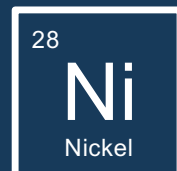
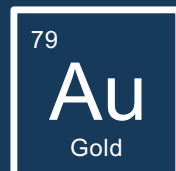
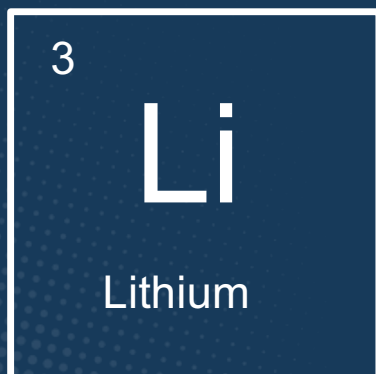




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ASX: ESS



Pioneer Dome: moving up the lithium value-curve

Developing a new lithium mining and processing operation in the heart of WA's "Lithium Corridor"

Annual General Meeting – Perth, Australia

22 November 2022

Forward looking statements and disclosures

Forward looking statements

This document may contain “forward-looking statements” and other forward looking information based on the Company’s expectations, estimates and projections as of the date on which the statements were made. This forward looking information includes, among other things, statements with respect to the Company’s business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, Mineral Resources and results of exploration. Generally, this forward looking information can be identified by the use of forward- looking terminology such as ‘outlook’, ‘anticipate’, ‘project’, ‘target’, ‘likely’, ‘believe’, ‘estimate’, ‘expect’, ‘intend’, ‘may’, ‘would’, ‘could’, ‘should’, ‘scheduled’, ‘will’, ‘plan’, ‘forecast’, ‘evolve’ and similar expressions. Persons reading this document are cautioned that such statements are only predictions, and that the Company’s actual future results or performance may be materially different. Forward looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward looking information. Forward looking information is developed based on assumptions about such risks, uncertainties and other factors, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future commodity prices; possible variations of ore grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward looking information. These and other factors should be considered carefully and readers should not place reliance on such forward looking information. Recipients of this document must make their own investigations and inquiries regarding all assumptions, risks, uncertainties and contingencies which may affect the future operations of the Company and the Company’s securities. The Company disclaims any intent or obligations to or revise any forward looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law.

Competent Person Statements

Exploration Results: 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 the styles of mineralization and types 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.

Dome North Lithium Mineral Resource: The information in this presentation 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.

Dome North Mineral Metallurgical Test Work: The information in this report that relates to metallurgical test work for the Dome North Lithium Project has been reviewed by Mr Joshua Paterson who is a member of the Australasian Institute of Mining and Metallurgy. Mr Paterson is an employee of Primero Ltd and has sufficient experience relevant to the style of processing response and type of deposit under consideration, and to the activities 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 Paterson consents to the inclusion in the report of a summary based upon his information in the form and context in which it appears.

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, in the case of Mineral Resources, 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.

This presentation has been approved by the Company’s Board of Directors.

Highlights



LITHIUM RESOURCE

Essential Metal's Dome North Lithium Resource is **one of only 14** JORC compliant spodumene lithium resources in Australia
It is one of only two Australian Lithium Resources not yet committed to an off-take arrangement



STRATEGIC LOCATION

The 100%-owned Pioneer Dome Lithium Project, 55km north of Norseman in WA, is next to a main highway and other key infrastructure and near (<70km) the Mt Marion and Bald Hill lithium mines



FUNDED FOR UPCOMING ACTIVITIES

Essential Metals has \$8.1M in cash (30/09/2022)



DEVELOPMENT READINESS

A Scoping Study is underway to prepare the Dome North Lithium Resource for development in parallel with exploration activities aimed at growing the Company's lithium resources



ESG IS ESSENTIAL

Getting ESG right is essential for mining and Essential Metals will apply the highest ESG standards to its future mining operations



TIMING IS RIGHT

The lithium demand outlook points to lithium deficits only becoming larger from 2025 as the global adoption of 'electrification' goes mainstream

Corporate Overview

Capital structure

256M Shares
11.6M Options

ASX: ESS/ESSO

A\$107M
Market Cap

\$0.42/share

(21/11/2022)

A\$8.1M Cash

as at 30 Sep 2022



\$1.7M upon 11.6M

ASX:ESSO \$0.15 options
expiring 30 Nov 2022 being
exercised

Board & Management

Executive Team

- **Tim Spencer, Managing Director:** 30 years' experience commercial/corporate; project development in Australia, Indonesia, Brazil and Italy
- **Andrew Dunn, Exploration Manager:** 20 years' experience in exploration across WA & NSW

