



ESSENTIAL METALS

for a sustainable future

ASX Code: ESS

Corporate Profile

Shares on issue: 246,823,070
Listed options: 20,385,084
(\$0.15 exercise: 30/11/22 expiry)

Cash: \$10.5m (30 June 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, 1292 Hay St
West Perth, WA 6005
Australia
PO Box 1787,
West Perth, WA 6872
Australia

12 August 2022

Pioneer Dome drilling nearing completion - results to underpin Resource update and Scoping Study

The current Resource extension drilling program is expected to be completed in the next two weeks, with assays expected by end-October to feed into a Mineral Resource update

HIGHLIGHTS

- **Cade Deeps drilling:** Six holes completed to a down-dip target depth of ~120-150m below the Cade Mineral Resource. While spodumene was observed in three holes, the core logs suggest that the drilling intersected the wall zone of the Cade pegmatite on the lower periphery of the spodumene mineralised zone. Further exploratory drilling is warranted to follow the Cade pegmatite to the south to determine if more spodumene mineralised zones are present.
- **Davy Extensional drilling:** Eight holes completed to target depth at the northern and southern strike extents as well as down-dip of the Davy Mineral Resource. Spodumene-bearing pegmatites of 1-3m in thickness were intersected in all five holes drilled in the northern strike extent of the Davy Mineral Resource.
- **Mining Lease Application:** Drafts of the current mineralisation report and supporting documents will soon be submitted to the Geological Survey of Western Australia (GSWA) for review. Once reviewed by the GSWA, the documents will be submitted along with the Mining Lease application.
- **Updated Mineral Resource Estimate:** On-track for delivery in November. Together with metallurgical test work results, this will underpin a Scoping Study targeted for completion by end-December. This in turn is expected to pave the way for a Feasibility Study commencing in early 2023.

Essential Metals Managing Director, Tim Spencer, said: "This drill programme has been very important in delineating potential extensions to the Cade and Davy deposits to determine the potential scale of a future mining operation and support detailed economic studies. Assay results will flow into an updated Mineral Resource and Scoping Study for Pioneer Dome, both scheduled for delivery in the December Quarter."

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.

