification of the various noble gas species using cryogenic separation prior to inlet into the mass spectrometer. Results were normalized to a series of high He standards in order to optimize accuracy of $^3\text{He} / ^4\text{He}$ and helium concentrations. Helium data are reported both as absolute helium concentrations and $^3\text{He} / ^4\text{He}$ values in R/R_a format (relative to air).

Other Known Natural Helium-3 Occurrences

From a global perspective, the highest $^3\text{He} / ^4\text{He}$ values on record have been observed not in conventional gas reservoirs, but volcanic geological settings, for example, in mid-ocean ridge hydrothermal vent systems such as the East Pacific Rise, and in volcanic hotspots like Hawaii's Loihi Seamount. These environments have produced anomalously high $^3\text{He} / ^4\text{He}$ (more than an order of magnitude above air levels), but they are coupled with relatively low absolute helium abundances, making them poor targets to commercially exploit.

A recent helium find by a peer company in Australia showed helium-3 in trace amounts (well below 1 ppb, with a low isotopic ratio indicative of purely radiogenic helium). In stark contrast, Topaz's results are more than an order of magnitude greater in helium-3 content, pointing to a geologically distinct helium source with a higher inherent $^3\text{He} / ^4\text{He}$ ratio. This leap in helium-3 concentration marks not only a scientific milestone but also carries significant economic and strategic implications for Pulsar Helium and the industry as a whole.

What is Helium-3?

Helium-3 is one of the rarest and most valuable substances on the planet. In Earth's atmosphere, helium-3 exists at only about 7 parts per trillion, and historically it has been obtainable mainly as a by-product from nuclear facilities (via tritium decay) or in minute quantities from certain natural gas fields. At current market rates, helium-3 commands ~US\$2,500 per liter (~US\$18.7 million per kilogram) due to its scarcity and utility. The exorbitant value (on the order of 100,000 times the price of common helium-4) reflects the critical applications of helium-3 in advanced technology and research.

The isotope's ability to absorb neutrons makes it indispensable for neutron detectors used in nuclear security and scientific instrumentation. Its low boiling point and unique quantum properties enable ultra-low-temperature cooling systems (utilized in quantum computing and fundamental physics experiments). Moreover, helium-3 is a promising fuel for nuclear fusion reactions, when combined with deuterium, helium-3 could produce energy with virtually no radioactive waste, a long-term goal of fusion energy programs.

As spacefaring nations look to the Moon's helium-3 reserves, Pulsar's terrestrial discovery is positioned to be both scientifically significant and strategically relevant. Helium-3 sits at the intersection of homeland security, energy security, and technological leadership, with control over supply carrying important geopolitical implications.

As an exceptionally scarce keystone resource, helium-3 has the potential to influence future international power dynamics and underpin next-generation technologies. Pulsar's discovery also creates scope for potential strategic partnerships and commercial applications across sectors ranging from clean energy to national security.

Helium-3 Separation

At present, there is no commercial technology in operation that separates helium-3 from helium-4 in a gas stream at scale. Pulsar is in active dialogue with potential collaborators and looks forward to formalizing partnerships to evaluate methods for helium-3 separation in future processing scenarios, with the aim of producing helium-3 as a pure product. The Company invites interest from research groups and technology developers keen to collaborate or trial their separation techniques at Topaz and actively encourages open dialogue and outreach.

About the Topaz Project

The Topaz project is located in northern Minnesota, USA, where Pulsar is the first mover and holds exclusive leases. Drilling at the Jetstream #1 appraisal well reached a total depth ("TD") of 5,100 feet (1,555 meters) in January 2025, successfully penetrating the entire interpreted helium-bearing reservoir and beyond. Drilling of the Jetstream #2 appraisal well was completed on February 1, 2025, reaching a TD of 5,638 feet (1,718 meters). In August 2025, the Jetstream #1 well was successfully flow-tested using a wellhead compressor, delivering a peak gas flow rate of approximately 1.3 million cubic feet per day with a sustained flow of 7–8% helium (as helium-4). Meanwhile, a multi-well drilling campaign at Topaz is set to commence in early October 2025 to expand the Company's understanding of the helium reservoir and advance Pulsar's strategy to become a leading helium producer in response to growing global demand.

On behalf Pulsar Helium Inc.
"Thomas Abraham-James"
President, CEO and Director

Further Information:

Pulsar Helium Inc.

connect@pulsarhelium.com
+ 1 (218) 203-5301 (USA/Canada)
+44 (0) 2033 55 9889 (United Kingdom)
<https://pulsarhelium.com>
<https://ca.linkedin.com/company/pulsar-helium-inc.>

Yellow Jersey PR Limited

(Financial PR)
Charles Goodwin / Annabelle Wills
+44 777 5194 357
pulsarhelium@yellowjerseypr.com

Strand Hanson Limited

(Nominated & Financial Adviser, and Joint Broker)
Ritchie Balmer / Rob Patrick / Richard Johnson
+44 (0) 207 409 3494

OAK Securities*

(Joint Broker)
Richard McGlashan / Mungo Sheehan
+44 7879 646641 / +44 7788 266844
richard.mcglashan@oak-securities.com / mungo.sheehan@oak-securities.com

**OAK Securities is the trading name of Merlin Partners LLP, a firm incorporated in the United Kingdom and regulated by the UK Financial Conduct Authority.*

About Pulsar Helium Inc.

