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From Chilalo to Europe: EV1's Role in Building a Resilient Battery Materials Supply Chain

I am the Chief Technical Officer of Evolution Energy Minerals Limited (EV1), an Australian- listed company developing the Chilalo Graphite Project in Tanzania. EV1 is the sole Australian partner and the only natural graphite project participating in STREAMS, a 19- member Horizon Europe consortium working to reduce Europe's dependence on imported battery raw materials. Our role begins at the very start of the battery value chain: supplying high-quality natural flake graphite concentrate from Chilalo for purification, anode-material development and eventual testing in lithium-ion battery cells. Participation in STREAMS provides an important opportunity to demonstrate how responsibly developed African mineral resources can contribute to a more diverse, secure and sustainable European battery supply chain.

EV1 supplied a bulk sample of Chilalo concentrate grading 95.7% total graphitic carbon to the STREAMS programme. Our partners at American Energy Technologies Company processed the material at their facility in Illinois, producing 280 kilograms of graphite grading 99.99% carbon under the STREAMS test conditions. This successful purification result represents an important first step in the programme's technical pathway, with the Chilalo material now progressing toward shaping, surface coating, anode-material preparation and pilot-scale 10 Ah lithium-ion cell testing.



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As a metallurgist by background, it is particularly rewarding to see graphite move from a Tanzanian mineral deposit through advanced processing in the United States and onward into European battery-development programmes. Through collaboration between EV1, AETC and the wider STREAMS consortium, Chilalo has the opportunity to demonstrate its potential as a future source of battery-grade graphite for Europe.



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