

31 August 2021

ASX RELEASE

## LITHIUM POTENTIAL OF THE WEST SPARGOVILLE PROJECT

Marquee Resources Limited (“Marquee” or “the Company”) (ASX:MQR) is pleased to provide an update on the planned exploration works to be conducted on the West Spargoville Project (“the Project”). After recent drilling and geological review of the Project, it was recognised that there is significant potential to identify lithium bearing, LCT (lithium-caesium-tantalum) pegmatites within the Project area.

The West Spargoville Project is located in the core of the Southern Yilgarn Lithium Belt, an area that is well known for spodumene deposits including the Bald Hill Mine, the Mt Marion Mine, the Buldania Project and Essential Metals Pioneer Dome Project. The world-class Earl Grey deposit and the Mt Cattlin Mine are located further west and south respectively.

Marquee entered into an Option Agreement to acquire the West Spargoville Project (see ASX Releases dated 7 July 2020 and 23 August 2021) which consists of 80km<sup>2</sup> of highly prospective tenure with very limited historical drilling. After initial field reconnaissance with lithium expert Dr Qingtao Zeng, the Company now plans to conduct further geological mapping and sampling programs on the Project. This will be followed by auger surface geochemistry and aircore scout drilling aimed at identifying spodumene bearing pegmatites within the Project area.

### **Executive Chairman Comment:**

Marquee Executive Chairman, Mr Charles Thomas, commented: “It is an exciting time for the Company and its shareholders. Our geological team have discovered multiple new lithium prospects on the West Spargoville Project and we have managed to extend our option over the Project for a further 12 months, allowing us plenty of time to fully test these high priority targets in an exciting lithium district.”

“All of this is happening within a global economy that is seeing lithium price increases due to supply shortages, as manufacturers ramp up production of electric vehicles. I believe our Company is well placed to take advantage of this global increase in demand for lithium via our Clayton Valley Lithium Project and now the West Spargoville Project.”

### **Overview of the Lithium Potential of the West Sporgoville Project**

The West Spargoville Project is located 25km south of the Mt Marion lithium mine, in the Widgiemooltha Greenstone belt (Figure 1). Pegmatites were first discovered at Mt Marion in 1913 and are the first recognised unzoned albite-spodumene pegmatites in WA. The Mt Marion pegmatites consist of a series of pegmatites running NW-SE for up to 3 km:

**Pegmatite No 1** forms a flat sheet averaging 17-21 metres thick, dipping 15 degrees to the west, and has eroded into two masses with a total length of 335 metres. The pegmatite has a homogeneous granitic texture of quartz, microcline, albite and muscovite, with some pale green to white spodumene crystals up to 30 cms in length. A thin band of cleavelandite occurs near the hanging wall and footwall, with holmquistite along the hanging wall contact.

**Pegmatite No 2**, similar to No 1, is 330 metres long and dips 30 degrees to the west. Pegmatite No 2 forms a V-shaped outcrop in a north-south direction and is 30 metres wide.

**Pegmatite No 3** is a flat lying sheet, 4 to 14 metres thick, with a strike length of 640 metres. It contains spodumene crystals up to 1 metre in length. The pegmatite has a core of quartz-spodumene-albite-muscovite containing 30-50% spodumene. The next zone is microcline-quartz-plagioclase-muscovite wall zone. Small sub-centimetre columbite-tantalite crystals are found with the albite in the core.

**Pegmatite No 4** is similar to No 1. It outcrops as a narrow curved vein north-south, 6-8 metres thick, dipping 10-25 degrees to the west, unzoned and contains spodumene.

LCT pegmatites are sourced from highly fractionated S-type granites, are commonly zoned and form as sills and dykes intruded along structures (Figure 2). Importantly for lithium exploration, the LCT pegmatites are generally found within a 4km radius of granite margin, the “Goldilocks Zone”, and not within the core of the granite intrusives. Additionally, the identification of Zone 3 of the LCT pegmatite system is critical as lithium is preferentially concentrated in this zone by the development of spodumene (Figure 2).

