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ASX ANNOUNCEMENT

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20 December 2022

Dome North lithium upgrade boosts Indicated Resource tonnes by 50%

The significant growth in Indicated Resource underpins the Scoping Study currently underway and due for completion in January

Highlights

- Lithium within the higher confidence **Indicated Resource** category has increased from 5.4Mt @ 1.3% Li_2O containing 70,000 tonnes of lithium **to 8.6Mt @ 1.23% Li_2O containing 105,000 tonnes**, an increase of 50%.
- An impressive **81% of the total contained lithium** within the Mineral Resource has now been upgraded to the higher confidence **Indicated Category**, reflecting the thick, high grade and out-cropping nature of the deposits.
- Metallurgical test work has confirmed minimal oxidation of the spodumene at Cade with excellent recoveries demonstrated from the shallow mineralisation.
- The total lithium Mineral Resource was little changed, updated to 11.2Mt @ 1.16% Li_2O containing 129,000 lithium tonnes (from 136,000 lithium tonnes).
- The upgraded Mineral Resource will be used to complete a mining optimisation study based on three open pits. The pit optimisation outcomes will then be incorporated into the Scoping Study due for completion in January.
- All exploration targets generated from the structural review are on track to have been field checked by early January. Assays from field samples will be received during January and February.

Essential Metals Managing Director, Tim Spencer, said: *"The work undertaken this year to improve the quality and confidence of the Dome North lithium Mineral Resource has paid off and we are now positioned to move into feasibility studies to determine the optimal development pathway. This work, which entailed drilling and metallurgical test work focussed on the Mineral Resource, allows the Company and its Scoping Study manager, Primero, to complete a scoping study that will assist in attracting a project partner that is prepared to help fund development of the Project in return for offtake rights. We will of course be considering all development options including fast-tracking Direct Shipped Ore (DSO) cargoes as a means to bring forward cashflow."*

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PIONEER DOME LITHIUM PROJECT

The 450km^2 Pioneer Dome Project (ESS: 100%) is 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 of 11.2Mt @ 1.16% Li_2O 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 Pioneer Dome, Bald Hill Mine, the Mt Marion Mine, the Manna Project and the Buldania Project, all of which are located within a circle with a 90km radius. 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.

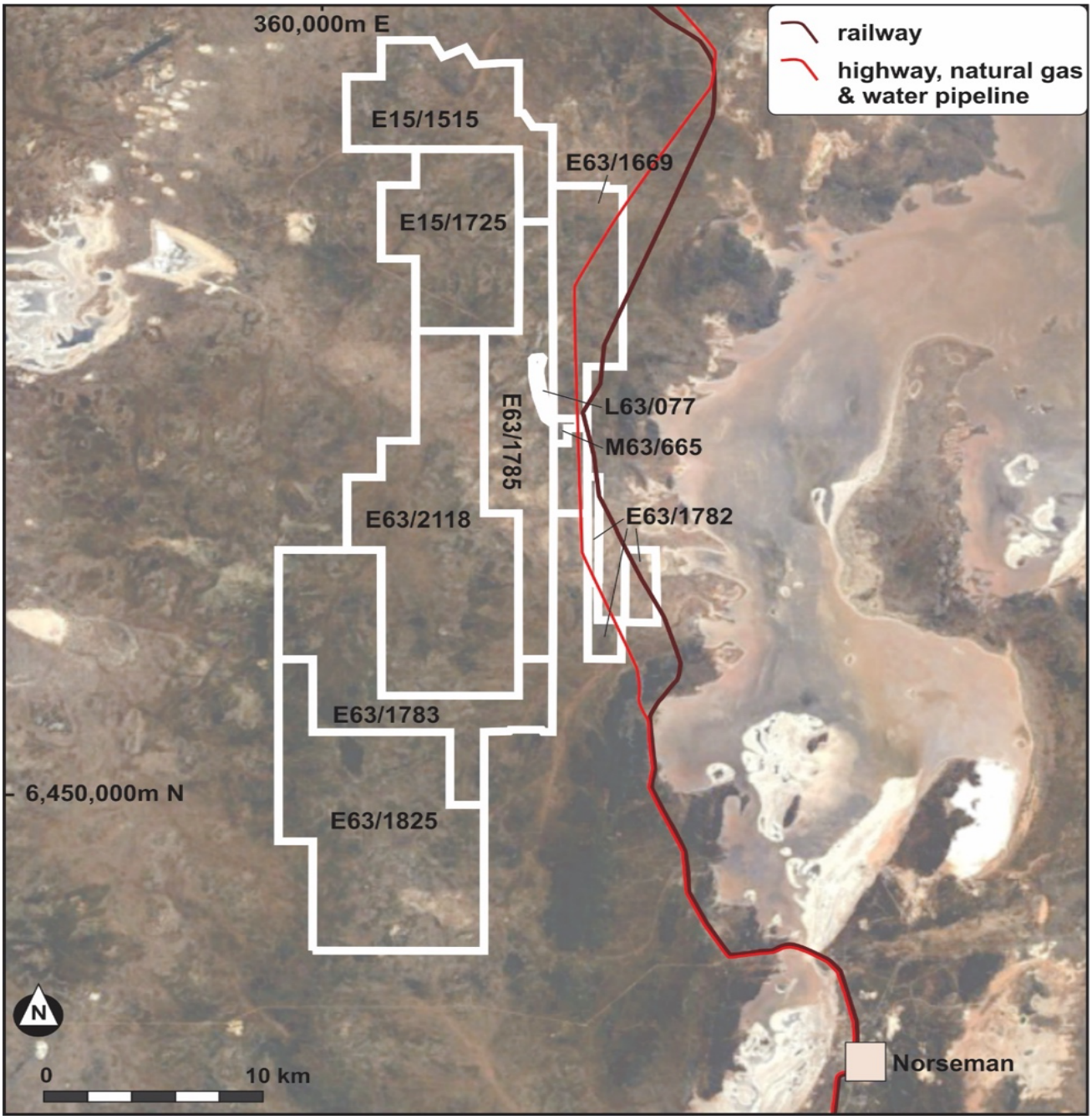

Figure 1 – The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure.

MINERAL RESOURCE UPDATE

The Mineral Resource reported in this announcement is an update to the Mineral Resource reported in September 2020[1] and incorporates additional extension and infill drilling and further metallurgical test work.

The 50% increase in Indicated Resources significantly improves the confidence in tonnes and grade that can be mined from the Cade and Davy deposits. The mining optimisation study is now underway and will determine the mining inventory to be used in the Scoping Study that is due to be completed in January.

The updated Indicated and Inferred Mineral Resource, which was prepared by independent specialist resource and mining consulting group Trepanier (Geology & Resource Consultants), comprises 11.2Mt at an average grade of 1.16% Li_2O and 57ppm Ta_2O_5 and is set out in Table 1 and Table 2.

Table 1. Dome North Mineral Resource by Category: (0.3% Li_2O cut-off grade)

Classification	Tonnes (Mt)	Li_2O %	Ta_2O_5 ppm	Contained Li_2O (t)	Fe_2O_3 %
Measured	-	-	-	-	-
Indicated	8.6	1.23	55	105,000	0.46
Inferred	2.6	0.92	62	24,000	0.55
Total	**11.2**	**1.16**	**57**	**129,000**	**0.48**

Note: Appropriate rounding applied.

Table 2. Dome North Mineral Resource by deposit and category: (0.3% Li_2O cut-off grade)

Deposit	Classification	Tonnes (Mt)	Li_2O %	Ta_2O_5 ppm	Contained Li_2O (T)	Fe_2O_3 %
Cade	Indicated	6.9	1.26	49	88,000	0.44
	Inferred	1.3	0.88	49	11,000	0.44
Davy	Indicated	1.6	1.08	81	18,000	0.54
	Inferred	0.6	0.89	73	4,000	0.58
Heller	Inferred	0.7	1.02	76	8,000	0.72
Total	**Total**	**11.2**	**1.16**	**57**	**129,000**	**0.48**

Note: Appropriate rounding applied.

