



ESSENTIAL METALS

for a sustainable future

07 June 2022

Assays confirm high-grade near-surface lithium at Cade and Davy

Outstanding assays including 23.7m @ 1.26% Li₂O from 3.6m (PDD599) in the Cade deposit and 31.95m @ 1.24% Li₂O from 45.4m (PDD601) in the Davy deposit

HIGHLIGHTS

- **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)
 - **17m @ 1.32% Li₂O** from 97.1m (PDD605)
 - **18.7m @ 1.05% Li₂O** from 17m (PDD603)
 - **11.1m @ 1.70% Li₂O** from 99.2m (PDD604)
- The diamond drilling (DD) programme undertaken in the March quarter consisted of six holes drilled into the first ~40m from surface of the Cade Deposit and seven holes drilled into the Davy Deposit for a total of 909m of drilling.
- Three composite samples will now be selected to represent the upper zone of the Cade deposit, the upper zone of the Davy deposit and the fresh rock zone of the Davy deposit for metallurgical test work. This will complement the successful test work already completed on the fresh rock zone of the Cade deposit. The test work is expected to be completed in early September.

Essential Metals Managing Director, Tim Spencer, said: "We were confident that the near-surface up plunge zones contained lithium-bearing spodumene and we are very pleased that the assays have confirmed the relatively high-grade tenor and substantial widths of mineralisation across the top ~40 metres of the Cade and Davy deposits. Metallurgical test work is the next important step to confirm that the recoverability of lithium from this near-surface material is similar to the previous successful recoveries obtained from the Cade deposit (fresh rock zone), further enhancing the potential economics of the Dome North lithium Resource."

ASX Code: ESS

Corporate Profile

Shares on issue: 246,449,736
Listed options: 20,758,418
(\$0.15 exercise: 30/11/22 expiry)

Cash: \$11m (31 May 2022)
Debt: Nil

KEY PROJECTS

LITHIUM Pioneer Dome
GOLD Golden Ridge
GOLD Juglah Dome

Joint Ventures (ESS %)

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

Corporate Directory

Non-Executive Chairman
Craig McGown

Non-Executive Directors
Paul Payne
Warren Hallam

Managing Director
Timothy Spencer

CFO & Company Secretary
Carl Travaglini

Exploration Manager
Andrew Dunn

Investor Relations

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

ABN: 44 103 423 981

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

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



PIONEER DOME LITHIUM PROJECT

The 450km² Pioneer Dome Project (ESS: 100%) is located in the core of Western Australia's lithium corridor in the Eastern Goldfields, approximately 130km south of Kalgoorlie and 275km north of the Port of Esperance. A Mineral Resource¹ of 11.2Mt @ 1.21% Li₂O has been defined at 'Dome North' in the northern area of the Project.

