# **ASX Release** 30 March 2022

# **Project Wide Targeting Reveals Significant Lithium Exploration Zones at Yarrie Lithium Project, WA**

# Highlights:

- Project wide targeting and geological modelling conducted by the Company has revealed several significant and high-priority exploration targets at the Yarrie Lithium Project
  - High-priority targets demonstrate the potential to host lithium mineralisation in pegmatites
- Previously completed Hyperspectral Survey and initial reconnaissance field program conducted by the Company identified multiple geological structures that warrant further follow up in the field
- The Company has developed a specific exploration model for the Yarrie Lithium Project
  - Extensive on-ground field exploration activities designed to delineate zones of anomalism for future testing is set to commence in April 2022
- The Yarrie Lithium Project covers an area of >1,711km<sup>2</sup>:
  - borders the Marble Bar Lithium Project (Kalamazoo Resources Limited, ASX: KZR), which recently signed a joint venture agreement with Chileanbased major lithium producer SQM
  - located less than 30 km north of the Archer Lithium Project (Global Lithium Resources Limited, ASX: GL1) near Marble Bar containing 10.5MT @ 1.0% Li<sub>2</sub>O

Askari Metals Limited (ASX: AS2) ("Askari Metals" or "Company"), an Australian based exploration company with a portfolio of battery metals (Li + Cu) and gold projects across Western Australia, Northern Territory and New South Wales, is pleased to provide an update on the design and timing of its proposed exploration program at the 100%-owned Yarrie Lithium Project, located in the highly prospective Pilbara region of Western Australia. The Yarrie Lithium Project is considered highly prospective for hardrock Lithium-Tin-Tantalum (Li + Sn + Ta) mineralisation in pegmatites.

Commenting on the planned exploration activities, VP Geology and Exploration, Mr Johan Lambrechts, stated:

"We consider the Yarrie Lithium Project to be extremely prospective and crucial to the Company's future advance in the lithium market. The project is extensive, in a good geological setting and has never seen targeted lithium exploration. As active explorers, we believe in a geological foundation to our activities and have produced an exploration model suitable to uncover the lithium potential on our Yarrie tenement. The model incorporates practical exploration experience and an understanding of geological fluid model interactions and their geochemical requirements.

The Company plans to be aggressive in its execution of exploration activities on the Yarrie project with an aim to moving the project up the value curve by way of tangible results. We look forward to keeping our shareholders regularly updated with our progress."



Board of Directors and Senior Management
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Technical Director - Lithium - Mr Chris Evans
Company Secretary / CFO - Mr Paul Fromson
VP Exploration and Geology - Mr Johan Lambrechts



The Yarrie Lithium Project consists of nine exploration licenses covering more than 1,700 km² in the eastern Pilbara lithium hotspot, approximately 50km northeast of Marble Bar, Western Australia. The tenements are primarily confined to the Muccan Granitoid Complex (Muccan GC) from a geological perspective. However, they locally comprise a mix of granite batholiths with minor mafics and ultramafics, particularly within the centre and east of the tenure. The tenements are unexplored in terms of its lithium-bearing potential.

An investigation of the underlying geology combined with the results of the Hyperspectral Survey and the initial reconnaissance exploration program has enabled the Company to generate a targeted "lithium-exploration" geological model, designed to provide focus areas within this district-scale opportunity where dedicated lithium exploration can be conducted. The outcome of this, subject to results, will demonstrate anomalism over high-priority areas where further exploration can be undertaken, therefore generating key focus areas within the Yarrie Project.

The figure below depicts a location map of the Yarrie Lithium Project as well as the surrounding lithium projects. These include the Wodgina Lithium Project (Mineral Resources Ltd/Abermale Corp), Pilgangoora Lithium Project (Pilbara Minerals Ltd) and the Marble bar Lithium Project (Global Lithium Resources).

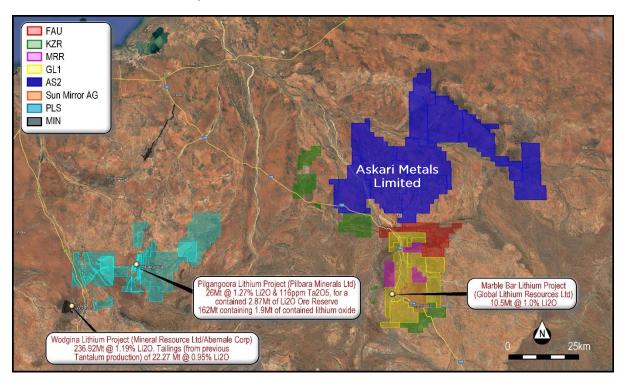


Figure 1: Satellite image location map of the Yarrie Lithium Project, East Pilbara, WA

Initial geological reconnaissance was undertaken by the Company with the assistance of lithium pegmatite specialist, Dr Mike Grigson of Arc Minerals, an expert in granitic geology. Following his field observations, Dr Grigson inferred that the outcrops of monzogranite in the area are part of the Sisters Supersuite of granitic rocks. In the southern part of the project, these rocks contain cross-cutting pegmatite dykes with biotite, which are of significant interest to the Company as it relates to lithium pegmatite exploration.

