



# ESSENTIAL METALS

for a sustainable future

## ASX Code: ESS

### Corporate Profile

Shares on issue: 248,033,787  
Listed options: 19,174,367  
(\$0.15 exercise: 30/11/22 expiry)

Cash: \$10.5m (30 June 2022)  
Debt: Nil

### KEY PROJECTS

**LITHIUM** Pioneer Dome  
**GOLD** Golden Ridge  
**GOLD** Juglah Dome

### Joint Ventures (ESS %)

2x nickel projects (20-25%)\*  
4x gold projects (25-30%)\*  
\* Free carried to a decision to mine

### Corporate Directory

**Non-Executive Chairman**  
Craig McGown

**Non-Executive Directors**  
Paul Payne  
Warren Hallam

**Managing Director**  
Timothy Spencer

**CFO & Company Secretary**  
Carl Travaglini

**Exploration Manager**  
Andrew Dunn

### Investor Relations

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**26 September 2022**

## Advancement of Pioneer Dome Lithium towards production - Mining Lease Application lodged

Scoping Study underway, metallurgical test work results imminent, financing and off-take term sheets being formulated

### HIGHLIGHTS

- The Mineralisation Report and Supporting Statement that underpins the Mining Lease application were prepared by SRK Consulting (Australasia) Pty Ltd and were reviewed by the Geological Survey of Western Australia (GSWA) in early September.
- Formal notification of the Mining Lease Application has been received from the Department of Mines, Industry Regulation and Safety (DMIRS). The granting process is anticipated to take approximately six months.
- Leading engineering firm, Primero, has now commenced preparation of the independent Scoping Study for the Pioneer Dome Lithium Project. Mining engineering consultancy, Orelogy has been selected to provide mine optimisation and scheduling modelling to feed into the Study.
- Metallurgical test work results are expected to be received by the end of September.
- Financing and off-take term sheets are being formulated for circulation to selected interested parties by the end of September.
- The Scoping Study outcomes will form a basis to finalise the framework for the most suitable partner/partners to assist with advancing the Pioneer Dome Lithium Project into production.

Essential Metals Managing Director, Tim Spencer, said: *"The Mining Lease Application marks another important step on our pathway to production. I look forward to providing metallurgical test work results in the near future and other updates on our progress on various fronts during the December quarter."*



## PIONEER DOME LITHIUM PROJECT

The 450km<sup>2</sup> Pioneer Dome Project (ESS: 100%) is located in the core of Western Australia's lithium corridor in the Eastern Goldfields, approximately 130km south of Kalgoorlie and 275km north of the Port of Esperance. A Mineral Resource<sup>1</sup> of 11.2Mt @ 1.21% Li<sub>2</sub>O has been defined at 'Dome North' in the northern area of the Project.

The southern Yilgarn area is recognised as being well-endowed with spodumene deposits, including the Bald Hill Mine, the Mt Marion Mine and the Buldania Project, all of which are located within 80km of the Pioneer Dome Project. The world-class Greenbushes Deposit, the Mt Holland Mine and the Mt Cattlin Mine are located further west, south-west and south-south-west, respectively.

