

# Aeromagnetic Results from Villasrubias have Identified Several Areas of Lithium Prospectivity – Including JORC Table

- Results from an aeromagnetic survey provide support for a follow up drill program targeting lithium mineralization at Villasrubias
- Survey defined two zones with contrasting geophysical character and highlight prospective trends
- Drill program to commence in January 2023

Energy Transition Minerals Ltd (the **Company** or **ETM**) (ASX: **ETM**) is pleased to announce the results of a aeromagnetic and electromagnetic survey completed at the Villasrubias lithium project. Villasrubias is located in the mining-rich Province of Salamanca in western Spain.

Aeromagnetic results have identified several areas of lithium prospectivity to be targeted by an upcoming drill campaign. The aeromagnetic survey focused on an area of historic aplite and pegmatite mining, and where lithium, tin, niobium and tantalum have been identified by ETM.



Figure 1: Magnetometer map showing the Total Magnetic Field (WGS84z29N)



The geophysical survey was performed using two simultaneous measuring units, a GEM GSMP-35U proton magnetometer installed on a hexacopter drone using a constant height and a 100ms sampling interval with a measuring range of 20,000 to 120,000 nT; and a potassium magnetometer GEM Gsmp-40 with the same measuring range and a sampling interval of 1 sec for the base unit.

The total magnetic field and the subsequent pole reduction defined two magnetically differentiable zones (zones A and B), which correspond to lithologically and geochemically differentiated blocks, the pegmatite source (two mica granite) and the host rock of the pegmatite dykes that are metasediments (graywacke and shales).

The known lithium and tin-bearing pegmatite dyke at Villasrubias is located in block B (east). The trace of this intrusive dyke is associated with a zone of lower magnetic susceptibility with respect to the surrounding rock, which enables the interpretation of other potential dykes that have not been previously identified. In Block B, at least four other low relative susceptibility trends have been defined, indicating the potential presence of additional dykes. These trends follow two preferred orientations (145deg and 55deg).

![](_page_1_Picture_4.jpeg)

Figure 2: Pseudo 3D model in which the topography is based on the TMFRP (right), with orthophoto (left) and indication of the relative alignments of low magnetic susceptibility materials at an orientation of 145 deg.

![](_page_1_Figure_6.jpeg)

Figure 3: Pseudo 3D model in which the topography is based on the TMFRP (right), with orthophoto (left) and indication of the relative alignments of low magnetic susceptibility materials at an orientation of 55 deg.

![](_page_2_Picture_0.jpeg)

The modelled TILT derivative corroborates with the total magnetic field with reduction to the pole (TMFRP) data, highlighting the contact zones between bodies with different magnetic character. The 3D inversion defines the morphology of the bodies that may relate to lithium-bearing aplite or pegmatite dykes. The modelling suggests sub-vertical dips whilst depth of the bodies range between 5 and 150 m.

![](_page_2_Picture_2.jpeg)

Figure 4: 3D magnetic susceptibility model. Volumes of the bodies of interest with magnetic susceptibility between -0.009 and -0.003 SI associated with the potential presence of dykes (WGS84z29N)

Following the successful completion of the geophysical survey, a drilling program of at least 10 holes with depths ranging between 100 and 200m is planned, expected to commence in January 2023.

ETM Managing Director Daniel Mamadou said "The work underway at our Villasrubias project in Spain is highlighting the potential for a significant lithium discovery, a key metal for the energy transition. The next stage of exploration includes drilling, which will enable us to test the prospective bodies defined by geophysics and hopefully lead us to a discovery. Given the looming deficit of lithium in the supply chain, European production has a critical role to play in closing the gap between supply and demand."

![](_page_3_Picture_0.jpeg)

![](_page_3_Picture_1.jpeg)

Figure 5: Location map of the work area within the Villasrubias IP Nº6914 (WGS84z29N)

Authorised for release by the Board of Energy Transition Minerals Ltd. -ENDS

![](_page_4_Picture_0.jpeg)

#### **Competent Person Statement**

The information in this announcement related to exploration results is based on information complied and approved for release by Mr Rafael López Guijarro who is a member of the European Federation of Geologists. Mr Guijarro is the chief geologist and full-time employee of the Company. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity, he is undertaking to qualify as a Competent Person in accordance with JORC Code (2012). The information from Mr Guijarro was prepared under JORC Code (2012). Mr Guijarro consents to the inclusion in this ASX release in the form and context in which it appears.

#### **About Villarubias**

On 14<sup>th</sup> July 2022 the Company announced that it has entered into a binding head of agreement with Technology Metals Europe SL (**TME SL**) and its sole shareholder Welsbach Holdings Pte Ltd (**Welsbach**), for the right to earn-in a 51% interest in TME SL (the **Transaction**). TME SL is the sole owner of an exploration permit in Spain prospective for lithium (**Tenement**), known as the Villasrubias project.

ETM can earn its interest in TME SL by spending AU\$3,000,000 on a jointly agreed work program in relation to the Tenement within 3 years from the date of satisfaction (or waiver, if permitted) of the conditions precedent to the Transaction. Shareholder approval of the of the Transaction was obtained on 28th October 2022.

#### ABOUT ENERGY TRANSTION MINERALS LTD.

Energy Transition Minerals Ltd (ASX: ETM) is an exploration and development company focused on developing high-quality mineral projects globally. One of the Company's projects is the Kvanefjeld Rare Earth Project. A comprehensive feasibility study was completed in 2015. The studies outlined the potential for Kvanefjeld to be developed as a long-life, low cost, and large-scale producer of rare earth elements. The company is also involved in the Villasrubias lithium project. Villasrubias is an early-stage exploration project located in the region of Castille and Leon in Spain. The company continues to assess other opportunities globally with the aim to get involved in the development of critical metals projects with a view to become a key enabler of the energy transition.

