ARK MINES LTD.

ASX ANNOUNCEMENT
8th October 2024

8 OCTOBER 2024

MINING LEASE APPLICATION SUBMITTED FOR SANDY MITCHELL RARE EARTHS AND HEAVY MINERALS PROJECT

HIGHLIGHTS

- **Mining Lease (ML) application submitted covering ~406 hectares of the Sandy Mitchell Rare Earth and Heavy Mineral Deposit**
- **The area under application covers the acreage that forms the basis of the recently reported Measured Resource Estimate (MRE) on 2nd October 2024.**
- **Ark recently reported Measured Mineral Resource Estimate (MRE) of 71.8 Mt @ 1,732.7 ppm Monazite Equivalent was calculated using a 700ppm MzEq lower cut-off grade (see Appendix A of the Resource Report).**

  Monazite equivalent calculation

  MzEq = 1.000 x monazite + 1.000 x xenotime + 0.361 x zircon + 0.281 x rutile + 0.165 x hi Ti leucoxene + 0.126 x lo Ti leucoxene + 0.072 x altered ilmenite + 0.065 x ilmenite. The proportions of valuable elements in recoverable economic heavy minerals are ascertained by QEM scan deportment percentages applied to all elements
- **The Measured MRE includes a basket of high value Heavy Minerals (HM), comprised of:**
  - ***Monazite 1,229 ppm***
  - ***Xenotime 115.7 ppm***
  - ***Zircon 663 ppm***
  - ***Ti Minerals: Rutile 105 ppm, High Ti Leucoxene 304 ppm, low Ti Leucoxene 193 ppm, Altered Ilmenite 313.8 ppm and Ilmenite 340 ppm***
- **The ML ground is substantially drilled-out with some opportunity for the definition of additional resources within the ML boundary.**
- **The updated Measured MRE reported on 2nd October 2024 underpins the completion of a Scoping Study, supports the application for this Mining Licence, and accelerates ongoing strategic partnership and offtake discussions.**

Executive Director Ben Emery said:

"This ML application over our recently updated measured resource is another step in Ark advancing the Sandy Mitchell project's development and reflects our growing confidence in the asset. The commercialisation pathway for Sandy Mitchell is becoming more clearly defined, given the fact it is the simplest REE style of deposit to mine and beneficiate."

"Importantly, the combined significant scale and the MzEq grades of 1,733 ppm are also indicative of Sandy Mitchell's commercial potential, based on current market prices for monazite concentrate and heavy minerals which are present throughout the resource."

[1] https://price.metal.com/mobile/RE/spot

"With the completion of this ML application, Ark's team is now busy advancing Sandy Mitchell's mine development strategy. Near-term milestones include the Scoping Study, which is well-advanced and scheduled for release in the coming weeks. The results from the Scoping Study will be incorporated into a Pre-Feasibility Study (PFS) for Sandy Mitchell. As the project development accelerates, Ark is also advancing discussions with strategic partners and potential offtake customers."

"We remain of the view that Sandy Mitchell represents a significant commercial development opportunity for the Rare Earth and Heavy Minerals industry in Australia, with low-cost processing for a marketable MzEq concentrate which can be sold to established processing refineries."

Ark Mines Limited (ASX: AHK) is pleased to announce that an application for a Mining Licence has been undertaken over its Sandy Mitchell Rare Earth Elements and Heavy Minerals Project in North Queensland *(see Figure 1).*

The updated MRE and the ML application leaves Ark Mines well positioned to execute on its stated development strategy for Sandy Mitchell, with low-cost mining of rare earths and heavy minerals combined with low-cost downstream processing through simple gravity separation.