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

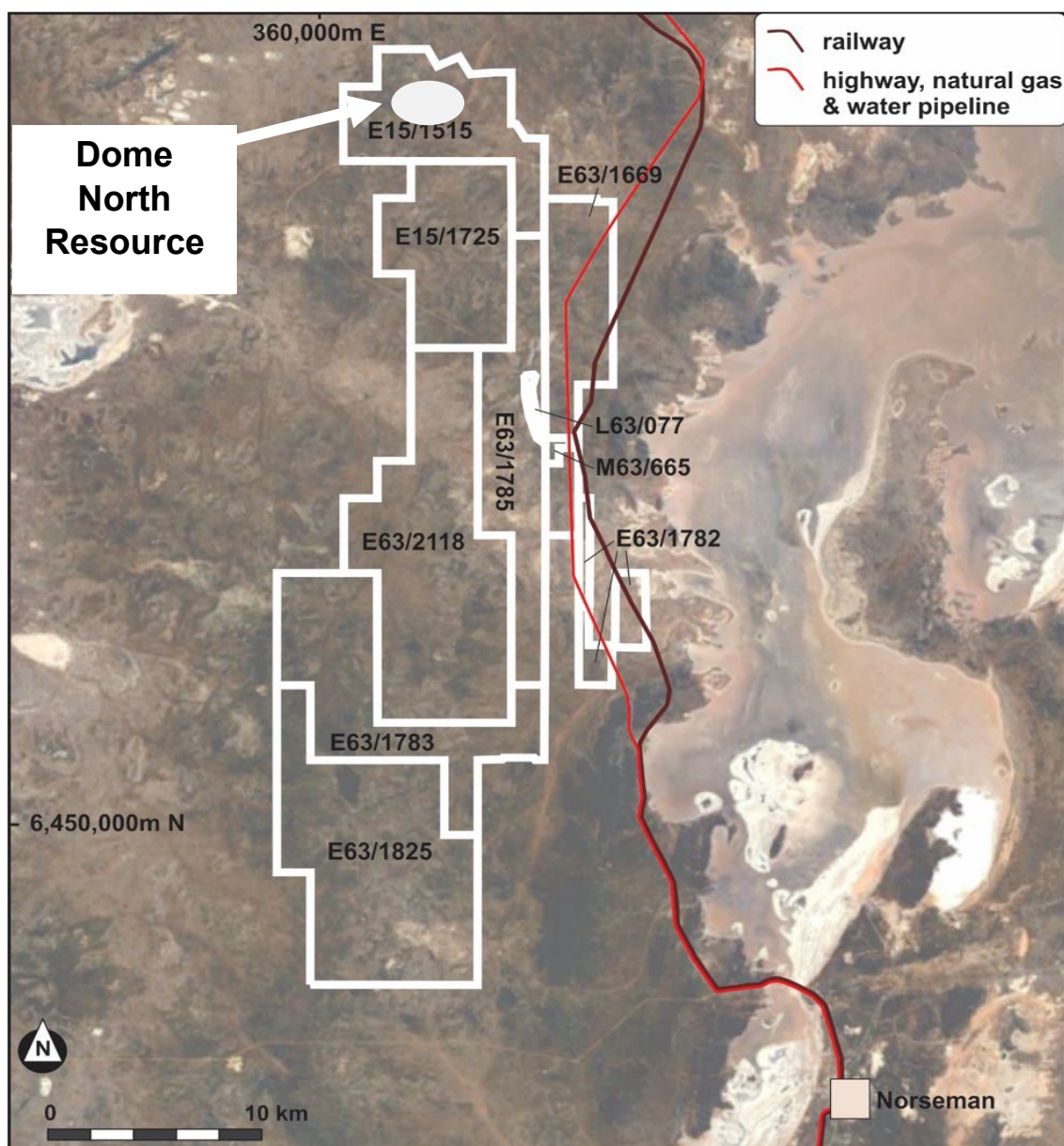


Figure 1 - The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure.

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



DIAMOND DRILLING PROGRAMME AT DOME NORTH

The two main objectives of the diamond drilling programme completed in the March quarter were to:

1. Increase confidence in the Lithium Mineral Resource Estimate by converting a large part of the Davy deposit and areas across the upper zone of the Cade deposit from the Inferred to Indicated Resource categories by in-fill drilling, measuring the bulk densities and completing metallurgical test work. The assays and mineralogy logged demonstrate that this should be achieved, subject to metallurgical test work, and an update of the Resource is planned for the December quarter.
2. Conduct confirmatory metallurgical test work to determine lithium recoverability with a focus on the upper zone in Cade and the Davy deposit as well as the fresh rock zone in the Davy deposit. Having now received the drill core assays, this work will commence.

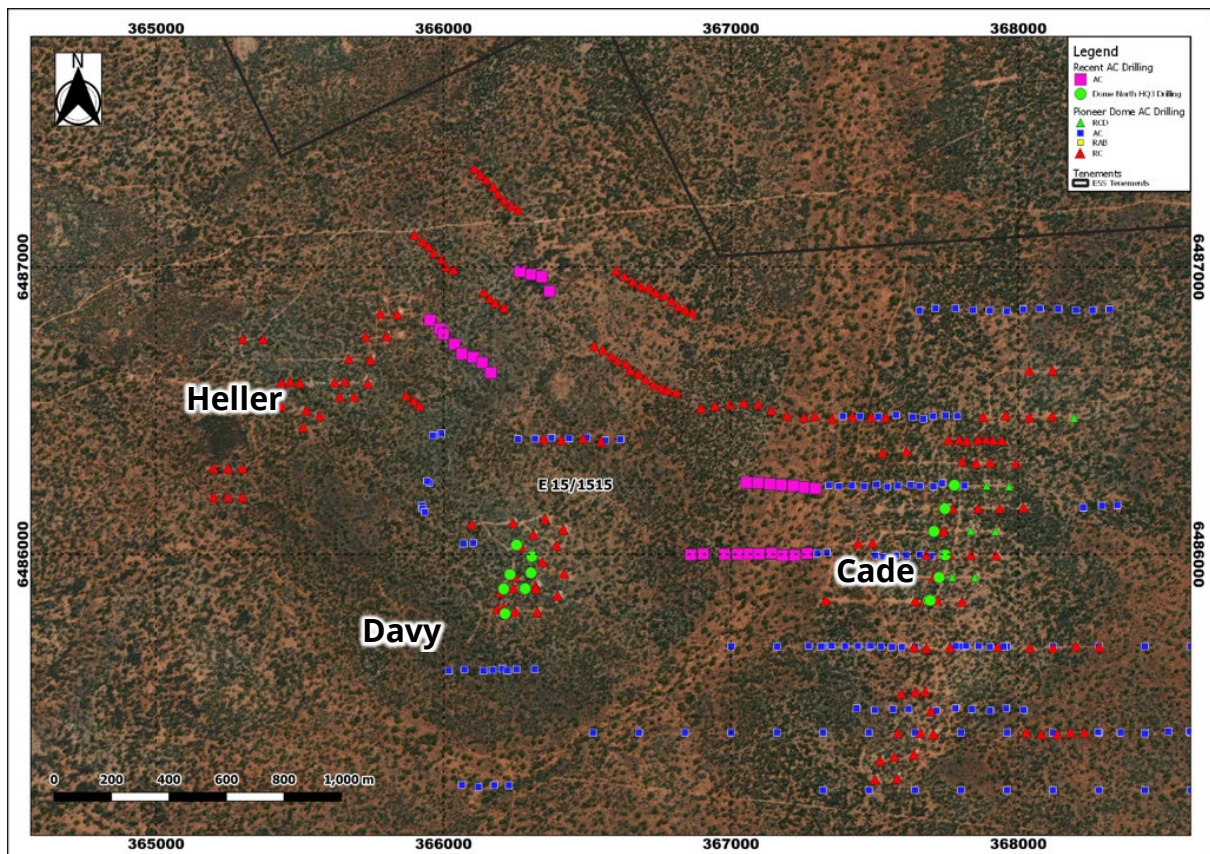


Figure 2 - Plan view of the Dome North area with the diamond holes shown as green circles.

