

# **ASX ANNOUNCEMENT**

#### **3 NOVEMBER 2022**

# **MUSTER DAM MINERAL RESOURCE ESTIMATE**

#### **HIGHLIGHTS**

- > Muster Dam Mineral Resource Estimate completed to JORC 2012 Code & Guidelines:
  - 1.55 billion tonnes at 18.7% Fe and 15.2% mass recovery
- Magnetite Mines global Mineral resources increased:
  - 5.74 billion tonnes at 19.4% Fe
- Muster Dam and Razorback Iron Ore Project both hosted in Braemar Iron Formation sharing comparable physical and chemical characteristics
- Muster Dam Iron Ore Project represents natural expansion option beyond prioritised Razorback Iron Ore Project development

**Magnetite Mines Limited ("MGT"** or "the **Company")** is pleased to announce the Muster Dam Mineral Resource Estimate for 1.55 billion tonnes at 15.2% mass recovery (at a 10% DTR cut-off) completed to JORC 2012 code and guidelines at the Inferred classification. The Muster Dam Mineral Resource Estimate increases the Company's global Mineral Resource Estimate from 4.19 billion tonnes<sup>1,2</sup>, to 5.74 billion tonnes (combined Inferred and Indicated classifications).

The Muster Dam prospect represents an important exploration and development opportunity for the Company. Hosted in the same geological unit, the Braemar Iron Formation, Muster Dam has a number of potential synergies with MGT's flagship Razorback Iron Ore Project, which is located approximately 110kms to the south west of the Muster Dam tenement.

The Mineral Resource Estimate (Table 1) applies to the Muster Dam prospect within the EL6746 tenement only. Outside of the Muster Dam deposit, significant prospectivity has been demonstrated at the Peaked Hill, Duffields and Surrender Dam prospects from previous exploratory drilling and geophysical surveys and exploration at these prospects remains a priority as the Company seeks to expand its portfolio of iron prospects.

The Company intends to continue to prioritise the development of the Razorback Iron Ore Project while evaluating the Muster Dam prospect, which has the potential to offer a logical and natural expansion pathway beyond the development of Razorback.



Table 1. Summary of Muster Dam Inferred Mineral Resource Estimate\*

Muster Dam	Inferred Resource	e						
Material	Tonnes (Mt)	Density	Mass Rec %	Fe%	SiO <sub>2</sub> %	$Al_2O_3$	Р%	LOI%
Fresh	1,370	3.0	15.3	18.8	49.5	8.8	0.2	2.7
Oxide	180	2.9	14.9	18.2	49.9	8.9	0.2	3.0
Total	1,550	3.0	15.2	18.7	49.6	8.8	0.2	2.8

<sup>\*</sup>All figures quoted are based on a 10% Mass Recovery cutoff, figures rounded to 3 significant figures where appropriate. Tonnages and grades presented above are estimates of in-situ rock characteristics.

The Muster Dam Inferred Resource Estimate adds significant tonnage to the Company's Global Mineral Resource Estimate for iron mineralisation. At 5.74 billion tonnes, the Company holds the largest Mineral Resource in the Braemar Iron Formation. A breakdown of the Company's global Mineral Resources & Ore Reserves, with the inclusion of Muster Dam, is presented in Table 2.

**Table 2. Magnetite Mines Global Mineral Resources & Ore Reserves** 

Razorback Iron Ore	Razorback Iron Ore Project* <sup>1,A</sup>									
Classification	Tonnes (Mt)	Mass Rec %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Р%	LOI%	Magnetite %		
Indicated	1,500	15.6	18.5	47.9	8.0	0.18	5.4	15.0		
Inferred	1,500	16.0	18.0	48.3	8.2	0.18	5.5	15.9		
Sub-total	3,000	15.8	18.2	48.1	8.1	0.18	5.5	15.5		

Results presented at 11% eDTR cutoff

Ironback Hill*2,B								
Classification	Tonnes (Mt)	Mass Rec %	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Р%	LOI%	Magnetite %
Inferred	1,187	-	23.2	44.4	7.2	0.21	5.4	12.9

No cut-off applied to results

Muster Dam Iron Ore Project <sup>c</sup>									
Classification	Tonnes (Mt)	Mass Rec %	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Р%	LOI%	Magnetite %	
Inferred	1,550	15.2	18.7	49.6	8.8	0.2	2.8	-	

Results presented at 10% eDTR cutoff

Global Mineral Resource Estimate*								
Classification	Tonnes (Mt)	Mass Rec %	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Р%	LOI%	Magnetite %
Inferred and Indicated	5,740	-	19.4	47.7	8.1	0.2	4.7	-

Results presented as weighted averages of items A, B and C

Classification Ore (Mt) Mass Rec % Concentrate (Mt)	Razorback Iron Ore Project Ore Reserve*3							
	Classification							
Probable 472.7 14.5 68.5	Probable							

Ore Reserves are a sub-set of Razorback Iron Ore Project Indicated Mineral Resource Estimate.

