



## **PHASE 2 DRILLING SET TO COMMENCE**

### **MT MANSBRIDGE RARE EARTH AND Ni-Cu-Co-PGE PROJECT**

July 2022

ASX: RMX

**Exploring for critical and new world metals**

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## Competent Persons Statement

The information in this announcement that relates to Exploration Results and other technical information complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**) and has been compiled and assessed under the supervision of Mr Oliver Judd. Mr Judd is a Member of the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Judd consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

The Company is not aware of any new information or data that materially affects the information included in the relevant market announcements.

## Mt Mansbridge Heavy Rare Earth & Ni-Cu-Co-PGE Project (WA – 100%)

- ✓ Prospective for HREEs and Nickel-Cobalt-PGEs
- ✓ **Known HREE mineralization** in setting analogous to Northern Minerals discoveries
- ✓ Recent drilling has identified **Heavy Rare Earth (xenotime), Ni-Cu-Co sulphides and anomalous nickel-cobalt**

## Nannup Lithium & Ni-Cu-PGE Project (WA – 100%)

- ✓ Located in southwest terrane with potential to support a Juliar-style system
- ✓ Presence of Yilgarn Craton Granites, same unit located adjacent to pegmatites at Greenbushes Lithium province

## Koonenberry Gold Project (NSW – 100%)

- ✓ Exploration Licence Application covering over 650km<sup>2</sup> in emerging gold region
- ✓ Adjoining Manhattan Gold (ASX: MHC) high grade gold discovery

## Mt Maitland Gold & Base Metals Project (WA – 100%)

- ✓ Phase 2 drilling completed last year
- ✓ Internal assessment undertaken to determine next steps in exploration

## Capital Structure

Shares on Issue:	1.642bn
Share Price (18/07/2022):	0.006 cent
Market Capitalisation:	\$9.86m
Cash Position (18/07/2022):	\$1.54m
Investments:	3.5m shares (LSE: BMV)
Enterprise Value:	~\$8.32m



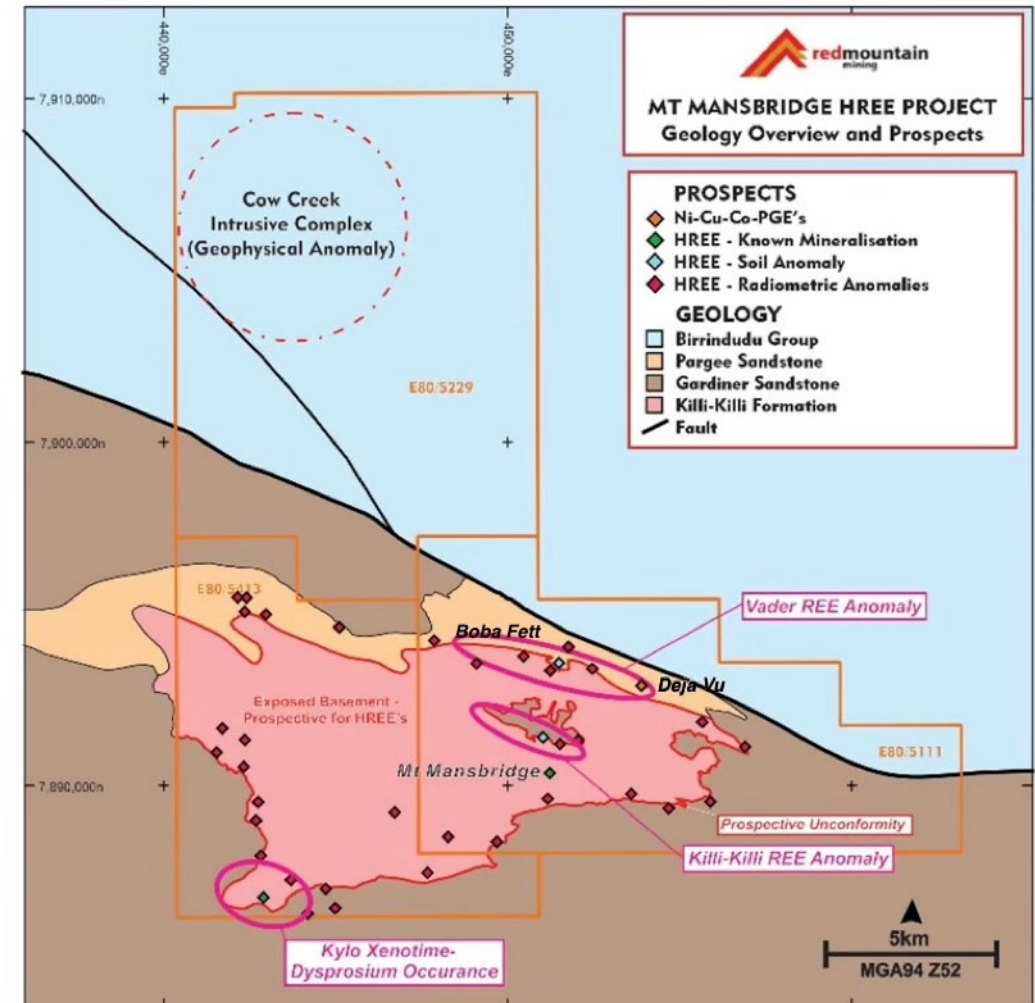
# MT MANSBRIDGE HREE & Ni-Cu-Co-PGE PROJECT (WA)



