

## Castle Advances Battery Metals Strategy

### Lithium Targeted North of Greenbushes Mine

- 120km<sup>2</sup> “Wilgee Springs” exploration licence application prospective for lithium bearing pegmatites.
- Within same metamorphic belt and along strike of the Greenbushes lithium mine.
- Greenbushes is the World’s largest, highest grade and lowest cost, hard rock, spodumene concentrate producing operation, supplying 21% of global lithium from a Mineral Resource of 178.5Mt at 2.0% Li<sub>2</sub>O<sup>1</sup>.
- Castle also joins Lithium Australia P/L, CMC Lithium P/L and Lithium Power Holdings P/L in same belt.
- Modern advanced geochemical and geophysical exploration technologies will be used to ‘peer’ through the thick laterite cover which has previously hampered exploration.
- Orientation site visit confirms good access for first-pass, low-impact exploration.

Castle Managing Director, Stephen Stone said “The Wilgee Springs application provides Castle with a low-cost entry into the same metamorphic belt that hosts the Tier-1 Greenbushes lithium mine, 25km to the south.”

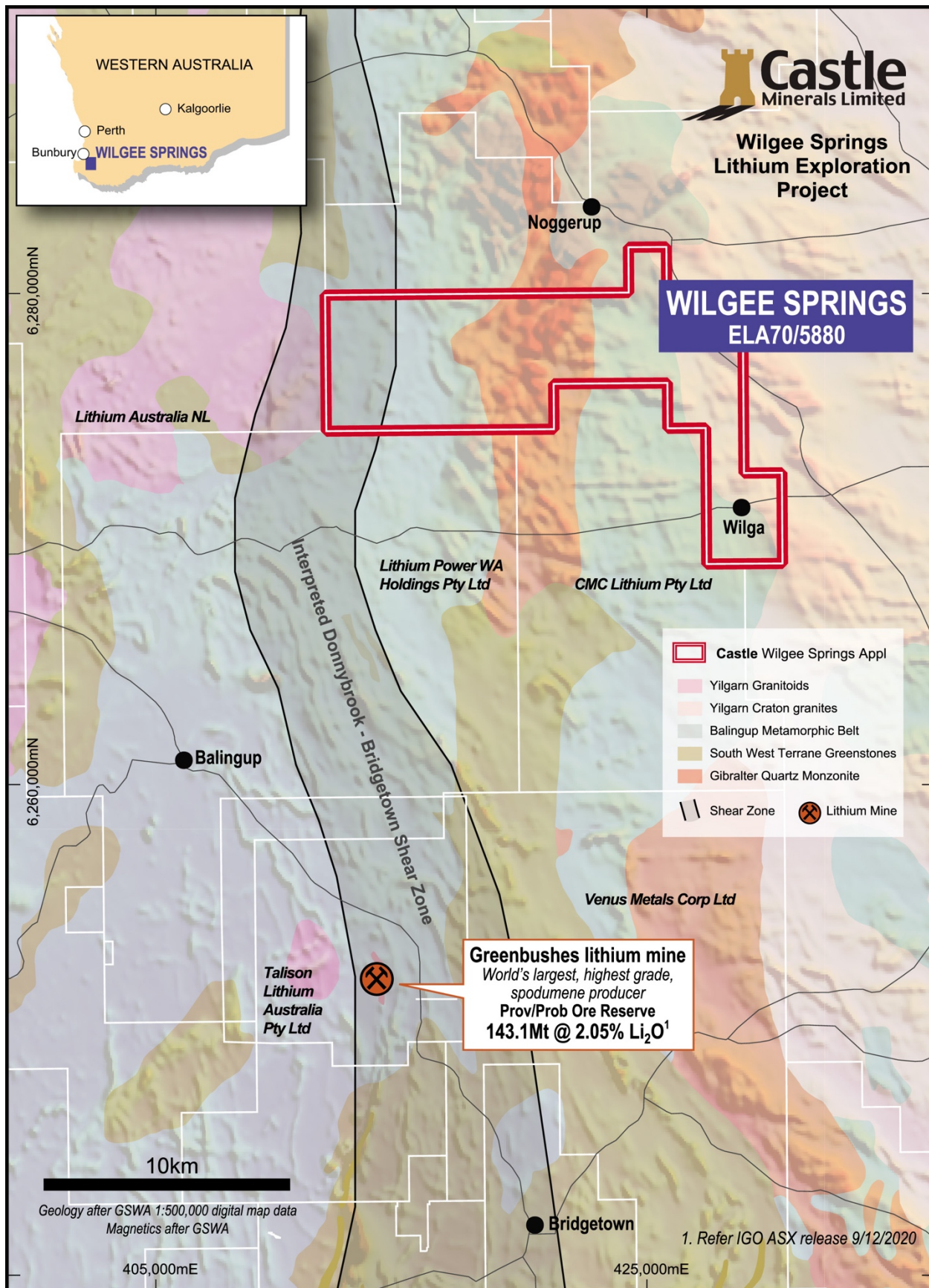
“Thick laterite cover has previously hampered exploration but that is exactly what we now see as the opportunity given today’s advanced geochemical and geophysical exploration technologies that in effect allow us to ‘peer’ beneath this cover.”