The Mineral Resource is reported and classified in accordance with the guidelines of the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code; 2012).

[1] Refer to ASX announcement dated 29 September 2020 "Dome North Lithium Project – Resource Upgrade"

The three deposits that comprise the Mineral Resource Estimate are Cade, Davy and Heller and their locations are shown in Figure 2 below.

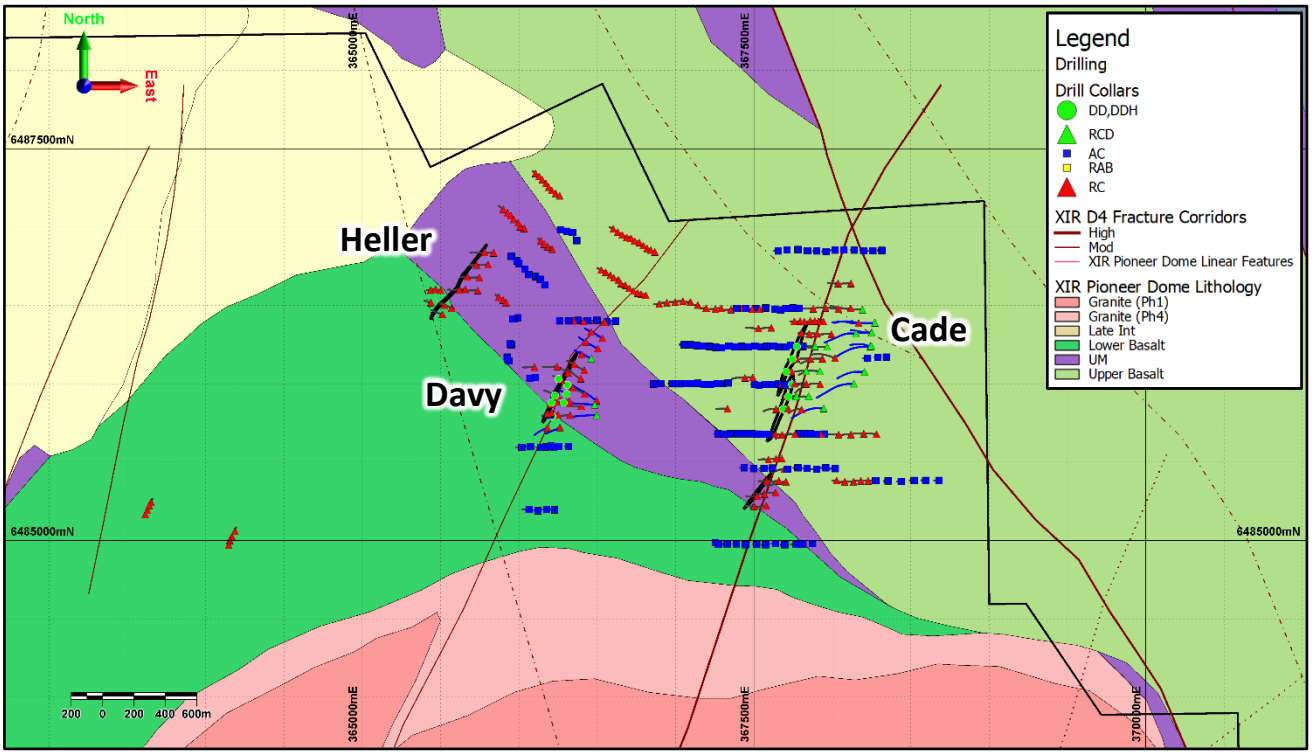

Figure 2 – Lithium exploration drilling, local geology and structural interpretation of the Dome North Project area – Cade, Davy and Heller.