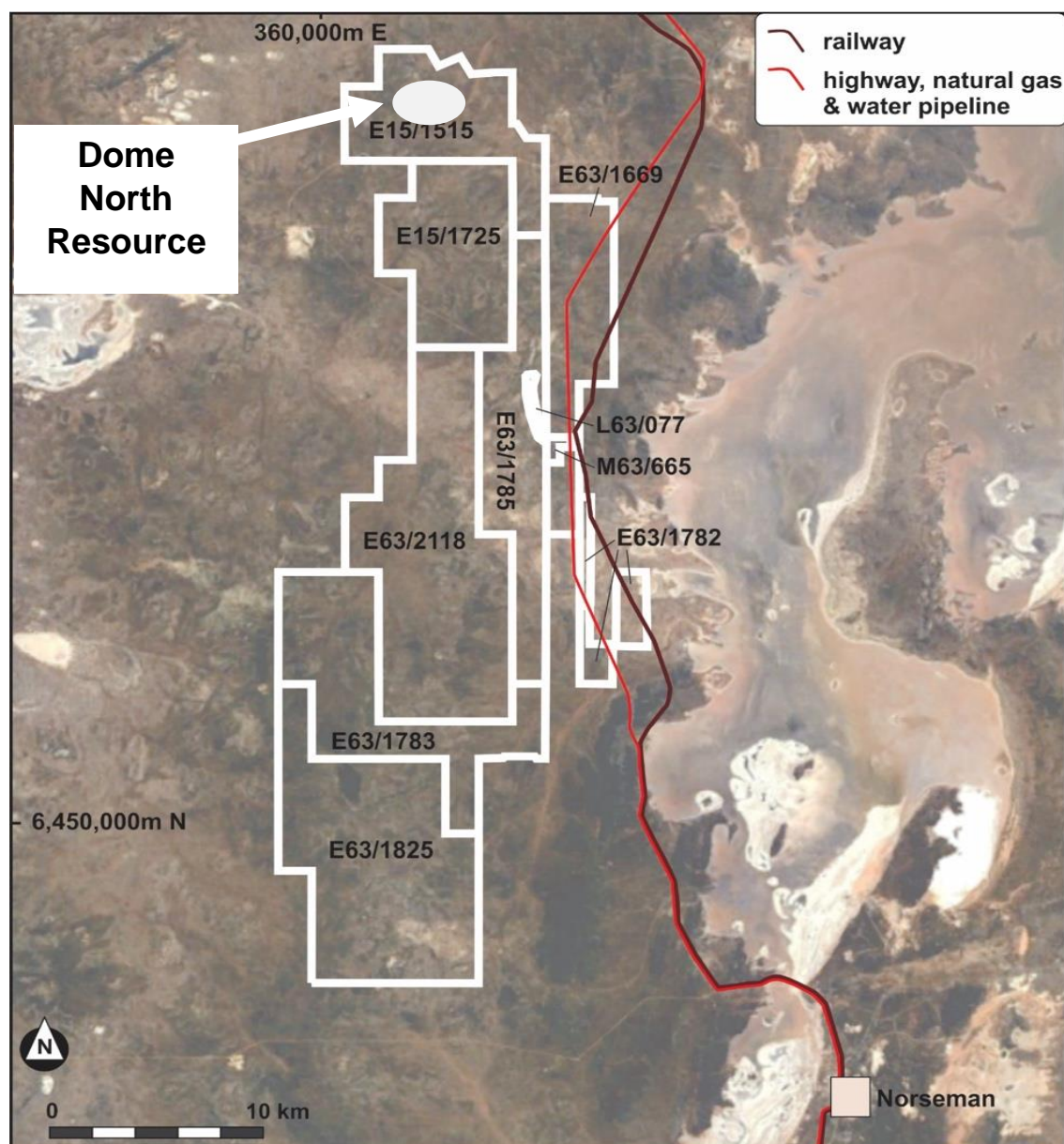


Figure 1 - The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure.

<sup>1</sup> Refer to ASX announcement dated 29 September 2020 "Dome North Lithium Project – Resource Upgrade"





### MINING LEASE

The Mining Lease Application was prepared on the basis of a Mineralisation Report and Supporting Statement prepared by SRK, a geological consultancy.

The Mining Lease Application was formally acknowledged in a letter from DMIRS, confirming receipt of the Application and designating the Mining Lease with the identification designation of M15/1896. An affidavit was lodged by the Company on 20 September confirming that the Company had complied with the various instructions contained in the DMIRS letter.

The area of the Mining Lease (under application) encompasses 2,412 hectares, which encapsulates the three deposits that comprise the current lithium Mineral Resource Estimate (MRE), lithium mineralisation identified in the vicinity of the MRE and land to be utilised for the process plant, waste dumps, tailings storage facility and other mine operation infrastructure and ancillary services.