An investigation into the detailed geology and a geological-modelling concept review undertaken by the Company has identified additional areas of interest within the tenement package.

Geological modelling and a review of the key geological structures present at the Yarrie Lithium Project has revealed that, apart from the structural deformation along the



margins of the Muccan GC, there are some linear features transecting the project area, which may have acted as potential conduits for lithium-bearing mineralising fluids:

- A major NE-SW trending fault with an apparent ~8km sinistral off-set, which roughly bisects the project area.
- A dolerite dyke, belonging to the Black Range Dolerite Suite (~2772Ma), which bisects the project area and seems to post-date the fault, as there appears to be no evidence of the ~8km sinistral off-set on it.
- A second dyke, also belonging to the Black Range Dolerite suite, runs parallel to the one described above, and lies ~9km to the West. This dyke outcrops intermittently and follows the fault until it seems to join with the first dyke proximal to the middle of the project area.

The recently completed Hyperspectral Survey at the Yarrie Project identified several high-priority exploration targets using a multivariate statistical classifier to separate the LWIR signals over the 86 known lithium occurrences around Marble Bar from the rest of the scene. This task combines the LWIR responses most associated with the Li-Sn-Ta occurrences in the area. A single "target" map is then generated identifying areas that best represent the Lithium endmember signatures. These targets together with the additional targets generated from the geological modelling completed by the Company will be the focus of the ground-based field exploration program, due to commence in April 2022.

The targets generated through the Hyperspectral Survey are identified in Figure 2 below (refer to ASX announcement dated 17 February 2022).

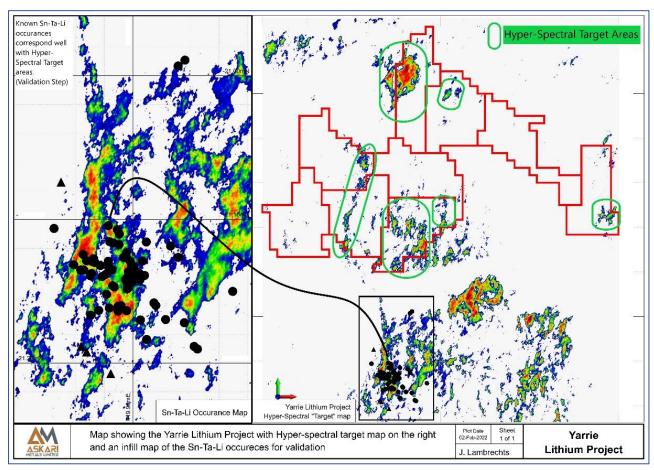


Figure 2: Map depicting targets generated by the hyperspectral analysis of the Yarrie Lithium Project



The geological modelling information has been compiled with the information generated from the recently completed Hyperspectral Survey and initial reconnaissance field visit completed by the Company and a project wide target map has been generated as set out in Figure 3 below. This has refined the design and execution of the upcoming field exploration program at the Yarrie Lithium Project. The Hyperspectral Survey and the reconnaissance field visit identified several geological structures that are conducive to lithium mineralisation emplacement, and which warrant further exploration and follow up.

An extensive on-ground field exploration campaign designed to delineate zones of anomalism for future testing is set to commence in April 2022.

# **Yarrie Lithium Project - Exploration Design**

The Yarrie Lithium Project is a district-scale lithium exploration opportunity located in the eastern Pilbara lithium hotspot adjacent to and along strike of major and growing hard-rock lithium deposits. Due to its favourable location and underlying geology, the Yarrie project is considered highly prospective for hard-rock lithium mineralisation in pegmatites.

As the Yarrie project is located in an emerging province where lithium exploration is only relatively recent, the Yarrie project has not been subject to historical lithium focused exploration. Therefore, exploration at the Yarrie project requires a suitable approach to identify targets and progress the project along the value curve. As part of the general exploration process the Company follows, a targeting rationale was generated.