“This application, along with Castle’s existing Kambale graphite project, advances the Company’s participation in the fast evolving battery metals exploration sector in which it will continue to search for complementary opportunities.”

Explorer and project incubator, Castle Minerals Limited (ASX: CDT) (“Castle” or the “Company”), advises that it has applied for an exploration licence, Wilgee Springs (ELA 70/5880), along strike from and within the same metamorphic belt as the World-Class Greenbushes lithium mine, 25km to the south in Western Australia’s South-Western region (“Wilgee Springs Project” or “Project”)(refer Fig. 1).

The new application advances Castle’s participation in the fast-evolving battery and power storage sector and joins Castle’s Kambale Graphite Project in Ghana where recent test work on weathered material produced a benchmark 96.4% total carbon fine flake graphite concentrate (refer ASX release 21 September 2021).

**Fig 1: Wilgee Springs Exploration Licence Application area showing GSWA geology, regional magnetics, the Tier-1 Greenbushes lithium mine and other participants in the region.**



### Greenbushes lithium mine

The Greenbushes pegmatite deposit underpins the World's largest, highest grade and lowest cost, hard rock, spodumene concentrate producing operation, supplying 21% of global lithium from a mineral resource of 178.5Mt at 2.0% Li<sub>2</sub>O. The mine is owned by **Albermarle Corporation / Tianqi Lithium / IGO joint venture** (refer IGO ASX release 9 December 2020).

The pegmatites that host the spodumene mineralisation at Greenbushes are part of a late-stage intrusive sequence that was emplaced into the north-south trending Donnybrook - Bridgetown Shear Zone, a regional-scale lineament that can be traced for some 150km in the Archean Balingup Metamorphic Belt. This belt extends north of Greenbushes into the western portion of Castle's application area.

In addition to the joint owners of the Greenbushes mine, Castle now joins **Lithium Australia P/L, CMC Lithium P/L** and **Lithium Power Holdings P/L** in the immediate area.

### The Opportunity

Extensive lateritic cover has obscured the geology and seriously hampered previous exploration. No records of exploration in the licence application area specifically for lithium or associated tin and tantalum have been located within the WAMEX open-file reports archive.

With the availability of today's advanced geochemical and geophysical technology, this now presents an exciting opportunity for Castle to in effect "peer" below the cover and explore for lithium-bearing pegmatites.

### Field orientation visit

During a recent field orientation trip to validate the area applied for, Castle's geologist noted distinct colour variation within the lateritic cover. This is most likely due to the differing iron content of the underlying lithological units with these variations appearing to be spatially consistent with variations observed in the aeromagnetic imagery.

The field trip also confirmed that there is excellent access into and throughout the area arising from a network of state roads and numerous forestry tracks.

