

12 August 2024

East Star Resources Plc

("East Star" or the "Company")

### Copper Porphyry Exploration Update: Completion of Soil Sampling

East Star Resources Plc (LSE:EST), which is exploring for copper in Kazakhstan, is pleased to provide an update on exploration at the Ayagoz and Snowy licences on the Balkash-Ili magmatic arc, which are prospective for copper porphyry deposits. Exploration has initially been funded by the US\$500,000 BHP Xplor grant.

#### Highlights:

- Soil sampling and spectral analysis of 2,800 samples completed
- Multi-element Inductively Coupled Plasma Mass Spectrometry ("ICP-MS") assays are underway
- Satellite multispectral imagery clearly defines hydrothermal alteration around the lithocap - consistent with that found proximal to other porphyry examples elsewhere in the world
- Lithocap samples were also collected for multi-element geochemistry

#### Chris van Wijk, East Star's Technical Director, commented:

*"We are really impressed with the speed and quality of the work our team and contractors have completed. The work programme has taken less than two months, with a total of 2,800 samples collected which have already received spectral analysis. When combined with the geochemistry results, we will have a detailed map of the area, inferring the depth of the porphyry target. The soils will also assist with the assessment of the historical artisanal gold mines around Snowy and their potential to contain larger epithermal gold deposits. The geochemical results from these two programmes will dictate the follow-on work programme and provide information that will assist in targeting throughout the rest of this proven mineral belt."*

#### Systematic Soil Geochemistry and Lithocap Sampling

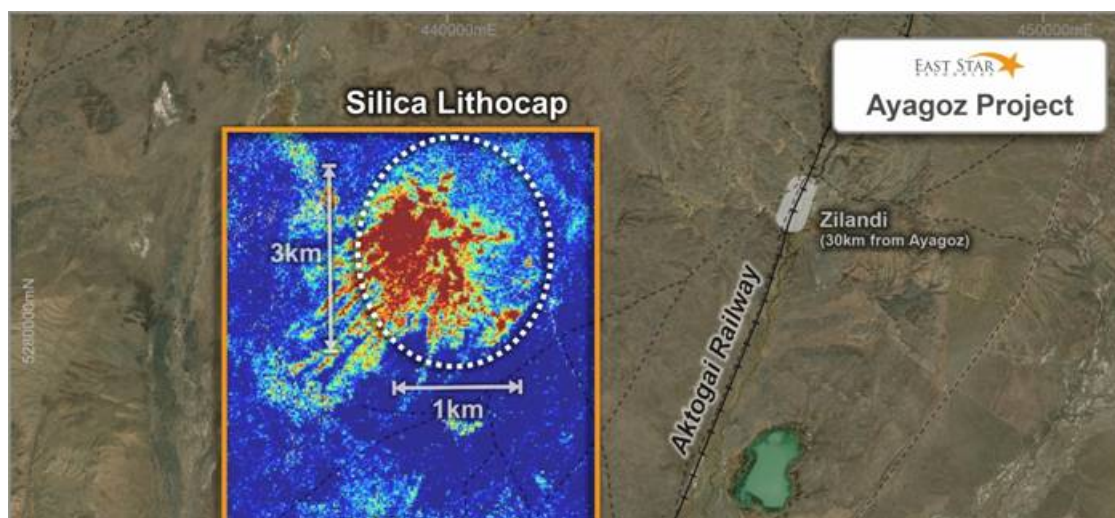
A recent site visit to the Ayagoz licence was undertaken in order to sample the outcropping silica lithocap. Several field traverses along the ridge lines of the lithocap were completed, and 25 rock chip samples were collected for spectral analysis and multi-element geochemistry. In addition to this programme, 1,160 soil samples have been collected and analysed using a combination of low detection multi-element geochemistry (by ICP-MS) and hyperspectral analysis using a spectral analyser.

At Snowy, 1,640 soil samples have been collected and have undergone both spectral analysis and low detection multi-element geochemistry (by ICP-MS).