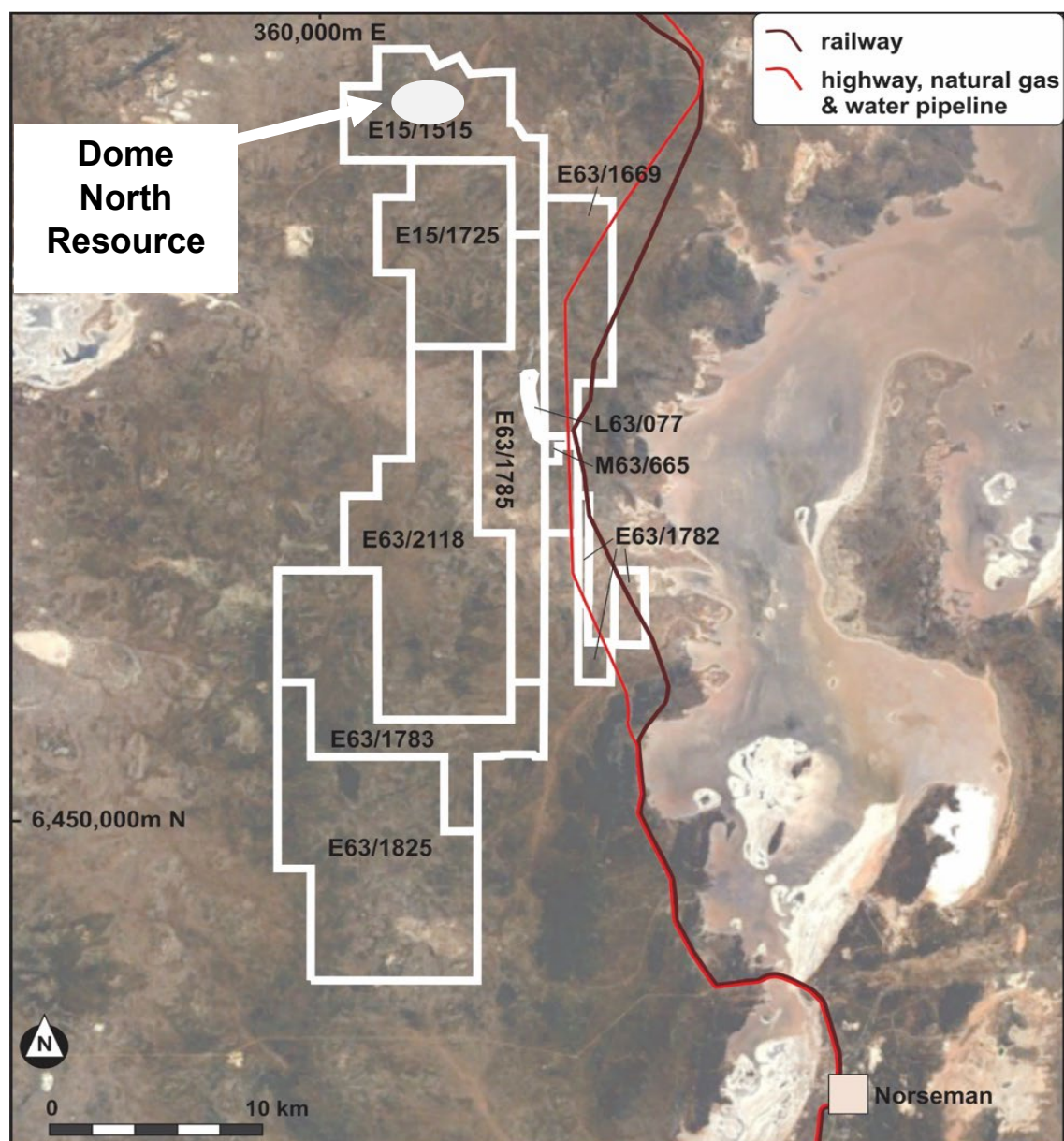


Figure 1 - The location of the tenements of the Pioneer Dome Lithium Project relative to major infrastructure.

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



RESOURCE DRILL PROGRAMME AT DOME NORTH

The current Dome North drilling programme is targeting depth extensions at the Cade and Davy deposits, as well as testing northern and southern strike extensions at Davy.

To date, 14 holes totalling 4,883m have been completed to their respective targeted depths, with a further four holes totalling approximately 800m remaining. The drill holes are a combination of Reverse Circulation (RC) drilling, where the RC drill rig was able to reach the target depth, and RC pre-collars followed by diamond tails (RCD) for the deeper holes.

At Cade, six holes were completed to the targeted depth and one hole remains to be completed. Three holes did not reach target depth at Cade due to drilling complications. At Davy, eight holes were drilled to the targeted depth and three holes remain to be completed.

The original drill programme was modified based upon visual observations from the completed holes.