Lithium mineralisation and more precisely spodumene is the target mineral at the Yarrie project. Spodumene is a high-temperature pyroxene generally derived from dark (mafic) rocks, inferring that the geological environment must be hot enough and have a mafic component to supply the required minerals to produce spodumene.

Therefore, the Company's exploration design basis and project wide targeting rationale has been developed based on identifying a suitable "Heat Engine" to drive spodumene formation with mafic geology nearby to serve as the source geochemistry for LCT pegmatite formation.

The mineralisation model designed by the Company concludes that the mafic geology can either be sedimentary or igneous, and the heat source can either be the granite itself or heat generated by metamorphism. The geological age of the rocks in any given area is taken into account when we develop our targets as well as mineral assemblages such as muscovite, feldspar megacrysts and tourmaline. Mineral mobility is also taken into consideration when we determine the sampling methodology for a given area to consider the likelihood of a mineral surviving the weathering process.

# **Planned Exploration**

The Company used Aster based hyperspectral analysis to identify initial targets on the Yarrie Lithium Project (see ASX announcement date 17 February 2022). These targets were visited during an initial reconnaissance visit (see ASX announcement dated 1 March 2022). The exploration rationale described above considered the targets identified by the Hyperspectral Survey as well as the initial reconnaissance field visit and generated additional "focused" targets in the same general areas.

Several sub-parallel dolerite (mafic) dykes, belonging to the Black Range Dolerite Suite (~2772Ma) as well as other mapped ultramafic units in the central and eastern parts of the Yarrie project have been identified as targets. The contact boundaries of granitic units have also been included as targets as well as areas believed to include pegmatite dykes identified from aerial photography.



During the upcoming planned field program, the Company will use various methods for collecting sample and anomalism data whilst in the field, including stream sediment sampling, rock chip sampling and mapping. Stream sediments are very useful to determine the prospectivity of a large area, while rock chip sampling is more confined to the local area surrounding the sample. Both sampling methods will be analysed with multi-element assays, scrutinising the results for various pathfinder element ratios. Field mapping and geological observations will identify the mineral assemblages of the various outcrops and add valuable information required to vector toward the spodumene target.

The primary target outlined in Figure 3 below is depicted with a green dashed line and measures 32km x 13km and targets an area underlain by cross-cutting geological structures proximal to the mafic dyke that has been mapped across the central part of the tenement.

The map below depicts the targets identified by the Askari Metals geological team.

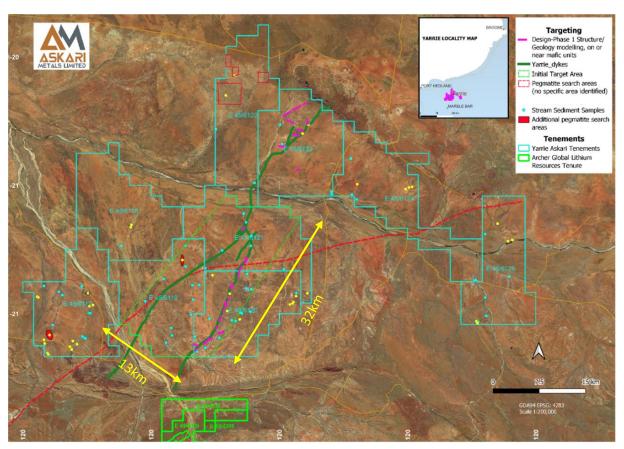


Figure 3: Map highlighting the various targets identified by the target generation work, Yarrie Lithium Project. Major NE-SW trending fault depicted using a red dashed line

The Company is planning an aggressive field program with a large portion of the massive tenement package being investigated in one program scheduled to commence mid-April 2022.

The field program has been designed to demonstrate anomalism over high-priority areas where further systematic follow-on exploration can be undertaken, therefore generating key focus areas within the Yarrie Project.

#### **ENDS**



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#### **About Askari Metals Limited**

Askari Metals was incorporated for the primary purpose of acquiring, exploring and developing high-grade gold, copper-gold projects and battery metals in **New South Wales, Western Australia** and **Northern Territory**. The Company has assembled an attractive portfolio of gold, battery metal and copper-gold exploration/mineral resource development projects in Western Australia, Northern Territory and New South Wales.

For more information please visit: www.askarimetals.com

# **Caution Regarding Forward-Looking Information**

This document contains forward-looking statements concerning Askari Metals Limited. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the Company's beliefs, opinions and estimates of Askari Metals Limited as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

# **Competent Person Statement**

The information in this report that relates to Exploration Targets, Exploration Results or Mineral Resources is based on information compiled by Johan Lambrechts, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr. Lambrechts is a full-time employee of Askari Metals Limited, who has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Mr. Lambrechts consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.