<sup>\*</sup>The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements below, and in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply



and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Tonnages and grades presented above are estimates of in-situ rock characteristics.

#### **Muster Dam Project Details**

The Muster Dam Iron Ore Project is located in the North East pastoral district of South Australia, approximately 90 km south-west of Broken Hill (Figure 1). Located within Exploration License EL6746, which was granted to Magnetite Mines Limited ("MGT") on 6 May 2022, the tenement includes the iron prospects known as Muster Dam, Surrender Dam, Duffields and Peaked Hill.

Similar to the Company's Razorback Project, Muster Dam is located in close proximity to existing infrastructure, being positioned 40km from rail and sealed roads, 75km from the nearest high voltage powerline and 110km from the mining town of Broken Hill.

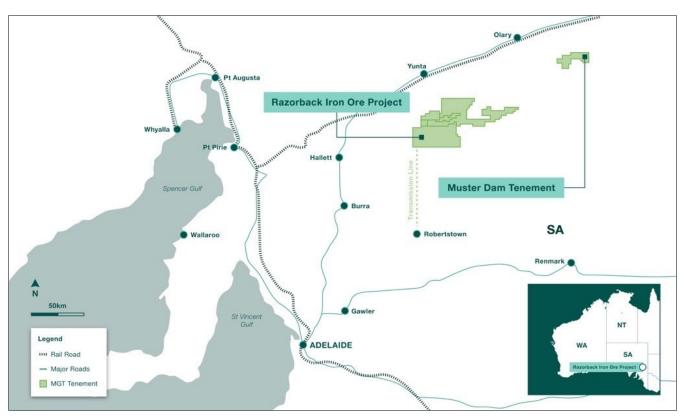


Figure 1. Regional tenement location map

Historically a multi-commodity tenement targeting Broken Hill style mineralisation, the Muster Dam area was explored for iron prospectivity in 2011 by the previous tenement holder. At that time, a significant drill program was completed, consisting of 61 drill holes into the Muster Dam and surrounding iron prospects to produce a historical Mineral Resource estimate to JORC 2004 standards and guidelines.

The ground was relinquished in early 2021 and, as a result of a competitive bid process carried out by the South Australian government, MGT successfully acquired the tenement package for \$0 consideration<sup>4,5</sup>. Together with open-file data made available through the Department of Energy and Mines (DEM), the



Company also secured all remaining physical assets (drill core, pulps and coarse residues) and unreleased datasets including comprehensive databases from the previous owner for a nominal fee<sup>6</sup>.

A full review of the database, drilling and analytical methodologies, and physical samples has allowed for the re-estimation of the Muster Dam deposit to JORC 2012 standards and guidelines. The updated Mineral Resource Estimate has been completed by consultants Widenbar Associates Pty Ltd using datasets validated by the Company's in-house geological team (Figure 2). The Muster Dam Mineral Resource Estimate has been re-estimated using an updated estimation methodology to the Inferred Classification, in accordance with the JORC 2012 code.

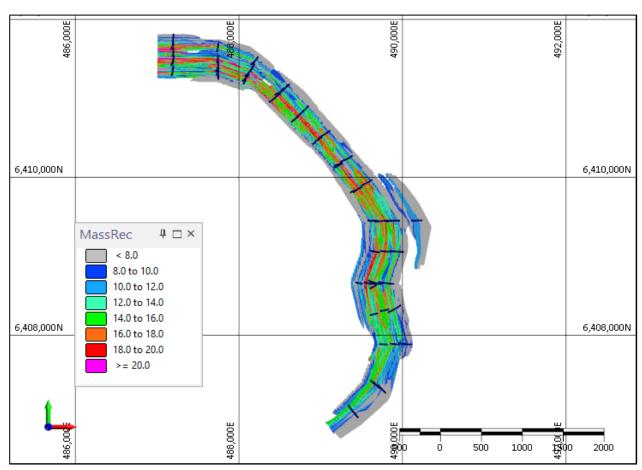


Figure 2. Muster Dam block model with drill strings, plan view - JORC 2012 Update

#### **Geological Setting**

The Muster Dam Project lies within sedimentary lithologies of the Adelaide Geosyncline, a linear north-south to north-east trending tectonic rift basin comprising sediments deposited during the late Proterozoic and early Cambrian Eras. Magnetite mineralisation within the Muster Dam Project his hosted in Neoproterozoic glaciogenic meta-sediment of the Braemar Iron Formation, which are stratigraphically equivalent to the Razorback Iron Ore Project deposits<sup>1,2,3</sup>.