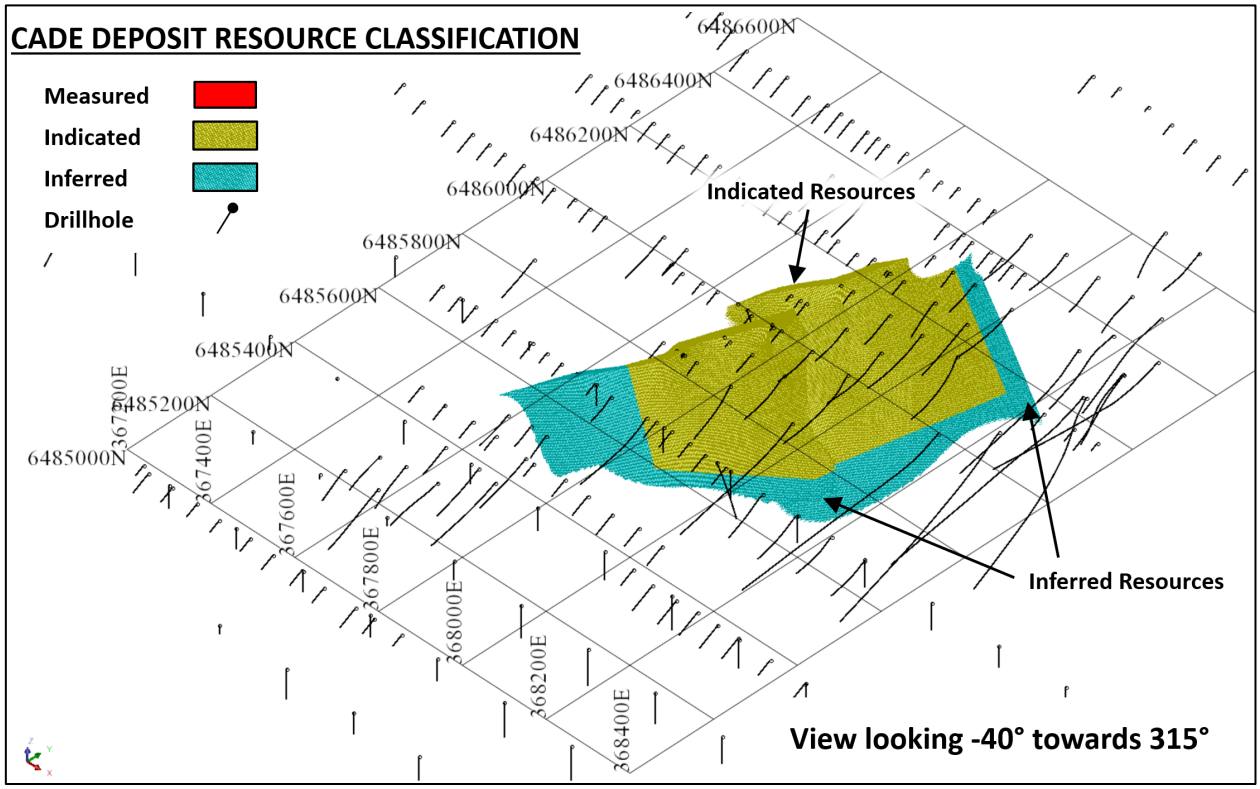

Figure 3 – Cade deposit Mineral Resource classification

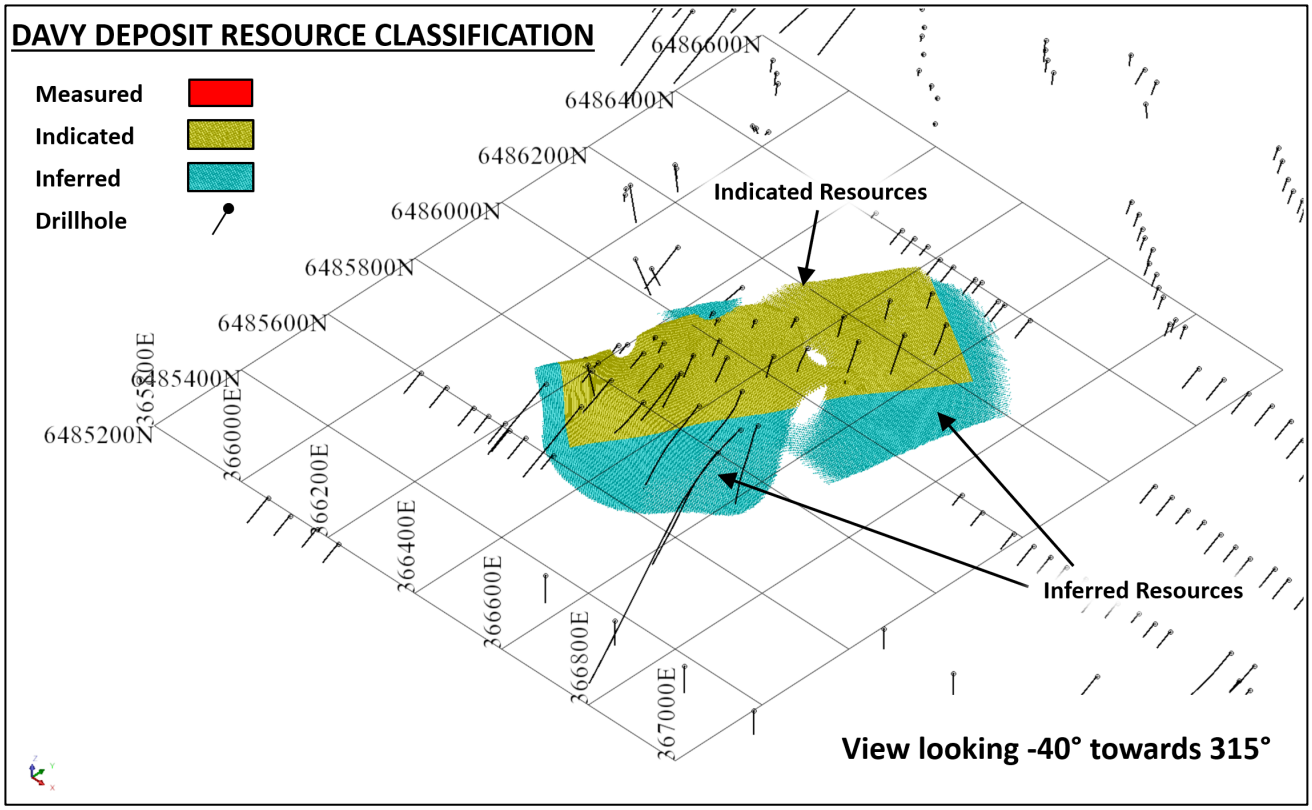

Figure 4 – Davy deposit Mineral Resource classification

SUMMARY OF WORK SINCE LAST RESOURCE UPDATE

The last Mineral Resource update was reported on 29 September 2020[1]. Three subsequent drill programmes were conducted to:

- Locate additional spodumene bearing pegmatites in the area surrounding the identified deposits;
- determine the extent of the near surface lithium depletion;
- confirm the strike extent of mineralisation;
- obtain material for Specific Gravity (SG) determination and metallurgical test work; and
- test the depth potential at Cade and Davy.

Shallow RC drilling

From early July to August 2021, a shallow Reverse Circulation (RC) drill programme was carried out to explore for the potential northern extensions to the Dome North deposits in areas of poor exposure, drill test early-stage targets in the area surrounding the deposits and to understand the extent of lithium depletion in the weathered zones at Cade and Davy.

This drilling did not identify any new spodumene pegmatites but did highlight minimal lithium depletion near surface at Cade[2].

[2] Refer to ASX announcement dated 15 October 2021 "High grade assay results from Cade deposit"

Shallow Diamond core drilling

Due to the minimal impact of weathering on the spodumene bearing zone at Cade as identified from the shallow RC programme another drill programme was designed to further clarify the characteristics of the shallow mineralisation.

This drilling provided samples for SG determination and metallurgical test work, such that the weathered zones at both Cade and Davy could be converted to the Indicated resource category, as well as the fresh material at Davy.

HQ3 triple tube core drilling was completed in February 2022 and assays were reported in June 2022[3]. Metallurgical test work from the weathered zones confirmed that lithium was recoverable from the weathered zones at both Cade and Davy. Also, the test work demonstrated that the metallurgical recoveries on the fresh material at Davy would be similar to Cade[4].

Deeper and Strike drilling

A drill programme was completed in August 2022 and was designed to test the depth potential at Cade and Davy, as well as testing the strike extent of mineralisation at Davy. This drilling did not locate significant spodumene bearing pegmatites at depth beneath Cade or Davy, however drilling at the northern end of Davy confirmed the presence of a second spodumene bearing-pegmatite[5]. The results from this drilling were included in the Mineral Resource Update reported herein.

Changes in Interpretation

The most material change in the interpretation was the weathering of the pegmatite at Cade, see below. Smaller changes include the reduction of strike length of mineralisation from the southern end of Davy and the confirmation of second spodumene bearing pegmatite at the northern end of Davy, see Figure 5 .

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[3] Refer to ASX announcement dated 7 June 2022 “Assays confirm high-grade near-surface lithium at Dome North”

[4] Refer to ASX announcement dated 7 October 2022 “Positive lithium met test work results”

[5] Refer to ASX announcement dated 27 October 2022 “Pioneer Dome lithium assays”