### Additional notes on regional geology

The application area is situated over the Balingup Metamorphic Belt (BMB), which forms part of the Yilgarn Craton's, South West Terrain Greenstone. The BMB extends roughly north-south for over 200km and ranges in width from 50km in the south to 3km in the north. The rocks comprise highly deformed gneiss and granofels with minor quartzite, schist, BIF and ultramafic rocks. The BMB, which has been intruded by the Gibraltar Quartz Monzonite in the central part of the license area, is thought to be derived from partial melting of amphibolite bearing gneiss. Yilgarn Craton granites are located along the eastern margin of the application area.

### Proposed exploration

A multi-disciplined approach to exploration will comprise a reinterpretation of available geophysical data, a stream sediment sampling program to assess for lithium mineralisation and a pan concentrate program to assess for tin and tantalum minerals associated with the LCT (lithium, caesium, tantalum) pegmatites found at Greenbushes. This will be followed by a series of east-west trending soil sampling lines with samples collected at a relative high density. If warranted, this will be followed-up by a targeted program of air core and/or RC drilling to test any anomalies outlined by the surface sampling programs.



Authorised for release to ASX by the Board of Castle Minerals Limited:

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### About Castle Minerals Limited

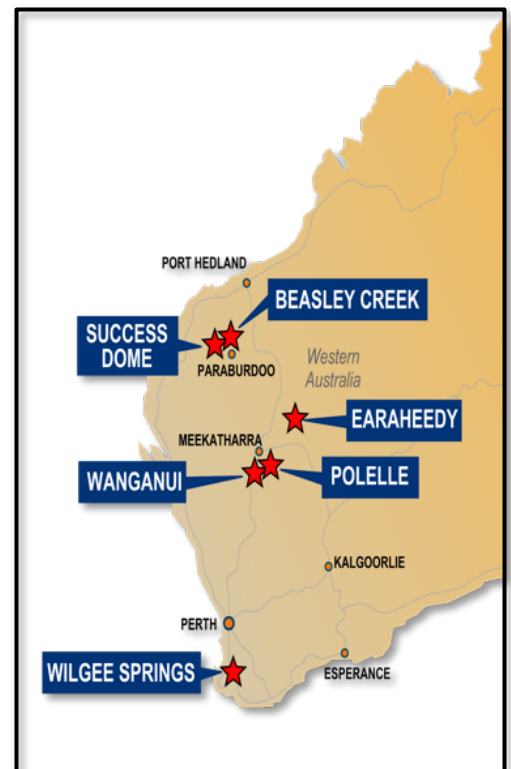
Castle Minerals is an Australian Securities Exchange (ASX: CDT) listed and Perth, Western Australia headquartered company with interests in several projects in Western Australia and Ghana that are prospective for gold, base metals, graphite and other minerals.

The **Earaheedy Basin** project comprises applications for seven exploration licence encompassing terrane prospective for base and precious metals in the Earraheedy and Yerrida basins base metals provinces. The project comprises the **Withnell, Terra Rossa** and **Tableland** sub-projects. The Withnell application is adjacent to the evolving Chinook-Magazine zinc-lead project of Rumble Resources Ltd (ASX: RTR). The four Terra Rossa applications are immediately east of the Thaduna copper deposit.

The **Beasley Creek** project lies on the northern flanks of the Rocklea Dome in the southern Pilbara. The strategy is to define orogenic-style, structurally controlled gold targets within the various Archean sequences. These lie immediately above and below the 16km east-west striking conglomerate horizons which had been the initial focus of exploration by Castle. The sheared granite - greenstone contact and the “Paulsen Gold Mine” type setting within the gabbro/dolerite units that intrude the Hardey Sandstone in the northern part of the project area, are of particular interest.

The **Success Dome** project is a recent application for an exploration licence in the Ashburton structural corridor and is located midway between the Paulsen’s and Ashburton gold deposits. It is prospective for gold and base metals. More locally, Success Dome lies immediately adjacent to the southern margin of the Hamersley Basin and 40km southwest of Castle’s Beasley Creek gold project. Major thrust faults and sub-parallel shear zones highlighted in the regional magnetic and gravity data, combined with additional detailed geophysics data from previous explorers, brought this available area to Castle’s attention.