## Up coming activities at the Mt Mansbridge Project:

- ☐ Drilling at Solo to target Heavy Rare Earth Element (HREE)
- ☐ Drilling at Deja Vu to target cobalt & base metals
- ☐ Drilling at Cow Creek targeting base metals & platinum group elements
- ☐ Field sampling at Boba Fett testing for base metals
- ☐ Field sampling for additional HREE/radiometric anomalies

✓ RMX are fully funded for executing the above Mt Mansbridge programme

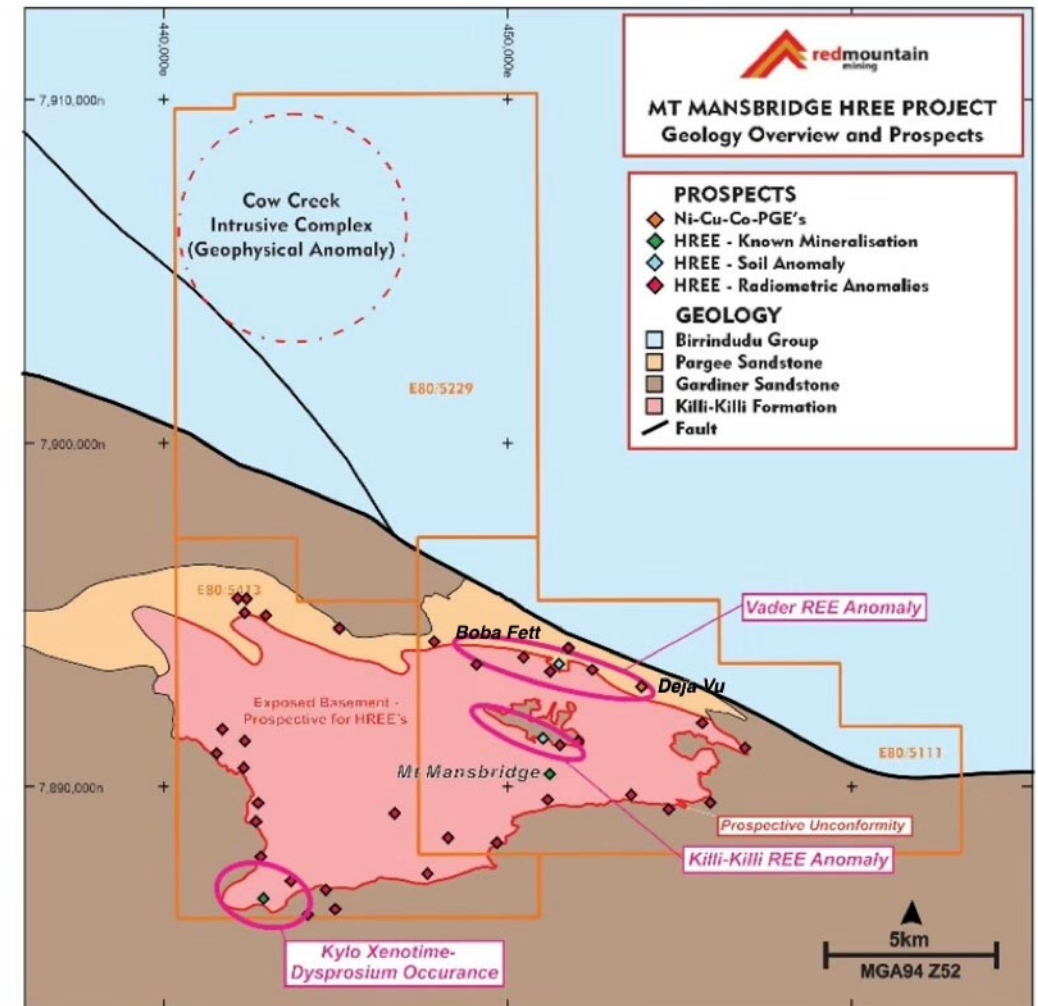




# MT MANSBRIDGE HREE & Ni-Cu-Co-PGE PROJECT (WA)



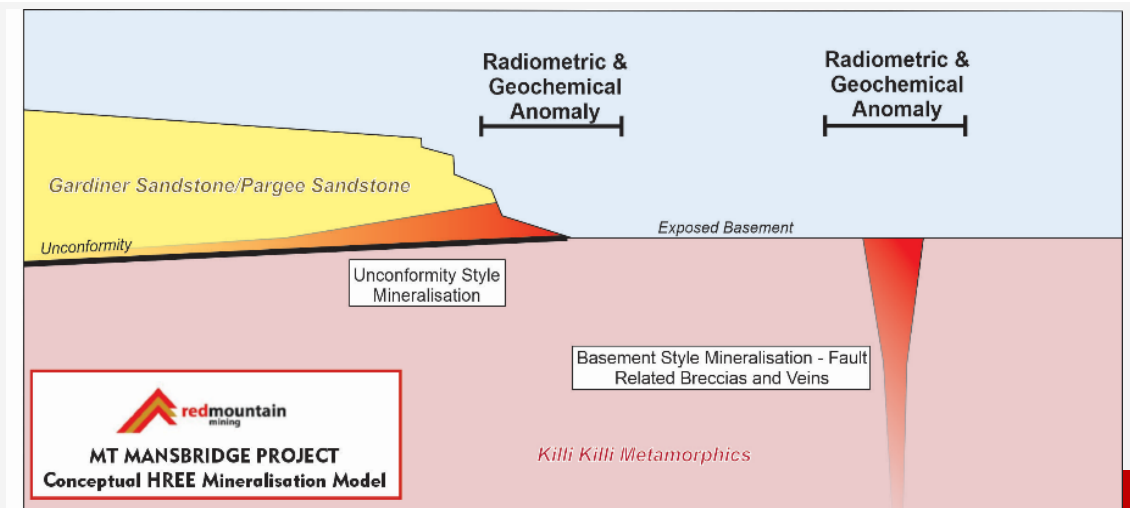
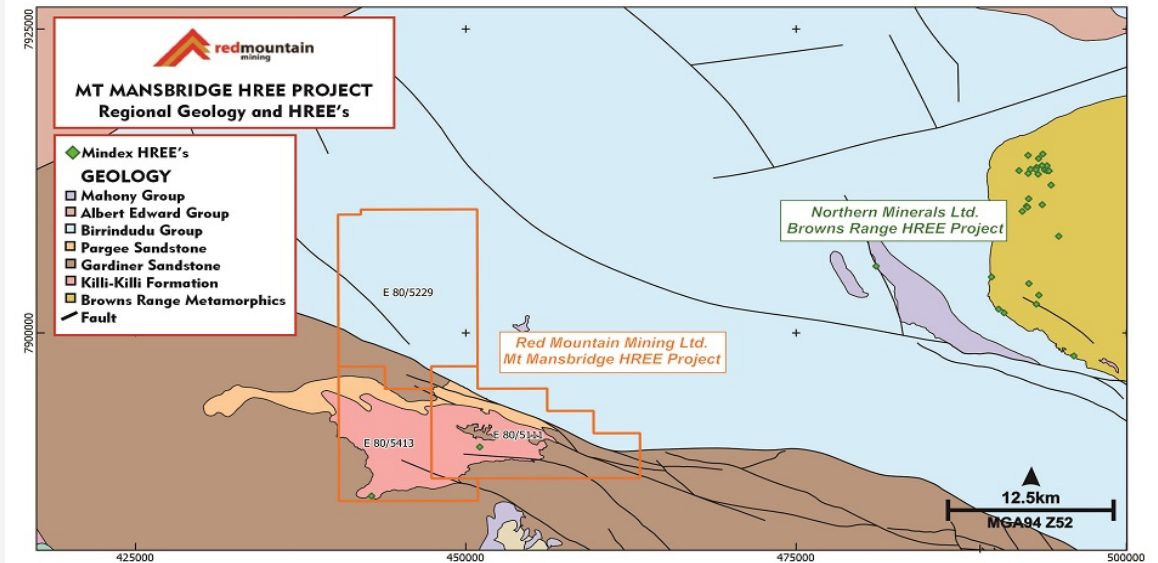
- ✓ The Mt Mansbridge Project is located in the Kimberly Region ~130 kilometres southeast of the township of Halls Creek, Western Australia
- ✓ 3 Granted, 100% owned tenements with site access and heritage clearance with Traditional Owners
- ✓ Prospective for:
  1. **Heavy Rare Earth Elements (HREE's)** – Xenotime which is dominant in Dysprosium and Terbium
  2. **Nickel-Copper-Cobalt-PGE's** – historic assays returning results up to 0.34% Co and 0.129% Ni in drilling
  3. **Base Metals (Pb-Zn-Cu-Ag )** - soil geochemistry has identified a coincident 1km Pb-Zn-Cu-Ag anomaly associated with this brecciated zone
  4. **Cow Creek Intrusive Complex** - 7km long untested geophysical anomaly, concealed below relatively thin (~50m) conductive cover sequences
- ✓ **Drill contract signed with drilling and exploration activities to commence during mid July 2022**



