

Helium-3 Emerges as a National Imperative as Pulsar Helium Inc. Begins Analysis of Its Landmark Terrestrial Discovery

As governments race to strengthen raw material supply chains and secure critical resources, a new element is entering the national conversation - Helium-3. With headlines spotlighting upcoming lunar missions to retrieve the precious isotope, Helium-3 - valued at roughly 100,000 times more than Helium-4, at around US \$18.7 million per kilogram - is being increasingly recognised for its scientific and strategic significance. With growing attention now focused on the recent Helium-3 discovery at Pulsar Helium Inc's ("**Pulsar**") Topaz Project in Minnesota, terrestrial recovery could soon be within reach.

As the race for dominance over access to critical raw materials intensifies, recent warnings from some of the world's largest mining groups underscore the urgency. Executives from [BHP and MMG have cautioned that hundreds of new mines will be required in the coming decades just to meet existing demand](#) for essential inputs. At the same time, the [United States and Australia have deepened critical-minerals cooperation](#) in an effort to reduce dependency on Chinese supply routes - clear signals of the growing politicisation of raw-material access.

Helium-3: Rare, unique, valuable - and critical for nuclear safeguards and homeland security

Long assumed to exist only on the Moon or within nuclear facilities, **Helium-3** has now been identified in meaningful terrestrial concentrations - led by a discovery that could help redefine how governments and scientific institutions think about terrestrial Helium-3 exploration.

Helium-3 is a scarce, non-radioactive isotope of helium with extraordinary quantum properties. It enables technologies that operate at the edge of physics, where ultra-cold environments are essential for superconductivity, cryogenics, and quantum experimentation. Around 100,000 times more valuable than the more abundant Helium-4, Helium-3 currently trades between US\$15,000 and \$19,000 per gram, far exceeding the price of gold.

Pulsar's Helium-3 Discovery at Topaz

At its flagship Topaz Helium Project in Minnesota, Pulsar recently announced sustained Helium-3 concentrations of up to 14.5 parts per billion (ppb) in produced gas - among the highest terrestrial levels ever publicly recorded. This discovery places Topaz within the same range as average concentrations measured in lunar regolith, where NASA and the U.S. Government are actively funding Helium-3 extraction research. Lunar regolith concentrations are estimated between 1.4 and 15 ppb (averaging around 4 ppb), yet Pulsar's discovery could become accessible, without the cost or complexity of lunar recovery.

Pulsar has engaged experts to collaborate with its engineering team and provide guidance on solutions for the viable retrieval, containment, and preservation of its Helium-3 resource - supporting the Company's objective of enabling future product entry into the U.S. market.

Economic and Strategic Context

With supply-chain pressures intensifying, Helium-3 arguably sits near the top of the critical-materials pyramid, alongside some of the world's rarest and most valuable isotopes. As the global race for critical materials enters a new and highly competitive chapter, Pulsar has commenced detailed analysis and isotope mapping to further characterise one of the world's most significant terrestrial Helium-3 discoveries and to assess the scale of both the opportunity and eventual product recovery.

For policymakers and investors alike, the implications could be profound: terrestrial Helium-3 extraction now presents a viable opportunity within reach - one that could complement the first lunar-based Helium-3 retrieval mission slated for 2027. For investors, the Helium-3 opportunity no longer exists exclusively beyond Earth's atmosphere - it's now developing at pace much closer to home.

Pulsar Helium's shares trade on TSXV: PLSR | OTCQB: PSRHF | AIM: PLSR

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