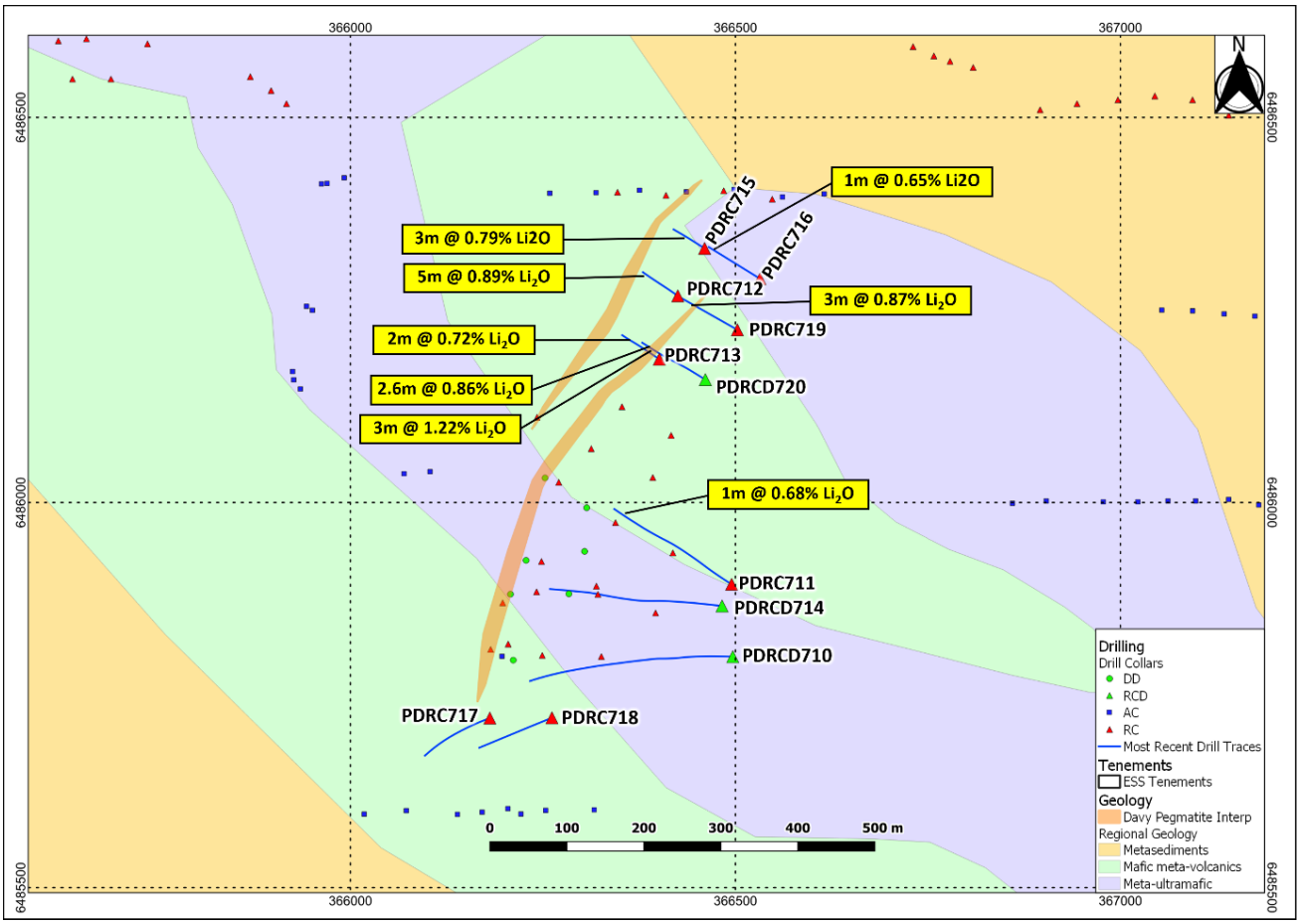

Figure 6 – Hole location and drill traces (blue lines) of most recent drilling at Davy. Note that new interpretation of the pegmatites that are projected to surface is shown by the orange shaded areas.

Weathering at Cade

One of the main outcomes from the re-interpretation of the mineralisation at Cade was the minimal amount of weathering of the spodumene now recognised at the deposit.

Previously the interpretation was that the pegmatite was weathered to the same extent as the metasediments. Shallow RC drilling in August 2021 targeted the near surface pegmatite to understand the lithium depletion due to weathering. Results[6] from these shallow holes were of similar widths and grades, indicating that the weathering of the spodumene in the pegmatite was less than anticipated.

In January 2022, a shallow diamond core programme commenced to obtain material for SG determination and metallurgical test work. This drilling confirmed the presence of strongly oxidised metasediments against relatively unweathered pegmatite just beneath the surface, see Figure 7. Metallurgical results from this drill programme indicate that the metallurgical performance of the Cade weathered composite is comparable to the previous composites from the fresh material. Importantly, this should greatly improve the likely economics of any open pit development at the deposit compared to the previous model.

[6] 15 October 2021 - Excellent lithium assays and widths returned from Cade Deposit


Strongly weathered metasediments
PDD599
TRAY #1
0m → 3.25m.


Relatively fresh spodumene zone (pegmatite)
PDD599
TRAY #2
3.25m → 6.45m


PDD599
TRAY #3
6.45m → 9.84

Figure 7 – Core photographs from PDD599 at Cade showing the strongly oxidised metasediments (host rock) against the relatively unweathered spodumene bearing pegmatite.

UPCOMING KEY EVENTS

December 2022

- Receipt of non-binding expressions of interest (EOI) from parties seeking a financing and off-take partnership to assist with advancing the Pioneer Dome Lithium Project into production.

January 2023

- Completion of the Pioneer Dome Lithium Project Scoping Study.
- Short-listing of EOI interested parties to negotiate final offered terms then ESS selecting its preferred project partner and enter into binding term sheets covering offtake and project funding.

February 2023

- Update on exploration activities at Pioneer Dome following field reconnaissance work focussed on the 40+ targets generated from the structural interpretation completed in November.

March 2023

- Commence detailed feasibility studies.

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.

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 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 @ 1.16% lithium (Li_2O) including 8.7 million tonnes @ 1.23% lithium (Li_2O) within the Indicated Category.[7]
- **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).

[7] As per this ASX announcement.

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.

Dome North Mineral Metallurgical Test Work - Competent Person Statement

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.

Exploration Results – Competent Person Statement

Mr Andrew Dunn (MAIG) holds the position of Exploration Manager and is employed full-time by Essential Metals Limited. Mr Dunn is eligible to receive equity-based securities in Essential Metals Limited under the Company's employee incentive schemes. Mr Dunn compiled the technical aspects of this Announcement pertaining to Exploration Results, which is based on and fairly represents information compiled by Mr Dunn. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralisation 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.

Dome North Lithium Mineral Resource – Competent Person Statement

The information in this report that relates to the Dome North Lithium Project Mineral Resource is based on information compiled by Mr Andrew Dunn (Exploration Manager and permanent employee of Essential Metals Limited) and Mr Lauritz Barnes (consultant with Trepanier Pty Ltd). Mr Dunn is eligible to receive equity-based securities in Essential Metals Limited under the Company's employee incentive schemes. Mr Dunn and Mr Barnes are both members of the Australian Institute of Geoscientists. Mr Dunn and Mr Barnes both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Dunn is the Competent Person for the database (including all drilling information), the geological and mineralisation models plus completed the site visits. Mr Barnes is the Competent Person for the construction of the 3-D geology / mineralisation model plus the estimation. Mr Dunn and Mr Barnes consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

Dome North Mineral Resource by deposit and category: (0.3% Li_2O cut-off grade)

Deposit	Classification	Tonnes (Mt)	Li_2O %	Ta_2O_5 ppm	Contained Li_2O (T)	Fe_2O_3 %
Cade	Indicated	6.9	1.26	49	88,000	0.44
	Inferred	1.3	0.88	49	11,000	0.44
Davy	Indicated	1.6	1.08	81	18,000	0.54
	Inferred	0.6	0.89	73	4,000	0.58
Heller	Inferred	0.7	1.02	76	8,000	0.72
Total	**Total**	**11.2**	**1.16**	**57**	**129,000**	**0.48**

Note: Appropriate rounding applied.

APPENDIX 1 - SUMMARY OF RESOURCE AND REPORTING CRITERIA

A summary of JORC Table 1 (included as Appendix 2) is provided below for compliance with the Mineral Resource and in line with requirements of ASX listing rule 5.8.1.

Location and Description

The Dome North Mineral Resource is part of the Pioneer Dome Project, owned 100% by Essential Metals Limited, and is located approximately 50km north of Norseman in the Eastern Goldfields Province of Western Australia. The Project is well serviced by existing infrastructure including a sealed road, water pipeline, rail and a gas pipeline all are related to the modern mining history within the tenement package and the proximity to other current and historic operations and the nearby regional centre of Kalgoorlie.

Geology and geological interpretation

The Pioneer Dome project area is located at the southern end of the Kalgoorlie Terrane, which is part of the Eastern Goldfields Superterrane (EGS) of the Yilgarn Craton. The Dome North spodumene deposits fall within the Depot Domain, near the boundary of the Kambalda Domain to the east (Cassidy et al., 2006).

In the vicinity of the Project area, the Archean greenstone sequence dominates, and is broadly north-south striking, westerly dipping and younging to the east. Lithologies include tholeiitic basalt, pyroxene spinifex-textured basalt, komatiite, peridotite and dolerite, in addition to sedimentary rock derived from felsic volcanic and volcaniclastic rocks and pelitic and psammitic metasedimentary rocks of the Black Flag Group (Cade Deposit host rock). Interflow sediments are also present, commonly in the form of carbonaceous shale horizons.

The entire greenstone sequence is intruded by a series of pegmatite dykes and sills associated with the later stage Pioneer Dome granite intrusive. These pegmatite dykes form a swarm of intrusive bodies along a strike length of approximately 15 km along the eastern edge of the granite dome.

The host rocks differ between each of the deposits. Cade is hosted in metasediment of the Black Flag Group, of which are fine grained and largely quartz, mica, amphibole and garnet in composition +/- pyrite, andalusite with black shale interbeds common. The host metasediments are strongly deformed, locally folded and sheared providing the structural preparation for a later stage pegmatite emplacement. The Davy and Heller deposits are hosted in both ultramafic (pyroxenite dominant) and mafic (basalt) rocks where pegmatites have intruded sheared contacts along NNE striking faults. Mafic lithologies tend to be more favourable for thickening of the spodumene pegmatites within a more brittle host.