Pulsar Helium Inc. is a publicly traded company quoted on the AIM market of the London Stock Exchange and listed on the TSX Venture Exchange with the ticker PLSR, as well as on the OTCQB with the ticker PSRHF. Pulsar's portfolio consists of its flagship Topaz helium project in Minnesota, USA, and the Tunu helium project in Greenland. Pulsar is the first mover in both locations with primary helium occurrences not associated with the production of hydrocarbons identified at each.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Qualified Person Signoff

In accordance with the AIM Note for Mining and Oil and Gas Companies, the Company discloses that Thomas Abraham-James, President, CEO and Director of the Company has reviewed the technical information contained herein. Mr. Abraham-James has approximately 20 years in the mineral exploration industry, is a Chartered Professional Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM CP (Geo)), a Fellow of the Society of Economic Geologists and a Fellow of the Geological Society of London.

Forward-Looking Statements

This news release contains forward-looking information within the meaning of Canadian securities legislation (collectively, "forward-looking statements") that relate to the Company's current expectations and views of future events. Any statements that express, or involve discussions as to, expectations, beliefs, plans, objectives, assumptions or future events or performance (often, but not always, through the use of words or phrases such as "will likely result", "are expected to", "expects", "will continue", "is anticipated", "anticipates", "believes", "estimated", "intends", "plans", "forecast", "projection", "strategy", "objective" and "outlook") are not historical facts and may be forward-looking statements. Forward-looking statements herein include, but are not limited to, statements relating to the statements regarding bringing the Topaz project to production, anticipated full plant construction contract in 2026, final investment decision being made in 2026, the potential impact of the drill results, flow testing and pressure testing on the next iteration of the resource estimate; the potential of CO₂ as a valuable by-product of the Company's future helium production; and the potential for future wells. Forward-looking statements may involve estimates and are based upon assumptions made by management of the Company, including, but not limited to, the Company's capital cost estimates, management's expectations regarding the availability of capital to fund the Company's future capital and operating requirements and the ability to obtain all requisite regulatory approvals.

No reserves have been assigned in connection with the Company's property interests to date, given their early stage of development. The future value of the Company is therefore dependent on the success or otherwise of its activities, which are principally directed toward the future exploration, appraisal and development of its assets, and potential acquisition of property interests in the future. Un-risked Contingent and Prospective Helium Volumes have been defined at the Topaz Project. However, estimating helium volumes is subject to significant uncertainties associated with technical data and the interpretation of that data, future commodity prices, and development and operating costs. There can be no guarantee that the Company will successfully convert its helium volume to reserves and produce that estimated volume. Estimates may alter significantly or become more uncertain when new information becomes available due to for example, additional drilling or production tests over the life of field. As estimates change, development and production plans may also vary. Downward revision of helium volume estimates may adversely affect the Company's operational or financial performance.

Helium volume estimates are expressions of judgement based on knowledge, experience and industry practice. These estimates are imprecise and depend to some extent on interpretations, which may ultimately prove to be inaccurate and require adjustment or, even if valid when originally calculated, may alter significantly when new information or techniques become available. As further information becomes available through additional drilling and analysis the estimates are likely to change. Any adjustments to volume could affect the Company's exploration and development plans which may, in turn, affect the Company's performance. The process of estimating helium resources is complex and requires significant decisions and assumptions to be made in evaluating the reliability of available geological, geophysical, engineering, and economic data for each property. Different engineers may make different estimates of resources, cash flows, or other variables based on the same available data.

Forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond the Company's control, which could cause actual results and events to differ materially from those that are disclosed in or implied by such forward-looking statements. Such risks and uncertainties include, but are not limited to, that Pulsar may be unsuccessful in drilling

commercially productive wells; the uncertainty of resource estimation; operational risks in conducting exploration, including that drill costs may be higher than estimates ; commodity prices; health, safety and environmental factors; and other factors set forth above as well as risk factors included in the Company's Annual Information Form dated July 31, 2025 for the year ended September 30, 2024 found under Company's profile on www.sedarplus.ca.

Forward-looking statements contained in this news release are as of the date of this news release, and the Company undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. New factors emerge from time to time, and it is not possible for the Company to predict all of them or assess the impact of each such factor or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any forward-looking statement. No assurance can be given that the forward-looking statements herein will prove to be correct and, accordingly, investors should not place undue reliance on forward-looking statements. Any forward-looking statements contained in this news release are expressly qualified in their entirety by this cautionary statement.