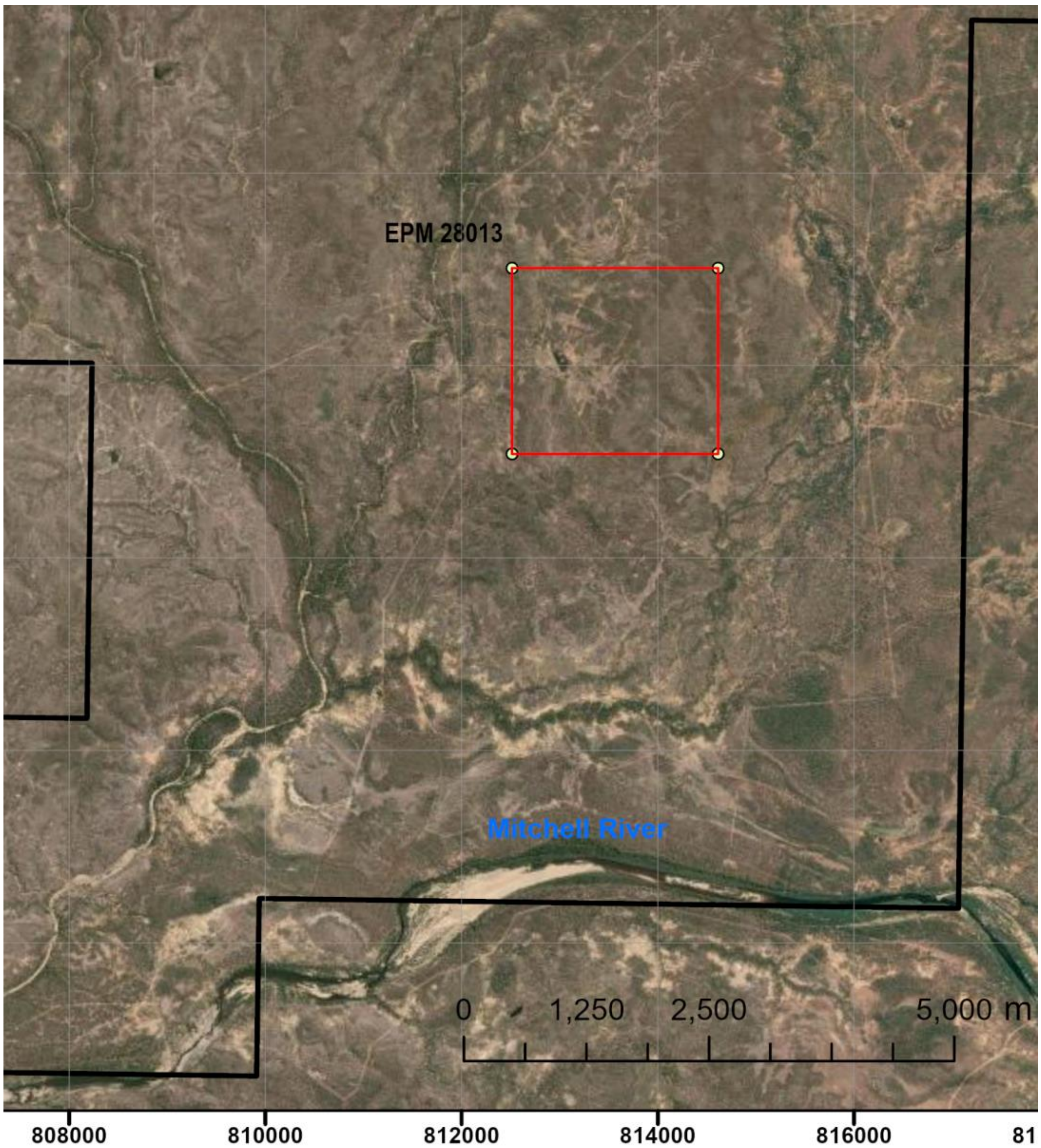

Figure 1 *Location of the ML application in red*

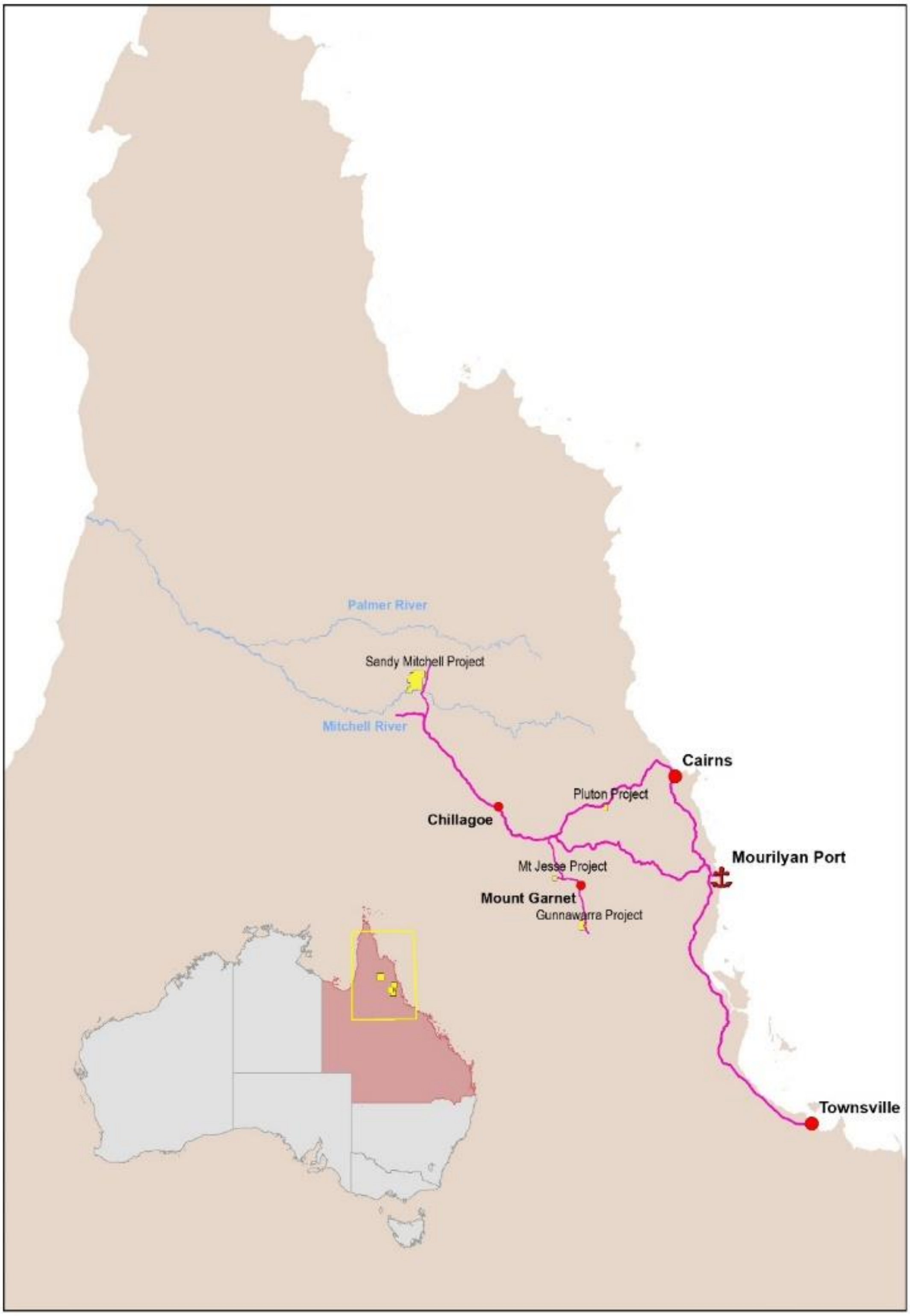

Figure 2: *Location of the Sandy Mitchell Project, near Chillagoe, Nth QLD.*