# MT MANSBRIDGE – HEAVY RARE EARTH ELEMENTS (HREE)



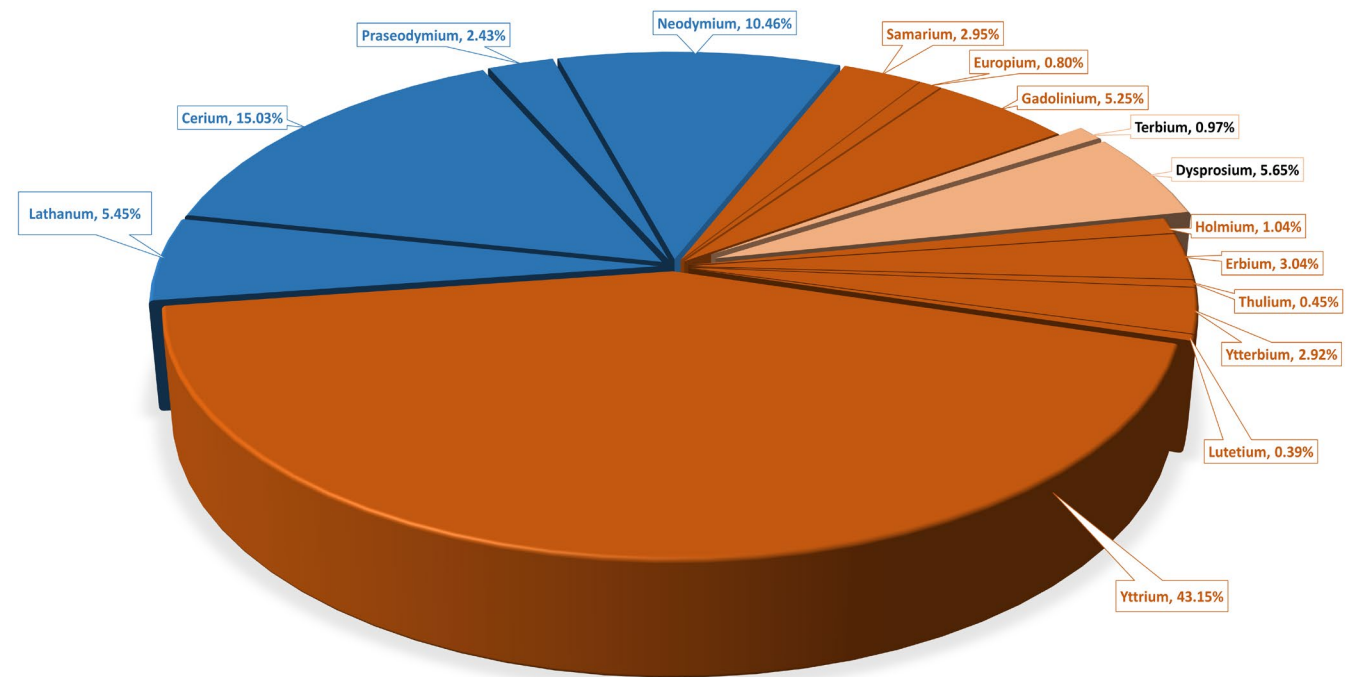
- ✓ Mt Mansbridge is located ~40km from Northern Minerals Ltd (ASX: NTU) Browns Range HREE Operation
- ✓ Comparable geological setting to Browns Range Project – 33km of prospective unconformity
- ✓ The Project contains known Xenotime occurrences originally discovered by BHP in the 1980's
- ✓ Mt Mansbridge is prospective for two styles of HREE mineralisation:
  - Basement Hosted – associated with hydrothermal fault breccias and veins
  - Unconformity Style – associated with the contact between the basement Killi-Killi Formation and the overlying Gardiner/Pargée Sandstone
- ✓ Petrological study undertaken by Diamantina Laboratories confirms Heavy Rare Earth mineral Xenotime
- ✓ **Recent drilling at Solo Prospect has intersected 5m @ 0.316% Total Rare Earth Oxide (TREO) with an average 66.62% Heavy Rare Earth Oxide (HREO)**



## MT MANSBRIDGE – SOLO PROSPECT (HREE)



- ✓ Rare Earth distribution accounts for about two-thirds yttrium and largely a source of heavy lanthanide metals
- ✓ Mt Mansbridge Project has high concentration of Dysprosium and Terbium, giving it a higher basket content of high value heavy rare earths
- ✓ With very few significant heavy rare earth resources outside China, diversification of supply has become a priority for governments and industry all over the world
- ✓ The discovery of HREE at Mt Mansbridge presents an excellent opportunity for Red Mountain to explore for new sources of heavy rare earths
- ✓ **Reverse circulation drill program scheduled for mid July 2022 designed to test depth extension of HREE at the Solo Prospect**