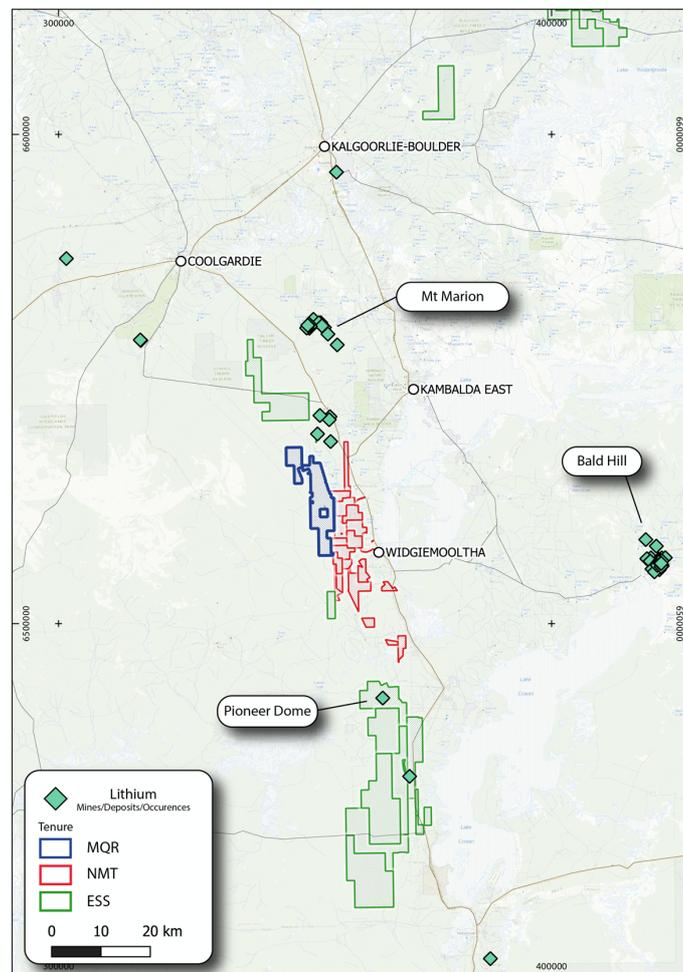


Figure 1: Project Location, Lithium Deposits and Lithium Explorers

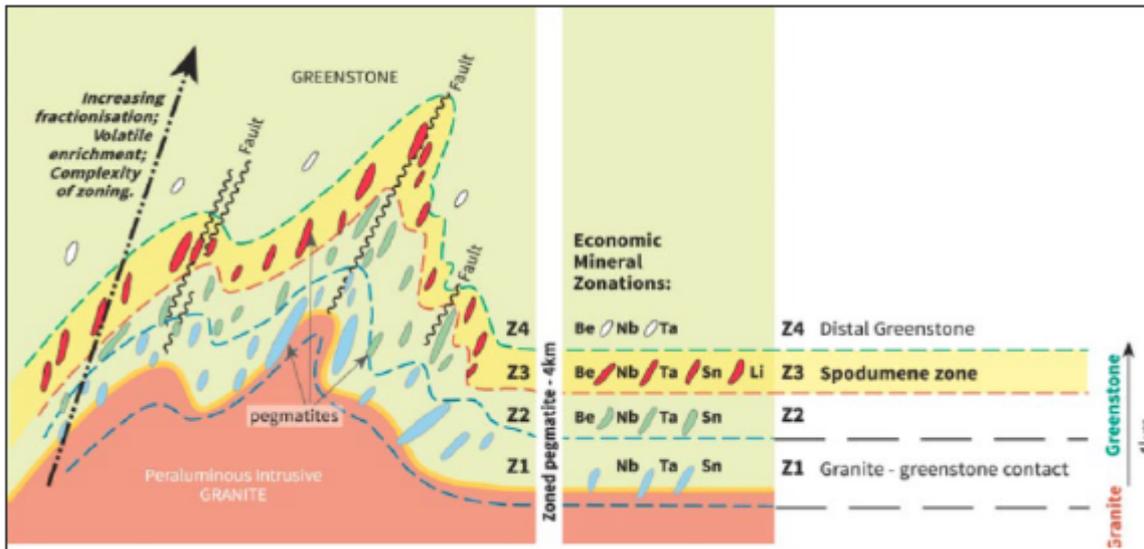


Figure 2: Schematic Section of the LCT Pegmatite Mineral System. Source ESS

The West Spargoville Project has a number of factors that identify the area as highly prospective for the formation of LCT, lithium bearing pegmatites. Important factors include but are not limited to:

- The region is host to World Class lithium deposits and multiple significant lithium mines and projects. As such, this indicates the region has the right ingredients from a mineral systems perspective.
- The project is located predominantly in greenstone lithologies within 4km of the margin of the S-type granite intrusive contact. This is referred to as the “Goldilocks Zone” (Figure 3).
- Two, 30m thick (true thickness) pegmatite units were intersected in multiple lines of recent RC drilling at the Harolds North Prospect (Figure 4). Recent diggings were also identified to the east of the drilling where trenching of the pegmatite unit has historically been undertaken.
- The tenure has historically been explored for gold and nickel deposits. Little to no attention has been paid to the lithium potential with <10% of the surface geochemical database containing lithium assays (Figure 3).

### Forward Work Plan

The company is imminently undertaking a surface mapping and sampling program to further understand the pegmatite occurrences identified in drilling and from outcrop. Following last week’s site trip and the completion of the mapping and sampling exercise, the company then plans to embark on auger surface geochemistry and aircore drilling to vector in on the prospective spodumene bearing (“Zone 3”) LCT pegmatites. Further details of the planned exploration programs will be released to the market shortly.

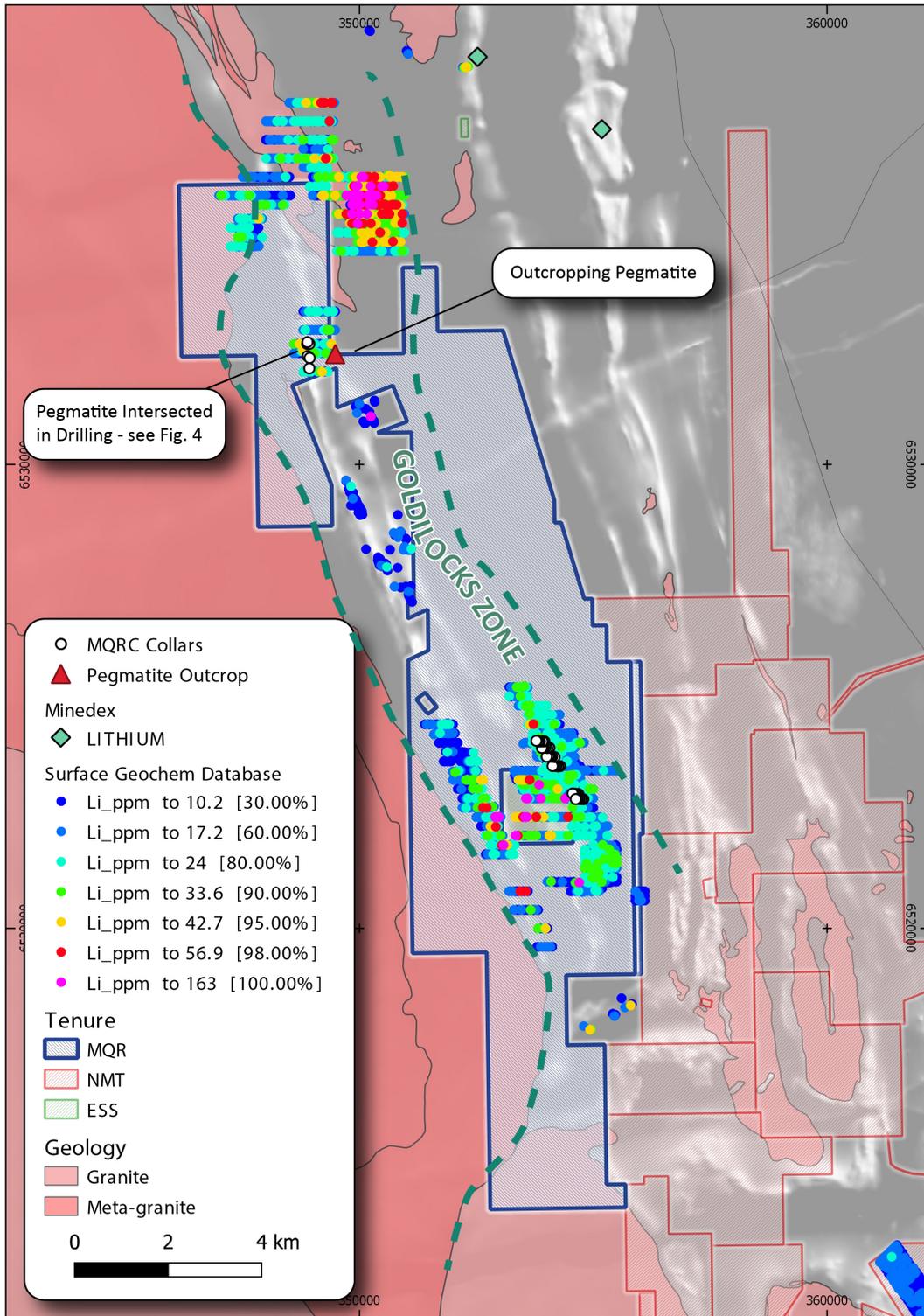


Figure 3: Location of Pegmatite Occurrences at the West Spargoville Project

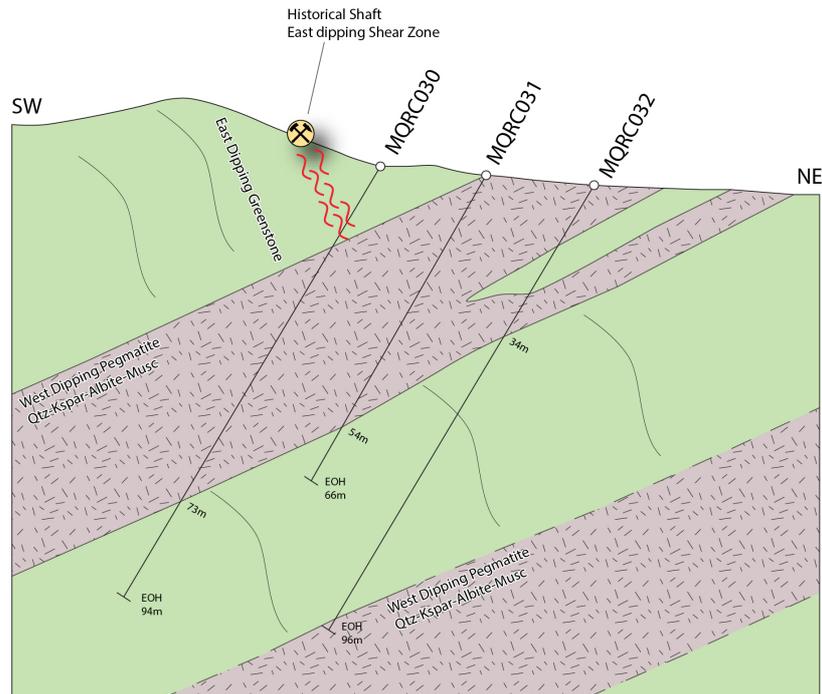


Figure 4: Cross-section Showing the Orientation of Pegmatites Intersected in Drilling

## COMPETENT PERSON STATEMENT

The information in this report which relates to Exploration Results is based on information compiled by Dr James Warren, a Competent Person who is a member of the Australian Institute of Geoscientists. Dr Warren is the Chief Technical Officer of Marquee Resources Limited. Dr Warren has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Warren consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

## Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Marquee Resources Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

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

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