



# ESSENTIAL METALS

for a sustainable future

## ASX Code: ESS

### Corporate Profile

Shares on issue: 245,812,736  
Listed options: 21,395,418  
(\$0.15 exercise: 30/11/22 expiry)

Cash: \$9.5m (31 Mar 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

Nicholas Read  
Read Corporate  
t: +61 8 9388 1474  
e: nicholas@readcorporate.com.au

ABN: 44 103 423 981

t: +61 8 9322 6974  
e: info@essmetals.com.au  
w: essmetals.com.au

Level 3, 46 Ord St  
West Perth, WA 6005  
Australia  
PO Box 1787,  
West Perth, WA 6872  
Australia

**26 May 2022**

## Pioneer Dome Lithium Project – Drilling and Development Activities Update

9,000m extensional drill programme underway

### KEY POINTS

- A 9,000m resource extension drilling programme commenced in mid-May with four RC pre-collars completed to date and the diamond rig expected on site in June.
- Assays from the exploration and metallurgical diamond drill programme<sup>1</sup> completed in the March Quarter are now expected by mid-June (previously end-May) with metallurgical test work to commence upon the receipt of assays. The test work is expected to take 12 weeks.
- These two key work programmes will underpin an update and likely expansion of the lithium Mineral Resource Estimate (MRE) for Pioneer Dome and the commencement of a Scoping Study in the December Quarter.
- Heritage, environmental and technical studies required to support a Mining Lease application are also underway to fast track the potential development of the project.

Essential Metals Managing Director, Tim Spencer, said: *"We are working hard to maintain our timelines, notwithstanding the bottlenecks and delays being experienced with drill rigs and assays due to the exceptionally high levels of activity in the WA resource sector. Despite these challenges, the pivotal resource expansion program is underway and gathering momentum."*

*"The MRE extension drill programme, together with assays from the drilling completed earlier this year and the upcoming metallurgical test work programmes, have the potential to rapidly transform Essential from lithium explorer to developer."*

<sup>1</sup> Refer to ASX announcement dated 25/02/2022 - Pioneer Dome Lithium Project update - amended"



## 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>2</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.

### MRE Extension Drill Programme

- The previously announced ~9,000 metre programme (ESS ASX announcement 31 March 2022) commenced in May with an RC rig drilling four pre-collar holes to date as preparation for the arrival of the diamond drill rig.
- Diamond drilling is expected to commence in June, with the first drill core from the down-plunge interpreted pegmatite zone of the Cade deposit is expected to be available by end-June.
- Drilling is expected to be completed by mid-August, subject to rig scheduling and drilling productivity rates.

**At the Cade Deposit (figure 1):** 11 holes are planned in three phases. The first phase of up to eight Reverse Circulation (RC) pre-collared holes with diamond tails (RCD holes) will be drilled at a vertical depth of ~100-200m below the lower boundary of the current lithium Resource. The positioning of the first phase holes aligns with the interpreted plunge of the thicker and higher-grade central zone within the Cade deposit. The second and third phase holes will be drilled above and below the Phase 1 holes, based on geological observations from these holes.

**At the Davy Deposit (figure 2):** 11 holes are planned, designed to test three zones. Three RCD holes will be drilled ~100m below the lower boundary of the current lithium Resource. Six RC holes will test the northern strike and two holes will test the southern strike of the Davy deposit.

The March Quarter work programme (including metallurgical test work) and the MRE extension drill programme outlined above will underpin an update to the current 11.2Mt @ 1.21% Li<sub>2</sub>O Dome North Mineral Resource Estimate<sup>2</sup>, scheduled for the December Quarter 2022. Subject to results, this will in turn allow the Company to commence its Scoping Study.