The HQ triple tube (HQ3) diamond drilling programme consisted of six holes drilled into the upper ~40m of the Cade Deposit and seven holes drilled into the Davy Deposit for a total of 909 metres (Figure 2).

At Cade, observations of the drill core indicated that, while the metasediment (host rock) was strongly weathered, the upper portion of the pegmatite had visual spodumene with minimal weathering and the lower portion of the pegmatite was weak to moderately weathered depending on the fracture density.²

² Refer to ASX announcement dated 25 February 2022 "Pioneer Dome Lithium Project update - amended"



Assay results mostly confirmed visual observations and the results from previous deeper drilling (see Figure 3, Figure 5 and Figure 6).

All the holes drilled at Cade contained significant intersections:

- 19.2m @ 1.44% Li₂O from 15m (PDD596)
- 2.7m @ 2.28% Li₂O from 51m (PDD596)
- 10m @ 1.13% Li₂O from 18.5m (PDD597)
- 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)
- 5.5m @ 1.19% Li₂O from 46.8m (PDD600)
- 14.7m @ 0.90% Li₂O from 11.6m (PDD595)

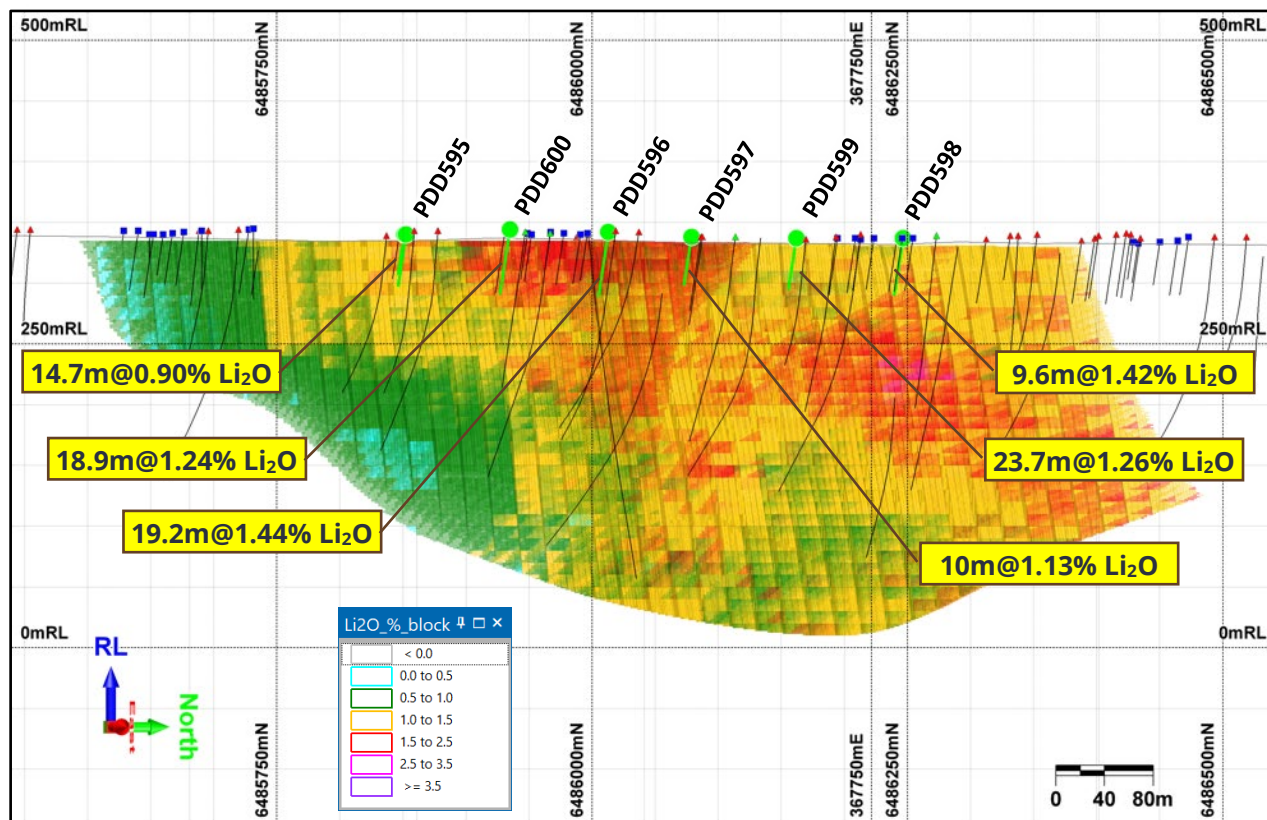


Figure 3 – Long-section of the Cade deposit with previous drilling (thin black traces), completed HQ3 diamond drilling (thick green traces) with lithium intersections and Lithium (Li₂O) Mineral Resource Estimate (coloured by grade as per the legend).

Seven diamond drill holes totalling 547.65m were drilled at Davy. The four holes drilled above fresh rock (PDD601 to 603 and PDD607) had weakly to strongly weathered pegmatite hosted in weathered ultramafic lithology. The three holes drilled into fresh rock (PDD604 to 606) intersected pegmatite with fine to coarse spodumene and minor lepidolite.