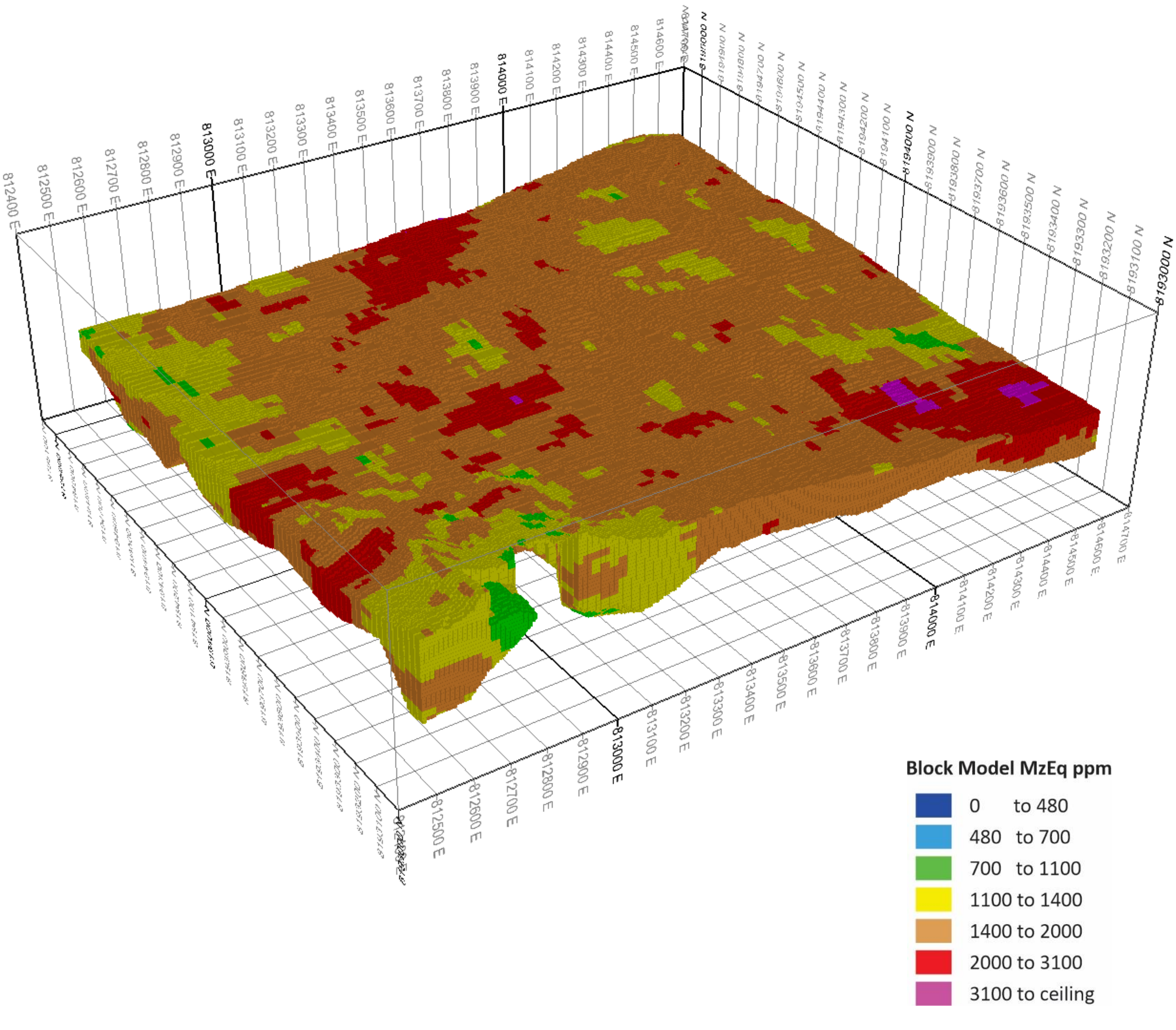

Figure 3*: Sandy Mitchell updated block model 10 x vertically exaggerated isometric view looking northeast and coloured on monazite equivalent. The block model perimeter is 4.06 km^2. The model volume is 47,172,646 m^3. The model tonnage is 71,789,616 dry metric tonnes at a mean loose dry bulk density of 1.52. The entire model is classified as Measured (see Appendix A for the HGS JORC 2012 resource report)*