Drilling techniques

Drill holes within the Resource model were Reverse Circulation (RC) drill holes drilled with a 4½ - 5½" face sampling hammer, Aircore drilling used a 90mm face-sampling blade bit or hammer in hard rock and diamond drilling was undertaken using an industry standard HQ3 triple tube with a diamond-set cutting bit.

The Mineral Resources are defined by 7 aircore holes, 72 RC holes, 13 diamond holes and 17 RC holes with diamond tails.

Sampling techniques

RC drilling samples were collected at 1m intervals from a cone splitter attached to the drill cyclone. Samples were approximately 3kg. Air core drilling samples were laid out on the ground as 1m sample piles. Single metre samples were taken in pegmatite lithology and three metre composite samples were collected for the entire

length of the drillhole by sampling 3 consecutive sample piles, using an aluminium scoop. HQ3 diamond core from the pegmatite (target zone) was half cut then quarter cut from one half only for lab submission. Sample length was dependent on geological contacts and ranged from 0.2m to 1.2m in length.

Sample Analysis

Analysis of all drilling samples was undertaken by Intertek Genalysis and Nagrom Laboratories, both located in Perth, for rare metals including lithium and tantalum. Samples were analysed using a four-acid digestion with a Mass Spectrometer (MS) determination (Intertek analysis code ZR01 / 4A Li MS-48).

Adjustment for Iron Contamination

In addition to Li_2O and Ta_2O_5, Trepanier has also estimated the Fe_2O_3 for Essential Metals for the Mineral Resource as a potential deleterious element in the production of spodumene concentrates. During the process of drilling, sampling and assaying, two key issues cause contamination and, hence, artificial elevation of the Fe_2O_3 assays for the drill samples. Firstly, the highly abrasive nature of the Li_2O/Ta_2O_5 mineralised pegmatite on the RC drilling bits and rods has resulted in iron contamination of the drill samples in the field. Secondly, when the drill samples were pulverised in laboratory in steel containers, the highly abrasive nature resulted in further iron contamination. As such, Trepanier completed a statistical analysis into both of the above-mentioned issues which then allowed for factoring of the Fe_2O_3 assays to account for the contamination. Step one is to subtract 0.17% from all Genalysis Fe_2O_3 assays for samples pulverised in a steel bowl. Step two is to subtract a regressed factor by depth from all RC samples. It should be noted this process has been used to understand the potential Fe_2O_3 grades in the resource attempting to remove the Fe_2O_3 present from drilling and/or sample preparation contamination. The Fe_2O_3 grades are an estimate only, however consistent with the broad estimation techniques applied for the estimate of the global resource.

Mineralisation Interpretation

Resource intersections were calculated using 0.3% Li_2O cut off with a maximum 3m internal dilution and no external dilution typically applied except where drill hole logging (e.g. continuous pegmatite) and assays indicate wider internal dilution is warranted. A significant increase in Fe_2O_3 at the contacts between the elevated iron mafic country rock and the iron poor pegmatites further refines the position of this contact in additional to the geological logs.

Estimation Methodology

Grade estimation for all elements was completed using Ordinary Kriging (OK) in GEOVIA Surpac™ software into the mineralised domains. A separate model was built for each deposit, but with the same block sizes. The estimates were resolved into 4m (E) x 20m (N) x 10m (RL) parent cells that had been sub-celled to 0.5m (E) x 2.5m (N) x 1.25m (RL) at the domain boundaries for accurate domain volume representation. Estimation parameters were based on the variogram models, data geometry and kriging estimation statistics. Top-cut analysis used a combination of methods including grade histograms, log probability plots and other statistical tools. Based on this statistical analysis of the data population, no top-cuts were applied for Li_2O, Ta_2O_5 or for Fe_2O_3.

Mineral Resource Classification

The Mineral Resources estimates for the Dome North lithium deposits have been classified in accordance with the criteria laid out in the 2012 JORC code.

Key factors considered for the resource classification included:

- Drill spacing (typically 80m x 80m).

- Confidence in geological interpretation
- Confidence in mineralised zone interpretation
- Sample and geochemical analysis quality
- Availability of bulk density data

The Cade lithium Resource has, in part, been classified as an Indicated Mineral Resource. In situ reasonably fresh spodumene-bearing pegmatite rock chip samples collected at surface where the Cade pegmatite outcrops suggested that the weathering of the pegmatite is limited and shallow drilling and metallurgical test work has now demonstrated the minimal amount of weathering. As such, shallow, near surface fresh pegmatite has now been included within the Indicated resources at Cade.

The bulk densities applied to the fresh, oxide and transitional material pegmatite were based on determinations from drill core, of which 220 of the 1,395 measurements are from within the defined estimated domains at Cade and Davy.

Typical drill spacings for Indicated is 80m by 70-80m and for Inferred is up to 160m x 80m around the fringes of the Indicated.

Cut-off Grade

The shallow, sub-cropping nature of the Dome North deposits suggests good potential for open pit mining if sufficient resources can be delineated to consider a mining operation. As such, the Mineral Resource has been reported at a 0.3% Li_2O lower cut-off grade to reflect assumed exploitation by open pit mining.

Modifying Factors

No modifying factors were applied to the reported Mineral resources. Parameters reflecting mining dilution, ore loss and metallurgical recoveries will be considered during the planned mining evaluation of the project.

Metallurgy

The Company has conducted scoping study level metallurgical test work on the Cade Deposit and Davy deposits covering oxide, transitional and fresh material with the results demonstrating that all zones of the two deposits will be amenable to conventional processing methods using dense medium separation and flotation.

Appendix 2: Dome North – JORC 2012 Table 1 Criteria

The table below summaries the assessment and reporting criteria used for the Cade, Davy and Heller deposits, Pioneer Dome Lithium Project – Dome North Mineral Resource estimate and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut Faces, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• Diamond core (DD), Reverse circulation (RC) and aircore (AC) samples from holes drilled from surface. For deeper holes RC pre-collars were utilised and diamond core was drilled to completion. In these instances, they are referred to as RCD holes • Industry-standard reverse circulation drilling, using a face-sampling hammer with a booster and auxiliary compressor was used to ensure dry samples. Individual one metre samples were collected using a cyclone and a cone splitter into sub samples of approximately 3kg weight, the cyclone was regularly cleaned to minimise contamination. Single metre samples were collected in calico bags via a cone splitter directly below the cyclone on the RC drill rig. Three-metre composite samples for intervals that were outside of the pegmatite were collected from the sample piles using an aluminium scoop. • Industry-standard aircore drilling, using a face-sampling blade bit. AC drill samples outside of pegmatite zones were taken as 3m composite and as single metre samples within the mineralised pegmatite zones. These samples were collected from the piles with an aluminium scoop. • Industry-standard HQ3 triple tube system was used to obtain diamond core.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Duplicate samples (AC, RC and friable DD only) and Certified Reference Standards were inserted at regular intervals to provide assay quality checks. The standards and duplicates for the reported drilling were within acceptable limits. • Samples are considered 'fit for purpose'.
	• *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain*	• RC and AC drilling was used to obtain 1 m samples from which approximately 3kg sampled. • Diamond core samples were crushed prior to pulverisation. • Pulverisation using LM5 (steel mill) - Samples above 3kg were riffle split prior to