#### Multi-Spectral Analysis

Work has also been undertaken over the licence areas to understand the regional spectral response using ASTER data. As expected, the silica lithocaps, which are visible at surface, have strong multi-spectral signatures in ASTER data, which indicate a high degree of hydrothermal alteration and weathering, consistent with that found proximal to other porphyry examples elsewhere in the world. Figures 1 and 2 below show the KLI Index over the Ayagoz and Snowy licences respectively. KLI Index is a composite band index designed to highlight the Kaolin group of minerals which are the end-product of hydrothermal alteration and are expected in highly altered, leached lithocaps such as Ayagoz and Snowy. The image is useful at delineating the size and extent of the lithocap and the potential mineralogy, which will be further refined using the spectral data once available.

The understanding of the lithocap environment is crucial in porphyry exploration. Lithocaps are the direct product of intrusive systems such as copper and gold porphyries and are the relic of the hot and highly acidic hydrothermal fluids emanating from the intrusive system as it is emplaced and cooled down. As these hot, acidic fluids pass through the rock, they alter the minerals and selectively enrich or deplete certain pathfinder elements. As a result, porphyry systems are consistently and predictably zoned, both in terms of mineralogy and their associated pathfinder geochemistry. The current geochemistry and spectral analysis work is aimed at understanding the zonation within the lithocap which allows the company to infer the depth to the porphyry target.



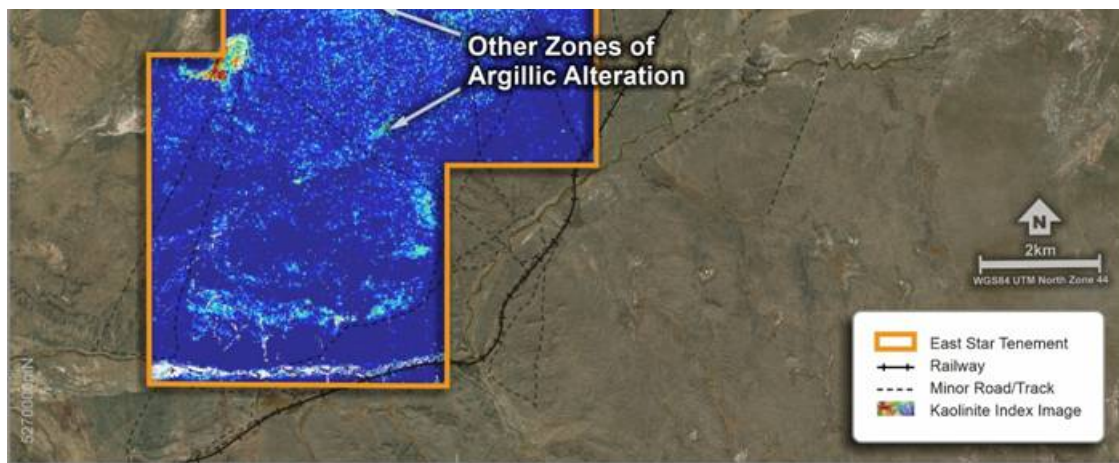


Figure 1 - Ayagoz licence with KLI index generated from ASTER data.

