July 17, 2025

ASP Isotopes Inc. Announces Updates on the Progress of Commercial Production at its Three Enrichment Facilities in South Africa

WASHINGTON, July 17, 2025 (GLOBE NEWSWIRE) -- ASP Isotopes Inc. NASDAQ: ASPI ("ASP Isotopes" or the "Company"), an advanced materials company dedicated to the development of technology and processes for the production of isotopes for use in multiple industries, today announced several updates on the progress of commercial production at the Company's three isotope enrichment facilities in Pretoria, South Africa as well as other corporate matters, in advance of a presentation by the Company's Chairman and CEO, Paul Mann, at the Emerging Growth Conference at 10:15 a.m. EST on July 17, 2025.

Silicon-28. The Company commenced commercial production of Silicon-28 during late March 2025 and has successfully enriched large quantities of intermediate product to 99%. The Company expects to ship finished commercial product enriched to at least 99.995% to its first customers during August 2025. Based on the first three months of commercial production, the Company believes this plant has an annual capacity of greater than 80 kilograms of highly enriched Silicon-28 (enriched to 99.995%) when operating at maximum operating rate versus previous guidance of greater than 50 kilograms and significantly higher than the original expectations of approximately 10 kilograms. This additional capacity expansion cost approximately $4 million in fixed asset investment, which was incurred during 2H 2024 and Q1 2025.

Ytterbium-176. The Company commenced commercial production of Ytterbium-176 during April 2025 and has successfully enriched significant quantities of intermediate product to 92.4%. The Company is currently achieving an enrichment factor of 52, which is in line with Company's expectations of greater than 50. The Company expects the production of Ytterbium-176 to be a two-step process with the first batch enriching product from natural abundance of 13% Ytterbium-176 to at least 88% and the final batch completing the enrichment from 88% to 99.75%. The Company expects to ship commercial samples of enriched Ytterbium-176 to customers during August 2025. The Ytterbium-176 enrichment plant is currently operating in a batch processing mode operating for 3-5 hours per day, 5-7 days per week. During August, the Company expects to transition to a semi-continuous commercial processing method, which will increase production rates exponentially to the targeted production rate of 1 kilogram per annum.

The progress updates on production of Silicon-28 and Ytterbium-176 continue to demonstrate the Company's ability to bring projects in on time and in line with, or above, expected production levels.

Nickel-64, Gadolinium-160 and Zinc-68. The Company has recently received the first of the required permits to import controlled laser equipment for the enrichment of Nickel-64, Gadolinium-160 and Zinc-68. Based on the operational results of the first Quantum Enrichment facility, the Company is accelerating plans to construct enrichment facilities in South Africa for many more isotopes using the QE process.

Carbon-14/Carbon-12. As previously communicated, the Company's Carbon-14 enrichment plant was ready for commercial production during 2024, but the Company experienced continued delays in the delivery of adequate quantities of feedstock from the customer, which delayed the production of commercial quantities of enriched Carbon-14. Initial batches of feedstock arrived during 1Q 2025, but the Company failed to receive sufficient quantity of feedstock from the customer to produce commercial product.

Recently, there has been significant interest in Carbon-12 and the Company is currently enriching Carbon-12 to 99.99% in its existing Carbon-14 enrichment plant using the ASP technology and expects to supply its first commercial product during August 2025. Demand for Carbon-12 significantly exceeds the demand for Carbon-14 and the Company is assessing the potential to expand the capacity of the Carbon enrichment facility to be able to supply both Carbon-12 and Carbon-14 from this facility.

Carbon-12 has historically been separated in the form of carbon dioxide gas by cascaded chemical exchange reactions with amine carbamate. The Company believes that its Aerodynamic Separation Process represents a superior method of separation with a significant reduction in capital costs and comparable operating costs. Carbon-12 is of particular importance in its use as the standard from which atomic masses of all nuclides are measured, because its atomic mass is exactly 12 daltons.

Other Matters. Additional updates that will be provided during the Emerging Growth Conference will include: (1) that the Company continues to expect to spin out its subsidiary Quantum Leap Enrichment ("QLE") during 2H 2025 with a targeted date of October 2025, subject to relevant regulatory clearances and, (2) that the Company still anticipates that the Renergen acquisition will close during 3Q 2025, subject to receipt of all relevant regulatory approvals and third party consents.