Non-Executive Directors

- **Craig McGown, Non-Exec Chairman:** 40 years' experience in capital markets; corporate
- **Paul Payne, Non-Exec Director:** 35 years' experience: geologist; exploration, project development; corporate
- **Warren Hallam, Non-Exec Director:** 35 years' experience: metallurgist; management, operations; project development, corporate

Investment Overview



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- A well-funded and active ASX-listed lithium upstream company
- Focused on finding and producing essential metals for a sustainable, low-carbon future
- The flagship Pioneer Dome Lithium Project is in an easy-to-explore, low-cost location near Kalgoorlie – a Tier-1 mining jurisdiction
- **High-quality lithium Resource: 11.2Mt at 1.21% Li₂O at Pioneer Dome – Update due in December**
- Scoping Study due in January 2023 and Expressions of Interest for funding and offtake agreements have been requested
- Exceptional pipeline of resource growth opportunities and exploration targets in the core of WA's "lithium corridor"
- Exciting potential at 100% owned Golden Ridge and Juglah Dome gold projects near Kalgoorlie and free-carried exposure to a significant portfolio of nickel and gold exploration projects



Pioneer Dome Lithium Project



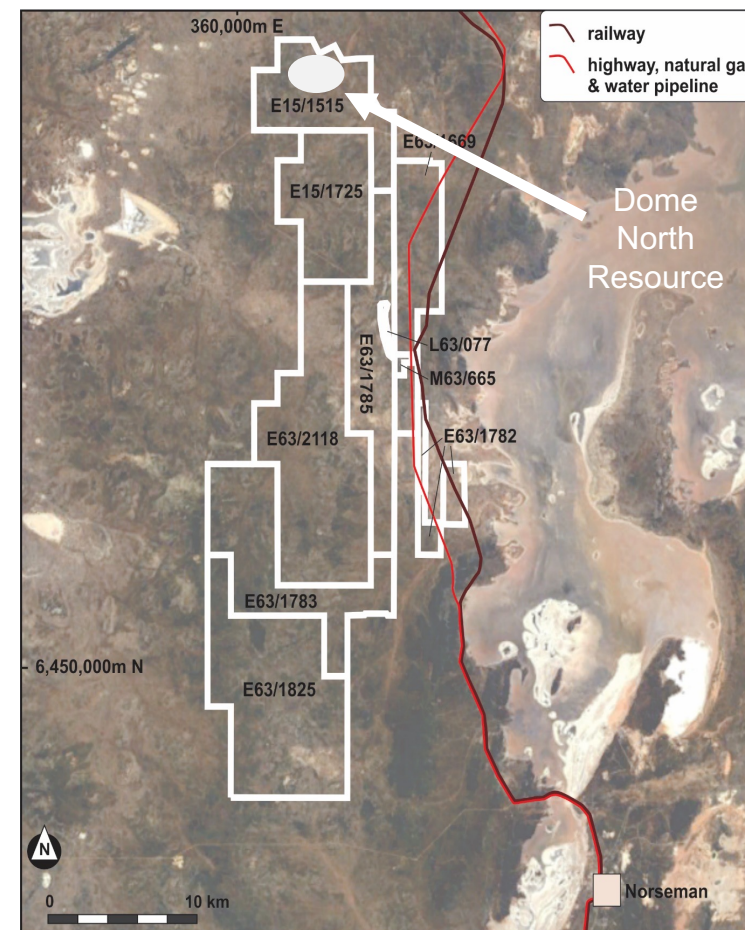
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453km² project tenure in the 'lithium corridor'

- Mt Marion, Bald Hill and Buldania projects are all located <100km by road from the Project
- The Dome North Lithium Mineral Resource is located in the northern part of the Project area
- The Project contains three spodumene bearing pegmatites so far – 11.2Mt JORC Mineral Resource reported containing 336,000 tonnes of LCE equivalent

Tier-1 location

- Perfect location to develop a mining operation – surrounded by operating and historical mining operations so a well understood province for approving of mining operations
- Flat-lying, lightly wooded land with minimal environmental or native title complexities
- 10km from a main regional highway that connects the mining centre of Kalgoorlie (150km to the north) and the large dry bulk & container seaport of Esperance (275km to the south)
- Gas pipeline and water pipeline located alongside the main highway
- Potential to connect to grid power
- Unsealed access road connects the Project to the main highway