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

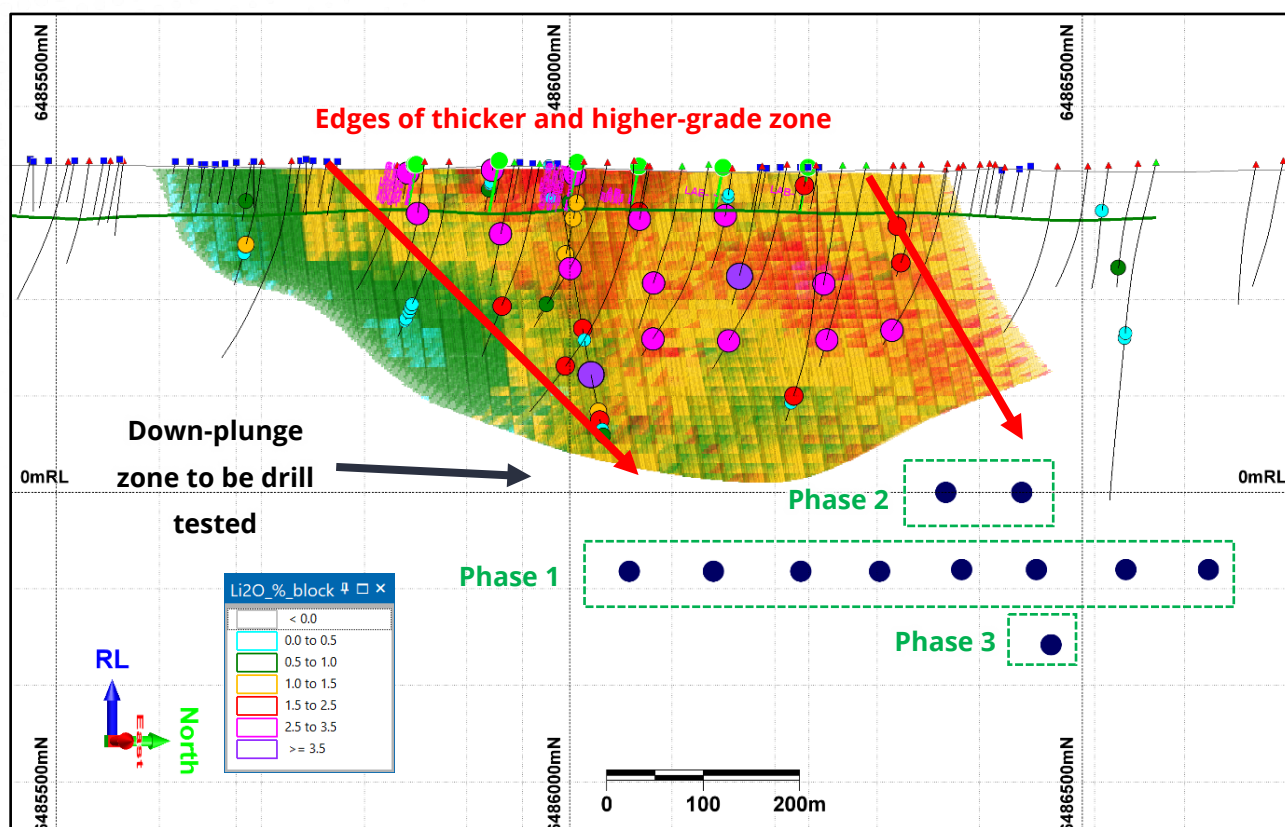


Figure 1 – Long-section of Cade with the Mineral Resource (coloured by grade - see legend), drill traces,  $\text{Li}_2\text{O}$  intersections (coloured dots) and the pierce points of proposed deeper drilling. The interpreted high grade shoot is shown by the red arrows.