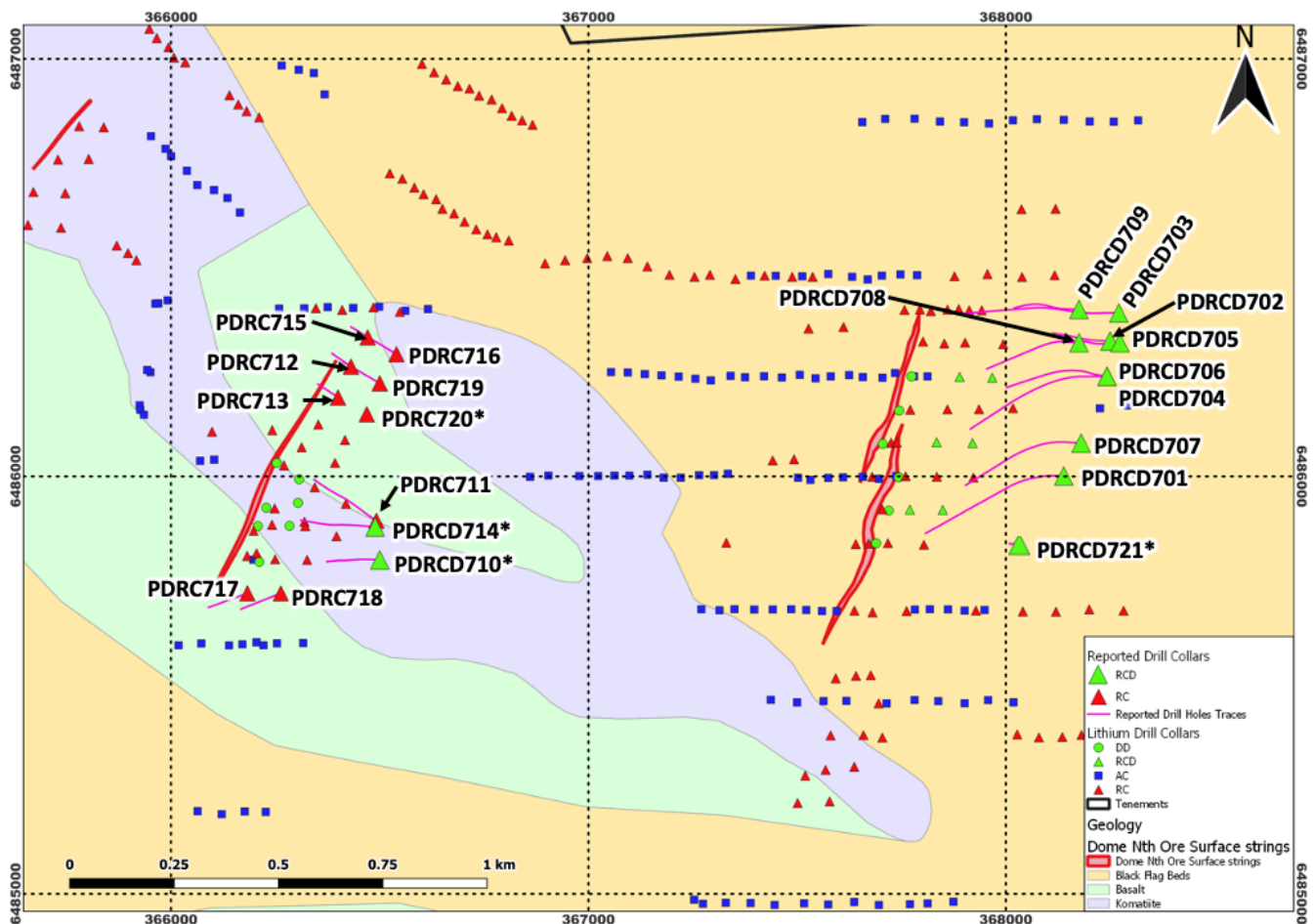


Figure 2 - Drilling to date for the North Dome programme on top of the interpreted regional geology. Holes denoted with an * are still to be completed.



CADE DEPOSIT

Six holes totalling 3,420m were drilled to planned target depths, with one RC hole remaining to be drilled below the southern end of the deposit to complete the programme at Cade.

Pegmatite was intersected in each of the six deeper holes at Cade, with visual spodumene observed in three holes (PDRCD704, PDRCD706 and PDRCD708). For the other holes, spodumene was not readily identifiable. Assays will be required to determine lithium content, as fine grained spodumene could be present. The presence of mica (muscovite) in the holes tends to suggest that they intersected the lower periphery zone to the spodumene mineralisation within the Cade pegmatite.

See Table 1 for visual descriptions of the pegmatites intersected and Figure 3 for the locations of the pierce points where pegmatite was intersected.

Hole PDRCD703, where a 0.6m intercept of pegmatite was intersected, appears to limit the northern extent of the Cade pegmatite, as a result the focus is now on determining if the mineralisation dips to the south. The remaining three holes planned to test further north were not drilled with an additional hole to the south to be completed.