Criteria	JORC Code explanation	Commentary
	1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	pulverisation. Ones less than 3kg were entirely pulverised. Pulverisation using Zirconium or Tungsten Carbide (WC) bowl involved fine crushing (-2mm) then rotary or riffle splitting for 100g subsample to be pulverised. All samples were pulverised to nominal P80/75um to produce a standard charge for analysis. • Quarter core samples of lengths determined by geology vary in weight. • Lithium exploration package of elements: analysed by a four-acid digestion with a Mass Spectrometer (MS) determination (Intertek analysis code ZR01 / 4A Li MS-48). The quoted detection limits for this method are a lower detection limit of 0.1ppm and an upper detection of 10,000ppm Li. Most other elements have a similar analytical range. Any over range samples were re analysed by a sodium peroxide zirconium crucible fusion with a detection range of 1ppm to 20% Li.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Reverse Circulation drilling, 4.5-inch drill string, 5.25 – 5.75-inch face-sampling hammer with auxiliary and booster compressors used to help exclude ground water. • Aircore drilling used a 90mm blade bit or a face sampling hammer in hard rock. • HQ triple tube drilling was carried out to obtain diamond core.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• During RC and AC drilling the geologist recorded the occasions when sample quality was poor, sample return was low, when the sample was wet or compromised in another way. • During diamond drilling the core recovery was measured and recorded from every drilled core run and compared against the drillers core blocks of known drill depths.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Sample recovery was good for RC drilling using the equipment described. • For AC drilling sample recovery was generally good when the sample was dry. • Sample recovery for core drilling was usually very high. HQ3 triple tube drilling was utilised to help obtain representative samples and maximise core recovery. • Core measurements enable core recoveries to be calculated.
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No relationship between sample recovery had been observed in RC drilling. For diamond drilling poorer sample recoveries generally exist in the weathered material. In pegmatites this zone is often leached of Li.

Criteria	JORC Code explanation	Commentary
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• Lithological logs exist for all holes in a database. Fields captured include lithology, mineralogy and abundance, sulphide abundance and type, alteration, texture, recovery, veining and type, weathering, oxidation and colour. • All diamond drillholes were orientated with reference to bottom of the hole and geotechnically and structurally logged for recovery, RQD, fracture frequency and alpha/beta measurements on oriented core. • SG measurements were acquired on whole core for all rock types using either the Caliper or variations of the Archimedes water submersion methods. • The detail captured is considered to be fit for purpose.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography.*	• Logging is qualitative but includes quantitative estimates on mineral abundance. • A representative sample of each RC drill metre is sieved and retained in chip trays for future reference. • Drill core was photographed both wet and dry prior to sampling.
	• *The total length and percentage of the relevant intersections logged.*	• The entire length of the drill holes were geologically logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• RC drilling - Individual one metre samples were collected via a cone splitter directly attached to the cyclone. Individual samples were nominally 3kg. The remainder of the drill sample was laid out in order on the drill pad. • AC drill samples were laid out in order directly onto the ground. Individual 1m samples were taken with an aluminium scoop. • Individual RC and AC drilling metre samples of the pegmatite (target zone) were submitted to the laboratory. Three metre composite samples were aggregated from equal amounts of material from each pile using an aluminium scoop to form 3kg sample for the remainder of the drillhole. This composite sample was sent to the laboratory for analysis. • Competent HQ3 diamond core from within and immediately surrounding the pegmatite was cut in half and then half again to produce the quarter core sample for submission. This left three quarters of the core in the core tray for future work. Sample length was nominally 1m and was adjusted to geological contacts with samples and ranging from a minimum of 20cm to maximum of 120cm. • For friable HQ3 diamond core whole core was submitted to the laboratory. This was staged

Criteria	JORC Code explanation	Commentary
		crushed to -6.3mm then riffle split to obtain material for pulverisation. • The sample collection, splitting and sampling for the types of drilling used is considered standard industry practise and fit for purpose.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Cyclones are routinely cleaned. • Geologist looks for evidence of sample contamination, which was recorded if seen. • The use of booster and auxiliary compressors ensures samples are dry, which best ensures a quality sample. • Duplicate samples for RC drilling show that representivity of samples are acceptable. • The cut core was sampled consistently on the right side of the orientation line and the quarter core on the opposite side of the line was submitted for analysis. • For friable HQ3 diamond core 1 in 20 samples were re-split and analysed to check the quality of the laboratory splitting. These samples were confirmed very good repeatability.
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	• Standard Reference Material is included at a rate of 1 per 30 samples. • Duplicate RC drill samples were collected from a second calico sample taken directly off the cone splitter that was attached below the cyclone. Duplicates are routinely inserted at a 1 per 30 samples. • Duplicate AC drill samples are routinely inserted at approximately 1 per 30 samples. • No duplicates were inserted for the competent diamond drill core.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The sample size is considered industry-standard and appropriate for the style of deposit being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• The sample preparation and assay method used is considered standard industry practice and is appropriate for these style of deposits. • Four acid digestion is considered as near-total determination. Na-peroxide fusion is considered to be total determination. • A zirconium and tungsten carbide bowls were used to grind the majority of samples to minimise Fe contamination for the mineralised pegmatite samples.
	• *For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	• None used in MRE or reported

Criteria	JORC Code explanation	Commentary
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Standards and laboratory checks have been assessed. The standards show results within acceptable limits of accuracy, with good precision. Internal laboratory checks indicate very high levels of precision. Umpire assays returned results mostly within acceptable limits. Further work is required to understand why a small proportion of the umpire samples had larger than anticipated variability. • Laboratory quality control samples were inserted in accordance with the laboratory procedure with the performance of these control samples monitored by the laboratory and the company.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• Significant intersections are calculated by experienced staff with these intersections checked by other staff. • No holes have been twinned.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• The Company has a SQL drilling database where information is stored. • The Company uses a range of consultants to load and validate data and appraise quality control samples.
	• *Discuss any adjustment to assay data.*	• The Company has adjusted the lithium (Li), tantalum (Ta) and caesium (Cs) assay results to determine Li_2O, Ta_2O_5 and Cs_2O grades. This adjustment is a multiplication of the elemental Li, Ta and Cs assay results by 2.153, 1.221 and 1.0602 to determine Li_2O, Ta_2O_5 and Cs_2O grades respectively. Fe_2O_3 has been adjusted for both drilling and pulverisation contamination. This is covered in more detail in Section 3. • A two-step adjustment has been applied to the Fe_2O_3 assays to account for (i) contamination for some sample pulps by the steel bowl at the grinding stage, and (ii) contamination of RC chips with the drill bit and tube wear with increasing hole depth. Step one is to subtract 0.17% from all Genalysis Fe_2O_3 assays, step 2 is to subtract a regressed factor by depth from all RC samples.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	• The collar locations of the RC and DD holes have been surveyed by a qualified surveyor using an RTK differential GPS. The collar surveys provide very accurate positions for all holes including the RL of each drill collar. • AC holes have been located by handheld GPS. • Downhole surveys for RC and Diamond core holes were collected every 5 to 30 m from surface to bottom of hole either by the AXIS Mining Technology or Reflex north seeking gyro tool, surveys were carried out by the drilling operator.

Criteria	JORC Code explanation	Commentary
	• *Specification of the grid system used.*	• MGA94 (Zone 51)
	• *Quality and adequacy of topographic control.*	• Topographic control is by RTK DGPS, carried out by a qualified surveyor. Hole Rls were checked against the Shuttle Radar Topographic Mission (SRTM) Digital Terrain Model (DTM). • A surface DTM was created locally using the surveyed drill collars, AC holes were snapped to the DTM.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• Exploration RC drilling was drilled on panels spaced between 40 – 160m apart with drill holes 40-80m apart, dependent on the size of the target area. • Diamond drilling at the Cade Deposit was spaced 80m from existing drill panels with holes spaced 80m apart. • AC drilling traverses were nominally 200-400m apart with individual holes spaced 40-80m apart.
	• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	• Data spacing and distribution is sufficient to establish geological and grade continuity for three deposits within the Dome North project resulting in three Resource Estimates.
	• *Whether sample compositing has been applied.*	• No sample compositing has been applied for the reported assays. • Diamond drilling assays are geology dependent and sample intervals range from 20cm – 120cm.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The strike of the mineralisation at the Cade deposit is estimated to be broadly north-north-east, and dipping east, therefore angled diamond drill holes at -60° have been drilled towards 270° to intersect the mineralisation as close to perpendicular as possible. • Drilling was designed to intersect the target perpendicular to the mapped geology and angled at -60° for the best representation of lithological thickness. • Down hole intersection widths are estimated to closely approximate true widths based on the interpreted dip of the pegmatite bodies and the orientation of the drilling.
Sample security	• *The measures taken to ensure sample security.*	• The Company uses standard industry practices when collecting, transporting and storing samples for analysis. • Drilling pulps are retained by the Company off site.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques for assays have not been specifically audited but follow common

Criteria	JORC Code explanation	Commentary
		practice in the Western Australian exploration industry. • The assay data from the quality control samples indicate that sampling techniques are representative, and results are in the expected ranges. Umpire assaying is ongoing to verify results from the primary laboratory.

Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites*	• The drilling reported herein is entirely within E15/1515 which is a granted Exploration Licence. • The tenement is located approximately 60km north of Norseman WA. • The Company is the registered holder of the tenement and holds a 100% unencumbered interest in all minerals within the tenement. • The tenement is on vacant crown land. • The Ngadju Native Title Claimant Group has a determined Native Title Claim which covers the Project area.
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• At the time of this Statement E15/1515 is in Good Standing. To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to the Company operations within the tenement.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There had been no previous lithium exploration drilling or sampling on the Project other than by the Company. Previous mapping by the Western Australian Geological Survey and Western Mining Corporation (WMC) in the 1970's identified several pegmatite intrusions, however, these were not systematically explored for Lithium or associated elements.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Project pegmatites are consistent with records of highly fractionated Lithium Caesium Tantalum (LCT) pegmatite intrusion. This type of pegmatite intrusions are the target intrusions of hard rock lithium deposits. The Dome North Deposits and reported lithium occurrences are considered part of the LCT Pegmatite group and Albite-Spodumene sub-type.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• When reporting Exploration Results, refer to the figures and appendices within the ASX announcement. • When reporting Mineral Resource estimate, diagrams in the ASX announcement show the location of and distribution of drillholes in relation to the Mineral Resource.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• RC Intersections noted are from 1m sample intervals. • Diamond core intersections are derived from weighted average calculations due to variable sample lengths that have been adjusted to geological boundaries. • Li_2O intercepts calculated using 0.5% cut off with a maximum 3m internal dilution and no external dilution typically applied except where drill hole logging (e.g. continuous pegmatite) and assays indicate wider internal dilution is warranted. • There are no metal equivalent values reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• The current geological interpretation, based on drilling and mapping, suggests that the true widths approximate the down hole widths. (See the cross sections and maps within the report/release)
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar*	• Refer to figures and tables herein and Appendices in this report/ announcement.

Criteria	JORC Code explanation	Commentary
	locations and appropriate sectional views.	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Comprehensive reporting of all exploration results has previously been reported by the Company.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All meaningful and material exploration data has been reported.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Geological mapping and target generation for additional lithium resources. • Extensional and exploration drilling for lithium and potential co-products within the Project. • A scoping study is currently being prepared.

Section 3 – Estimation and Reporting of Mineral Resources

(Criteria listed in the section1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	• The drilling has been imported into a relational SQL server database using Datashed™ (Industry standard drill hole database management software). • All of the available drilling data has been imported into 3D mining and modelling software packages (Surpac™ and Leapfrog™), which allow visual interrogation of the data integrity and continuity. All of the resource interpretations have been carried out using these software packages. During the interpretation process it is possible to highlight drilling data that does not conform to the geological interpretation for further validation.

Criteria	JORC Code explanation	Commentary
	• *Data validation procedures used.*	• Data validation checks were completed on import to the SQL database. • Data validation has been carried out by visually checking the positions and orientations of drill holes.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• CP, Mr Andrew Dunn, has visited the site numerous times since October 2020 including during drilling programmes.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation is considered robust as the continuity the pegmatite is consistent between drill holes. • The geological interpretation is supported by drill hole logging, assays, mineralogical studies and surface mapping completed by ESS. • No assumptions have been made regarding the geological interpretation. • There have been no alternative interpretations have been considered at this stage. • Constraining wireframes were created in Leapfrog™ Geo software for the logged pegmatite veins and the internal spodumene rich zones. • The key factors affecting grade continuity is the presence of spodumene within the pegmatite.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Mineral Resource estimate is based on LCT pegmatite dykes, striking roughly north-north-east/south-south-west, dipping steeply to the east for a strike length of approx. 1000m and downdip of 350m at Cade, 650m strike and 300m down-dip at Davy and 350m strike and 250m down-dip at Heller.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	• Grade estimation used Ordinary Kriging for Li_2O %, Ta_2O_5 ppm and Fe_2O_3 (Adj2) % using GEOVIA Surpac™ version 2022. • As a potential deleterious element, Fe_2O_3 has been estimated for this resource as factored Fe_2O_3. Identification of contamination during both the sample collection (steel from drill bit and rod wear) and assay phases (wear in the steel pulverisation containers) has resulted in a detailed statistical analysis and co-located data comparison between diamond core and RC assays. Factors have been applied to the raw Fe_2O_3 assays in two steps. Step one is to subtract 0.17% from all Genalysis Fe_2O_3 assays for samples pulverised in a steel bowl. Step two is to subtract a regressed factor by depth from all RC samples. • Drill hole samples were flagged with the wireframed domain code. • Sample data were composited to 1m which is the most frequent sampling interval.

Criteria	JORC Code explanation	Commentary
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Top-cut analysisused a combination of methods including grade histograms, log probability plots and statistical tools. Based on this statistical analysis of the data population, no top-cuts were applied. • Directional variograms were modelled by domain using traditional variograms. Nugget values are moderate and grade ranges reasonably long (up to 180m). • The Block Model was constructed with parent blocks of 4m (E) x 20m (N) x 10m (RL) parent cells that was sub-celled to 0.5 (E) x 2.5m (N) x 1.25m (RL) at the domain boundaries for accurate domain volume representation. • Search ellipse sizes were based primarily on a combination of the variography and the trends of the wireframed mineralized zones. Hard boundaries were applied to the estimation domain. • Three estimation passes were used. The first pass had a limit of 120m, the second pass 240m and the third pass searching a large distance to fill any remaining blocks within the wireframed zones. Passes used a minimum of 6 samples and a maximum of 12 samples and maximum samples per hole of 4 – based on the sample distribution and number of samples contained within each domain. • Validation of the block model included a volumetric comparison of the resource wireframe to the block model volume. Validation of the grade estimate included comparison of block model grades to the declustered input composite grades plus swath plot comparison by easting, northing and elevation. Visual comparisons of input composite grades vs. block model grades were also completed.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnes have been estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The shallow, sub-cropping nature of the Dome North deposits suggests good potential for open pit mining if sufficient resources can be delineated to consider a mining operation. As such, the Mineral Resource has been reported at a 0.3% Li2O lower cut-off grade to reflect assumed exploitation by open pit mining
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution.*	• The Company is currently undertaking a scoping study predicated on mining by open pit method.

