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## COMPANY UPDATE

- **Technical Due Diligence highlights prospective nature of Mt Mansbridge**
- **The Mt Mansbridge Project is prospective for heavy rare earth elements (HREE) and hosts over 20 km of unconformity-related REE target geology.**
- **HREE considered to be a strategic metal suite due to constrained and concentrated supply and importance to globally emerging industries**
- **Negotiations for complementary specialty metals project progressing well, with terms expected to be agreed in the near term**
- **RMX to undertake further groundwork at Mukabe Kasiri**

### **Mt Mansbridge Rare Earths Project**

Red Mountain Mining (ASX:RMX) (the **Company**) is pleased to advise that technical due diligence on the Mt Mansbridge Rare Earths project has continued to highlight the prospective nature of the tenure. Set out in this announcement is more detail on Mt Mansbridge.

#### *Mt Mansbridge: Location and Background:*

The Mt Mansbridge Project is located in the Kimberly region of Western Australia. The project area is approximately 130 kms south east of the township of Halls Creek and consists of two contiguous granted exploration licenses E80/5111 and E805229 which combined covers a total area of 245km<sup>2</sup> (Figure 1).

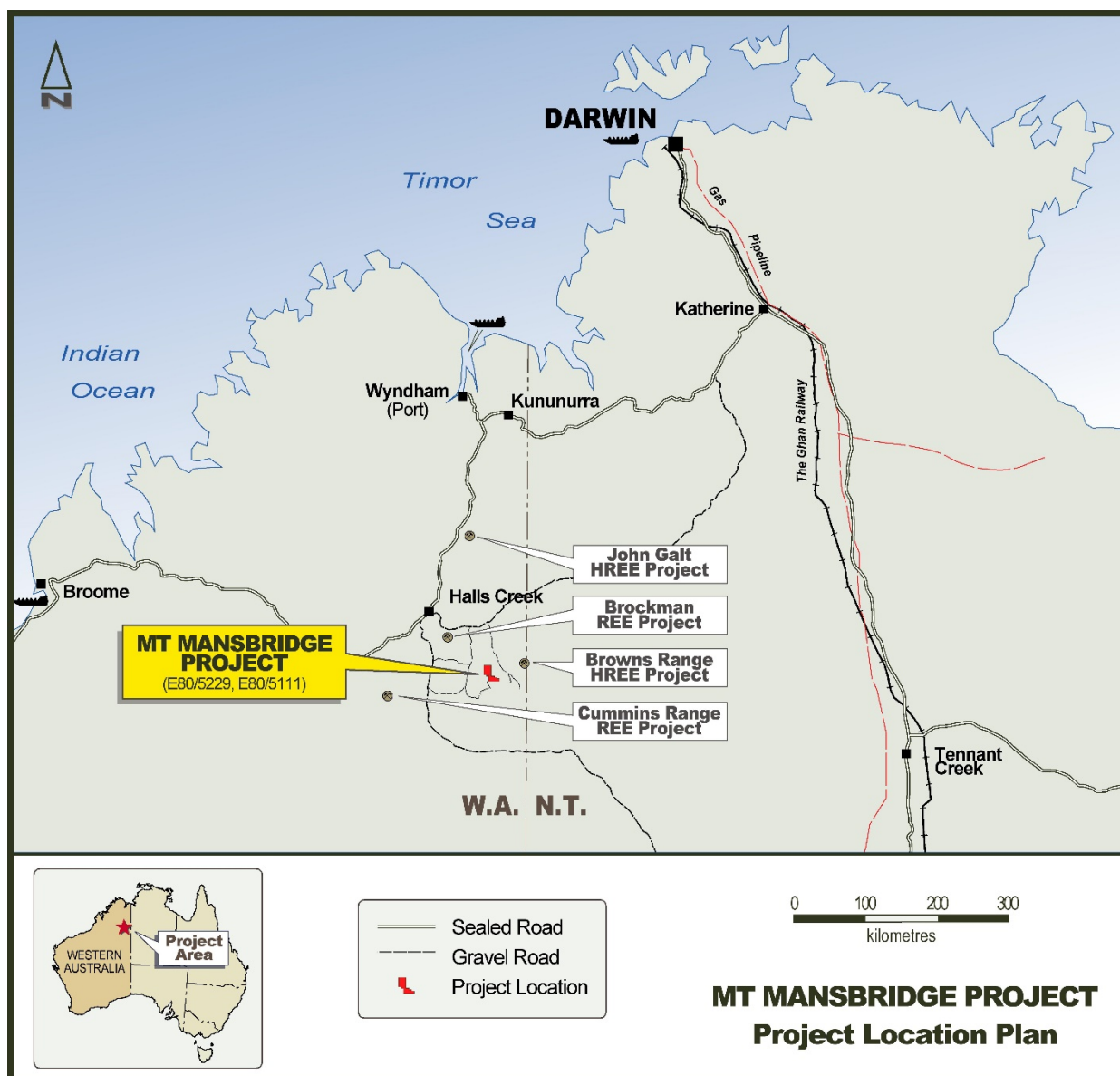


Figure 1: Mt Mansbridge Project and East Kimberly REE project location map

Rare Earth (REE) mineralisation at the Killi Killi Prospect was first discovered by BHP in the altered and veined sandstone beds of the Mt Mansbridge outlier in the 1980's. BHP's exploration comprised geophysics, mapping and pitting with xenotime reported to be present in samples (WAMEX report A17492).