Assay results largely confirmed the observations from the drill core with some changes to the interpretation of the pegmatite and mineralisation (see Figure 7). Holes PDD601, PDD602, PDD603 and PDD607 indicate a steepening of the pegmatite, particularly near surface, such that PDD602 only intersected the wall zone of the pegmatite that was not significantly mineralised. Intersections in the strongly weathered pegmatite areas



(within 15m of surface) appear to be significantly depleted in lithium compared to those deeper in the weathered zone.

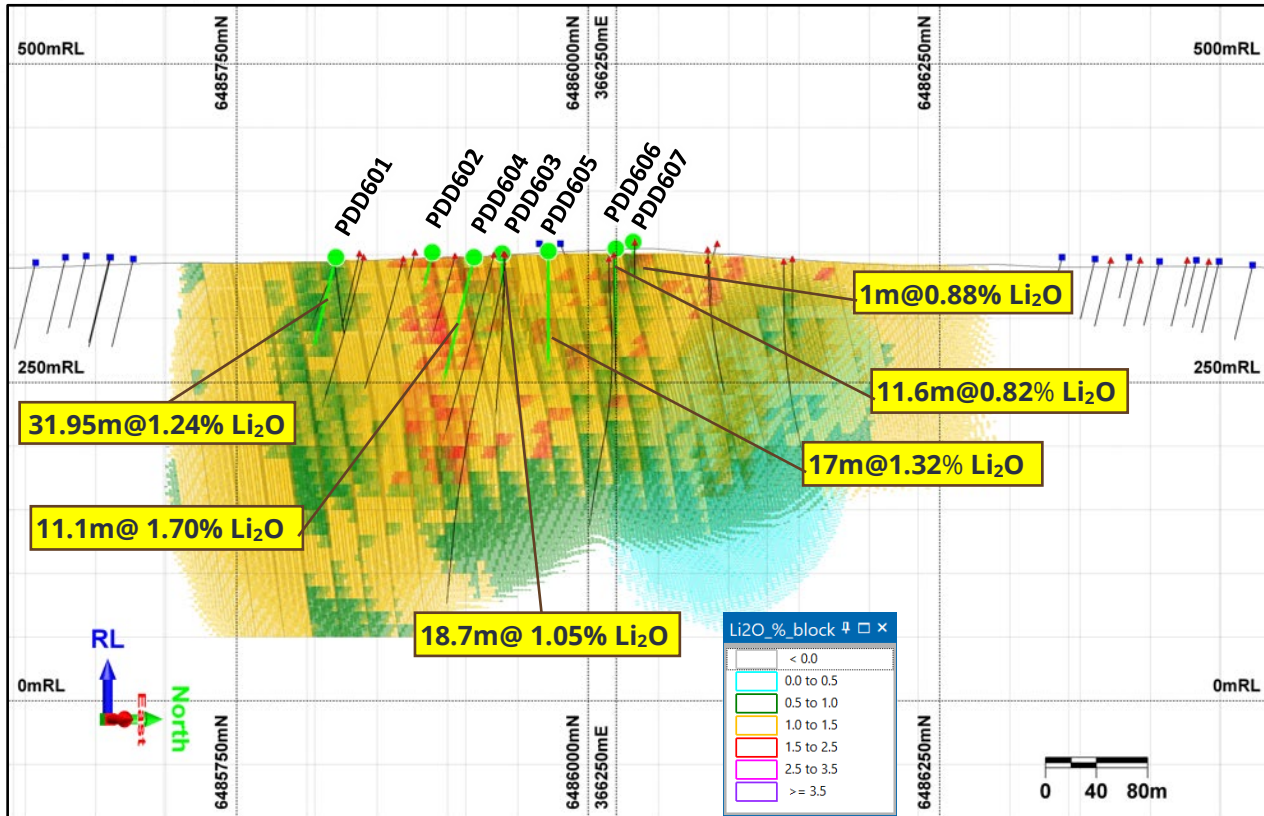


Figure 4 - Long-section of the Davy deposit with previous drilling (thin black traces), completed HQ3 diamond drilling (thick green traces) with lithium intersections and Lithium (Li₂O) Mineral Resource Estimate (coloured by grade as per the legend).

Table 1 - Highlighted lithium intersections

Area	Hole_ID	From (m)	To (m)	Width (m)	Li ₂ O%
Cade	PDD595	11.6	26.3	14.7	0.90
Cade	PDD596	15	34.2	19.2	1.44
Cade	PDD596	51	53.7	2.7	2.28
Cade	PDD597	18.5	28.5	10	1.13
Cade	PDD598	14.4	24	9.6	1.42
Cade	PDD599	3.6	27.3	23.7	1.26
Cade	PDD600	21.1	40	18.9	1.24
Cade	PDD600	46.8	52.3	5.5	1.19
Davy	PDD601	45.4	77.35	31.95	1.24
Davy	PDD603	17	35.7	18.7	1.05
Davy	PDD604	99.2	110.3	11.1	1.70
Davy	PDD605	97.1	114.1	17	1.32
Davy	PDD606	72.6	84.2	11.6	0.82

Intersections calculated using 0.5% Li₂O lower cut-off. All depths and widths are down-hole measurements. True width may be less than down hole length.

Refer to Appendix A – Table 2 for all lithium intersections and drill hole data.