Locally, the rocks exposed at Muster Dam contain diamictitic siltstones (tillites), quartz sandstones, calcareous siltstones, dolomite and magnetic ironstone units of the Braemar Ironstone Facies. The ironstones are examples of glaciomarine Raptian-Sturtian sedimentary iron-formation type which has a world-wide occurrence in the Neoproterozoic (Klein & Beukes, 1993 and Lottermoser & Ashley, 2000).

In aeromagnetic surveys, the Project comprises a series of pronounced airborne magnetic features that occur as a set of large, curvilinear, high amplitude anomalies interpreted to be regional scale folding of the magnetite-rich Braemar Ironstone.

Mineral composition and mineralisation style is remarkably consistent with other regional Braemar Formation magnetite mineralisation. QEMSCAN and Petrology by Pontifex and Associates describes the host rock iron mineralisation as discrete crystals of magnetite and hematite within a silicious matrix.

All individual crystals of magnetite and hematite (iron oxides) are essentially free of inclusions, either of one within the other or of gangue (Figure 3). The bonding of iron oxide grains with the major host rock gangue mineral of biotite is expected to be "relatively weak", given the different hardness and morphologies of these two adjacent minerals and the lack of intricate intergrowths.

This weak bonding is demonstrated in other Braemar Formation deposits as having low work index or low specific energy requirements during blasting, crushing and grinding relative to traditional iron ore deposits hosted in banded iron formations (BIFs)<sup>7</sup>.

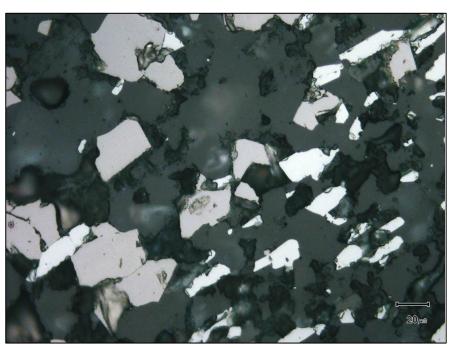


Figure 3. Photomicrograph MDD002 from 161m (Pale grey grains - magnetite, bright white grains - hematite)

# **Historical Drilling Program**

In 2011, a comprehensive program of RC and Diamond Core drilling was undertaken at the Muster Dam magnetite iron deposit by the previous tenement owner. The RC drilling program conducted from May to September 2011 consisted of 14 sections approximately 400m apart with 150m spaced drillholes



drilled to a depth of 300m. This was considered sufficient to define a JORC-compliant Inferred resource estimate due to the previously determined consistent nature and dip of the magnetite-bearing sequence at Muster Dam.

In total, 53 RC and 8 diamond drillholes were drilled during this drilling campaign, totalling 13,972 metres of RC and 2,500 metres of diamond core. At Muster Dam, an initial RC program of 36 drillholes was planned for 10,800m provided insufficient overlap of geology on some sections, and required infill drilling resulting a further 12 RC holes for 2,279m being drilled.

Six diamond core holes totalling 1,800m were drilled to confirm structural and lithological properties of the Muster Dam deposit with two diamond core holes twinned alongside two RC drillholes to confirm that the RC DTR results were representative of the magnetite iron deposit.

### **Geological Interpretation and Modelling**

Detailed downhole wireline density and magnetic susceptibility data used in conjunction with DTR results and lithological logs has allowed a correlation of individual lithological units between sections at Muster Dam (Figures 4 and 5). This consistent correlation of lithological units between sections has also permitted a preliminary lithostratigraphy to be determined.

Thickness of individual lithostratigraphic units was found to vary between section, which is interpreted to be due to slight facies change along strike or drillholes drifting off section shifting the relative position of the point that defines a stratigraphic boundary between drillholes.

For the purposes of constraining the current resource model, logged lithologies were used to generate diamictite and siltstone/sandstone wireframe solids, using the Implicit Geological Modelling functions provided in Micromine 2022.5 software.