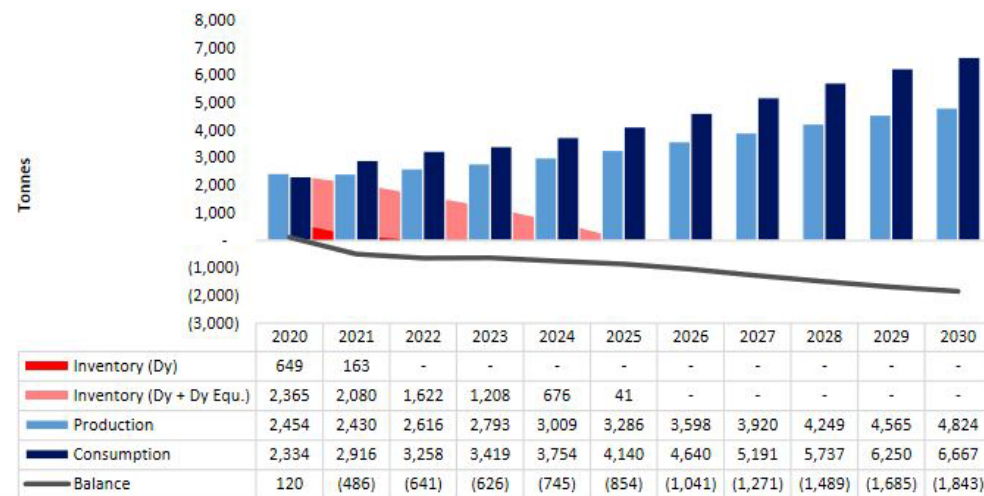


*Pie chart showing average distribution of REO for drill samples from the Solo Prospect*

# MT MANSBRIDGE – HIGH VALUE STRATEGIC HREE BASKET



- ✓ Mt Mansbridge basket has high concentration of dysprosium and terbium, giving it a higher basket content of high value strategic heavy rare earths
- ✓ Constrained by a lack of primary and secondary supply of Dysprosium oxide from 2022 onwards, Adamas Intelligence forecast a global shortages of Dysprosium oxide will rise to 1,850 tonnes by 2030



Forecast global production and demand for dysprosium oxide (Adamas Intelligence Market Outlook 2030)

REE Oxide Prices	REE	Mt Mansbridge REO Basket %	US\$/kg	Application and Use
Terbium	HREE	0.97%	\$2,210	Permanent magnets for high temperature applications
Lutetium	HREE	0.39%	\$805	Medical and petroleum refining
Dysprosium	HREE	5.65%	\$408	Permanent magnets for high temperature applications
Thulium	HREE	0.45%	\$850	Medical and laser
Holmium	HREE	1.04%	\$193	Permanent magnets, nuclear energy, microwave applications
Gadolinium	HREE	5.25%	\$74	Nuclear energy, fiber optics, glass
Erbium	HREE	3.04%	\$60	Nuclear energy, medical, ceramics
Europium	HREE	0.80%	\$31	Optical fiber, display panels, phosphors
Ytterbium	HREE	2.92%	\$16	Medical, stainless steel
Yttrium	HREE	43.15%	\$14	Phosphors, metal alloys, polishing powders, catalytic converters, ceramics
Neodymium	LREE	10.46%	\$139	NdFeB magnets, metal alloys, polishing powders, auto catalysts, glass additives, ceramics
Praseodymium	LREE	2.43%	\$137	NdFeB magnets, metal alloys, polishing powders, auto catalysts, glass additives, ceramics
Samarium	LREE	2.95%	\$3.6	Magnets, medical, ceramics
Lanthanum	LREE	5.45%	\$1.58	Metal alloys, polishing powders, auto catalysts, glass additives, ceramics
Cerium	LREE	15.03%	\$1.52	Metal alloys, polishing powders, auto catalysts, glass additives, ceramics