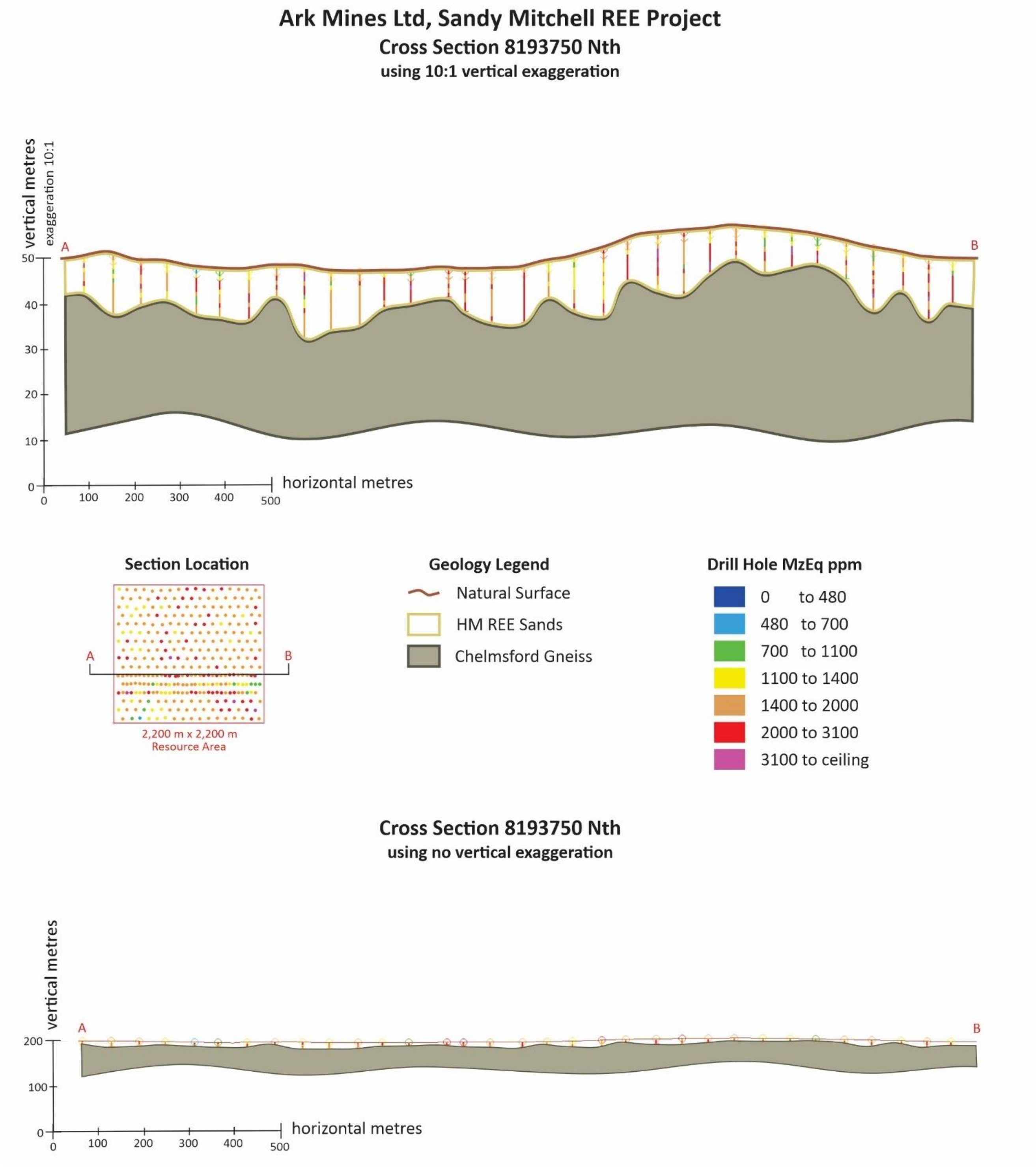

Figure 4: *Sandy Mitchell Project west to east cross section at 8193750 m north through the REE & HM sand, showing drill data from the Stage 1 resource AC drill grid coloured for monazite equivalent.*

The upper section has a vertical exaggeration of 10x to afford visibility of the drill data at the scale of the drill section. The lower section is the same section without vertical exaggeration, i.e. at true scale, illustrating why exaggeration is required to visualise the data. Note, the vertical exaggeration has the effect of magnifying topological variation as well as making the drill data visible. The lower section provides a realistic idea of the topography and basement variability of this relatively low relief terrain.