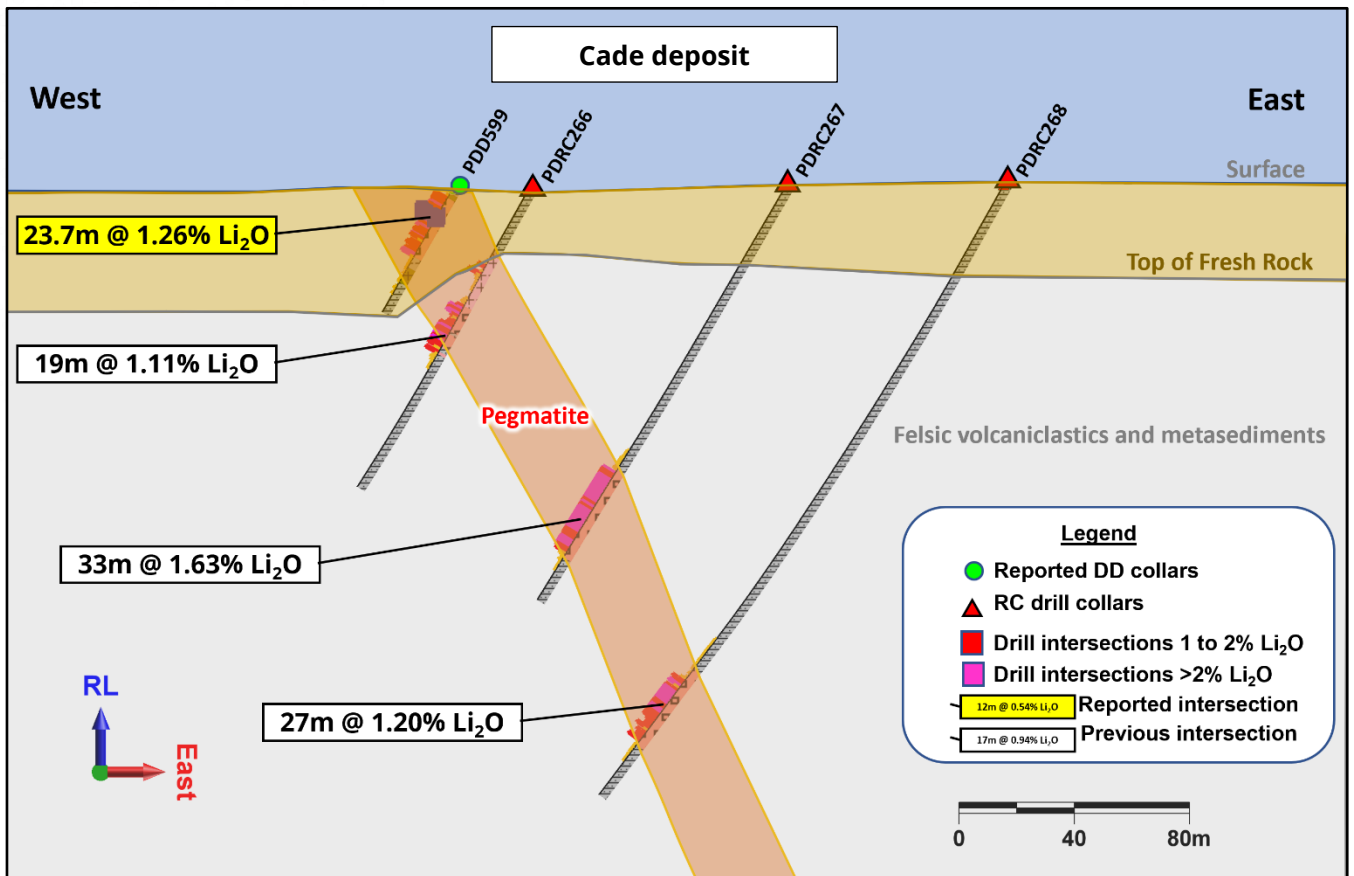


Figure 5 - Cross-section containing PDD599 at the Cade deposit.