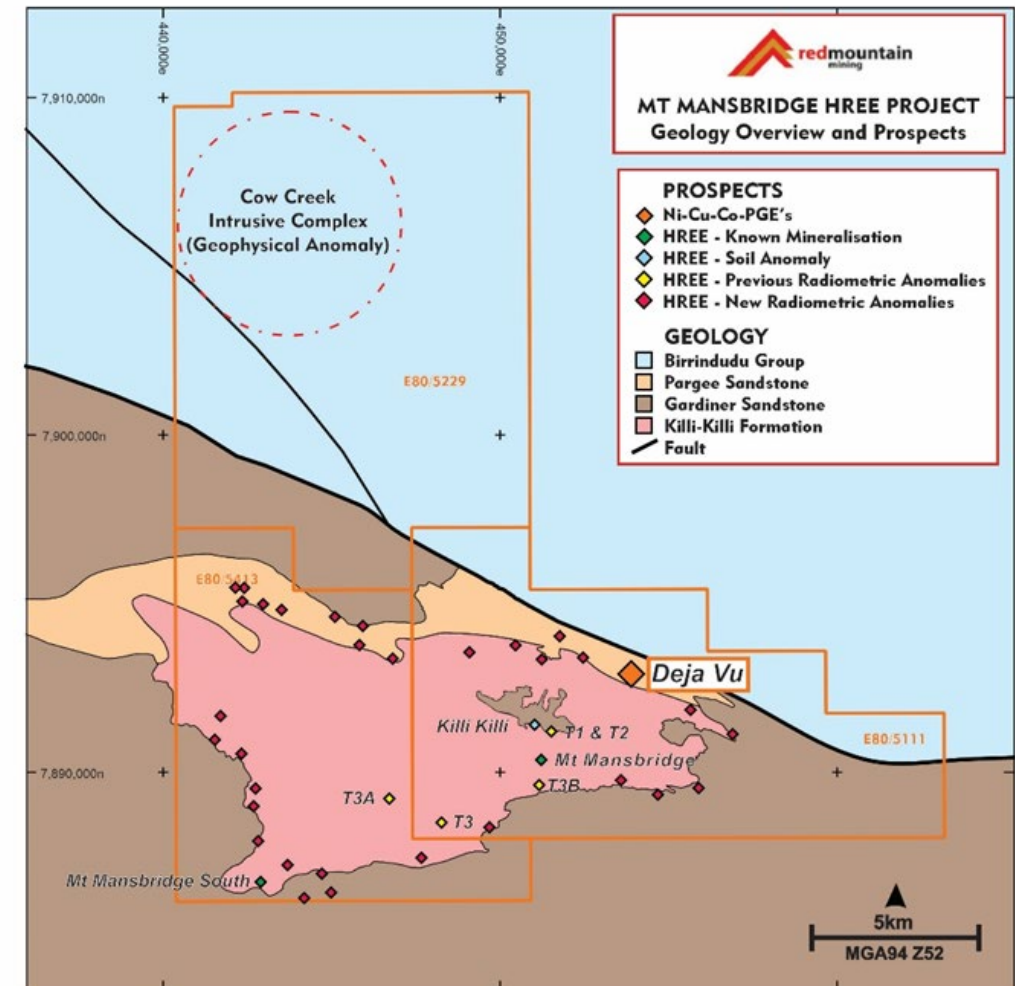
May REO prices and REE uses (Shanghai Metals Market, Adamas Intelligence Market Outlook 2030)



# MT MANSBRIDGE – DEJA VU PROSPECT (NI-CU-CO-PGE)



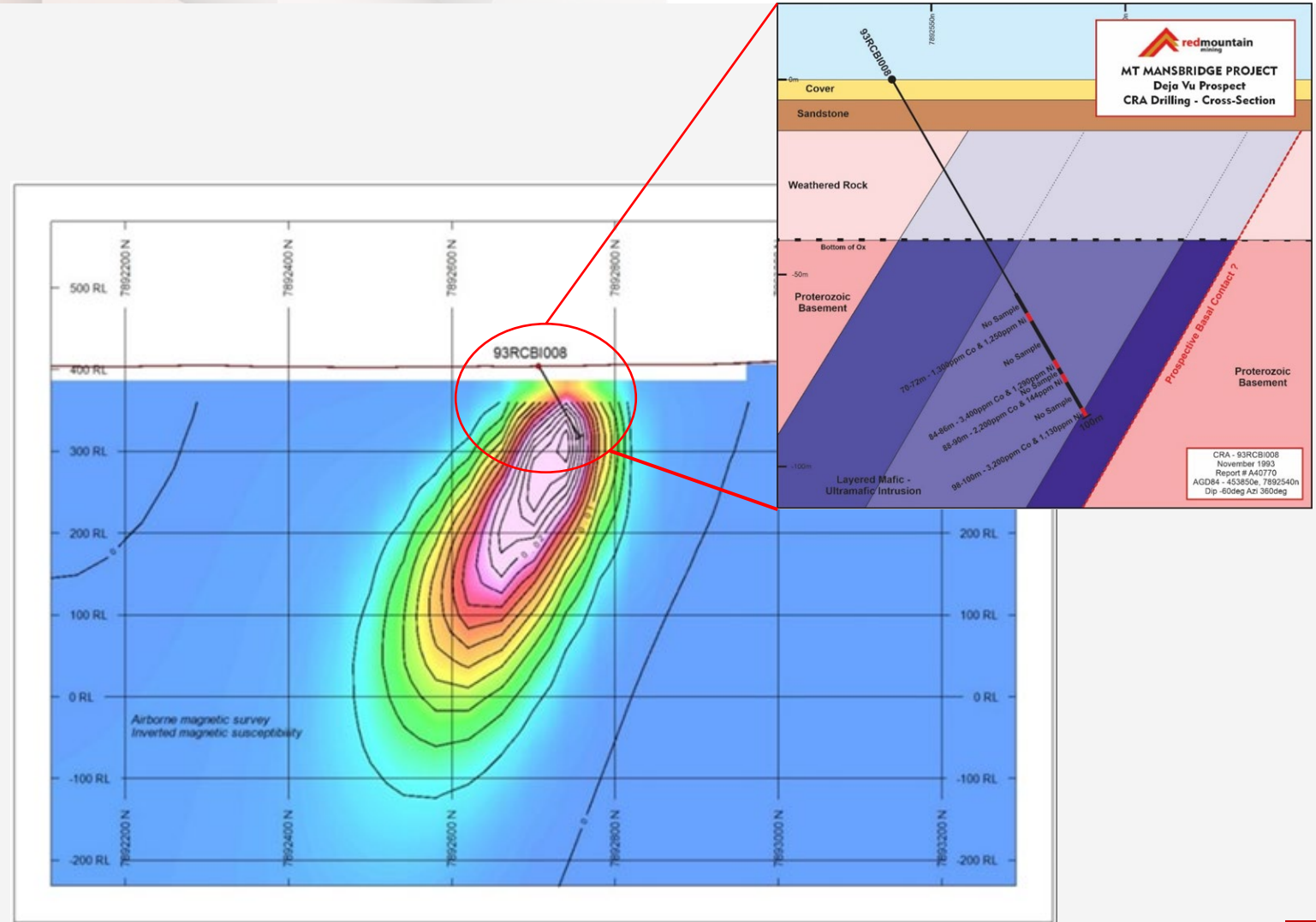
- ✓ The Deja vu Prospect is located on the northern exploration license E80/5229 and was acquired due to the near surface magnetic basement features that were identified from airborne geophysical surveys.
- ✓ Prospective layered mafic-ultramafic intrusion related massive sulphides and coincident with major regional structure
- ✓ Geological similarities to Savannah/Sally Malay intrusive complex (East Kimberley)
- ✓ Historical drilling identified prospective geology, nickel-copper sulphides and anomalous nickel-cobalt within drilling
- ✓ Largely untested system with intrusion concealed beneath relatively thin cover