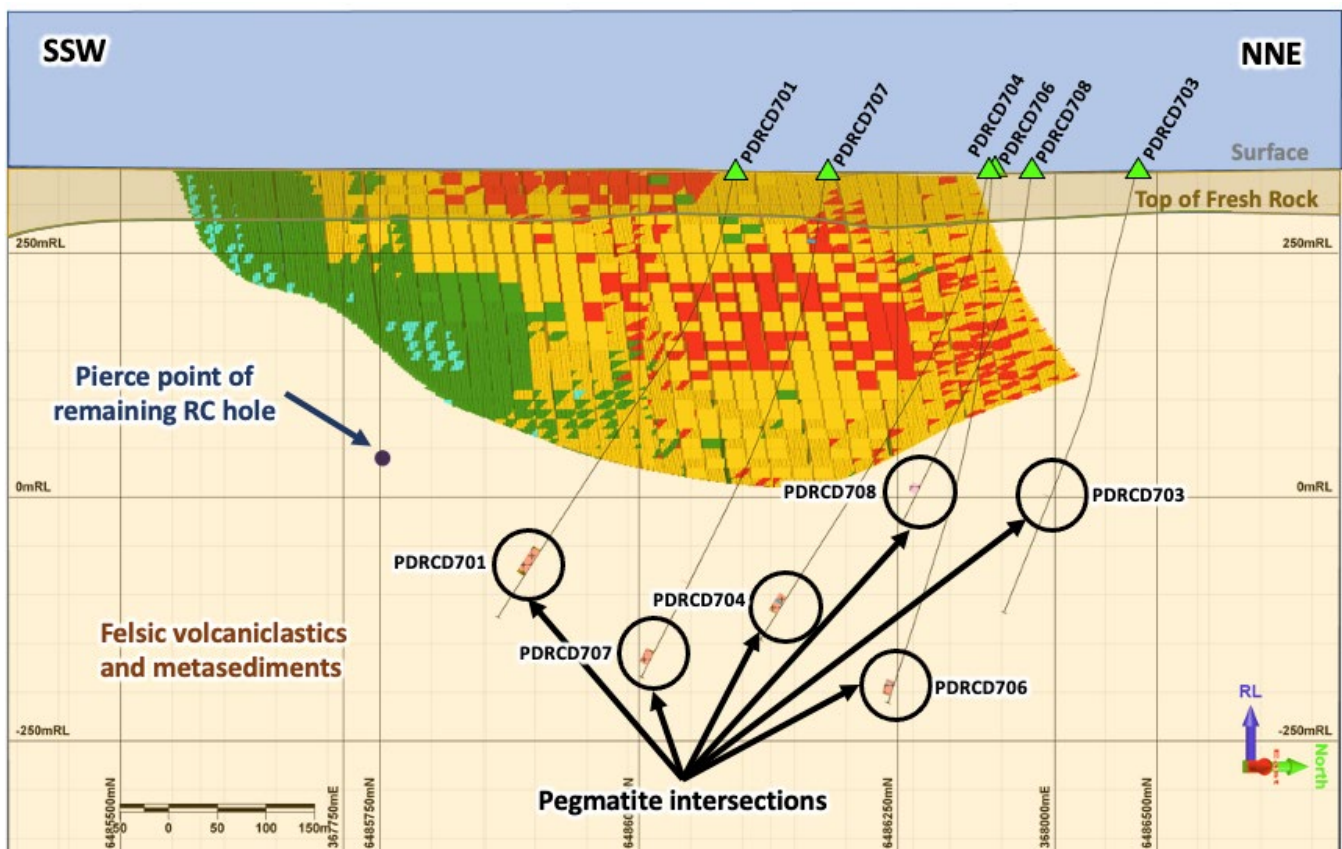


Figure 3 - Long-section at Cade illustrating the current holes that have been drilled to target depth and pegmatite intersections from the drill programme to date.

**Table 1 - Summary of Cade pegmatite drill intersections**

Deposit	Hole ID	From (m)	To (m)	Interval (m)	Description of pegmatite	Visual estimate of spodumene content*
Cade	PDRCD701	494.1	525.2	31.1	Quartz-feldspar-mica-(garnet) pegmatite	
Cade	PDRCD701	525.2	528.7	3.5	Quartz-feldspar-mica pegmatite with trace lepidolite	
Cade	PDRCD703	435.7	436.3	0.6	Quartz-mica pegmatite	
Cade	PDRCD704	545.4	556.5	11.1	Feldspar-quartz-mica pegmatite with quartz zones	
Cade	PDRCD704	556.5	557.5	1.0	Feldspar-quartz pegmatite with green spodumene	10%
Cade	PDRCD704	557.5	567.4	9.9	Feldspar-quartz-mica pegmatite with small zones of layered aplite	
Cade	PDRCD706	575.2	577.3	2.1	Quartz-feldspar-mica pegmatite with quartz zones	
Cade	PDRCD706	577.3	578.1	0.8	Pegmatite with altered spodumene	5%
Cade	PDRCD706	578.1	591.6	13.5	Quartz-feldspar-mica pegmatite with quartz zones	
Cade	PDRCD707	569.3	586.1	16.8	Feldspar-quartz-mica pegmatite with quartz zones	
Cade	PDRCD708	383.3	386.5	3.2	Quartz-feldspar-mica pegmatite with intervals of metasediments	
Cade	PDRCD708	386.5	387.3	0.8	Pegmatite with some zones of spodumene and trace lepidolite.	5%
Cade	PDRCD708	387.3	391.1	3.8	Feldspar-quartz-mica pegmatite with intervals metasediments	
Cade	PDRCD708	393.1	394.4	1.3	Metasediments from 391.1 to 393.1. Quartz-feldspar-mica pegmatite	

