

ASX Code: ESS

Corporate Profile

Shares on issue: 200,817,300

Cash: \$6.7m (31 Dec 2020)

Debt: Nil

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

Key Projects

Sole Funded

Pioneer Dome (Li)

Juglah Dome (Au)

Blair-Golden Ridge (Au, Ni)

Sinclair Caesium Mine (Cs)

Mavis Lake (Li)

Free Carried to Decision to Mine

Acra (Au) 25%

Kangan (Au) 30%

Balagundi (Au) 25%

Investor Relations

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ESSENTIALMETALS
for a sustainable future

01 February 2021

Numerous new lithium targets identified across ~400km² Pioneer Dome Project, WA

Field reconnaissance underway on the higher priority targets outside of the current resource, generated from a holistic project data review

HIGHLIGHTS

- 99 lithium-caesium areas of interest identified, of which **32 are considered high priority** and a further 16 ranked as medium priority.
- The in-depth review utilised all in-house and all publicly available geochemical datasets, focusing on anomalous rubidium, lithium and tantalum in combination with magnetic and structural geological data.
- Pioneer Dome already hosts the **Dome North Lithium Mineral Resource of 11.2Mt @ 1.21% Li₂O**. Scoping level metallurgical test work completed on the main pegmatite, the Cade Deposit, shows 74% lithia recovery to a saleable concentrate grade of 5.6% Li₂O with a low iron (Fe₂O₃) content of 0.7% using a hybrid Dense Medium Separation (DMS) + flotation flowsheet.
- A drill programme to test new prospects and expand the Dome North Resource is targeted for early in the June Quarter. Planning will also commence for a Scoping Study to be initiated at the appropriate time.
- Juglah Dome Gold Project assays:** Due to laboratory workloads, the results of the December drilling are now expected by mid-February.

Essential Metals Managing Director, Tim Spencer, said: "Our large project area is right in the heart of WA's 'lithium corridor' – which includes the Mt Marion, Bald Hill and Buldania lithium projects. Our lithium Resource, which currently comprises 11.2Mt @ 1.21% Li₂O, is favourably located right next to the main highway connecting Kalgoorlie and the seaport town of Esperance, with gas and mains water pipelines running adjacent to the highway.

"We are in the attractive position of being the only ASX-listed, West Australian focused lithium explorer with a high-quality JORC lithium Resource, a market cap of under \$50 million (currently \$30M) and lots of exploration upside".

PIONEER DOME LITHIUM PROJECT (ESS: 100%)

The Pioneer Dome Lithium Project, which includes the Dome North lithium Resource of 11.2Mt @ 1.21% Li₂O, is located in Western Australia's Eastern Goldfields approximately 130km south of Kalgoorlie and 275km north of the Port of Esperance. The southern Yilgarn area is recognised as highly endowed with spodumene deposits, including the Bald Hill Mine, the Mt Marion Mine and the Buldania Project. The Earl Grey deposit and the Mt Cattlin Mine are located further west and south, respectively.