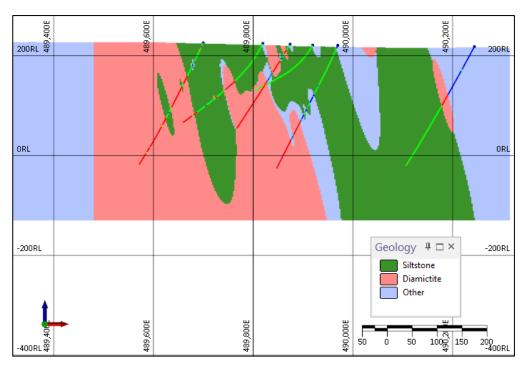


Figure 4. X-Section showing Geology Rock Model and drill strings



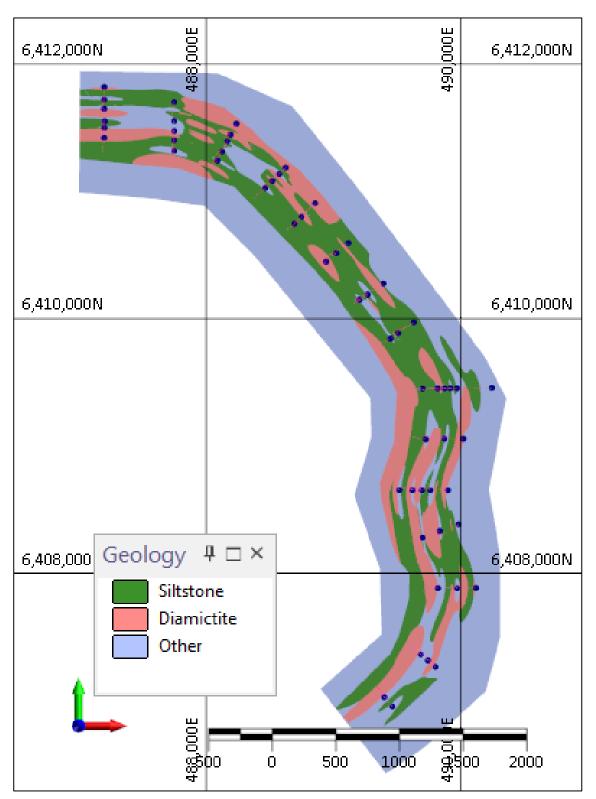


Figure 5. Plan view of lithostratigraphic units at the Muster Dam Dep Deposit



### **Density**

Density data was available from two sources: downhole geophysical surveys at 10 cm intervals, and physical measurements on diamond drill core samples. The latter were carried out by the previous owner in 2011 and also more recently as a validation check by MGT in October 2022.

The correlation between downhole geophysical density and measured density is good, and as the geophysical data is spread throughout the deposit and is present for most holes, the data has been used to estimate density on a local basis using an Ordinary Kriging interpolation process.

# **Analytical Testwork**

All drilling samples from the 2011 Muster Dam Resource Drilling Program were sent to ALS Laboratory Services for Davis Tube Recovery (DTR) and XRF analysis. Alternate laboratory field duplicates were sent to Amdel Laboratories for Davis Tube Recovery and XRF analysis for quality control purposes. Samples were delivered to ALS and Amdel in batches by courier contractors with sample receipt advices sent electronically once logged into the ALS and Amdel systems.

Sample preparation of DTR/XRF samples was carried out in ALS's Adelaide facility and consisted of:

- 1. Log sample numbers and weight
- 2. Dry and coarse crush entire sample to <3.35mm
- 3. Split sample to ~2kg using Jones riffle splitter (if required)
- 4. Homogenise sample via mat rolling
- 5. Produce 150g sub-sample from homogenised sample.

Sub-samples were sent to ALS's Perth laboratories to undergo the following procedures to produce a sample for DTR test work:

- 1. Precisely weigh and record the 150g sub-sample weight
- 2. Pulverise sub-sample in a C125 ring pulveriser for 90 seconds
- 3. Wet screen sample at 45 micron and record oversize weight
- 4. Dry and regrind oversize material for 4 seconds for every 5g of oversize sample
- 5. Repeat screening until less than 5g is above 45 microns
- 6. Filter entire sample, dry and homogenise
- 7. Extract 20g sample for DTR test work from pulverised product via 3 decimal place balance.

The weight of the magnetic concentrate returned from the Davis Tube was used in the following calculation to determine a mass recovery or DTR percentage:

(Magnetic Concentrate Weight (g) / Initial Sample Weight (g)) x 100 = MassRec% or DTR%

DTR test work produces two products, a magnetite concentrate or "Conc" sample from the Davis Tube and the initial input sample or "Head" sample. Both the "Head" and "Conc" samples are subject to Fusion XRF (ALS Analytical Code - ME-XRF11b) analysis for the following element suite reported in ppm or percent: Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu, Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn, Zr and LOI.



#### **Resource Modelling**

The geological model has been used to constrain the interpolation of the block model, with hard boundaries used for 3 separate geological units at the Muster Dam Project.