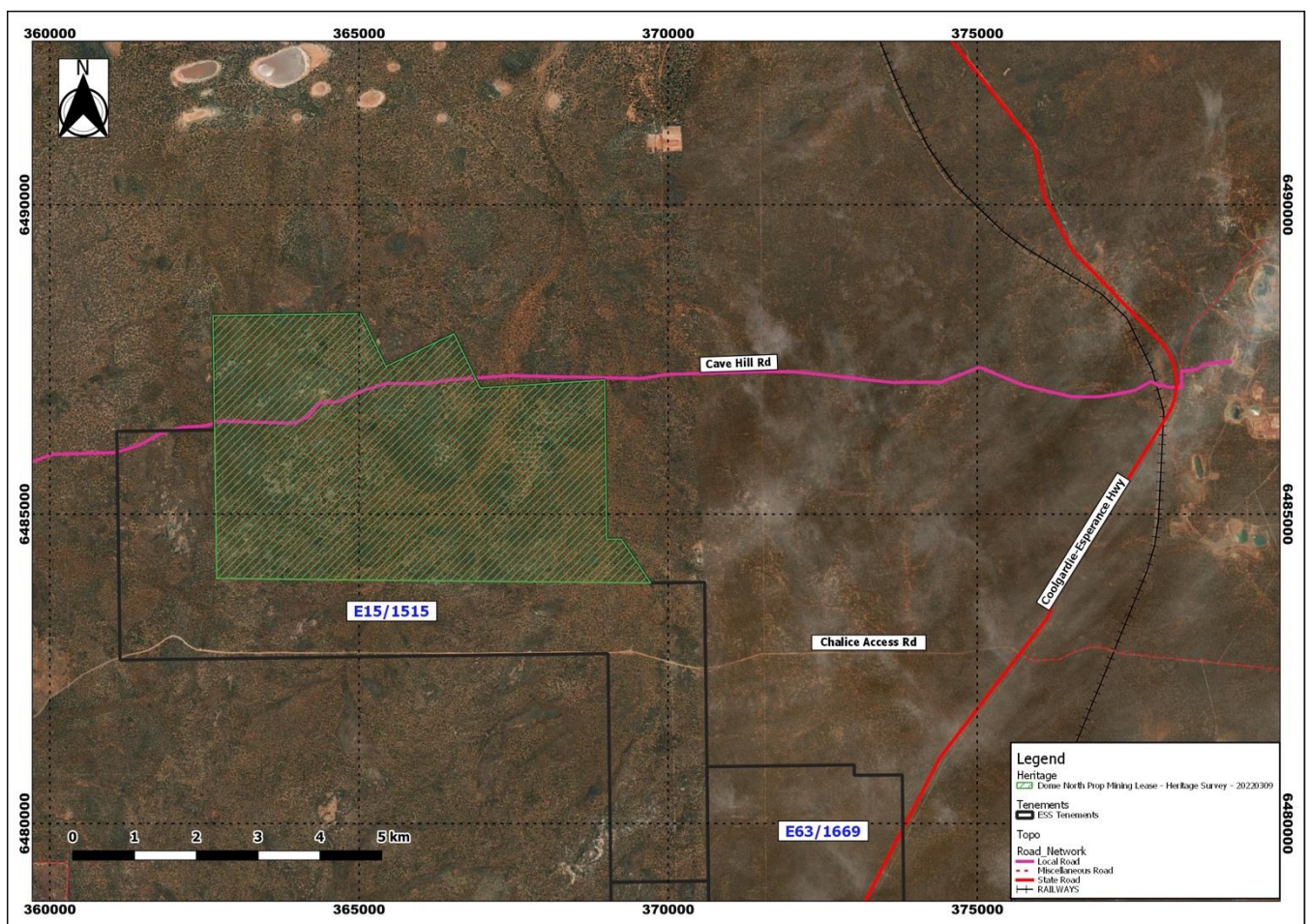