The **Polelle** project (E51/1843, 162.5km<sup>2</sup>), 25km south of Meekatharra and 7km southeast of the operating Bluebird Mine, hosts a mainly obscured and minimally explored greenstone belt. The belt is comprised of a combination of prospective lithological units and major structural features including the Albury Heath shear which hosts the Albury Heath deposit (Inferred Resource of 528,000t at 2.09g/t Au for 35,479oz Au) immediately adjacent to the east boundary of Castle’s licence. Aeromagnetic surveys have indicated that the southwest trending Albury Heath shear and a splay structure are traceable onto the Polelle project area for some 12km.



At the **Wanganui** project (E51/1703, 18.4km<sup>2</sup>), 33km south-west of the active Meekatharra mining centre and 15km south-west of the operating Bluebird gold mine, the opportunity is to test for down-plunge and along strike extensions to the existing Main Lode North and South deposits, as well as for other similar targets. The Main Lode mineralisation, which can be intermittently traced for at least 1km, is one of at least four structurally related mineralised zones.

The **Wilgee Springs** project (ELA 70/5880, 120km<sup>2</sup>), along strike from and within the same metamorphic belt as the World-Class Greenbushes lithium mine, 25km to the south in Western Australia's South-Western region, provides an opportunity to explore, using the latest geochemical and geophysical techniques, for spodumene bearing pegmatites beneath a lateritic cover that has previously hampered exploration.

In **Ghana, West Africa**, Castle has a substantial and contiguous tenure position in the country's Upper West region. Ghana has a long history of gold exploration and mining with several world-class gold mining operations owned by Tier 1 mining companies. Castle's Ghana licence holdings encompass large tracts of highly prospective Birimian geological terrane, the host to many of West Africa's and Ghana's multi-million-ounce gold mines. The project area is also host to the open-ended **Kambale** graphite project for which test work on near-surface samples produced a 96.4% total carbon fine flake graphite concentrate.

Castle retains a **4% net smelter precious metal royalty** over the adjacent Julie West licence, a key component of Azumah Resources Limited's Wa Gold Project.



### Cautionary Statement

All of Castle's projects in Australia are considered to be of grass roots or of relatively early stage exploration status. There has been insufficient exploration to define a Mineral Resource. No Competent Person has done sufficient work in accordance with JORC Code 2012 to conclusively determine or to estimate in what quantities gold or other minerals are present. It is possible that following further evaluation and/or exploration work that the confidence in the information used to identify areas of interest may be reduced when reported under JORC Code 2012.

The **Kambale graphite deposit** is at an early stage in its evaluation with little known about how extensive the deposit is or how the graphite quality varies within it. Work to date has been undertaken on an easily accessible area which may or may not be representative of the broader deposit once that is known.

To date, the area investigated at Kambale has produced from weathered samples a fine flake size concentrate of a potentially commercially acceptable grade at a reasonably high recovery. Definitive test work on fresh material and material from other parts of the deposit has yet to be undertaken.

### Forward Looking Statement

Statements regarding Castle's plans, forecasts and projections with respect to its mineral properties and programs are forward-looking statements. There can be no assurance that Castle's plans for development of its mineral properties will proceed. There can be no assurance that Castle will be able to confirm the presence of Mineral Resources or Ore Reserves, that any mineralisation will prove to be economic or that a mine will be successfully developed on any of Castle's mineral properties. The performance of Castle may be influenced by a number of factors which are outside the control of the Company, its Directors, staff or contractors.

### **Competent Persons Statement**

The scientific and technical information in this Report that relates to the geology of the deposits and exploration results is based on information compiled by Mr Stephen Stone, who is Managing Director of Castle Minerals Limited. Mr Stone is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Stone is the Qualified Person overseeing Castle's exploration projects and has reviewed and approved the disclosure of all scientific or technical information contained in this announcement that relates to the geology of the deposits and exploration.