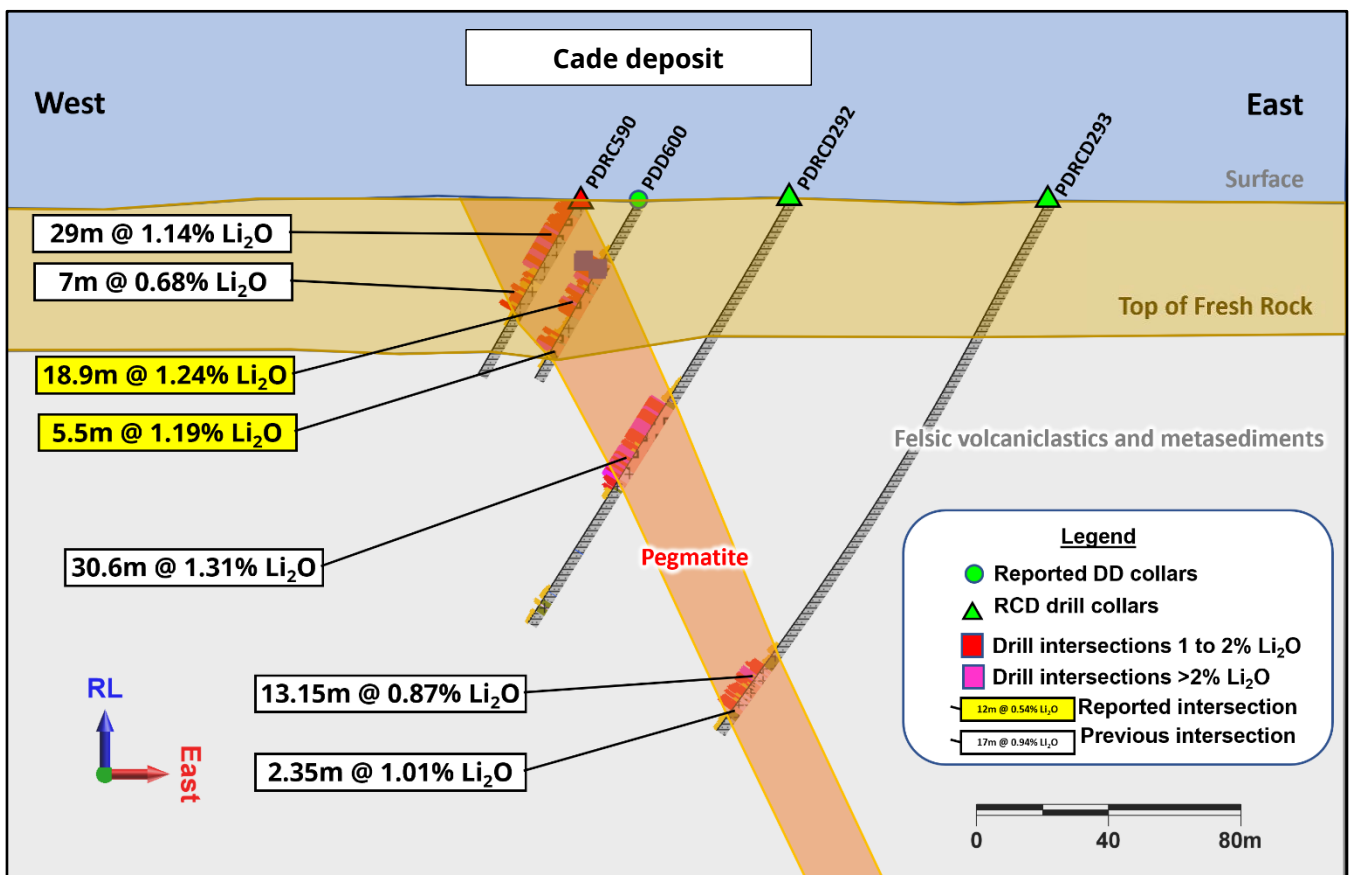


Figure 6 - Cross-section containing PDD600 at the Cade deposit.