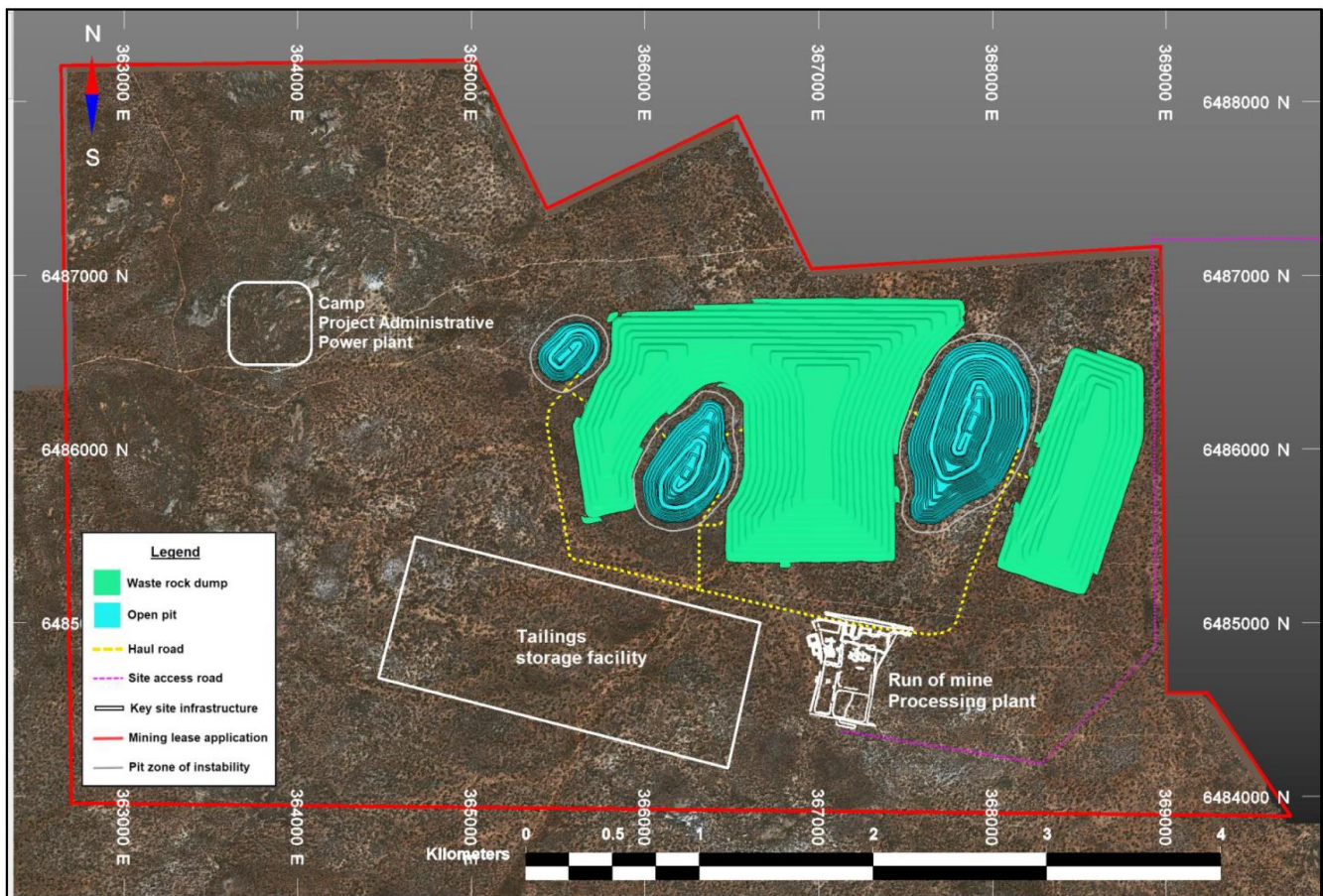


