



ASX ANNOUNCEMENT

09 NOVEMBER 2021

MAGNETITE MINES GAINS ACCESS TO MUSTER DAM DATA

Highlights

- Magnetite Mines has gained access to historical data for the Muster Dam tenements. The award of the tenements to the Company by the SA Government was announced on March 1, 2021.
 - Dataset includes 2,913 samples tested for mass recovery and samples from 59 diamond core and reverse circulation drilled holes, together with raw digital files of geophysical surveys.
 - This data will allow rapid advancement of the initial assessment of the Muster Dam Iron Ore Project.
 - The Muster Dam tenements contains a 1.5 billion tonne JORC 2004 Inferred Resource and is located near existing rail and power infrastructure.
 - The Company intends to evaluate the data in parallel with the Razorback Iron Ore Project's Definitive Feasibility Study.
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Magnetite Mines Limited (ASX:MGT) (Magnetite Mines or the Company) is pleased to announce that it has secured access to the historical exploration and technical data for its Muster Dam Iron Ore Project tenements (Muster Dam or the Project) from the previous tenement holder. This data, which includes core and rock samples as well as raw digital files will enable the Company to advance initial assessment, exploration, and resource development for the Project^{1,2}.

The Muster Dam tenement contains 1.5 billion tonne Inferred Resource^{1,2} (2004 JORC Code & Guidelines) and is located 40km southeast of the railway town of Olary, 75km from a high voltage powerline, and 110km from the mining town of Broken Hill.

The Company intends to evaluate the Muster Dam Iron Ore Project in conjunction with its accelerated development pathway for the Razorback Iron Ore Project³. Muster Dam has the potential to offer an expansion of the Company's Braemar Formation footprint.

Planned test work includes initial desktop review of the dataset together with sighter metallurgical and mineralogical characterisation. Following these initial reviews, the Company intends to undertake exploration and confirmation drilling to support early-stage mining and study reviews.



The Muster Dam Iron Ore Project has been extensively drilled with a total of 59 drill holes (49 Reverse Circulation and 10 Diamond core holes) for 15,914m on 400m spaced sections. 2,913 samples have been tested for recovered magnetic fraction (Davis Tube Recovery (DTR) with X-Ray Fluorescence (XRF) testwork undertaken on the head and concentrate grade material. The Mineral Resources were reported to a depth of approximately 360m below surface with mineralisation open at depth. At the 10% DTR cut-off the magnetite body varies in width between 200m and 400m^{1,2}.

Several iron ore prospects are contained within the Muster Dam tenements including Duffields, Muster Dam, Peaked Hill and Surrender Dam. The Muster Dam tenements have been allocated to Magnetite Mines by the South Australian Department for Energy and Mines and are currently pending formal grant approval.

Magnetite Mines Limited Chairman & CEO Peter Schubert said:

“Acquiring The Muster Dam dataset represents an important, strategic exploration and development opportunity for the Company.

Magnetite Mines is now in the position to benefit from the extensive past work including almost 16,000mtrs of drill core data and high-grade DTR results (JORC 2004 resource is based on 69.8% Fe content in DTR concentrate)^{1,2}.

The exciting opportunity for Magnetite Mines is to cost effectively review the Muster Dam resource information and perform additional sighter testwork, using the Company’s extensive knowledge of the Braemar Iron Formation. In addition to the defined resource within the Muster Dam tenement, there is significant exploration upside at the Duffields, Peaked Hill and Surrender Dam tenements in the package.

The Muster Dam and Razorback Iron Ore Project resources are both close to existing open access infrastructure.

We look forward to reporting the results of our new testwork to the market soon.”

MUSTER DAM IRON ORE PROJECT DETAILS

The Muster Dam Iron Ore Project tenement package consists of a tenement located in the north-east pastoral district of South Australia, roughly 40 km south east of the town of Olary. The tenement which is currently being processed by the SA Mines Department (tenement ID to be determined) includes the iron ore prospects known as Muster Dam, Surrender Dam, Duffields and Peaked Hill.

The tenement package is located near to existing infrastructure, positioned 40km from rail and roads, 75km from the nearest high voltage powerline and 110km from the mining town of Broken Hill. It has been explored by Minotaur Exploration Limited in the past and in addition to iron ore, the tenement has historically been explored for uranium and cobalt mineralisation.