Daniel Mamadou Managing Director +61 8 9382 2322 Miles Guy Company Secretary +61 9382 2322

# JORC Code, 2012 Edition – Table 1. Villasrubias Project. Geophysical survey.

### **Section 1 Sampling Techniques and Data**

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	• Research permit for three years (May 2022-May 2025), located in Salamanca, Castilla y Leon (Spain) owned by Technology Metals Europe (a wholly owned subsidiary of Welsbach Holdings). No restrictions for the research (including full license for drilling). No Red Natura 2000 restricted areas.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The company that previously was the owner of the permit, SIEMCALSA, only carried out surface reconnaissance, VLF geophysics and a basic geochemical study. The use of magnetometry by drone in the area is a completely new approach in the exploration</li> </ul>

Criteria	JORC Code explanation	Commentary
		of the area that gives a new vision of the existence of a pegmatite field within the permit and define better the geological contacts.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Pegmatites are relatively common in the Central Iberian Zone (CIZ) of the Iberian Massif, in a NNW-SSE striking belt, ≈500 km long and ≈150 km wide, being particularly abundant in the provinces of Salamanca, Cáceres, Pontevedra, south of Zamora and north of Badajoz in Spain, and in the Viana do Castelo, Porto, Vila Real, Guarda, Castelo Branco and Viseu districts in Portugal (Roda-Robles et al., 2016). These pegmatites are often barren, with none or just a slight enrichment in incompatible elements. However, rare-element pegmatites, mainly enriched in Li±F±P±Nb±Ta±Sn±Be±B may be also locally abundant.</li> <li>The Schist and Greywacke Complex, a thick Neoproterozoic-Cambrian metasedimentary sequence affected by a Variscan low-grade metamorphism, mainly occupies the permit. These materials are affected by structures of deformation (folds, faults) of Hercynian Orogeny. An igneous massif (a prolongation of the Guarda Batholith) outcrops in the western part of the permit.</li> <li>This massif, mostly constituted by biotitic ± muscovite, porphydic, coarse-grained granites, produces a contact metamorphism halo (hornblende-hornfels facies) of 3 km width. Close to the granite contact, there are small stocks of two-micas fine-grained granites and dykes (mostly aplites) intruding the metasedimentary Complex.</li> <li>These dykes, usually several meters width and both parallel and normal to the contact, host in some cases Li-Sn-Nb-Ta mineralization.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul> </li> </ul>	<ul> <li>Not applicable. Drilling has not yet been carried out, scheduled for the second half of February.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Not applicable.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not applicable
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Not applicable
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Not applicable
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Geophysical Survey Results. The work has focused on a specific area of the research permit in which there are numerous mineral indications and old exploitations, now abandoned, for the processing of tin ores over a series of aplite and pegmatite dykes, with appreciable lithium, niobium, and tantalum contents. To this end, the geophysical investigation technique of magnetometry has been used, carrying out a high-resolution</li> </ul>

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		<ol> <li>The total magnetic field and the subsequent pole reduction show the presence of two magnetically differentiable zones (zones A and B), which correspond to the existence of two compositionally differentiated blocks from a lithological and geochemical point of view.</li> </ol>
		<ol> <li>The known dyke is in block B (East). The trace of this dyke is located on a relative alignment of materials of lower magnetic susceptibility with respect to the surrounding materials, which can be interpreted as a sign that intrusive bodies (dykes) manifest themselves in this way, thus being a criterion for interpretation.</li> </ol>
		<ol> <li>In Block B, at least four other alignments of material with low relative susceptibility can be delineated, indicating the potential presence of dykes.</li> </ol>
		<ol> <li>These alignments follow two preferred directions of elongation (N145E and N55E) with a pseudo-orthogonal character to each other, an aspect that could have structural implications, or indicate genetic emplacement mechanisms.</li> </ol>
		<ol> <li>The TILT derivative corroborates the data provided by the TMFRP, highlighting the contact zones between bodies with different magnetic character, with the interpreted linear contacts being very visible.</li> </ol>
		6. The 3D inversion model allows us to define the morphology of the bodies or volumes of materials that may be related to the presence of aplite / pegmatite dykes. In this case, the bodies of interest with magnetic susceptibility between - 0.009 and -0.003 SI have been delimited. These bodies present a clear elongated component with pseudo-vertical

Criteria	JORC Code explanation	Commentary
		dips. The depth of emplacement of these bodies ranges between 5 and 150 m, although this type of results must be considered with great caution.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>This geophysics survey make it possible to focus the coming drilling campaign in the zones where the geophysics points that exits similar features than the old tin mine, in other words, the lateral extension of the pegmatite bodies that outcrops.</li> <li>Furthermore, these results encourage us to continue making additional geophysics survey in the adjacent areas to this one looking to the lateral extension of these pegmatite bodies and find new ones that conform a Li-bearing pegmatite field to develop a mining project.</li> </ul>
		<figure></figure>

Criteria JORC Code explanation

Commentary

determined based on the TMFRP (WGS84 29N).

**Section 3 Estimation and Reporting of Mineral Resources** 

**Section 4 Estimation and Reporting of Ore Reserves** 

**Section 5 Estimation and Reporting of Diamonds and Other Gemstones** 

Rafael López Guijarro EuroGeol nº 1645 ICOG nº 7827