The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure

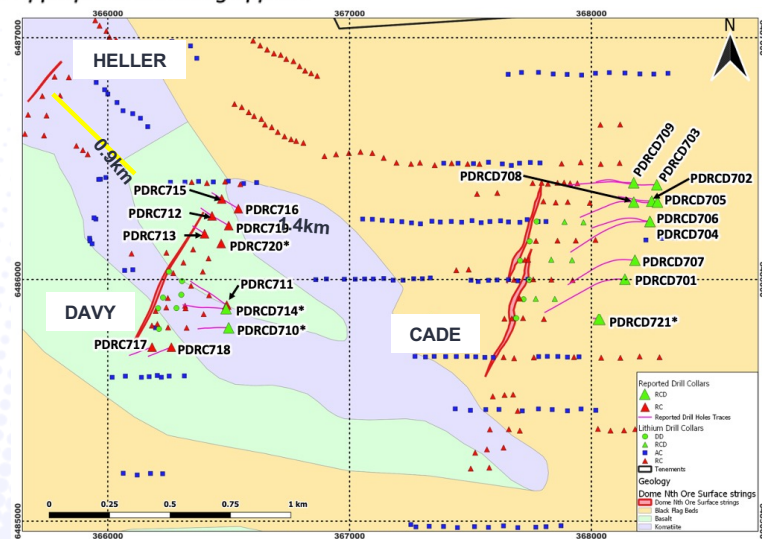
Pioneer Dome Lithium Project

Dome North Mineral Resource

Table 2. Mineral Resource by deposit and category: Dome North Lithium Project (0.5% Li₂O cut-off grade)

Deposit	Classification	Tonnes (Mt)	Li ₂ O %	Ta ₂ O ₅ ppm	Contained Li ₂ O (T)	Fe ₂ O ₃ %
Cade	Indicated	5.4	1.30	33	70,000	0.55
	Inferred	2.8	1.18	33	33,000	0.63
Davy	Inferred	2.3	1.13	53	25,000	0.68
Heller	Inferred	0.7	1.02	76	8,000	0.72
Total	Total	11.2	1.21	40	136,000	0.61

Note: Appropriate rounding applied.



Excellent metallurgical characteristics

December 2020 – Metallurgical test work on the Cade Deposit (fresh rock) based on a hybrid Dense Medium Separation (DMS) + flotation flowsheet:

Concentrate	Grade (% Li ₂ O)	Grade (% Fe ₂ O ₃)	Global Recovery (%Li ₂ O)
T12 Flot Con & DMS Con	5.66	1.3	82%
T15 Flot Con & DMS Con	5.65	0.7	74%

Refer ASX announcement 18 December 2020 – Dome North outstanding met test work results

October 2022 – Additional metallurgical test work has now been completed on composite samples representing three further mineralisation domains – Cade Weathered, Davy Weathered and Davy Fresh mineralisation – from the Cade and Davy lithium deposits at Dome North.

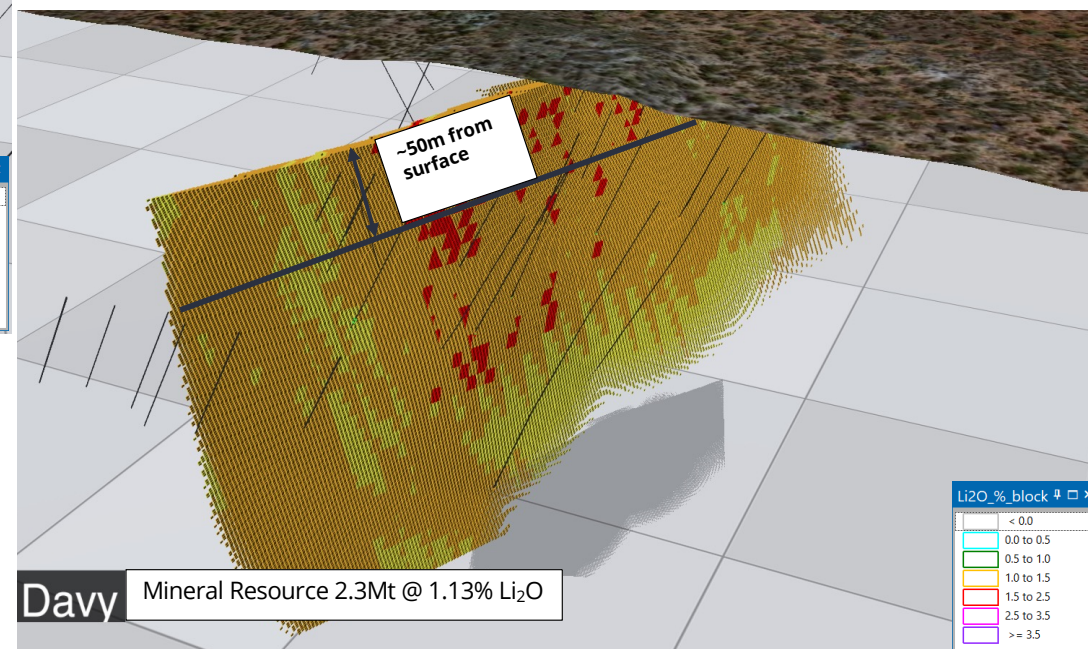
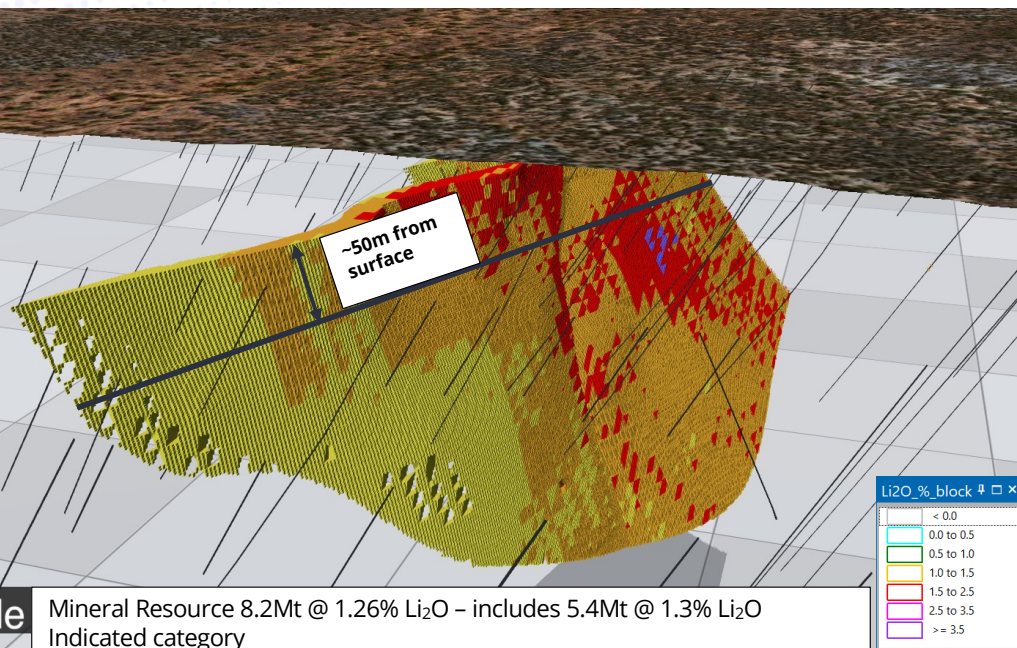
The latest results complement the successful earlier test work programme completed on the Cade Fresh mineralisation.