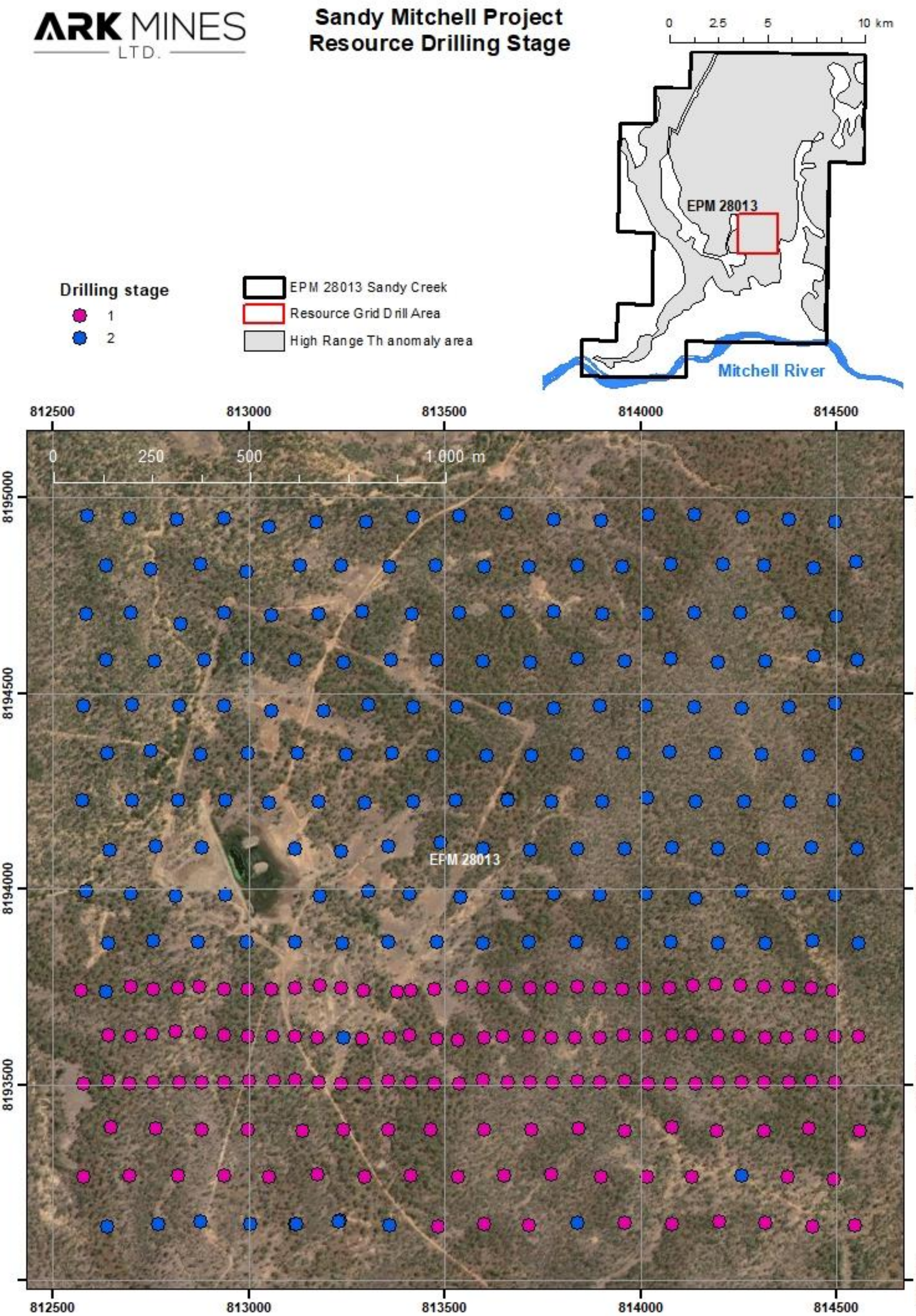

Figure 5: *Sandy Mitchell resource area showing stage 1 (pink) and stage 2 (blue) drill collars against a 500m grid.*