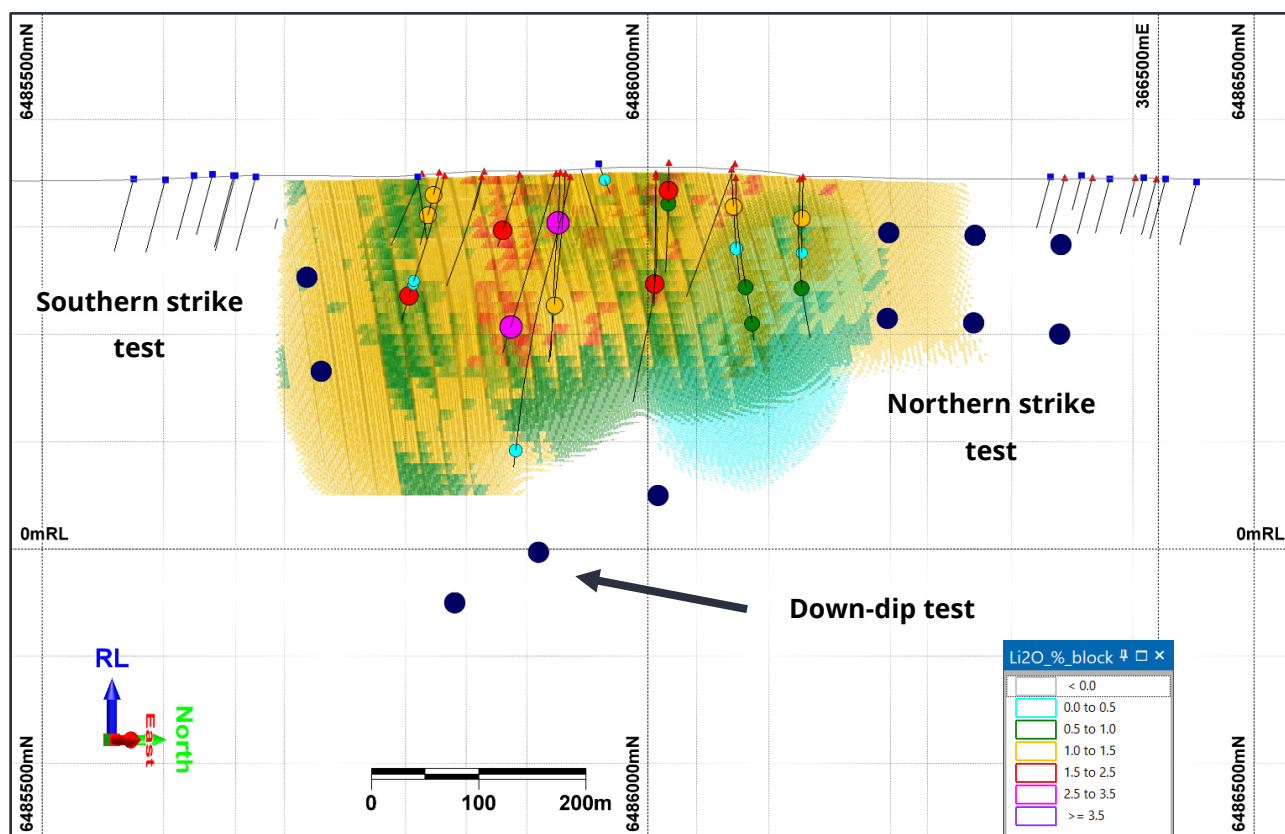


Figure 2 – Long-section of Davy with September 2020 MRE (coloured by grade - see legend), drill traces of previous drilling with  $\text{Li}_2\text{O}$  intersection  $> 0.5\%$  (coloured dots) and proposed Davy drilling (dark blue circles representing planned drill pierce points).



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

**For further information:**

Tim Spencer, Managing Director  
Essential Metals Limited  
T: +61 8 9322 6974  
E: tims@essmetals.com.au

**Investor Relations**

Nicholas Read  
Read Corporate  
T: +61 8 9388 1474  
E: nicholas@readcorporate.com.au

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## ABOUT ESSENTIAL METALS LIMITED

Essential Metals is a well-funded and active explorer focussed on the discovery of 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>3</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 **Larkinvile** 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>3</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 Statements**

Mr Andrew Dunn (MAIG) holds the position of Exploration Manager and is employed full-time by Essential Metals Limited. Mr Dunn compiled the technical aspects of this Announcement, including information that relates to the Cade Deposit Exploration Target, which is based on and fairly represents information compiled by Mr Dunn.

Mr Dunn is eligible to receive equity-based securities in Essential Metals Limited under the Company's employee incentive schemes. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on 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 Dunn consents to the inclusion in the report of the matters in the form and context in which it appears.

The information in this Report that relates to Mineral Resources 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.