

ASX ANNOUNCEMENT

Geophysics results highlight potential for multi-decade mine life and production expansions

HIGHLIGHTS

- Recently completed electromagnetic (EM) surveys confirm the scope for a material expansion in the Chilalo mineral resource.
- Over 33km of high and ultra-high conductance targets have been identified in addition to the existing mineral resource. Given graphite's high conductivity level, these conductors are expected to represent near-surface, high-grade and thick graphite deposits.
- Discovering additional near surface high-grade graphite is expected to enhance the economics of the Chilalo Project by:
 - Reducing mining costs with shallower pits, lowering the strip ratio;
 - Extension of mine life; and
 - Providing scope for production expansions in line with the growing demand for graphite in batteries.
- A trenching program is currently under way to determine the grade and thickness from surface with results expected in Q2 2022.
- Drilling expected to commence in May 2022.

Evolution Energy Minerals Limited ("Evolution" or the "Company") is pleased to announce that a recently completed fixed loop electromagnetics ("FLEM") program at its Chilalo Graphite Project ("Chilalo" or the "Project") has identified over 33km of high or ultra-high-conductance graphite targets (Figure 1) that are in addition to the existing Chilalo mineral resource,¹ which itself is situated on a 2km high-conductance response.

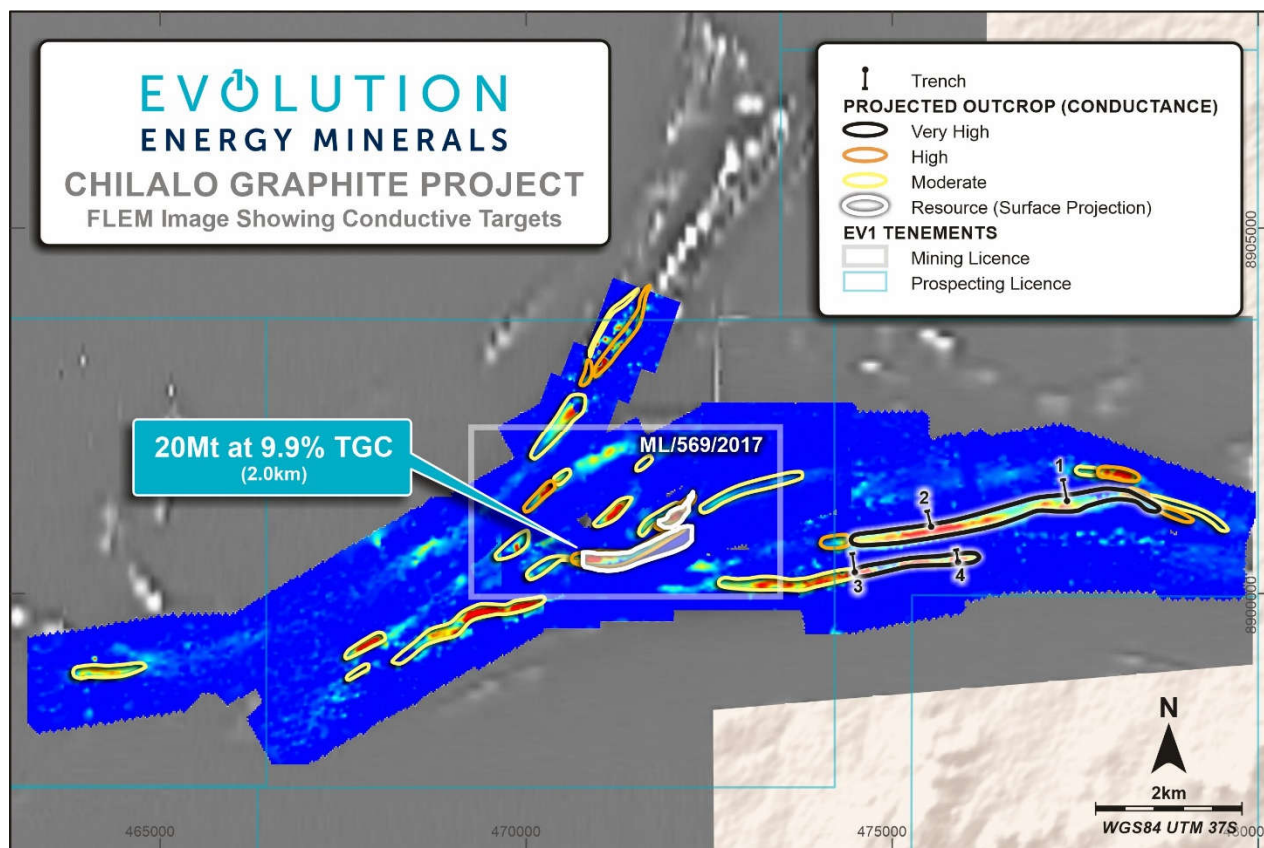
Evolution Managing Director, Phil Hoskins, commented: "We are extremely encouraged by these results, demonstrating the scope for significant growth in the Chilalo mineral resource. We already have an 18-year mine life based on Ore Reserves and resource growth is therefore not a pre-requisite for the financing or development of Chilalo. It is our intention however to demonstrate that Chilalo has globally significant scale with the potential for significant resources and reserve growth and the ability to ramp-up production to meet the rapid growth in demand for lithium-ion batteries, in which graphite makes up over 50% of the contained raw materials. Delineation of near-surface, high-grade graphite is expected to defer waste stripping, reduce mining costs, extend mine life and ultimately enhances Chilalo's project economics.