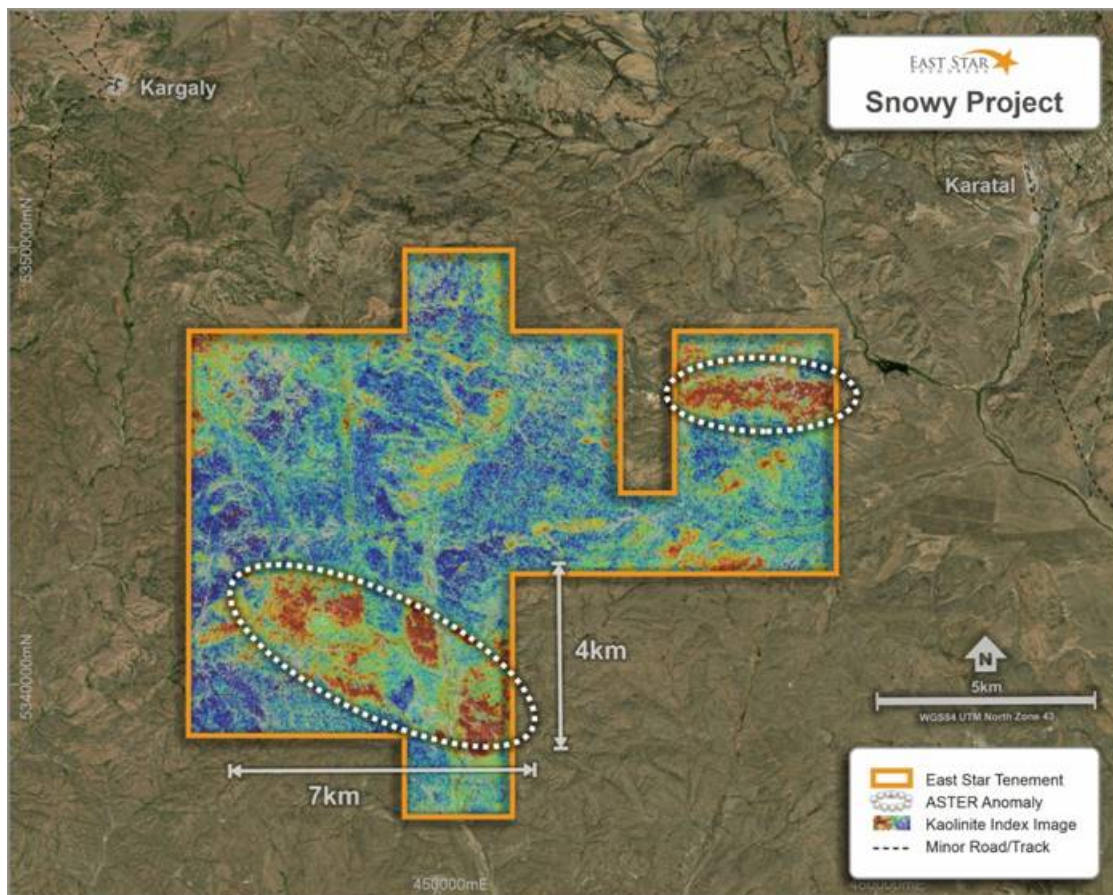


Figure 2 - Snowy licence with KLI index generated from ASTER data.

## Regional Setting

The licences are located on the paleozoic Balkash-Ili volcanic arc. The Balkash-Ili arc is known to host multiple copper and gold rich porphyry and skarn deposits with the best-known examples including Kounrad (~650Mt @ 0.59% Cu), located 145 km south of Snowy, and Aktogai-Aidarly (~2.5Bt @ 0.39% Cu), located some 80 km to the south of Ayagoz.

The work history of the licences is still being compiled from archive data; however, the prospects were both identified during soviet era mapping which shows 'secondary quartzites' and anomalous copper and gold in several areas around the licences. 'Secondary quartzites' were a soviet term used to refer to the residual, leached silica lithocaps which are commonly associated with porphyry intrusions. These lithocaps are also clearly identified through analysis of ASTER multispectral data and have been classified as a mixture of silica and argillic alteration which has been confirmed by field visits initially carried out in 2023.

Both licences are well served by existing infrastructure including a railway used to transport concentrate from the Aktogai mining complex which runs through the south-east of the Ayagoz licence and a well-maintained gravel road running from Aktogai in the south to Ayagoz in the north alongside the railway. The Snowy licence is approximately 35 km east of the main Almaty-Karaganda highway which is a paved, all weather highway. The licence is directly accessed by a network of tracks used to navigate between the regional villages.