Recent exploration by Quantum Resources in 2011, followed up the historical work undertaken by BHP at the Mt Mansbridge area. A multi-method exploration program was carried out by Quantum Resources which included rock chip sampling ground radiometric measurements, Mobile Metal Ion (MMI) and conventional soil sampling to assess previous findings, to get a better geological feel for the hydrothermal systematics and to extend the zone of mineralisation where possible. The technical review of the exploration undertaken by Quantum Resources (WAMEX report A101502) report has identified an extensive REE soil anomaly that was defined using MMI and conventional soil geochemistry (refer RMX ASX Announcement 12 August 2019).

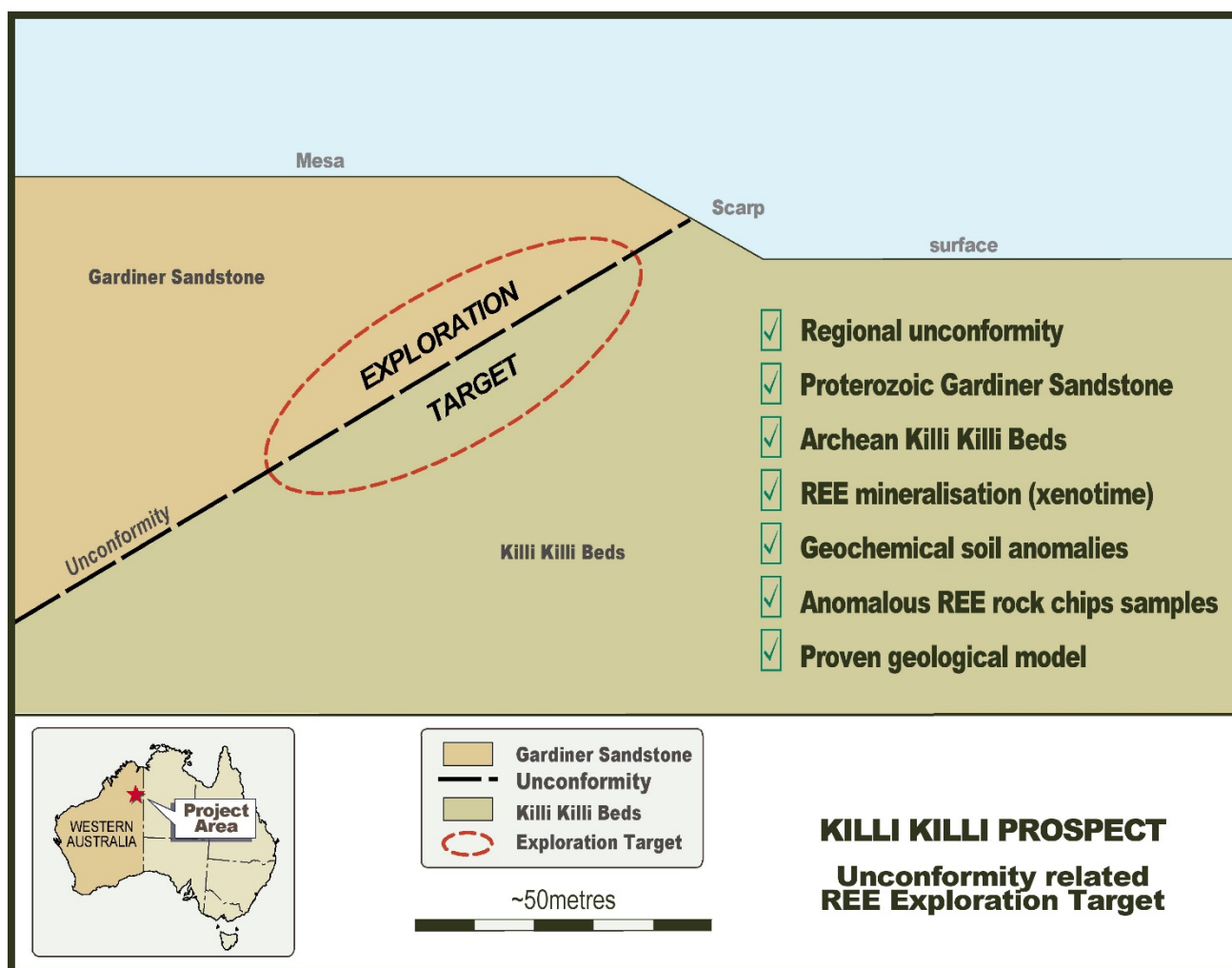
### Mineralisation Model and Geological Setting:

In the 2018 research article “Unconformity-Related Rare Earth Element Deposits: A Regional-Scale Hydrothermal Mineralization Type of Northern Australia”, authors Teimoor Nazari et al propose a regional ore genesis model whereby fluids leaching heavy rare earth elements (HREE) from the Browns Range Metamorphics mixed with phosphorous-bearing acidic fluid from the overlying sandstones in fault structures near the regional unconformities. This combination in a low-Ca environment is believed to have triggered extensive xenotime precipitation, the characteristic ore type at Browns Range.

Mt Mansbridge is considered prospective for hydrothermal vein hosted and unconformity-related REE mineralisation. The Killi Killi REE prospect is situated on the edge of the Gardner Sandstone scarp with an analogous geological setting to the Browns Range Dazzler and Iceman Deposits.

While there is evidence of vein related xenotime occurring in the altered and veined zones of the basement sedimentary Killi Killi Beds, the primary target REE mineralisation model is of an “unconformity-related” system with deposition of HREE in phosphorous-bearing xenotime mineralisation, an analogous geological setting and mineralisation model established for Northern Minerals’ Browns Range Project (Figure 2).

Figure 2: Unconformity-related REE model



The Mt Mansbridge Project area is host to outcropping Archean sedimentary Killi Killi Beds which are unconformably overlain by the younger Gardiner Sandstone which are Proterozoic in age (Figure 2). The contact of these sedimentary units is separated by a regional unconformity which extends over 20 kms at the Mt Mansbridge Project (Figure 3).