The Cade Weathered composite returned similar Heavy Liquid Separation (HLS) and batch Whole of Ore Flotation (WOF) results to the Cade Fresh test results, targeting a concentrate grade of 5.7% Li₂O, while the Davy Fresh sample returned a similar HLS result but a slightly lower WOF result.

Refer ASX announcement 7 October 2022 – Positive lithium met test work results

Pioneer Dome Lithium Project

Large, thick, tabular deposits with spodumene mineralisation starting at surface



Dome North – drilling shows high grades and thick widths near surface

Near-surface, high-grade assays in Cade and Davy deposits*:

Cade Deposit assay results include:

- 19.2m @ 1.44% Li₂O from 15m (PDD596)
- 9.6m @ 1.42% Li₂O from 14.4m (PDD598)
- 23.7m @ 1.26% Li₂O from 3.6m (PDD599)
- 18.9m @ 1.24% Li₂O from 21.1m (PDD600)
- 14.7m @ 0.90% Li₂O from 11.6m (PDD595)

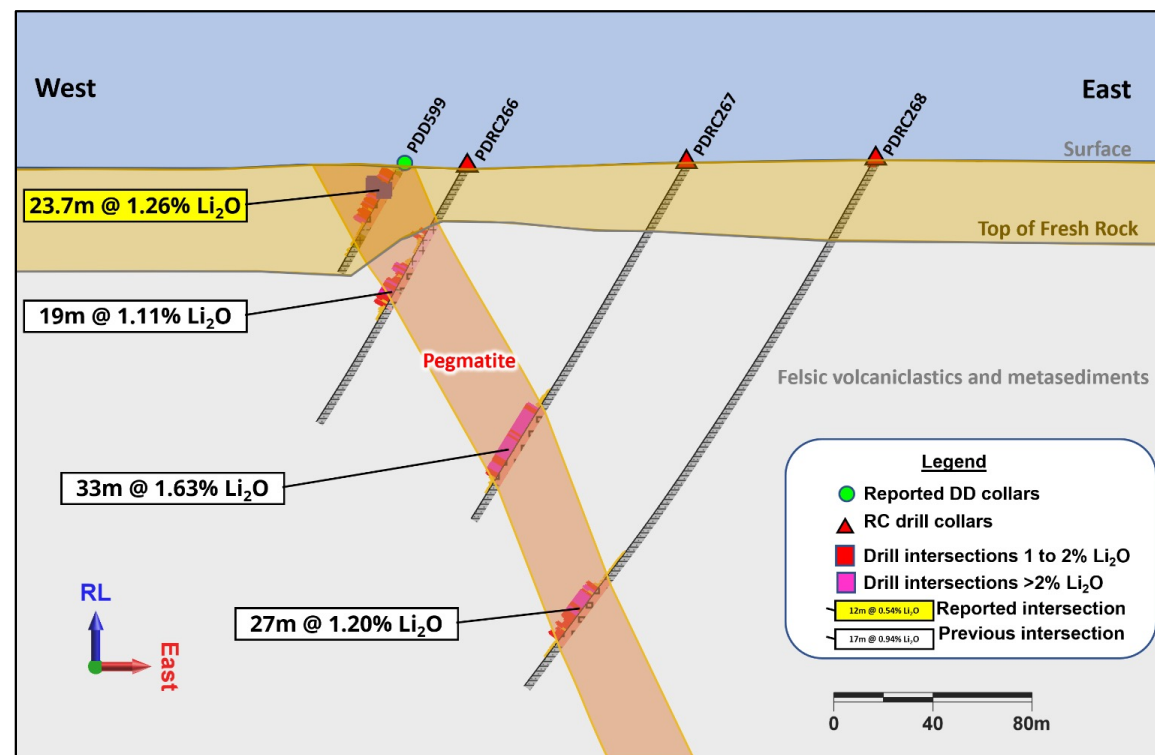
Davy Deposit assay results include:

- 31.95m @ 1.24% Li₂O from 45.4m (PDD601)
- 18.7m @ 1.05% Li₂O from 17m (PDD603)
- 11.1m @ 1.70% Li₂O from 99.2m (PDD604)
- 17m @ 1.32% Li₂O from 97.1m (PDD605)

These results are very important because they show minimal lithium depletion in the weathered zone. This indicates the potential for high-grade mineralisation to be mined from surface with minimal overburden, having a big positive impact on the economics of the deposits.

*Refer ASX release 7 June 2022 – Dome North - more high grade near-surface lithium assays

CADE DEPOSIT



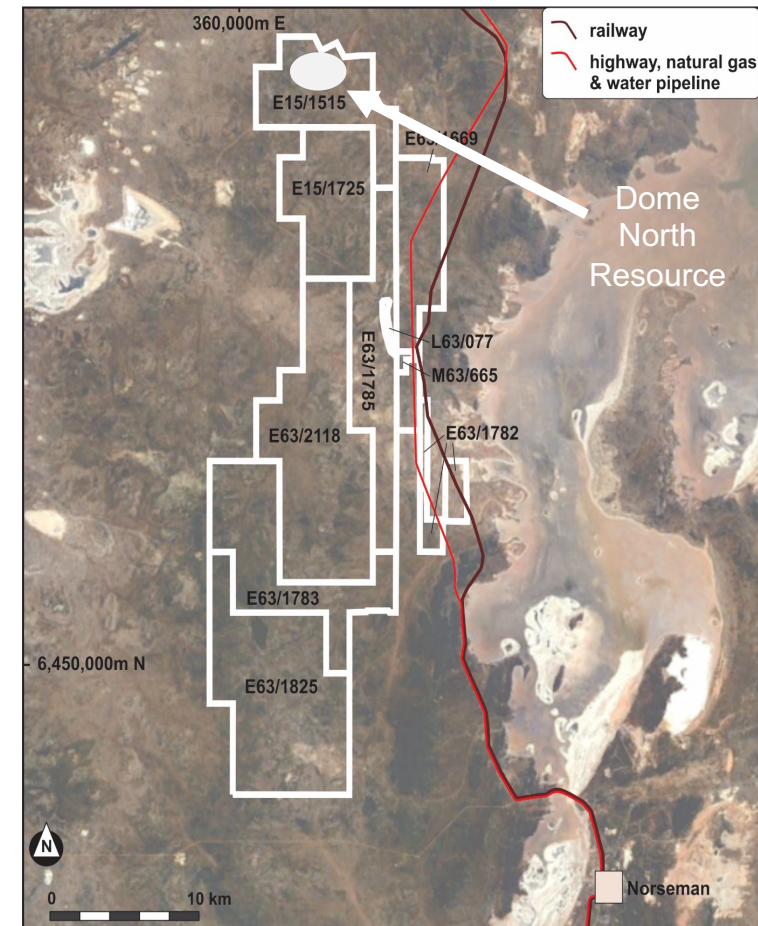
Cross Section demonstrating the high grade nature of the Cade Deposit with latest drilling shown in yellow box

Dome North – getting development-ready

Expressions of Interest for funding and offtake agreements have been requested and due by end-December

Steps are being taken to transition the Dome North Resource area to a 'development ready' status. These steps include:

- Mining Lease Application lodged in late September and expected to be granted by March 2023
- A flora and fauna study completed – no issues
- Hydrology study completed – multiple potential water sources identified
- Additional metallurgical test work on the upper zone of Cade deposit and on Davy deposit now complete, complementing previous successful test work on Cade
- Mining agreement in place with the NNTAC, the representative body of the Ngadju People, the custodians of the land on which the project is located



The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure

Activity timeline



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ACTIVITY TIMELINE	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Jun 2023	Sep 2023	Dec 2023	Mar 2024
EXPLORATION ACTIVITIES									
RESOURCE UPDATE									
PROJECT PARTNER									
Receipt of Expressions of Interest									
Process to select preferred Project Partner									
FEASIBILITY STUDIES									
Scoping Study									
Prefeasibility Study									
Definitive Feasibility Study									

Actively exploring to find more spodumene

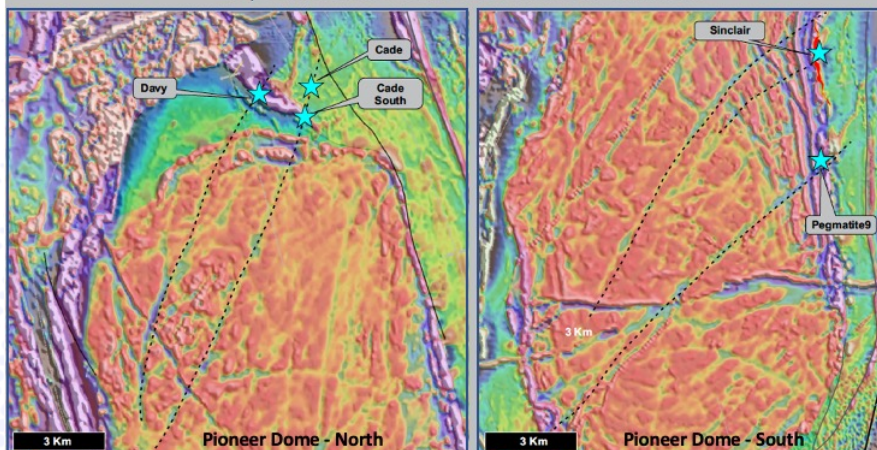


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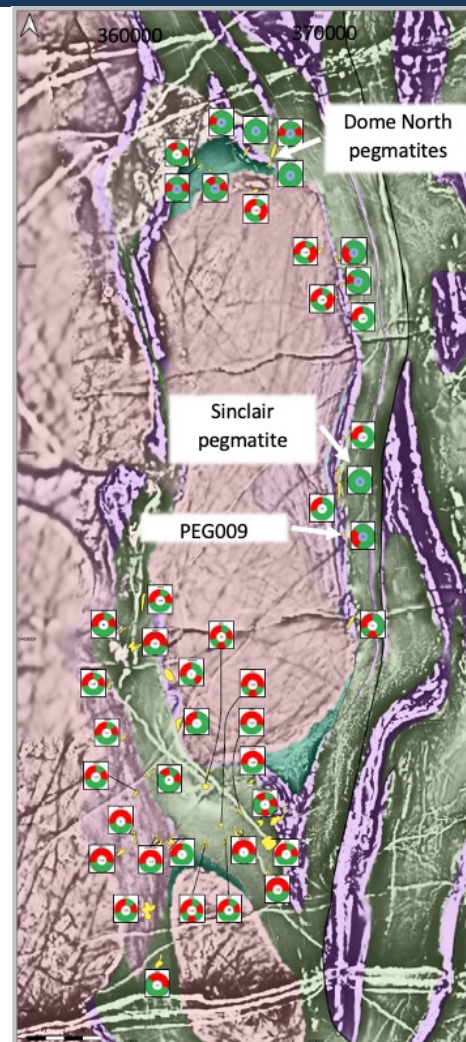
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Structural Interpretation: Over 40 targets have been identified and ranked with field checking now in progress. The results of the structural geological study have been incorporated with other exploration data including geophysical surveys, soil geochemistry, drilling, and field mapping, allowing targets to be defined and ranked by an external consultant (Xirlatem).

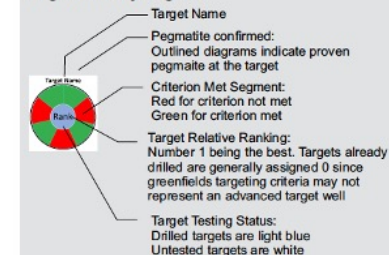
D₄ Structural Corridors as LCT controls



The interpreted major D₄ structural corridors (dotted lines) coincident with the Dome North and Sinclair LCT pegmatites on top of the regional First Vertical Derivative (1VD) Total Magnetic Intensity (TMI) magnetic image.