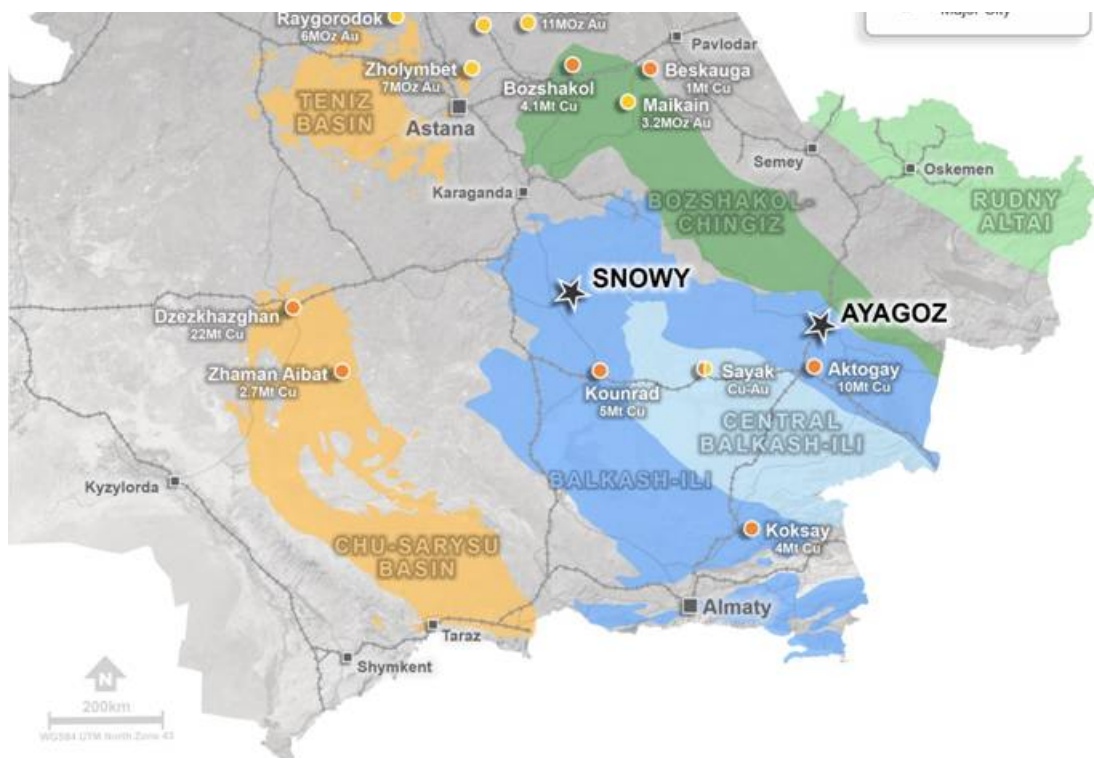


Figure 3 - Regional location map.

#### Copper Porphyry Exploration Strategy

East Star has developed a strategy of regional target generation for copper porphyry deposits, principally focussed on the Balkash-Ili magmatic arc, host to the above-mentioned Kounrad and Aktogai-Aidarly deposits. By applying modern mineral systems concepts with advanced desktop analytical techniques and on-the-ground geological confirmation, East Star intends to secure several more exploration licences within the area of interest for further field work.

#### East Star Resources Plc

Alex Walker, Chief Executive Officer  
Tel: +44 (0)20 7390 0234 (via Vigo Consulting)

#### SI Capital (Corporate Broker)

Nick Emerson  
Tel: +44 (0)1483 413 500

#### Peterhouse Capital Limited (Corporate Broker)

Peter Greensmith  
Tel: +44 (0) 20 7469 0930

#### Vigo Consulting (Investor Relations)

Ben Simons / Peter Jacob  
Tel: +44 (0)20 7390 0234

#### About East Star Resources Plc

East Star Resources is focused on the discovery and development of strategic minerals required for the energy revolution. With eight licences covering >1,000 km<sup>2</sup> in three mineral rich districts of Kazakhstan, East Star is undertaking an intensive exploration programme, applying modern geophysics to discover minerals in levels that were not previously explored. East Star's most advanced project is a copper deposit on the world-class Rudny Altai VMS Belt where the Company delivered a JORC compliant inferred resource of 20.3Mt @ 1.16% copper, 1.54% zinc and 0.27% lead close to infrastructure, within trucking distance of third-party mills with excess capacity. East Star's management are based permanently on the ground, supported by local expertise, a joint venture with the state mining company on certain projects, and grant funding from BHP through the BHP Xplor programme, which has now completed, for copper porphyry exploration.

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