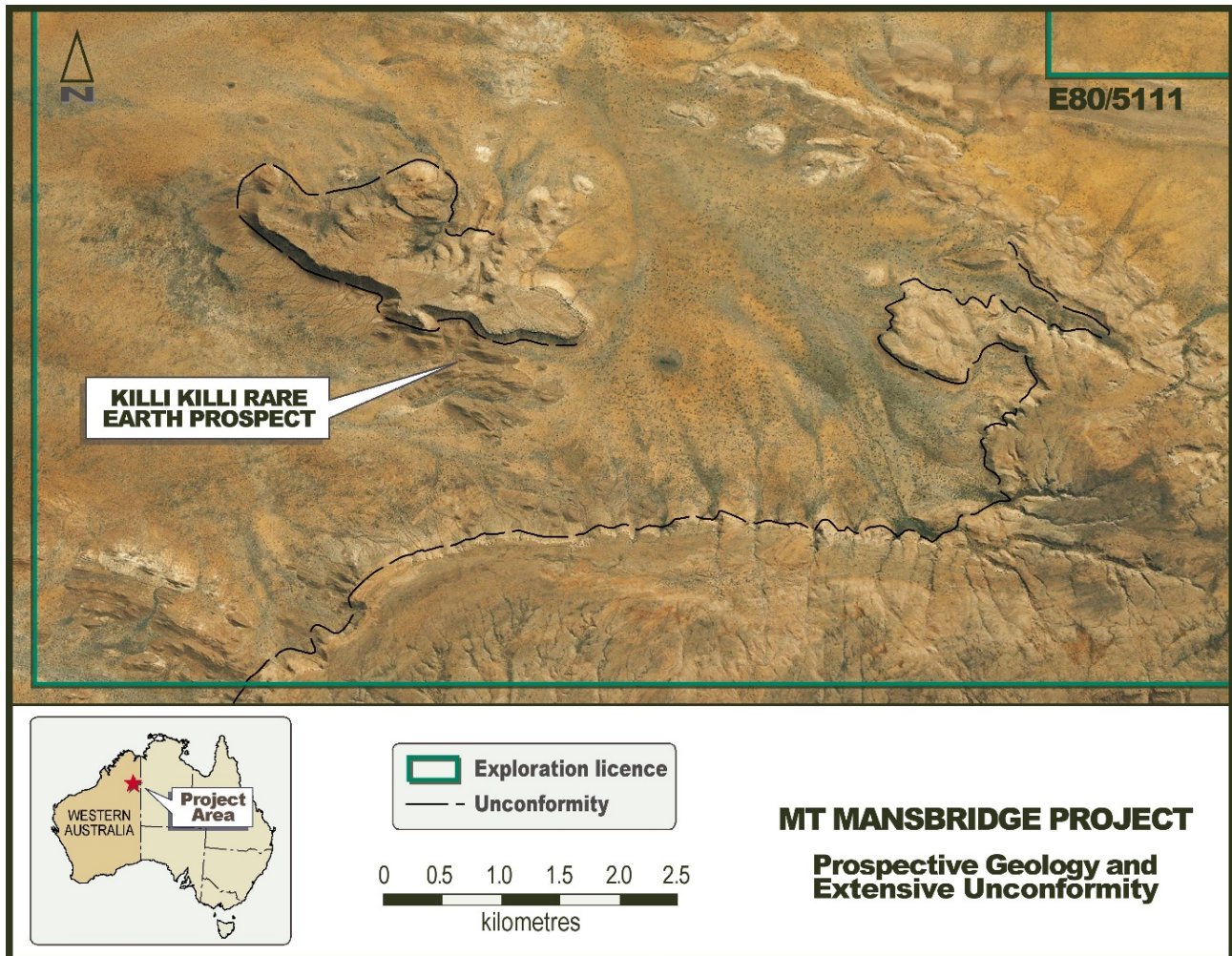


Figure 3: Mt Mansbridge prospective geology and extensive unconformity

The Mt Mansbridge REE mineralisation model envisages a basement sourced hydrothermal process whereby fluids that contain REE metals in solution are mobilised and redistributed to the area of the unconformity between the overlying Proterozoic Gardiner Sandstone beds and underlying older sedimentary Killi Killi Beds.

The recent identification of unconformity-related HREE mineralisation at Browns Range has established a new HREE exploration model. The Mt Mansbridge Project covers over 20 kms of unconformity and with similar age lithologies and geological setting, along with the presence of REE mineralisation, the potential for HREE discoveries is considered to be high.

Recent increases in market demand for HREE coincides with a government clamp down on illegal mining of rare earth elements within China. China currently accounts for approximately 80% of global rare earths production however it accounts for almost 98% of global heavy rare earth production.

Heavy rare earths are considered rarer than light rare earths and subsequently attract higher prices. Of particular interest to the Mt Mansbridge Project is the potential for xenotime mineralisation which is known to contain significant amounts of Dysprosium.

Dysprosium is used in permanent magnets and allows for magnets to retain their magnetic properties, even at high temperatures. This property is extremely desirable for use in Electric Vehicles. The importance of Dysprosium in Electric Vehicle manufacturing as well as its use in lasers, wind turbines, nuclear reactors and other military applications makes dysprosium a highly strategic mineral.

Other valuable heavy rare earths include Terbium, which is often used as a substitute for Dysprosium, and the rarest and most valuable rare earth Lutetium. Both these valuable rare earths contribute economically to typical xenotime deposits.

Due to its strategic importance, constrained and concentrated supply, strong demand growth and political importance, heavy rare earth deposits located in stable and trade-friendly jurisdictions will garner significant global interest from partners looking for surety of supply.

#### *Australia's North West an Emerging REE Province*

With already a significant number of REE deposits located in the East Kimberly region of Northern Western Australia (including Browns Range, John Galt, Brockman and Cummins Range), Australia's North West is considered to be an emerging rare earths province, and results from Browns Range recently announced by Northern Minerals (ASX:NTU) demonstrate that particular area to be highly prospective for critical and high value heavy rare earth elements.

The presence of xenotime mineralisation in the Eastern Kimberly makes the region highly prospective for heavy rare earths. Xenotime mineralisation contains high concentrations of Yttrium and heavy lanthanide metals (dysprosium, erbium, ytterbium, holmium, terbium, thulium, lutetium).

Rare Earth Element processing involves processing out each REE in sequence and can be a costly process. As xenotime mineralisation is relatively low in light REEs (Lanthanum and Cerium) whilst having high concentrations of valuable Dysprosium and Terbium thus making it **likely to be higher** in basket price value and **anticipated to be lower** in processing cost per tonne of rock.

Until recently, the East Kimberly region of Western Australia has long been overlooked for heavy rare earths. The presence of xenotime mineralisation at the Mt Mansbridge Project, presents RMX with an opportunity to capitalise on this and determine whether there is an economically viable concentration of REE's.



### ***Specialty Metals Project***

Reference is made to the Company's announcement dated 5 September, 2019. Negotiations concerning the additional specialty metals project are progressing well and, subject to regulatory approval, the Company expects to conclude these negotiations within the extended due diligence period.

### ***Mukabe Kasiri Update***

RMX advises that it is undertaking further groundwork at its Mukabe Kasiri copper-cobalt prospect in DRC. A trenching and pitting programme focused on testing artisanal copper workings has been designed and shall be implemented. Work is expected to commence in the next week. Samples of the work programme shall be submitted to SGS laboratories, Lumbumbashi.

For and on behalf of the Board

**Mauro Piccini**

**Company Secretary**