Emerging Growth Conference Dial in Details

Investors wishing to access the Emerging growth Conference may do so using the following weblink on Thursday, July 17, 2025 between 10:15am and 10:45am EST:

https://goto.webcasts.com/starthere.jsp?ei=1717085&tp_key=408af67859&sti=aspi

About ASP Isotopes Inc.

ASP Isotopes Inc. is a development stage advanced materials company dedicated to the development of technology and processes to produce isotopes for use in multiple industries. The Company employs proprietary technology, the Aerodynamic Separation Process ("ASP technology"). The Company's initial focus is on producing and commercializing highly enriched isotopes for the healthcare and technology industries. The Company also plans to enrich isotopes for the nuclear energy sector using Quantum Enrichment technology that the Company is developing. The Company has isotope enrichment facilities in Pretoria, South

Africa, dedicated to the enrichment of isotopes of elements with a low atomic mass (light isotopes).

There is a growing demand for isotopes such as Silicon-28, which will enable quantum computing, and Molybdenum-100, Molybdenum-98, Zinc-68, Ytterbium-176, and Nickel-64 for new, emerging healthcare applications, as well as Chlorine-37, Lithium-6, and Uranium-235 for green energy applications. We believe the ASP technology (Aerodynamic Separation Process) is ideal for enriching low and heavy atomic mass molecules. For more information, please visit www.aspisotopes.com.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Forward-looking statements can be identified by words such as "goal", "target", "believes," "plans," "anticipates," "expects," "aims", "intends", "estimates," "projects," "will," "may," "might," "seeks", "sees", "should," "would," "expect," "positioned," "strategy," and words of a similar nature. Examples of forward-looking statements include, among others but are not limited to, statements relating to the commencement of supply of isotopes to customers, the construction of additional enrichment facilities, the completion of the Renergen acquisition and other transactions in the anticipated timeframe or at all, the plans for a spin-out of Quantum Leap Energy as a standalone public company, and statements we make regarding expected operating results, such as future revenues and prospects from the potential commercialization of isotopes, future performance under contracts, and our strategies for product development, engaging with potential customers, market position, and financial results. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict, many of which are outside our control. Our actual results, financial condition, and events may differ materially from those indicated in the forward-looking statements based upon a number of factors. Forward-looking statements are not a guarantee of future performance or developments. You are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. Therefore, you should not rely on any of these forward-looking statements. There are many important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements, including, but not limited to, the outcomes of various strategies and projects undertaken by the Company; the potential impact of laws or government regulations or policies in South Africa, the United Kingdom or elsewhere; our reliance on the efforts of third parties; our future capital requirements and sources and uses of cash; our ability to obtain funding for our operations and future growth; our reliance on the efforts of third parties; our ability to complete the construction and commissioning of our enrichment plants or to commercialize isotopes using the ASP technology or the Quantum Enrichment Process; our ability to obtain regulatory approvals for the production and distribution of isotopes; the financial terms of any current and future commercial arrangements; our ability to complete certain transactions and realize anticipated benefits from acquisitions and contracts; dependence on our Intellectual Property (IP) rights, certain IP rights of third

parties; the competitive nature of our industry; and risks related to: (i) the implementation of the scheme of arrangement for the proposed Renergen acquisition in the anticipated timeframe or at all, (ii) the satisfaction of the scheme conditions, (iii) the failure to obtain necessary regulatory approvals and third party consents, (iv) the ability to realize the anticipated benefits of the proposed acquisition of Renergen, (v) the ability to successfully integrate the businesses; (vi) disruption from the proposed acquisition of Renergen making it more difficult to maintain business and operational relationships, (vii) the negative effects of the consummation of the proposed acquisition of Renergen on the market price of Renergen's or ASPI's securities, (viii) significant transaction costs and unknown liabilities, and (ix) litigation or regulatory actions related to the proposed acquisition of Renergen; and the factors disclosed in Part I, Item 1A. "Risk Factors" of the company's Annual Report on Form 10-K for the fiscal year ended December 31, 2024 and any amendments thereto and in the company's subsequent reports and filings with the U.S. Securities and Exchange Commission. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise. No information in this press release should be interpreted as an indication of future success, revenues, results of operation, or stock price. All forward-looking statements herein are qualified by reference to the cautionary statements set forth herein and should not be relied upon.

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