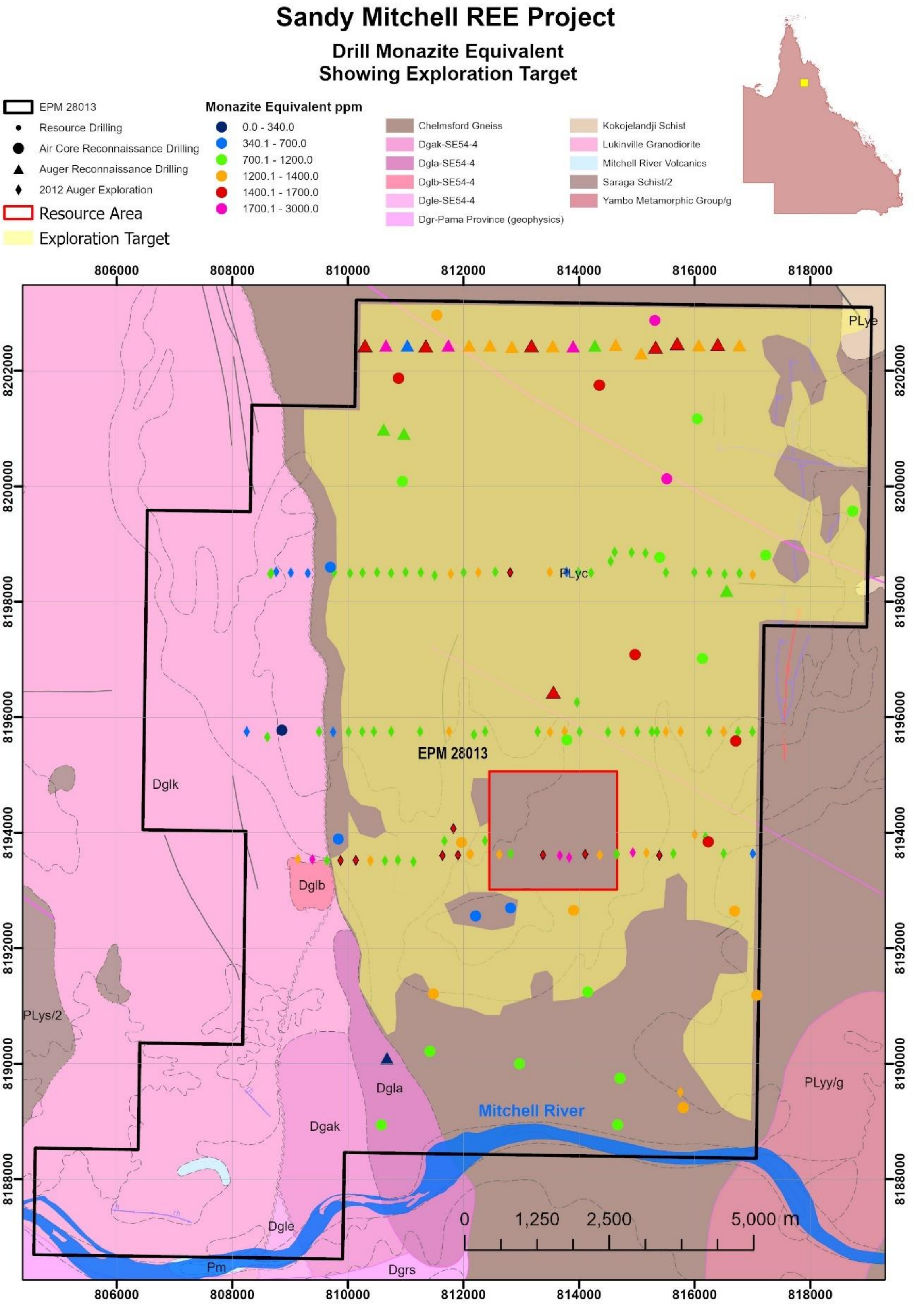

Figure 6: *Sandy Mitchell JORC 2012 Exploration Target (yellow)showing MRE area (red), from https://arkmines.com/asx-annoucement-sandy-mitchell-mine-020724/*

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The entity confirms in this report that it is not aware of any new information or data that materially affects the informatiuon included in previous relevant market announcements and, in the case of estimates of mineral resources , that all material assumptions and technical parameters underpinning the estimates in such relevant market announcements continue to apply and have not materially changed.