"Previous work at Chilalo has found that high-conductance EM targets correlate with high grades and mineralisation thickness. We are confident that continuing to target high conductance EM targets will continue to deliver exploration success."

¹ 20.1Mt at 9.9% TGC for 1.99Mt of contained graphite – see Table 1.

Figure 1 below shows the various strengths of FLEM conductors within the Company's tenement holdings. Noting that the Chilalo resources and reserves are situated on a 2km high-conductance target, these most recent FLEM results have identified 8km of very high-conductance (stronger than Chilalo), 25km of high-conductance and 22km of low-conductance. There remains 31km of EM targets identified by airborne EM that are yet to be followed up by ground-based FLEM.

Figure 1: FLEM outlines significant resource growth potential at Chilalo



The Chilalo definitive feasibility study (“DFS”) identified a number of opportunities that could improve the Project’s economics, one of which was exploration upside.² The discovery of any additional near-surface high-grade deposits have the potential to contribute to a reduction in mining operating costs compared to those in the DFS, by deferring the need to mine the existing deposit to the depth assumed in the DFS.

The Company is currently carrying out a trenching program across priority areas to determine surface projections, grade and thickness of the graphite deposits. The results of the trenching work are expected to be available in Q2 2022 and will be used to identify targets for a drilling program that is expected to commence in May 2022.

Notwithstanding the upside opportunity associated with exploration success, Chilalo is a robust project with an 18-year mine life and resource growth is not a requirement in order to obtain finance for construction. Evolution is targeting a final investment decision in the second half of 2022.

This announcement has been approved for release by the Evolution board of directors.

² The results of the Chilalo DFS (and the production target on which such results are based) was reported by Evolution in the prospectus dated 28 September 2021, as supplemented by a supplementary prospectus dated 6 October 2021 (collectively, the Prospectus). Evolution confirms that it is not aware of any new information or data that materially affects the results of the Chilalo DFS included in the Prospectus and that all material assumptions underpinning the results of the Chilalo DFS (and the production target on which such forecast financial information is based) continue to apply and have not materially changed.

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Competent Person's Statement

The information in this announcement that relates to exploration results at Chilalo is based on information compiled by Company geologists and reviewed by Mr John Sinnott, a senior geophysicist with Resource Potentials Pty Ltd. Mr Sinnott is a member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**2012 JORC Code**). Mr. Sinnott consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

ABOUT EVOLUTION

Evolution is committed to supplying sustainable graphite solutions for the global green economy and in doing so, create the first net zero carbon graphite mine. A DFS confirmed the opportunity to produce high-quality flake graphite at Chilalo and the Company intends to apply Chilalo flake graphite to downstream processing to produce battery anode material, expandable graphite, micronised graphite and graphite foil.

The Chilalo Project hosts a high-grade mineral resource of 20.1Mt at 9.9% total graphitic carbon (TGC) for 1,991 Kt of contained graphite, as shown in the table below.



Table 1. Chilalo Mineral Resource Estimate³

Domain	JORC Code Classification	Zone	Million Tonnes (Mt)	TGC (%)	Contained Graphite (Kt)
High Grade	Indicated	Main	9.2	10.6	982
		North-East	1.0	9.5	100
		All	10.3	10.5	1,082
	Inferred	Main	7.4	9.5	704
		North-East	2.3	8.8	205
		All	9.8	9.3	908
	Indicated + Inferred	All	20.1	9.9	1,991
Low Grade	Inferred	Main	37.8	3.4	1,282
		North-East	9.5	4.1	394
		All	47.3	3.5	1,677
High Grade + Low Grade	Indicated + Inferred	All	67.3	5.4	3,667

The Mineral Resource was estimated within constraining wireframe solids using a core high-grade domain defined above a nominal 5% TGC cut-off within a surrounding low-grade zone defined above a nominal 2% TGC cut-off. The mineral resource is quoted from all classified blocks above a lower cut-off of 2% TGC within these wireframe solids. Differences may occur due to rounding.