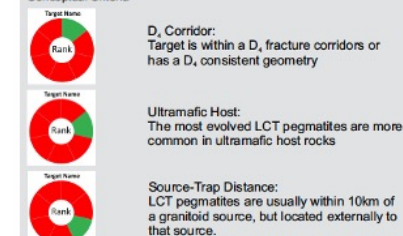


Target Summary Diagrams

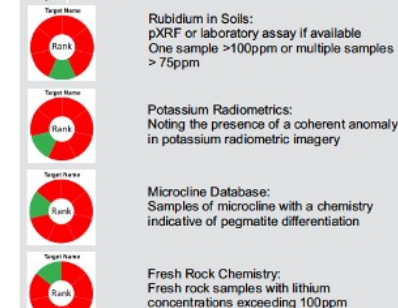


Segment Criteria

Conceptual Criteria



Empirical Criteria



Multiple targets generated (map on left) with the ranking criteria listed on the right.

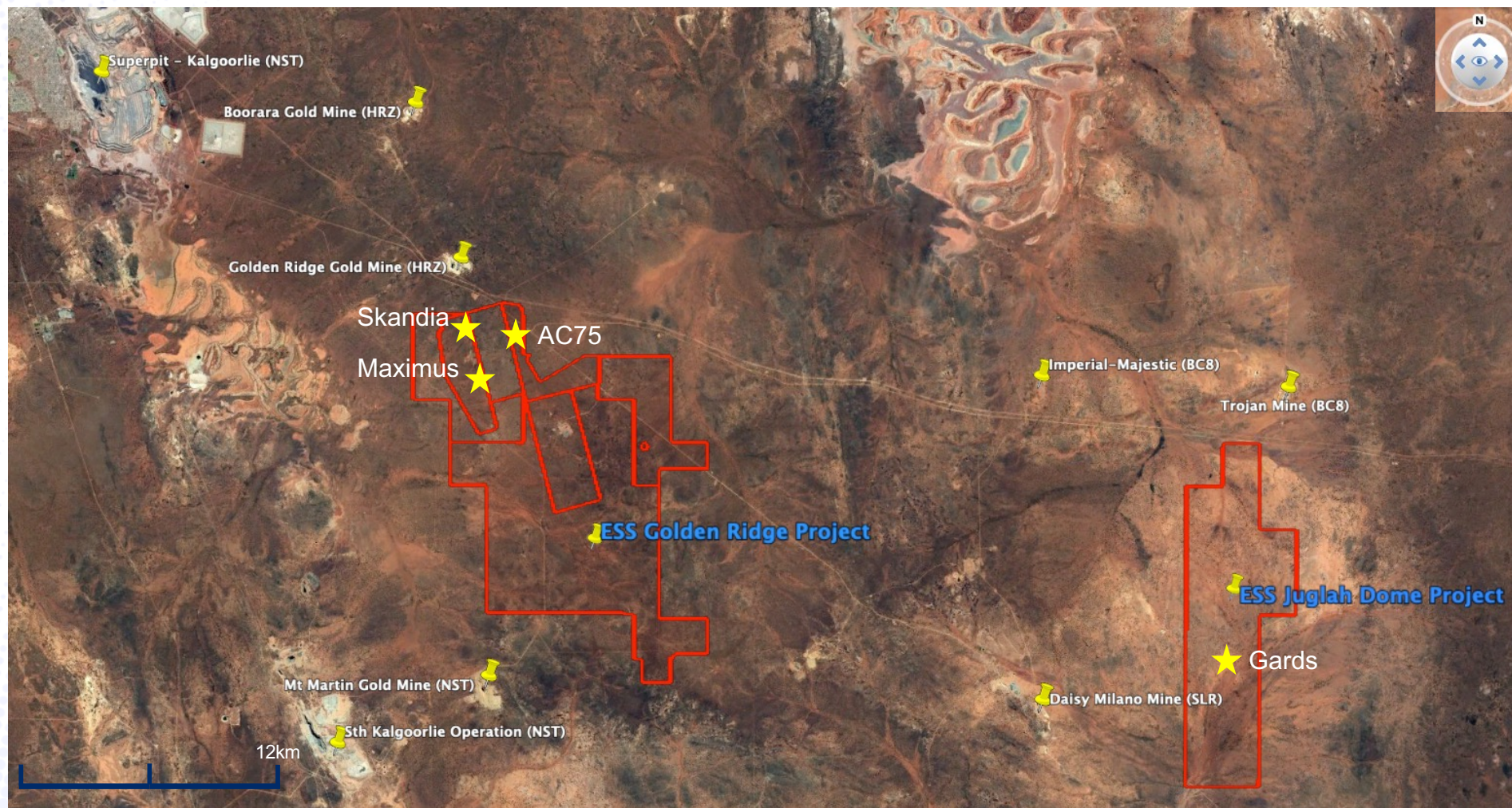
Slide 12

Two Exciting Gold Projects near Kalgoorlie



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GOLD – Golden Ridge & Juglah Dome