AUTHORITY FOR RELEASE

This announcement has been approved for release to the ASX by the Board of Ark Mines Ltd.

Roger Jackson
Executive Chairman
8th October 2024

FURTHER INFORMATION

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About Ark Mines Limited

Ark Mines is an ASX listed Australian mineral exploration company focused on developing its 100% owned projects located in Northern Queensland. The Company's exploration portfolio consists of four high quality projects:

The Flagship Sandy Mitchell Rare Earth and Heavy Mineral Project

- **Ark owns 100% of the 147km^2 EPM 28013 *'Sandy Mitchell'* – an advanced Rare Earths Project in North Queensland with additional 138km^2 of sub blocks under application**
- **Measured Mineral Resource Estimate (MRE) of 71.8 Mt @ 1,732.7 ppm Monazite Equivalent calculated using a 700ppm MzEq lower cut-off grade (see Appendix A for Resource Report).**
- **Very high historical TREO grades* including high grade pan concentrates of:**
- **Project contains all critical Light Rare Earths as well as Heavy Rare Earths including dysprosium (Dy), terbium (Tb), holmium (Ho), erbium (Er), thulium (Tm) ytterbium (Yb), yttrium (Y) and excluding only Lutetium**
- **Up to 25% of the TREO is Nd and Pr (magnet metals)**
- **Rare Earths at *'Sandy Mitchell'* are amenable to panning a concentrate ; Planned low-cost, fast start up, straightforward beneficiation by gravity processing**

Gunnawarra Nickel-Cobalt Project

- Comprised of 11 sub-blocks covering 36km^2
- Borders Australian Mines Limited Sconi project - most advanced Co-Ni-Sc project in Australia
- Potential synergies with local processing facilities with export DSO Nickel/Cobalt partnership options

Mt Jesse Copper-Iron Project

- Project covers a tenure area of 12.4km^2 located ~25km west of Mt Garnet
- Centered on a copper rich magnetite skarn associated with porphyry style mineralization
- Three exposed historic iron formations
- Potential for near term production via toll treat and potential to direct ship

Pluton Porphyry Gold Project

- Located ~90km SW of Cairns near Mareeba, QLD covering 18km^2
- Prospective for gold and associated base metals (Ag, Cu, Mo)
- Porphyry outcrop discovered during initial field inspection coincides with regional scale geophysical interpretation

Competent Persons Statement

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Roger Jackson, who is a Fellow of the Australian Institute of Mining and Metallurgy and a Fellow of the Australasian Institute of Geoscientists. Mr Jackson is a shareholder and director of the Company. Mr Jackson has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves '(the JORC Code). Mr Jackson consents to the inclusion of this information in the form and context in which it appears in this report. Mr Jackson confirms information in this market announcement is an accurate representation of the available data for the exploration areas being acquired.

Forward Looking Statements and Important Notice

This report contains forecasts, projections and forward-looking information. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions it can give no assurance that these will be achieved. Expectations and estimates and projections and information provided by the Company are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are out of Ark Mines' control.

Actual results and developments will almost certainly differ materially from those expressed or implied. Ark Mines Limited has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this announcement. To the maximum extent permitted by applicable laws, Ark Mines makes no representation and can give no assurance, guarantee or warranty, express or implied, as to, and takes no responsibility and assumes no liability for the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission from, any information, statement or opinion contained in this report and without prejudice, to the generality of the foregoing, the achievement or accuracy of any forecasts, projections or other forward looking information contained or referred to in this report.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.