# MT MANSBRIDGE – DEJA VU PROSPECT (NI-CU-CO-PGE)



- ✓ Magnetic target identified by CRA between 1991 - 1993 - thought to be a kimberlite, prospective for diamonds
- ✓ A single 100m RC hole into the centre of the magnetic anomaly encountered altered peridotite (an ultramafic intrusive) with disseminated nickel and copper sulphides
- ✓ Layering within intrusive system indicating a multi-phase complex, with similarities to Panoramic Resource's Sally Malay Deposit
- ✓ Sporadic assaying over 30 meters returned encouraging results up to 0.34% cobalt and 0.129% nickel
- ✓ **Reverse circulation drill program scheduled for mid July 2022 designed to replicate the historic high grade cobalt drill results**



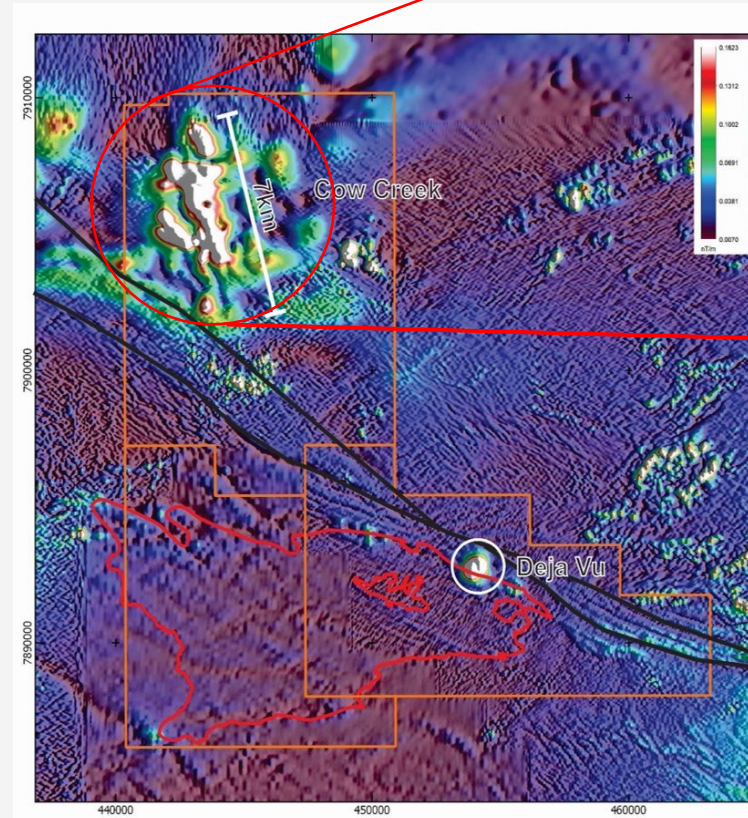
Deja vu – inverted (airborne) magnetic susceptibility with historic drill intersection



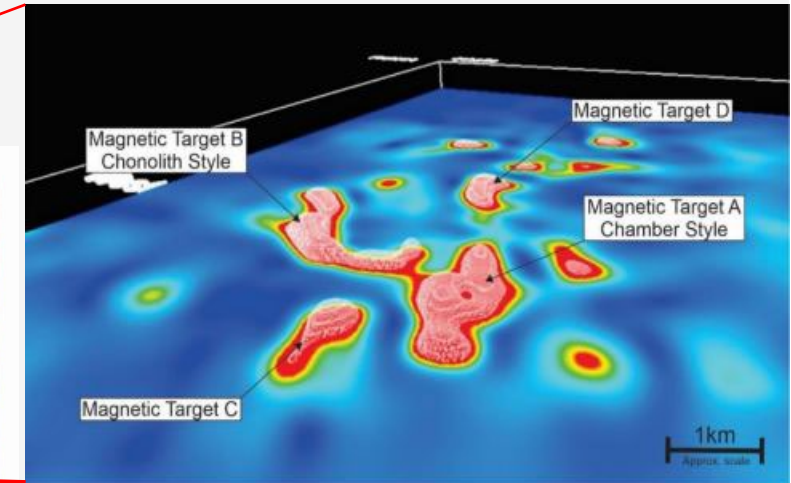
# MT MANSBRIDGE – COW CREEK PROSPECT (NI-CU-CO-PGE)