Figure 2 - The area of the proposed mining lease boundary within Exploration Licence E15/1515 in the northern area of the Pioneer Dome Lithium Project.





**Figure 3 – The conceptual mine arrangement for the Dome North open pit mining operations, including the Concentrator plant and ancillary infrastructure.**

Figure 3 provides a conceptual outline of the mining operation with the final design layout to be determined during the upcoming feasibility studies, commencing with the Scoping Study expected to be due for completion by the end of 2022.

## UPCOMING KEY EVENTS

### September

- Results from metallurgical test work

### October

- Completion of an interpretation of the Pioneer Dome structural setting and controls of LCT pegmatite emplacement
- Receipt of assays from the Resource extension drill programme

### November

- Completion of the Dome North Mineral Resource Estimate update

### December

- Completion of the Pioneer Dome Lithium Project Scoping Study

Exploration activities will continue in parallel with the above key milestone activities, focused on discovering new spodumene-bearing pegmatites at the Pioneer Dome Lithium Project.



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*This ASX release has been approved by the Board of Directors.*

**For further information:**

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## ABOUT ESSENTIAL METALS LIMITED

Essential Metals is a well-funded and active explorer focussed on the discovery of lithium and other key global demand-driven commodities, for the creation of shareholder wealth through exploration and project development. The Company operates **three strategically located lithium and gold projects** in Western Australia.

### 100% OWNED AND MANAGED PROJECTS:

- **LITHIUM:** The **Pioneer Dome Lithium Project** is highly prospective for lithium-caesium-tantalum (LCT) mineral systems and includes the **Dome North Lithium Mineral Resource** of 11.2 million tonnes @ 1.21% lithium (Li<sub>2</sub>O).<sup>2</sup>
- **GOLD:** The **Juglah Dome Project** is located 60km east-south-east of Kalgoorlie and is considered to be highly prospective for gold and has potential for VHMS style polymetallic deposits.
- **GOLD:** The **Golden Ridge Project** is located ~20km south-east of Kalgoorlie, WA. Our activities are focussed on reappraising known prospects as well as identifying new areas within the large land tenure.

### JOINT VENTURE INTERESTS:

- **GOLD:** The **Acra** Project is near Kalgoorlie. Northern Star Resources Limited (ASX:NST) has earned a 75% Project Interest and continues to fully fund exploration programmes until approval of a Mining Proposal by DMIRS is received with Essential Metals holding a 25% interest.
- **GOLD:** The **Kangan** Project is in the West Pilbara and part of a joint venture with Novo Resources Corp (TSXV:NVO), who will fund 100% of gold exploration programmes until a decision to mine is made, with Essential Metals holding a 30% interest.
- **GOLD:** The **Balagundi** Project is subject to a farmin & JV agreement where Black Cat Syndicate Limited (ASX:BC8) is earning a 75% interest in the Project located at Bulong, near Kalgoorlie. Black Cat will then fully fund gold exploration programmes until a decision to mine is made, with Essential Metals retaining a 25% interest.
- **GOLD:** The Company holds a 25% free-carried interest (20% for nickel rights) in the **Larkinville** Project near Kambalda, WA, with Maximus Resources Ltd (ASX:MXR).
- **NICKEL:** The nickel mineral rights on the **Blair-Golden Ridge** Project, which includes the suspended Blair Nickel Sulphide Mine, are subject to a Farmin/Joint Venture with Australian Nickel Company Ltd, a nickel exploration specialist which is earning up to a 75% interest. The Company will retain a 25% free-carried interest up to a decision to mine.
- **NICKEL:** The Company holds a 20% free-carried interest (nickel only) in the **Wattle Dam** project near Kambalda, WA, with Maximus Resources Ltd (ASX:MXR).

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<sup>2</sup> Refer to ASX announcement dated 29 September 2020 "Dome North Lithium Project – Resource Upgrade"



## Forward Looking Statement

This announcement may contain forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

## Reference to previous market announcements

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The company confirms that the form and context in which Exploration Results or Competent Person's findings are presented have not been materially modified from the original market announcements.

## Competent Person Statement

The information in this Report that relates to Mineral Resource Estimates for the Dome North Lithium Project is based on and fairly represents information compiled by Competent Persons Mr Stuart Kerr and Mr Lauritz Barnes as extracted from the report entitled "Dome North Lithium Project – Resource upgrade" created on 29 September 2020 and is available to view on [www.essmetals.com.au](http://www.essmetals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## Dome North Lithium Mineral Resource Estimate

Project area	Category	Tonnes (Mt)	Grade (Li <sub>2</sub> O %)	Tonnes Li <sub>2</sub> O
Cade Deposit	Indicated	5.4	1.30	70,000
	Inferred	2.8	1.18	33,000
Davy Deposit	Inferred	2.3	1.13	25,000
Heller Deposit	Inferred	0.7	1.02	8,000
<b>Total</b>		<b>11.2</b>	<b>1.21</b>	<b>136,000</b>