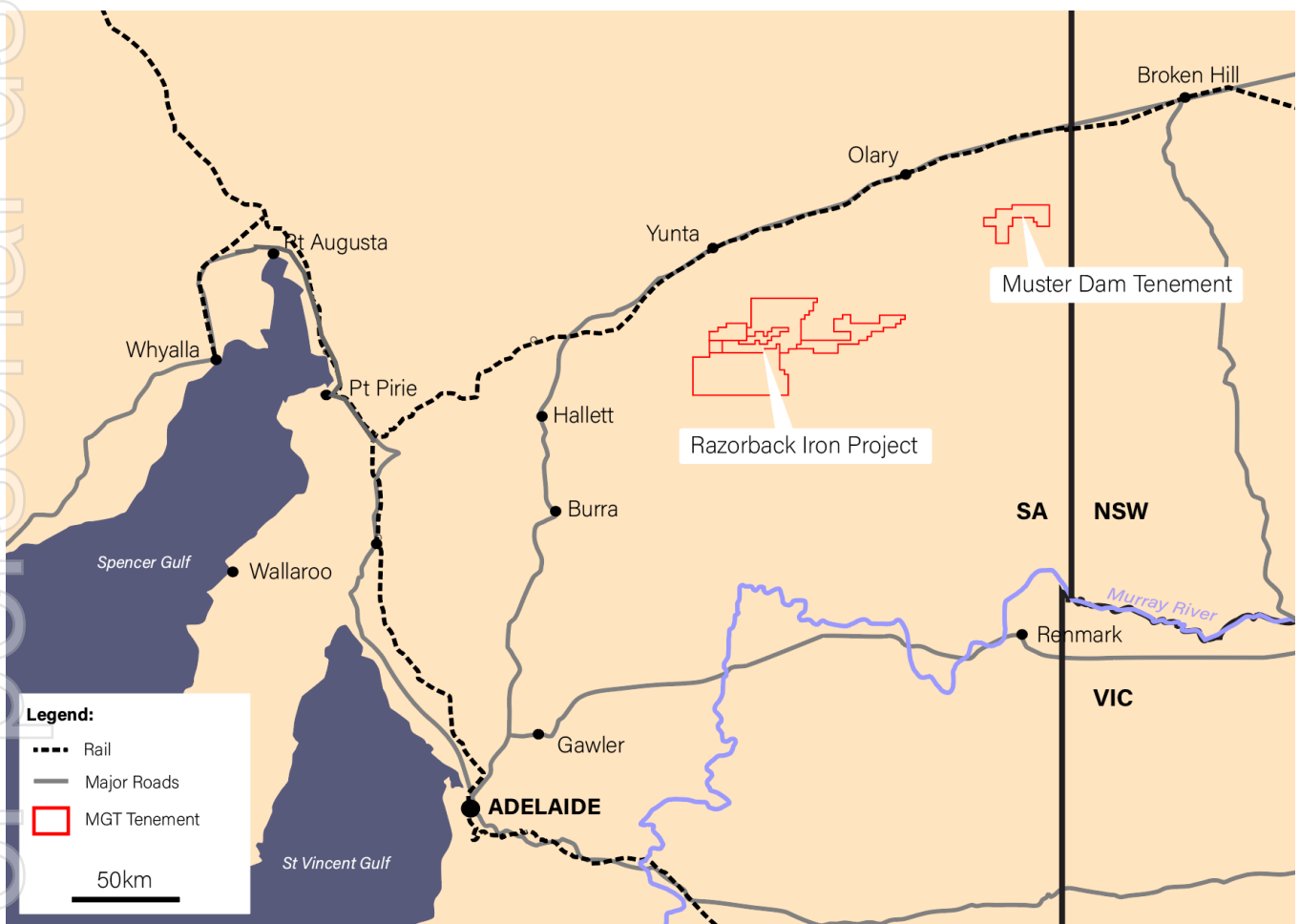


Figure 1. Regional schematic map indicating Muster Dam and Razorback Iron Project Locations

Similar to the Razorback High Grade Iron Ore Project, the Muster Dam Iron Ore Project is situated within the folded, Neoproterozoic rocks of the Adelaide Geosyncline. The Braemar Ironstone Formation is the host stratigraphy and comprises a series of narrow, strike extensive magnetite-bearing siltstones with a steep dip of 70-80 degrees. Outcropping in part, mineralisation is mostly covered by sediments with the base of weathering of the prospect ranging from 0 to 50m with aeromagnetic data clearly indicating the lateral continuity of the host ore bodies at shallow depths.¹