NB: Holes PDRCD702, PDRCD705 and PDRCD709 did not reach target depth.

Caution: Estimates by experienced, competent geoscientists are considered to be reliable and reproducible semi-quantitative estimates of the abundance of minerals present in a sample. The reported visual estimate percentages in the table above indicate the modal abundance of observed spodumene crystals and are not estimates of the lithium grade itself. Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where metal concentrations or grades are the factor of principal economic interest. The Company will provide report the laboratory assay results following their receipt.

DAVY DEPOSIT

Eight holes totalling 1,463m were drilled to the planned target depths (Figure 4). One hole to the north and two holes testing down-dip below the Mineral Resource are still to be completed to finish the drill programme at Davy (see Figures 4 and 5).

Each hole (PDRCD712, PDRCD713, PDRCD715, PDRCD716 and PDRCD719) drilled to test the northern extent of the Davy deposit intersected pegmatite, with one hole (PDRCD720) remaining to be completed in this portion of the northern strike test. Table 2 provides a summary of the pegmatites that have been intersected to date.

The two holes (PDRCD717 and PDRCD718) testing just beyond the southern extent of the current MRE did not intersect pegmatite. PDRCD711, targeting ~90m below the current Mineral Resource, intersected a 9m wide pegmatite, however no spodumene was visually observed.

Two holes (PDRCD710 and PDRCD714) are yet to be completed to test the down-dip extension of the Mineral Resource.

Assays are required to determine the lithium content of the intersected pegmatites.