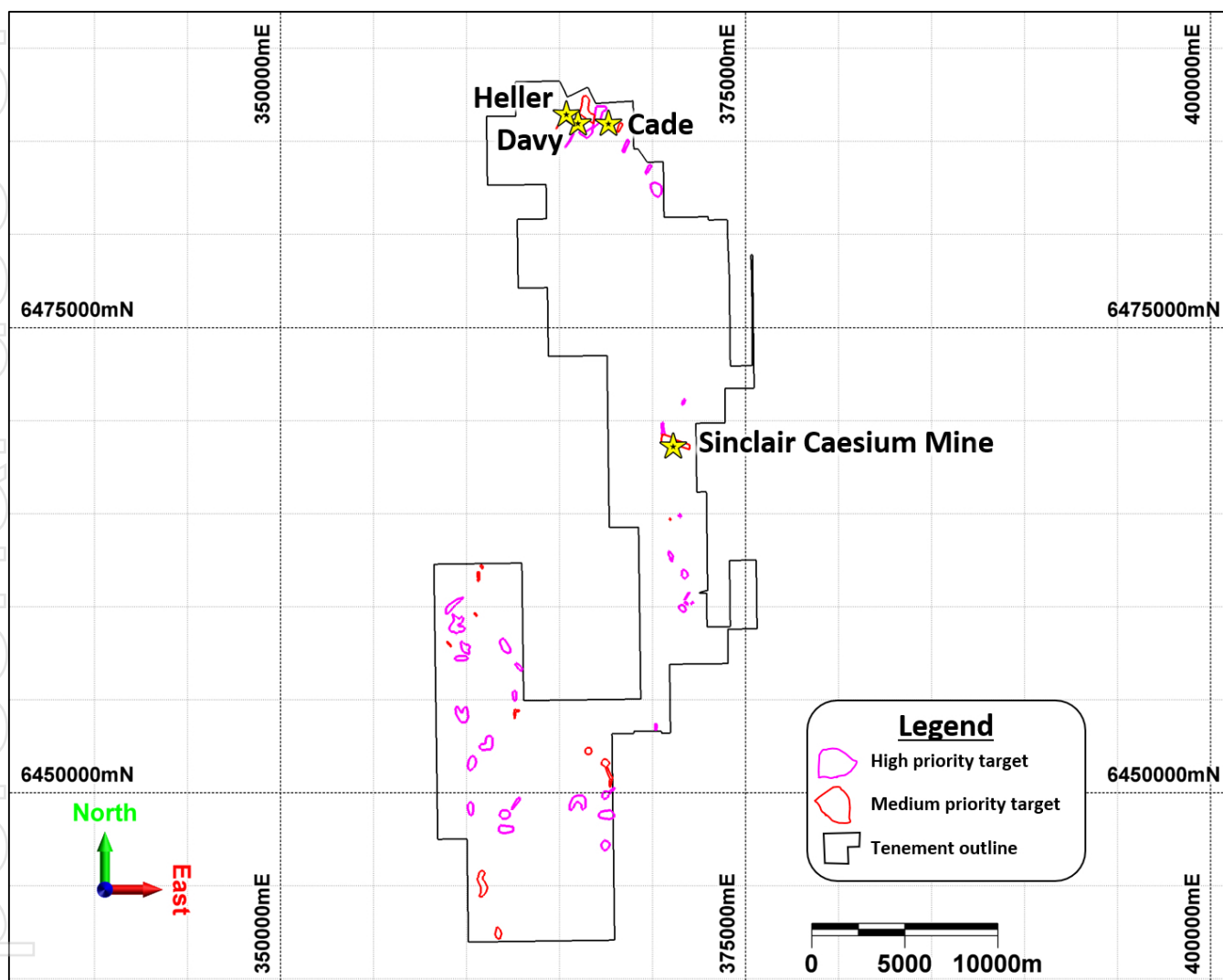


Figure 1 – Map of the Pioneer Dome Project showing high (pink) and medium (orange) lithium target areas.

The cumulative geochemical results from soil sampling across the entire Pioneer Dome Project tenure were combined and analysed and additional target areas were generated based on anomalous pathfinder elements; rubidium, lithium and tantalum, that were assessed along with magnetic and structural data.

Of the 99 lithium-caesium areas of interest generated, 32 are considered high-priority targets and a further 16 are ranked as medium priority targets (see Figure 1), of which 37 have not been previously been field visited. An extensive field reconnaissance programme has been planned to map and sample the high and medium priority targets with the first phase already in progress.

Next Steps

Exploration: The objective of the field programme is to short-list the most compelling targets and then undertake drill testing of those in the June Quarter with the timing dependent on completion of the field programme and the availability of suitable drill rigs.

Resource growth: Mineral Resource extension and in-fill drill programme at Dome North will be undertaken at the same time as the exploration drill programme.

Studies: The metallurgical test work completed in December 2020 will be used as part of planning for a Scoping Study to identify development options and their broad cost and technical metrics. This planning work will commence in the current Quarter.

This ASX release has been approved by the Board of Directors

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About Essential Metals Limited

Essential Metals is a well-funded and active explorer focused on key global demand-driven commodities, looking for its next opportunity to create shareholder wealth through exploration and project development. The Company operates a portfolio of strategically located lithium, caesium, gold, nickel and cobalt projects in mining regions in Western Australia, plus a high-quality lithium asset in Canada.

Lithium - Caesium:

- The **Pioneer Dome LCT Project** is highly prospective for lithium-caesium-tantalum (LCT) mineral systems:
 - The **Dome North Lithium Project** is located in the northern area where multiple spodumene bearing pegmatites were discovered in 2019. It now has a Mineral Resource of 11.2 million tonnes @ 1.21% Li₂O.
 - The **Sinclair Caesium Deposit** that was successfully developed and mined by the Company and extensions to the deposit are currently being explored.
- The Company holds a 51% Project interest in the **Mavis Lake Lithium Project**, Canada where Company drilling has intersected spodumene.

Gold:

- The **Juglah Dome Project** is located 60km east-southeast of Kalgoorlie and is considered to be highly prospective for gold with recent work also raising its prospectivity for VHMS style polymetallic deposits.
- The **Blair - Golden Ridge Project** is located ~20km SSE of Kalgoorlie, WA and is prospective for gold. Activities are focussed on reappraising known prospects as well as identifying new areas within the large land tenure.

Gold Farmin/Joint Ventures: Essential Metals has three free-carried interests with well credentialed JV partners:

- **Acra JV Project** 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 retaining a 25% interest.
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- **Kangan Project** in the West Pilbara: A farmin & JV agreement with Novo Resources Corp (TSXV:NVO) and Sumitomo Corporation (TYO:8053) will fully fund gold exploration programmes until a decision to mine is made, with Essential Metals retaining a 30% interest.
- **Balagundi Project:** 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.

Nickel: The **Blair-Golden Ridge Project** includes the suspended Blair Nickel Sulphide Mine and the advanced Leo Dam prospect as well as several other prospects.

Reference to previous market announcements

Previous ASX releases referred to in this release:

- 4 February 2020 – Successful 2nd drill programme at Dome North area
- 29 September 2020 – Dome North Lithium Project – Resource upgrade
- 18 December 2020 – Outstanding 74% lithia recovery achieved from metallurgical test work at Dome North

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

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.

Exploration Work - Competent Person Statement

Mr Andrew Dunn (MAIG), Exploration Manager who is employed full-time by Essential Metals Limited, compiled the technical aspects of this Report. 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.