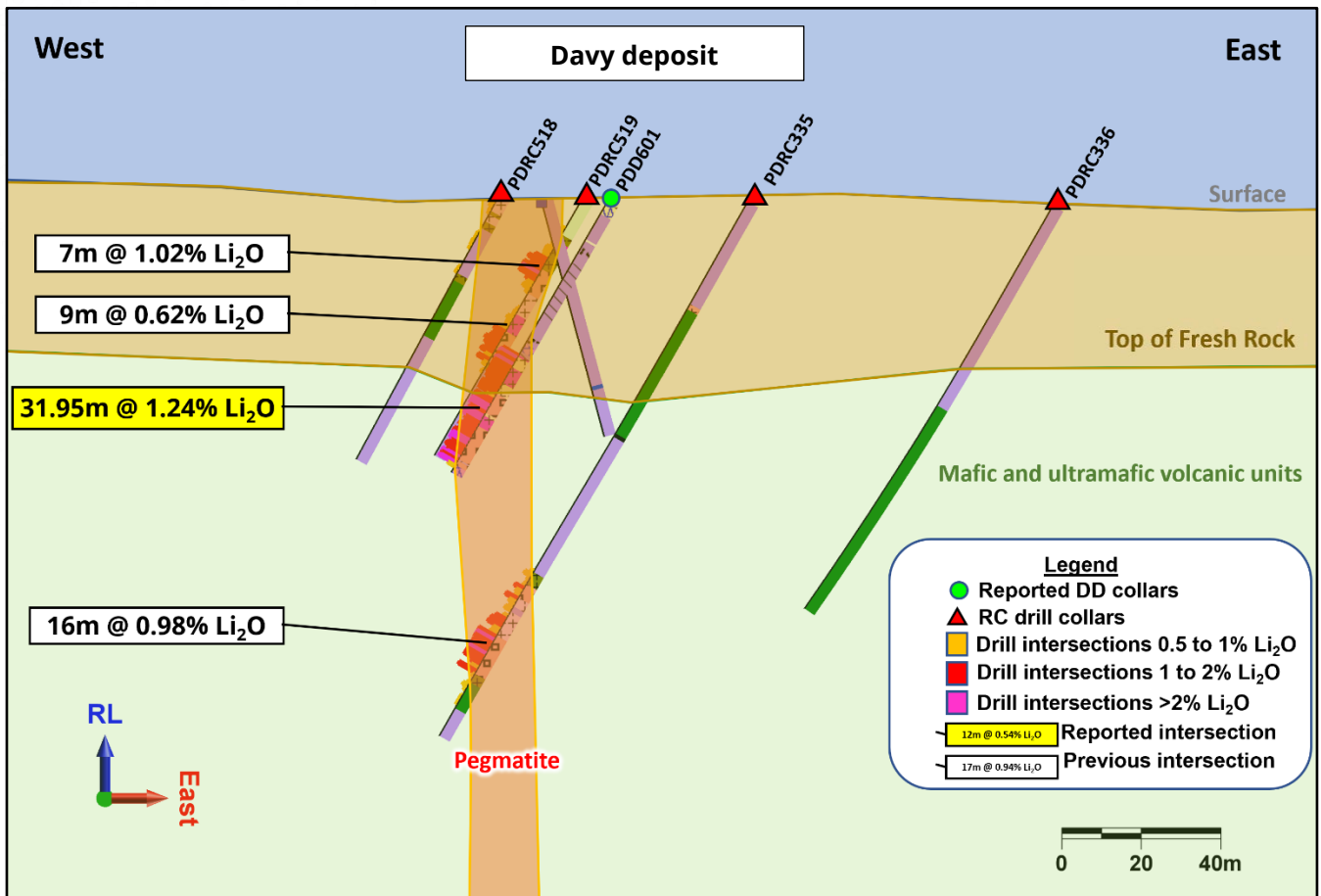


Figure 7 – Cross-section containing PDD601 at the Davy deposit.

NEXT STEPS

Three composite samples will now be selected for metallurgical test work, representing the near-surface upper zones of the Cade and Davy deposits respectively and the fresh rock zone of the Davy deposit.

The upcoming test work programme will be conducted by Nagrom Laboratories and is expected to take three months with the results to be published in early September.

These results will complement the metallurgical test work already completed on the Cade deposit, as announced on 18 December 2020.³ The composite feed material for the test work, grading 1.55% Li₂O, was sourced from five diamond core drill holes drilled into the fresh rock zone of the Cade deposit.

The results demonstrated that the lithium mineralisation (spodumene) from the deposit can be processed into a concentrate that should meet market specifications while achieving a high global lithium recovery rate.

In summary, the following results were achieved:

Table 2 – Concentrate Summary

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%

³ Refer to ASX announcement dated 18 December 2020 “Dome North outstanding met test work results”



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

For further information:

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

Investor Relations

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

ABOUT ESSENTIAL METALS LIMITED

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

100% OWNED AND MANAGED PROJECTS:

- **LITHIUM:** The **Pioneer Dome Lithium Project** is highly prospective for lithium-caesium-tantalum (LCT) mineral systems and includes the **Dome North Lithium Mineral Resource** of 11.2 million tonnes @ 1.21% lithium (Li₂O).⁴
- **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).

⁴ Refer to ASX announcement dated 29 September 2020 "Dome North Lithium Project – Resource Upgrade"



Forward Looking Statement

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

Reference to previous market announcements

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

Competent Person Statements

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

Mr Dunn is eligible to receive equity-based securities in Essential Metals Limited under the Company's employee incentive schemes. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of 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.

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



Appendix A - Lithium intersections & drill hole data

Table 3

Area	Hole_ID	MGA East	MGA North	RL	Dip	Azimuth	From (m)	To (m)	Width (m)	Li ₂ O%
Cade	PDD595	367689	6485840	335	-60	270	11.6	26.3	14.7	0.90
Cade	PDD595	367689	6485840	335	-60	270	29.1	31	1.9	1.38
Cade	PDD596	367743	6485840	335	-60	270	15	34.2	19.2	1.44
Cade	PDD596	367743	6485840	335	-60	270	51	53.7	2.7	2.28
Cade	PDD597	367705	6485840	335	-60	270	18.5	28.5	10	1.13
Cade	PDD598	367774	6485840	335	-60	270	14.4	24	9.6	1.42
Cade	PDD599	367744	6485840	335	-60	270	3.6	27.3	23.7	1.26
Cade	PDD600	367719	6485840	335	-60	270	21.1	40	18.9	1.24
Cade	PDD600	367719	6485840	335	-60	270	46.8	52.3	5.5	1.19
Davy	PDD601	366212	6485840	335	-60	295	45.4	77.35	31.95	1.24
Davy	PDD602									NSA
Davy	PDD603	366228	6485840	335	-60	270	17	35.7	18.7	1.05
Davy	PDD604	366284	6485840	335	-60	270	99.2	110.3	11.1	1.70
Davy	PDD605	366304	6485840	335	-60	295	97.1	114.1	17	1.32
Davy	PDD606	366307	6485840	335	-60	295	72.6	84.2	11.6	0.82
Davy	PDD607	366253	6485840	335	-60	295	23.2	24.2	1	0.88

Intersections calculated using 0.5% Li₂O lower cut-off. NSA=no significant assays. All depths and widths are down hole measurements. True width may be less than down hole length.