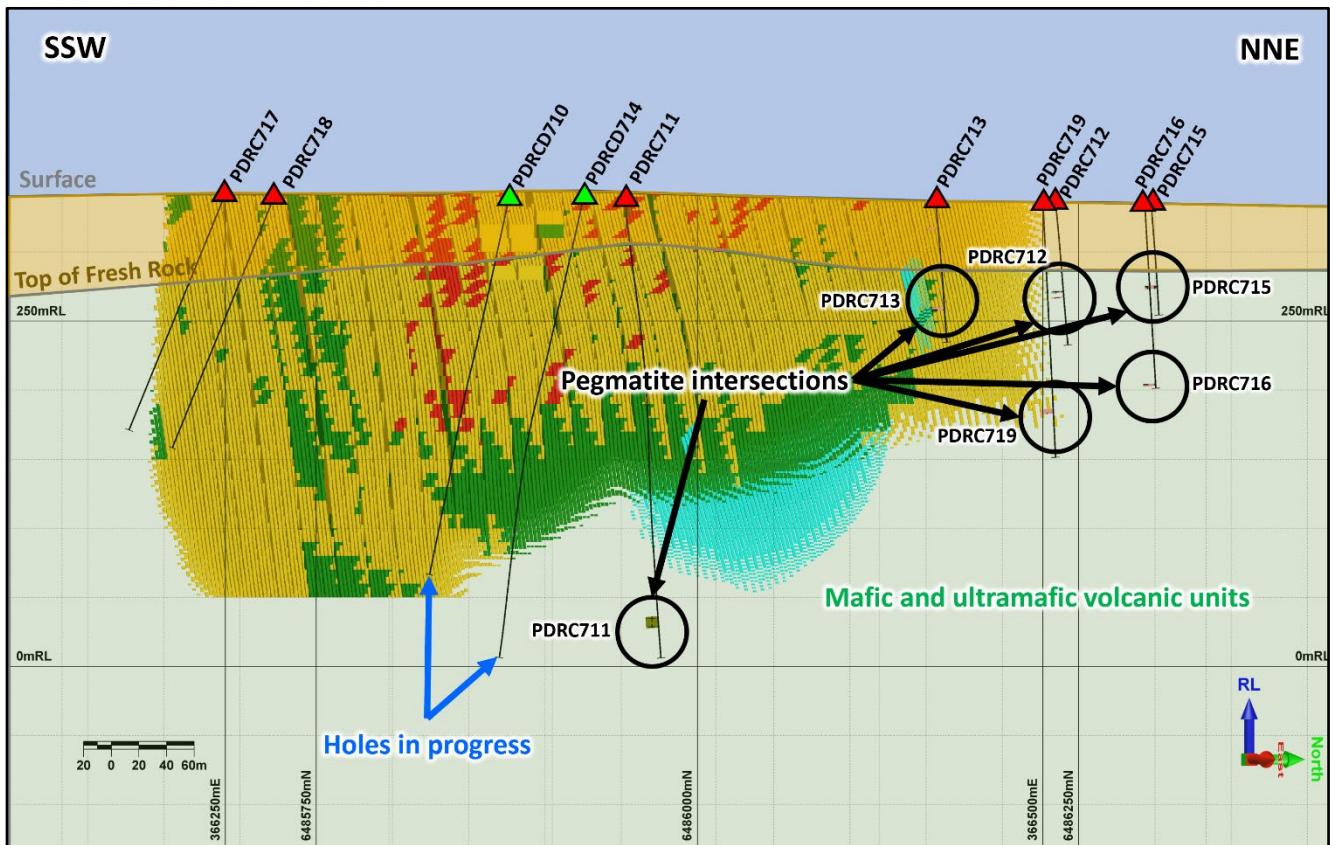


Figure 4 - Long-section at Davy illustrating the drilling and pegmatite intersections from the drill programme to-date.

Table 2 - Summary of Davy pegmatite drill intersections

Deposit	Hole ID	From (m)	To (m)	Interval (m)	Description of pegmatite	Visual estimate of spodumene content
Davy	PDRCD710	IP	IP		Diamond tail to be completed	
Davy	PDRCD711	345	354	9	Quartz-mica pegmatite	
Davy	PDRCD712	76	78	2	60% pegmatite, 40% ultramafic	
Davy	PDRCD712	81	82	1	Pegmatite with visual spodumene	5%
Davy	PDRCD713	25	26	1	Weathered quartz-mica pegmatite	
Davy	PDRCD713	26	27	1	Feldspar-quartz-muscovite pegmatite	
Davy	PDRCD713	91	94	3	Pegmatite with light green spodumene with trace lepidolite	10%
Davy	PDRCD714	IP	IP		Diamond tail to be completed	
Davy	PDRCD715	71	74	3	Pegmatite with light green spodumene	10%
Davy	PDRCD716	151	153	2	Pegmatite with visual spodumene	10%
Davy	PDRCD717	None	None		No pegmatite intersected	
Davy	PDRCD718	None	None		No pegmatite intersected	
Davy	PDRCD719	170	173	3	Pegmatite with visual spodumene	5%
Davy	PDRCD719	173	174	1	Pegmatite	
Davy	PDRCD720	IP	IP		Diamond tail to be completed	

IP= In Progress.



Caution: Estimates by experienced, competent geoscientists are considered to be reliable and reproducible semi-quantitative estimates of the abundance of minerals present in a sample. The reported visual estimate percentages in the table above indicate the modal abundance of observed spodumene crystals and are not estimates of the lithium grade itself. Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where metal concentrations or grades are the factor of principal economic interest. The Company will provide report the laboratory assay results following their receipt.