GOLDEN RIDGE

Multiple high tenor gold targets – with potential for a large discovery

Project straddles the Boorara Domain between the Menzies - Boorara Shear Zone (MBSZ) and the Mt Monger Fault. The MBSZ hosts six major gold mines including Paddington, Boorara and the Golden Ridge Gold Mine

Significant historical intersections from Flying Ant and 18-Footer prospects include:

- **9m@3.87g/t Au** from 26m incl. 2m @ 13.95g/t Au (GOD0094) - Flying Ant
- **21m@2.5g/t Au** from 59m incl. 9m @ 3.98g/t Au (GOC0288) - Flying Ant
- **9m@2.44g/t Au** from 65m incl. 4m @ 4.11g/t Au (AMRC026) - 18-Footer
- **7m@2.81g/t Au** from Surface incl. 3m @ 4.27g/t Au (GOC0264) - 18-Footer

(Refer ASX announcement dated 1 April 2021 – “gold focussed drilling commences”)

The recently completed 6,000m air-core programme confirmed gold mineralisation at the Skandia, Maximus and AC75 prospects and identified prospective underexplored areas

JUGLAH DOME

The Gards porphyry now has 1.5km of strike and is still open to the south

A very good address...the Juglah Dome tenement is surrounded by Black Cat Syndicate Limited (ASX:BC8) to the north and west and Silverlake Resources Limited (ASX:SLR) to the west and south

Best results returned at the Gards prospect included:

- **8m @ 2.18 g/t Au** from 34m including 1m @ 6.69g/t Au (20GDRC034) ¹;
- **3m @ 2.06 g/t Au** from 90m including 1m @ 5.63g/t Au (20GDRC033) ¹; and
- **6m @ 0.83 g/t Au** from 53m (20GDRC026) ¹
- **8m @ 1.49g/t Au** from 75m including 1m @ 7.30g/t Au (22GSRC014) ²
- **5m @ 1.08g/t Au** from 35m (22GSRC002) ²

¹ (Refer ASX announcement dated 10 February 2021 – “Encouraging drill results from Juglah Dome”)

² (Refer ASX announcement dated 10 February 2021 – “Gold assays add strike length to Gards Prospect”)

Our partnered projects

ESS also has multiple nickel and gold JV partnerships where the partner is obliged to provide funding and management with ESS free-carried up a decision to mine.

Nickel Joint Ventures

- 25% free-carried interest the Blair – Golden Ridge Project Farmin/Joint Venture with **Australian Nickel Company***
- 20% free-carried interest (nickel only) in the Wattle Dam and Larkinvile projects with **Maximus Resources Ltd (ASX:MXR)**

Gold Joint Ventures

- 25% free-carried interest in the Acra Joint Venture with **Northern Star Resources Ltd (ASX:NST)**
- 30% free-carried interest in the Kangan Joint Venture with **Novo Resources Corp. (TSXV:NVO)**
- 25% free-carried interest in the Balagundi Farmin/Joint Venture with **Black Cat Syndicate Ltd (ASX:BC8)****
- 25% free-carried interest in the Larkinvile Joint Venture with **Maximus Resources Ltd (ASX:MXR)**

Notes

All 'free-carried' periods are to the making of a Decision to Mine or an equivalent.

* ESS holds 100% of the Blair – Golden Ridge Project which is subject to a conditional farmin/joint venture agreement – refer ASX release dated 9 February 2021.

** ESS holds 100% of the Balagundi Gold Project with Black Cat Syndicate currently in the farmin stage of earning a 75% interest.

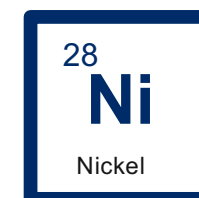
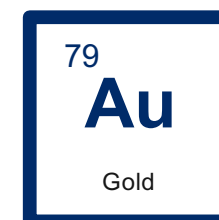
Key Takeaways



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- Funding in place – **\$8.1M cash on hand (30/09/2022)**
- **Experienced Board and management team** with proven discovery and development expertise
- Projects located in **WA's premier mineral** and mining districts with a strong focus on finding **essential metals** for a **low-carbon future**
- **Quality lithium project in the core of WA's lithium corridor** with significant initial Mineral Resources with a high level of growth and upside potential
- **Scoping Study** underway and strong interest received from potential **offtake/funding partners**
- **Gold exposure** via exciting two gold exploration projects near WA's gold capital, Kalgoorlie and four joint ventures in the Pilbara and Eastern Goldfields
- **Nickel exposure** via free-carried minority interests in two early stage highly prospective joint ventures in the Kambalda and Eastern Goldfields



Thank you

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