Appendix B

JORC Code 2012 Table 1 Section 1 – Diamond Drill Hole Sampling Techniques and data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Diamond drilling was carried out using HQ sized triple tube system.
	<ul style="list-style-type: none"> Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<ul style="list-style-type: none"> Duplicate samples and Certified Reference Standards were inserted at regular intervals to provide quality checks for assays.
	<ul style="list-style-type: none"> 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 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. 	<ul style="list-style-type: none"> These samples were staged crushed to 6.3mm. Riffle splitting occurred to obtain 200g sample. Then pulverised by pulp mill to nominal P80/75um to produce a pulverised sample for analysis. Lithium exploration package of samples underwent sodium peroxide fusion in Alumina crucibles and digested in dilute hydrochloric. Elemental concentrations were determined by Induced Coupled Plasma (ICP) with a Mass Spectrometer (MS) or Optical Emission Spectra (OES) read (Nagrom analysis code ICP005_MS or ICP005_OES, respectively). Any over range Li values will be re-analysed by a sodium peroxide zirconium crucible fusion with Mass Spectrometry (MS) finish.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Diamond Drilling. <ul style="list-style-type: none"> HQ size triple tube system (nominal core diameter of 61.1mm).
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> Core recoveries were logged for the diamond holes.
	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. 	<ul style="list-style-type: none"> Triple tube drilling was used to maximise the core recovery.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> There has been no correlation recognised between sample recoveries and grade.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a 	<ul style="list-style-type: none"> Geological information was captured during drilling. This included lithology, mineralogy, alteration, texture,



	<p>level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</p>	<p>recovery, weathering and colour. For diamond core structural measurements were taken.</p> <ul style="list-style-type: none"> The details captured were considered appropriate.
	<ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography. 	<ul style="list-style-type: none"> Logging has primarily been qualitative, but it includes quantitative estimates of mineral abundance. All drill core is photographed in full.
	<ul style="list-style-type: none"> The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> The entire length of the drill holes was geologically logged.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Diamond – competent core has been quarter core cut for analysis. Friable core was whole core sampled and split at the laboratory. These samples were staged crushed to 6.3mm. Riffle splitting occurred to obtain 200g sample. Then pulverised by pulp mill to nominal P80/75um to produce a pulverised sample for analysis.
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	<ul style="list-style-type: none"> Geologist observed and recorded sample recoveries to track representivity. In laboratory duplicates were taken to assess variability of riffle splitting sub-sampling procedure. Results were acceptable.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Duplicates were generated at the laboratory by riffle splitting for the diamond drill core. 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.
	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> The sample size is considered appropriate for the style of deposit being sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	<ul style="list-style-type: none"> The sample preparation and assay method used is considered standard industry practice and is appropriate for the deposit. The assay technical is considered a total determination of elements that were analysed.
	<ul style="list-style-type: none"> For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	<ul style="list-style-type: none"> NA
	<ul style="list-style-type: none"> Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> 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.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	<ul style="list-style-type: none"> NA



	<ul style="list-style-type: none"> Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> The geological and sampling information was collected in MDS software, validated in Micromine and then uploaded to the Company's SQL drilling database.
	<ul style="list-style-type: none"> Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Li₂O wt% was calculated by multiplying Li wt% result by 2.1527.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The collar locations of the holes were initially surveyed by handheld GPS. Subsequently the diamond holes were picked up using RTK DPGS by a qualified surveyor.
	<ul style="list-style-type: none"> Specification of the grid system used. 	<ul style="list-style-type: none"> MGA94 (Zone 51)
	<ul style="list-style-type: none"> Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> SRTM was used to validate the RL. This is sufficient for the exploration holes. Any holes to be used in MRE will be surveyed by differential GPS.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Drill spacing was spaced 80m from existing drill panels with holes spaced 80m apart.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Current drilling is sufficient to establish geological and grade continuity at the Cade and Davy deposits, which are included in the Dome North lithium Mineral Resource Estimate.
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Diamond drilling assays are geology dependent and sample intervals range from 10cm minimum - 160cm maximum
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The geometry of the spodumene mineralisation at Cade and Davy is broadly has a north-north-east striking and dips steeply to the east. The majority of the drill holes tested the mineralisation at a near optimal orientation. No relationship has been observed between assay grades and drill hole orientation so no sampling bias is evident.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The Company uses standard industry practices when collecting, transporting and storing samples for analysis.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Sampling techniques for assays have not been specifically audited but follow common practice in the Western Australian exploration industry.



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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The drilling reported herein is within E15/1515 which is a granted Exploration Licence. The tenement is located approximately 55km north-north-west 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 Pioneer Dome project, which includes E15/1515.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> At the time of this report E15/1515 was in Good Standing. To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to Company's operations within the tenement.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> There has been no previous LCT exploration drilling or sampling on the Pioneer Dome project other than that carried out 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.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Project pegmatites are consistent with 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 are classified as a Spodumene sub type and are highly enriched in Lithium.
Drill hole Information	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Refer to Appendix A of this announcement.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of 	<ul style="list-style-type: none"> Li₂O intercepts calculated using 0.5% cut off with a maximum of 2m of consecutive and total of 4m internal dilution. No external dilution typically applied



	<p>high grades) and cut-off grades are usually Material and should be stated.</p> <ul style="list-style-type: none"> 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. 	<p>except where drill hole logging (e.g. continuous pegmatite) and assays indicate wider internal dilution is warranted.</p> <ul style="list-style-type: none"> There are no metal equivalent values reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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'). 	<ul style="list-style-type: none"> Downhole lengths are reported in the Appendices attached to ASX announcements, which list drill hole statistics. The current geological interpretation, based on drilling and geological surface mapping, suggests that the true widths approximate the down hole widths. However, for the PDD601 the pegmatite appears to be sub-vertical, hence, it is greater than true width.
Diagrams	<ul style="list-style-type: none"> 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 locations and appropriate sectional views. 	<ul style="list-style-type: none"> Refer to figures in this report.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All of the drill details for the latest drill programmes have been provided in this announcement.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All meaningful and material exploration data has been reported.
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Conduct metallurgical test work on diamond core samples. Further drilling to extend the current MRE.