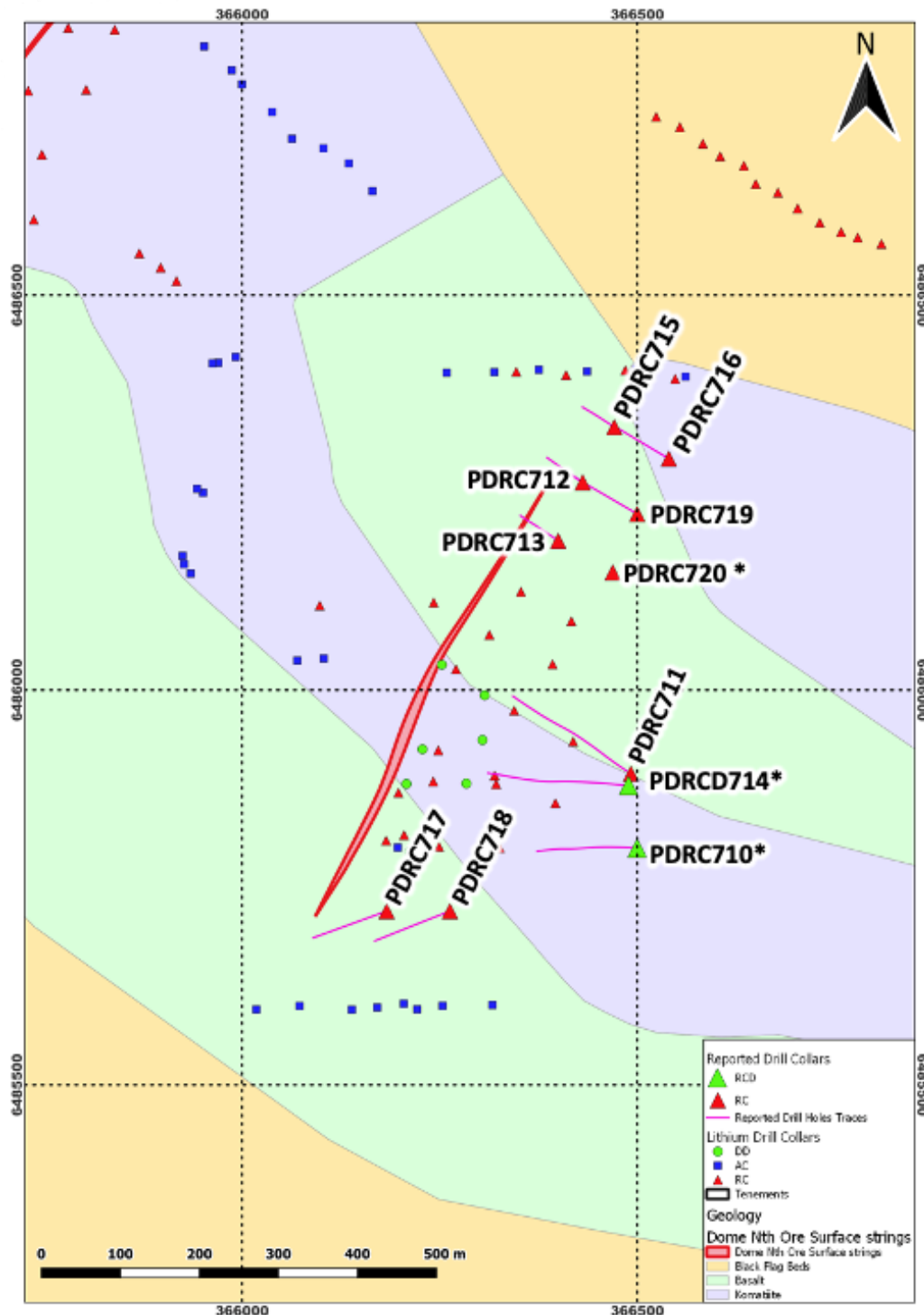


Figure 5 - Plan view of Davy with current drilling (magenta drill traces), 2020 MRE mineralisation wireframes cut at surface (red outlines and fill) and previous exploration drilling targeting lithium on top of the regional geological interpretation. Drill holes denoted with an * are still to be completed.



Mining Lease Application

The Mineralisation Report and Supporting Statement prepared by SRK Consulting (Australasia) Pty Ltd will be submitted to the Geological Survey of Western Australia (GSWA) for review. Once reviewed by the GSWA, the documents will be submitted along with the mining lease application to the Department of Mines, Industry Regulation and Safety (DMIRS). The application is expected to occur in September and the regulatory process in Western Australia for processing a mining lease application is estimated to take between 6 and 9 months.

The Company is on track to update the Pioneer Dome Mineral Resource Estimate in November pending the timely return of all outstanding assay results, which together with the metallurgical test work results, will underpin a Scoping Study targeted for completion by end-December. This in turn is expected to pave the way for a Feasibility Study commencing in early 2023.