Criteria	JORC Code explanation	Commentary
	It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	• The Pioneer Dome Lithium Project is located in a well- established mining region in close proximity to existing transport, energy and camp infrastructure. • On the basis of these assumptions, it is considered that there are no mining factors which are likely to affect the assumption that the deposits have reasonable prospects for eventual economic extraction.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	**2020 Metallurgical test work** Two composites for the test work programme were selected from five core drill holes from the Cade Deposit, with each composite intended to represent the mean grade and lithology of the Cade deposit. Geological logging, elemental assays and an open pit optimisation were used to check that the composites were as representative of the deposit as is practical, given the samples available. The tests conducted on the first composite included: • Head Assay and X-Ray Diffraction (XRD); • Crusher work index (CWi) and Abrasion Index (Ai) tests; and • Size by assay (SxA) and Heavy Liquid Separation (HLS) at a series of different crush sizes The first composite was noted to include a portion of mineralisation containing petalite, a lithium-bearing mineral that typically requires a different process flowsheet to spodumene. This material was situated towards the edge of the Resource. A second composite was generated from the same drill holes as the first but excluded the 3.7m wide petalite wall zone identified in hole PDRCD318. The tests conducted on the second composite included: • Head Assay and X-Ray Diffraction (XRD); • Size by assay (SxA) and Heavy Liquid Separation (HLS) at a series of different crush sizes; and • Batch flotation test work on head and DMS mid samples. This work included de-sliming, magnetic separation and mica pre-flotation steps. The XRD scan showed that no petalite was detected in the second composite sample, providing evidence that petalite occurrences outside the identified wall zone in hole PDRCD318 may be low. The lithium grades of the two composites were 1.41% Li_2O and 1.56% Li_2O respectively. The second

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>composite was then used for the dense medium separation (DMS) and flotation test work.
A series of HLS tests was conducted, including one to investigate production of an upgraded direct-shipped ore (DSO). This test, using a crush size of P_{100} 6.3mm, showed that up to 81% Li_2O can be recovered into approximately 42% of plant feed mass, producing an upgraded material containing 2.0% Li_2O.
These HLS results represent a theoretical maximum recovery for this sample and variability testing with a DMS cyclone and larger sample mass is recommended to verify any results.
Under the DMS pilot test stage, a concentrate of 5.7% Li_2O was achieved at a global recovery of 28.6% Li_2O. The Secondary DMS floats were then composited with -0.85mm material and used as feed to flotation test work, containing an assayed grade of 1.67% Li_2O.
The flotation test work based on the DMS feed included a series of tests with each one preceded by grinding the feed to P_{80} 150µm and de-sliming via screen or cyclone at a cut size of 20 µm before performing the batch flotation tests.

Table 1 (repeated) – Concentrate Summary
<table><tr><th>Concentrate</th><th>Grade (% Li_2O)</th><th>Grade (% Fe_2O_3)</th><th>Global Recovery (%Li_2O)</th></tr><tr><td>T12 Flot Con & DMS Con</td><td>5.66</td><td>1.3</td><td>82%</td></tr><tr><td>T15 Flot Con & DMS Con</td><td>5.65</td><td>0.7</td><td>74%</td></tr></table>
2022 Metallurgical test work
In March this year, a diamond drilling (DD) programme was completed, consisting of six holes drilled into the weathered profile (up to the first ~50m from surface) of the Cade deposit (Cade Weathered), four holes drilled into the weathered profile of the Davy deposit (Davy Weathered) and three into the fresh rock of the Davy deposit (Davy Fresh).
The results from the drill programme were reported in June (Refer to ASX announcement dated 7 June 2022 “Assays confirm high-grade near-surface lithium at Dome North”).
The grade and recovery data from Heavy Liquid Separation (HLS) and batch Whole of Ore Flotation (WOF) test work was then compared to the previous Cade Fresh test work to assess if the three composites are expected to be amenable to the previously tested hybrid pilot Dense Media</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
		Separation (DMS) and flotation flowsheet and reagent regime. The three composites for the test work programme were selected from core drill holes from the three domains. Geological logging, elemental assays and an open pit optimisation were used to check that the composites were as representative of the domains as is practical, given the samples available. The key findings were as follows: • The test work was designed to determine the lithia recoveries based on a hybrid pilot DMS and flotation flowsheet. • The results show that the Cade Weathered mineralisation is expected to return an overall recovery similar to the 74-82% Li_2O overall recovery rates returned for the previously tested Cade Fresh composite sample. The whole Cade deposit represents 73% of the Mineral Resource. • The results show that the Davy Fresh mineralisation is expected to return a marginally lower overall recovery at around 64% Li_2O. • Due to the higher degree of weathering in the Davy Weathered composite, it is difficult to confidently estimate from these results the expected overall lithia recovery for this domain via a hybrid pilot DMS and flotation flowsheet. However, the results suggest it could be in the range of 30-50% Li_2O recovery at a target concentrate grade of 5.7% Li_2O. • All test work to date indicates that the vast bulk of the Dome North resource (Cade Fresh, Cade Weathered and Davy Fresh) will result in high recoveries with the production of marketable concentrate grades. • Although the Davy Weathered and Davy Fresh composites have returned lower recoveries, they represent smaller components of the Mineral Resource. The Davy weathered and transitional zones represent 4% of the Mineral Resource whilst the Davy fresh zone represents 16% of the Mineral Resource.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the*	• Environmental studies including Flora and Fauna studies were completed. Targeted search for flora/fauna and vegetation communities of conservation significance within the Project area was carried out prior to drilling programs. Desktop studies have been carried out, according to the DBCA Communities database, the project area is not located within the boundary of any Threatened or Priority Ecological Communities listed by the DBCA or within any proposed / vested Conservation Reserve.

Criteria	JORC Code explanation	Commentary
	status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• No Threatened Flora pursuant to the Biodiversity Conservation (BC) Act 2016 and the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999 were identified within the survey area. • One Priority Flora taxon, as listed by Department of Biodiversity, Conservation and Attractions (DBCA) was identified within the survey area; Diocirea acutifolia (P3). Botanica recorded a total of 75 locations of this taxon (estimated total of 30,191 plants; 13,781 plants within the survey area). • An application to impact 9.5ha of the total population area (estimated total of 2126 plants to be impacted) of Diocirea acutifolia was submitted to DBCA. BC obtained email confirmation from DBCA on 8th August 2019 that the proposal will impact a maximum of 7% of the total number of plants and 3.5% of the mapped extent, based on clearing 40m width along drill lines. The proportional impact of the exploration is unlikely to be significant at either the local or regional scale. • The pegmatite (lithium mineralised rock) contains no sulphides and would be benign with no acid forming potential. The host rocks contains some pyrite and will have some acid forming potential. At this very early stage of the project, no detailed work has been carried out in this regard, however due to the potential for AMD this will require further studies investigating the potential impacts and mitigation processes during pre-feasibility studies.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• A total of 1,395 bulk density measurements have been completed to date on samples taken from 29 diamond holes or core tails drilled into Cade and Davy. • Of these readings, 220 were from spodumene-rich pegmatite. • Samples of half HQ core ranging between 7cm and 30cm length were submitted to Genalysis for measuring. They were primarily taken from fresh mineralised pegmatite zones from between surface and 234m downhole (up to 200m vertically below surface). • These were analysed by domain and by depth from surface. Results are very consistent and an average of 2.68 has been used for fresh pegmatite. • Densities were assigned, based on oxidation code, as follows: Oxide: 1.95 Transition: 2.31 Fresh: 2.68

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Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource for the Dome North Lithium Project has been classified on the basis of confidence in the detailed geological understanding and defined continuity of the mineralised zone (drill spacing 80m x 80m), the relative confidence in the oxide/transition zone and the availability of bulk density data from the oxide/transition zone. • Portions of the Cade and Davy deposits have been defined as Indicated Mineral Resource. • At Cade, drilling has now intersected near surface pegmatite – which has also been metallurgically tested with reasonable recoveries. As such, shallow, near surface fresh pegmatite has now been included within the Indicated resources at Cade. • Typical drill spacings for Indicated is 80m by 70-80m. • Portions of the Cade and Davy deposits drilled at spacings of up to 160m x 80m have been classified as Inferred Mineral Resource. • Due to a lack of diamond core and bulk density measurements, Heller is classified as Inferred.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No external audits of the MRE have been carried out.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The relative accuracy of the MRE is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. • The statement relates to global estimates of tonnes and grade.