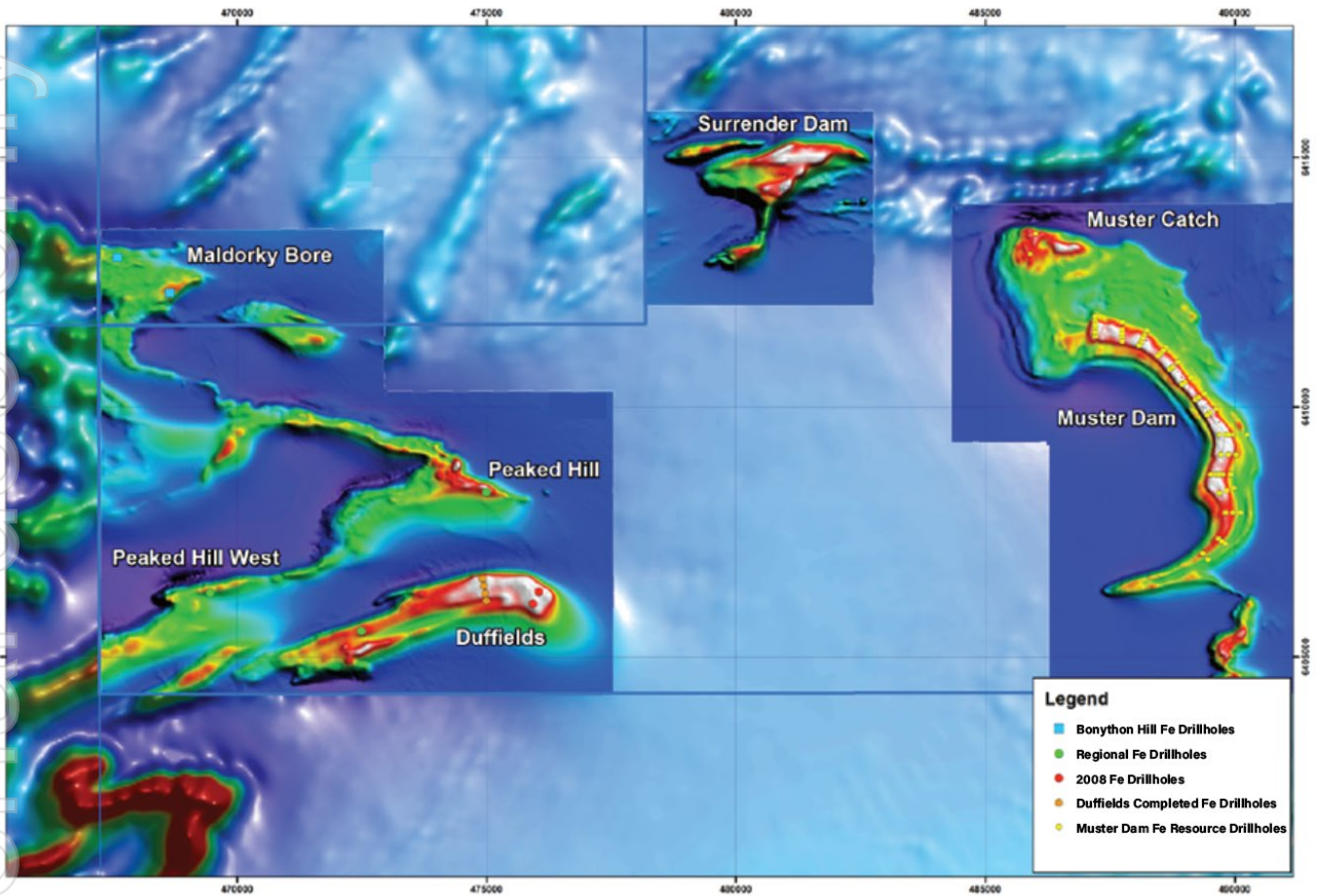


Figure 2. Airborne magnetic image for the Mutooroo area showing regional prospects and drillhole locations. As taken from Maiden JORC Resource for Mutooroo.¹

Mineral Resource Estimate and Cautionary Statements

The Muster Dam prospect has been subject to a Mineral Resource Estimate for 1.5 billion tonnes of iron ore at the Inferred category according to the JORC Code 2004.^{1,2}

Table 1. Muster Dam resource estimate and concentrate results at 10% DTR cut-off¹

Muster Dam			Concentrate Grades					
JORC 2004 Category	Billion Tonnes	DTR % (Mass Recovery)	Fe %	Al ₂ O ₃ %	P ₂ O ₅	S %	SiO ₂ %	LOI %
Inferred	1.5	15.2	69.8	0.4	0.002	0.002	2.8	-3.3

As per the H&S JORC report¹, the resource estimates are reported for a 10% DTR magnetite cut-off grade constrained by the top of fresh rock to a depth of 360m below surface.



The Mineral Resource Estimate was previously reported and announced by the former owner of the tenement Minotaur Exploration (ASX:MEP). The Mineral Resource Estimation was completed under the JORC Code 2004 which may not conform to the requirements in the JORC Code 2012. The Resource Estimate was originally announced to the public as an ASX announcement on the 24 November 2011 under the title 'Maiden JORC Resource for Mutooroo'.

This report has been authorised for release to the market by the Board.

For further information contact:

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References

1. Minotaur Exploration (ASX:MEP) ASX Announcement - 24/11/11 – Maiden JORC Resource for Mutooroo
2. ASX Announcement – 01/03/21 - Muster Dam Iron Project Tenements awarded to Magnetite Mines
3. ASX Announcement – 05//07/21 – Positive PFS Results for Razorback Iron Project