A high-level hydrology study and a baseline flora and fauna study have already been completed and a mining agreement is in place with the Ngadju Native Title Aboriginal Corporation, which represents the interests of the Ngadju People who are the native title custodians of the land on which the Pioneer Dome Project is located. More detailed heritage surveys are required to appropriately clear the mining lease footprint.

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 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 @ 1.21% lithium (Li₂O).²
- **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).

² 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 - Diamond drill hole locations**

Deposit	Hole_ID	GDA94_z51_East	GDA94_z51_North	RL	Azimuth	Dip	Depth (m)
Cade	PDRCD701	368140	6486000	338	580	247	584
Cade	PDRCD702	368273	6486320	343	540	294	294
Cade	PDRCD703	368277	6486400	344	540	330	603.3
Cade	PDRCD704	368242	6486240	338	540	402	600.7
Cade	PDRCD705	368273	6486320	343	540	240	240
Cade	PDRCD706	368242	6486240	338	540	400	600.2
Cade	PDRCD707	368180	6486080	338	540	400	600
Cade	PDRCD708	368175	6486320	341	440	216	432.2
Cade	PDRCD709	368175	6486400	341	340	300	300
Davy	PDRCD710	366500	6485800	338	660	252	462
Davy	PDRC711	366492	6485894	338	380	384	384
Davy	PDRC712	366431	6486263	341	120	120	120
Davy	PDRC713	366400	6486189	341	120	120	120
Davy	PDRCD714	366489	6485879	338	450	378	378
Davy	PDRC715	366471	6486333	341	120	96	96
Davy	PDRC716	366540	6486293	341	200	155	155
Davy	PDRC717	366183	6485720	343	200	198	198
Davy	PDRC718	366263	6485720	343	300	210	210
Davy	PDRC719	366500	6486223	341	200	180	180



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"> RC pre-collar drilling was carried out using a 5-3/8-inch (137mm) face sampling hammer bit. Diamond drilling is being carried out using HQ sized equipment.
	<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 will be 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"> RC pre-collar had three-metre composite samples for intervals using an aluminium scoop from the sample piles to produce a nominal 3.0 kg samples. These samples will be crushed and pulverised by pulp mill to nominal P80/75um to produce a pulverised sample for analysis. Lithium exploration package of elements will be digested by a four-acid digestion and determined with a Mass Spectrometer (Intertek analysis code 4A Li48-MS). Any over range Li values will be re-analysed by a sodium peroxide zirconium crucible fusion with Mass Spectrometry (MS) finish. Diamond core samples have yet to be submitted for analysis.
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"> RC pre-collar drilling. <ul style="list-style-type: none"> 137mm face sampling RC bit. Diamond Drilling. <ul style="list-style-type: none"> HQ size (nominal core diameter of 63.5mm).
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 component.
	<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"> HQ core drilling was used to maximise the core recovery through the expected mineralised zones.
	<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"> No assays have been reported.
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 were 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 will be quarter core cut for analysis. Friable core will be whole core sampled and split at the laboratory. RC pre-collar material were composite sampled with equal amounts from each of the individual three metre piles using an aluminium placed in a calico bag. Individual calico bags representing one metre samples from the rig-mounted cone splitter were retained for further analysis, if significant assay results are returned from the composite samples.
	<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.
	<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 submitted for the RC pre-collar component. Assays are pending.
	<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 for exploration. Where significant results are returned from the composite samples then the corresponding 1m rig-mounted cone splits will be sent for analysis. The assay technique is considered a total or near total determination of elements that will be 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"> No assays have been reported.
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"> None
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 will be 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 nominally 80m from existing drill panels with holes spaced 80- 100m 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 is similar to the data used to estimate the previous Dome North lithium Mineral Resource Estimate.
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Three metre composite samples have been submitted for the RC pre-collar material.
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 were designed to test the mineralisation at a near optimal orientation. Significant hole deviation was observed in the current drilling, it is not likely that this has introduced significant sampling bias.
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"> No new assay results were reported. There are no metal equivalent values reported.



	<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. 	
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. Due to the deviation of the drill holes the down hole thicknesses are expected to greater than the true widths.
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. Only holes that made it to target depth were shown on the long-sections included in the report.
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"> Complete the current drill programme. Assess deposits for further drilling to extend the known extent of mineralisation. Update MRE after results of current programme and metallurgical test work have been received.