³ The Chilalo Mineral Resource estimate was reported by Evolution in the prospectus dated 28 September 2021, as supplemented by a supplementary prospectus dated 6 October 2021 (collectively, the Prospectus). Evolution confirms that it is not aware of any new information or data that materially affects the Chilalo Mineral Resource estimate included in the Prospectus and that all material assumptions and technical parameters underpinning the Chilalo Mineral Resource estimate in the Prospectus continue to apply and have not materially changed.

Appendix A JORC Table 1

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Ground-based fixed-loop electromagnetic (FLEM) survey stations were spaced 50m apart along 100m spaced survey lines, with 50m spaced survey lines over the resource. Over 12,000 FLEM survey stations acquired at the project since 2015. Resulting EM decay data were QC'd, processed, gridded, imaged and conductor plate modelled by Resource Potentials. Resulting conductor plates were characterised by modelled electrical conductance to assist with drill targeting, and projected up dip to surface to assist with trench planning.
Drilling techniques	Not applicable, the results reported in this announcement refer to geophysical surveys.
Drill sample recovery	Not applicable, the results reported in this announcement refer to geophysical surveys.
Logging	Not applicable, the results reported in this announcement refer to geophysical surveys.
Subsampling techniques and sample preparation	Not applicable, the results reported in this announcement refer to geophysical surveys.
Quality of assay data and laboratory tests	FLEM surveying was carried out using a 3-component B-Field sensor, SMARTem24 receiver, and a Zonge ZT30 transmitter attached to large (1,000m x 700m) wire loops. A transmitter frequency of 0.33Hz was used for the majority of surveying, with some areas surveyed using 0.5Hz.
Verification of sampling and assaying	Not applicable, the results reported in this announcement refer to geophysical surveys.
Location of data points	Data locations were measured by handheld GPS units and internal GPS units in the SMARTem receiver. All data use datum WGS84 and projection UTM zone 37S.
Data spacing and distribution	Data acquired at 50m spaced survey stations along 100m spaced survey lines, with some areas infilled to 50m spaced survey lines.
Orientation of data in relation to geological structure	Transmitter loops were positioned up dip of the survey areas to provide optimal EM coupling with target conductor orientations, and survey lines were oriented perpendicular to the geological strike direction as interpreted from airborne magnetic and electromagnetic survey data.
Sample security	Not applicable, the results reported in this announcement refer to geophysical surveys
Audits or reviews	No audits have been conducted at this stage.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	There are three Prospecting Licences and one Mining Licence that collectively cover an area of 131.15 km ² , as shown in Figure 5 and outlined in Table 5 in Section 3.2 of this report. The Chilalo tenements are 100% held by Evolution Energy Minerals Limited (Evolution) through its Tanzanian subsidiary, Ngwena Tanzania Limited (Ngwena). All licences are currently in good standing.
Exploration done by other parties	Exploration has been performed by an incorporated subsidiary company of Evolution, Ngwena. Stream sediment surveys carried out historically by BHP were not assayed for the commodity referred to in the announcement.
Geology	The regional geology is comprised of late Proterozoic Mozambique mobile belt lithologies consisting of mafic to felsic gneisses interlayered with amphibolites and metasedimentary rocks. The mineralisation consists of a series of intercalated graphitic horizons within felsic gneiss (siliceous and aluminous rich sediments), amphibolites (mafic sourced material) and rarely high purity marble horizons.
Drillhole information	Not applicable, the results reported in this announcement refer to geophysical surveys.
Data aggregation methods	Not applicable, the results reported in this announcement refer to geophysical surveys.
Relationship between mineralisation widths and intercept lengths	Not applicable, the results reported in this announcement refer to geophysical surveys.
Diagrams	Refer to figures within the main body of this announcement.
Balanced reporting	Not applicable, the results reported in this announcement refer to geophysical surveys.
Other substantive exploration data	All material or meaningful data collected has been reported.
Further work	A trenching program is currently under way and subject to the results of the trenching, a reverse circulation drilling program is expected to commence in the June quarter 2022.