

Brad Kitchen on Element One's Magnesium Bridge to Natural Hydrogen

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[Element One Hydrogen and Critical Minerals Corp.](#) (CSE: EONE) is building an integrated North American strategy around natural hydrogen and domestic magnesium production. Its projects span British Columbia, Washington State and Alaska, bringing together exploration assets, processing technology and plans for commercial production. In a recent InvestorNews interview, host Tracy Hughes put the central question directly to President, CEO and Director Brad Kitchen: is Element One a natural hydrogen explorer, a critical minerals processor or a technology commercialization company—and which opportunity is expected to create value first?

Kitchen's answer gives the company's expanding portfolio a clearer commercial order. Magnesium is intended to provide the nearer-term opportunity, while natural hydrogen represents the larger and more technically ambitious objective. That distinction matters. Element One is not asking the market to wait exclusively on the discovery of a new hydrogen accumulation or the field-scale validation of a new production technology; it is also assembling the feedstock, processing relationship and proposed facility needed to pursue a domestic magnesium business.

The foundation is magnesium-rich olivine from the Twin Sisters ultramafic complex in Washington State. Element One has secured access to that material through a supply agreement with Twin Sisters Olivine LLC and, in July, entered into a memorandum of understanding with Revora Materials. Revora is commercializing

IonMet™, a proprietary electrochemical process designed to recover multiple minerals from feedstocks such as olivine, serpentine and industrial slag. According to the company's [announcement](#), the immediate work is intended to move from laboratory testing to pilot-scale validation using the Washington feedstock.

If that validation is successful, Element One and Revora envision producing high-purity magnesium oxide and magnesium hydroxide, followed ultimately by magnesium metal in partnership with refiners. Nickel, cobalt and silica could provide additional products where feedstock grades and process performance support their recovery. This is strategically relevant because magnesium appears on both the [Canadian critical minerals list](#) and the [final 2025 U.S. critical minerals list](#), reflecting its importance to aerospace, automotive, defence, electronics and lightweight alloys.

The proposed model is also different from a conventional greenfield mine development. Rather than first discovering, defining and building a mine, Element One plans to receive magnesium-bearing material and concentrate its capital and technical work on processing. Kitchen said the company is targeting initial production of 50,000 tonnes annually, with the potential to expand to 100,000 tonnes, and is working toward an 18-to-24-month development timeline. Those figures remain management objectives rather than current capacity: the Revora arrangement is presently an MOU, the process must be validated on the intended feedstock at pilot scale, and a commercial facility would still require financing, engineering, permitting and commissioning. The approach does not remove development risk, but it could shorten one of the longest parts of the mining cycle by beginning with an identified source of feedstock.

Natural hydrogen remains the more expansive part of the Element One thesis. The company is supporting a two-year, US\$1.67-million research program with Columbia University focused on stimulating geologic hydrogen in subsurface hard rock, co-recovering critical metals including nickel, cobalt and manganese, and assessing carbon-dioxide storage through mineral carbonation. The program is intended to generate the experimental, economic and life-cycle data needed to inform possible field deployment. In the interview, Kitchen said the company expects to begin field testing in 2027 and believes the technology could eventually supply low-cost energy to remote communities, mines and data centres located near suitable ultramafic geology.

Element One is pursuing that technical work alongside natural-hydrogen exploration across five projects in British Columbia and one in Alaska. It has also contributed policy recommendations to British Columbia's review of its hydrogen strategy after being invited by the province's Clean Energy and Major Projects Office. The [recommendations](#) called for natural hydrogen to be recognized explicitly in future regulation and for early geological research to help reduce exploration risk. What emerges from the interview is not a choice between magnesium and hydrogen, but a proposed sequence. Magnesium is the nearer-term commercialization effort: sourced olivine, pilot-scale processing and a planned Washington facility. Natural hydrogen is the longer-horizon technology and exploration opportunity, supported by laboratory research and a growing North American land position. Element One must now demonstrate that it can convert those parallel ambitions into measurable technical milestones. If it can, the magnesium project may do more than create the company's first potential revenue stream—it may provide the commercial bridge to a much larger natural-hydrogen strategy.

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