- ✓ The Cow Creek Prospect is ~7km long untested distinct geophysical anomaly, concealed below relatively thin (~50m) conductive cover sequences
- ✓ 3D inversion of airborne magnetic data has interpreted Cow Creek to be a large mafic-ultramafic intrusive complex
- ✓ Located on the same structure as the Déjà Vu intrusion, a confirmed ultramafic intrusion with Ni-Cu sulphides
- ✓ **Reverse circulation drill program scheduled for mid July 2022 designed to test priority geophysical targets**



Mt Mansbridge – Cow Creek Complex seen in Magnetics TMI

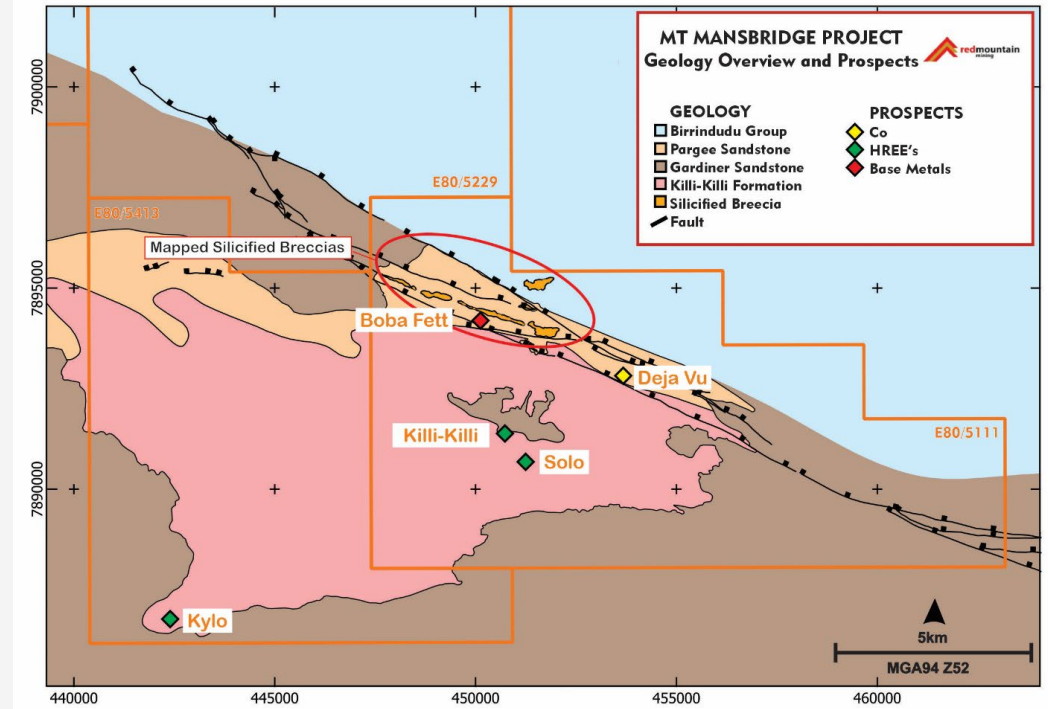


Mt Mansbridge – Cow Creek targets identified from inversion model

# MT MANSBRIDGE – BOBA FETT PROSPECT (Pb-Zn-Cu-Ag)



- ✓ Field assessment has identified potential hydrothermal breccias, indicative of a large intense fluid system proximal to the northern Killi-Killi-Pargee contact
- ✓ Recent technical review of soil geochemistry undertaken by RMX has identified a coincident 1km Pb-Zn-Cu-Ag anomaly associated with this brecciated zone
- ✓ Geochemical anomalies are associated with coincident magnetic anomalism which is also underlain by a regional WNW – ESE structure
- ✓ Potential exists for a (Rumble Resources (ASX: RTR) - Chinook Pb-Zn-Ag-Cu) sediment-hosted base metal deposits within the sedimentary pile and warrants follow up
- ✓ **Planned reconnaissance program of detailed mapping, soil and rock chip sampling the existing anomaly**







RED MOUNTAIN MINING LTD ABN 40 119 568 106

**Head Office** Level 1, 1 Altona Street West Perth  
Australia 6005

Email: [info@redmountainmining.com.au](mailto:info@redmountainmining.com.au)

[www.redmountainmining.com.au](http://www.redmountainmining.com.au)