Variable block sizes are used in different parts of the deposit to allow for variations in the dip and strike of the mineralisation:

- Block sizes in the North West where the mineralisation strikes East-West are 50m x 10m x 5m (E, N. RL).
- Block sizes in the centre of the deposit where the mineralisation strikes NNW-SSE are  $25m \times 25m \times 5m$  (E, N, RL) and where it strikes North-South they are  $10m \times 50m \times 5m$  (E, N, RL).
- Block sizes in the south of the deposit where the mineralisation strikes SW-NE are 25m x 25m x 5m (E, N, RL).
- Subcells to 2m x 2m x 1m were used to honour topographic and geological boundaries.

Ordinary Kriging using functions within Micromine 2022.5 have been used to interpolate block values. The model has been domained using the interpreted diamictite and siltstone geological wireframes. Only data within each domain are used to estimate blocks in that domain.

Search orientations are dynamically variable using an unfolding surface to control search ellipses and simplify the major variations in strike along the mineralisation. First pass search ellipse is 500m along strike, 400m down dip and 30m across dip. Second pass search ellipse is 600m along strike, 600m down dip and 40m across dip.

The Muster Dam Mineral Resource has been classified in the Inferred category, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including:

- Geological continuity;
- Data quality;
- Drill hole spacing;
- Modelling technique; and
- Estimation properties including search strategy, number of informing data and average distance
  of data from blocks.

The resource classification methodology incorporated a number of parameters derived from the kriging algorithms in combination with drill hole spacing and continuity and size of mineralised domains.



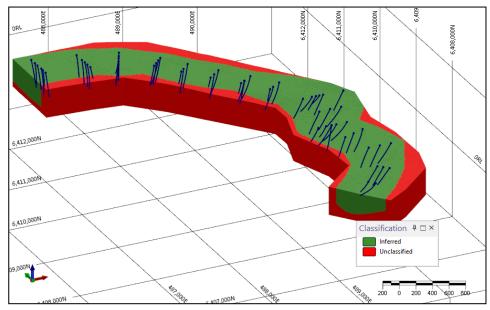


Figure 6. Final Resource Classification 3D View

#### **Mineral Resource Estimates**

A summary of the resource estimate at a 10% mass recovery cutoff is shown in Table 3.

**Table 3. Muster Dam Inferred Resource** 

	Muster Dam Inferred Resource										
DTR	Material	BCM	Tonnes	Density	DTR	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Р	LOI	
Cutoff %	Material	Billions	Billions	t/m³	%	%	%	%	%	%	
10	Fresh	0.46	1.37	2.96	15.28	18.81	49.52	8.80	0.21	2.75	
10	Oxide	0.06	0.18	2.91	14.86	18.17	49.88	8.93	0.20	2.98	
10	Total	0.52	1.55	2.95	15.23	18.74	49.56	8.81	0.21	2.78	

A summary of the resource estimate at various cutoffs and a grade-tonnage curve are shown in Tables 4 to 6 below.

**Table 4. Muster Dam Inferred Resource (Fresh Material)** 

	Muster Dam Inferred Resource - (Fresh)										
DTR	BCM	Tonnes	Density	MassRec	Fe	SiO <sub>2</sub>	$AI_2O_3$	Р	LOI		
Cutoff	Billions	Billions	t/m³	%	%	%	%	%	%		
15	0.25	0.76	2.98	17.08	19.71	48.45	8.70	0.21	2.66		
14	0.32	0.96	2.97	16.53	19.50	48.71	8.70	0.21	2.69		
13	0.37	1.11	2.97	16.14	19.35	48.90	8.71	0.21	2.71		
12	0.41	1.22	2.97	15.81	19.17	49.11	8.74	0.21	2.73		
11	0.44	1.31	2.96	15.52	18.98	49.32	8.76	0.21	2.74		
10	0.46	1.37	2.96	15.28	18.81	49.52	8.80	0.21	2.75		
9	0.48	1.41	2.95	15.11	18.70	49.66	8.82	0.21	2.75		
8	0.49	1.44	2.95	15.01	18.61	49.75	8.84	0.21	2.75		



Table 5. Muster Dam Inferred Resource (Oxide + Transition Material)

	Muster Dam Inferred Resource - (Oxide)									
DTR	BCM	Tonnes	Density	DTR	Fe	SiO <sub>2</sub>	$Al_2O_3$	Р	LOI	
Cutoff	Billions	Billions	t/m³	%	%	%	%	%	%	
15	0.029	0.084	2.94	16.90	19.40	48.66	8.77	0.21	2.73	
14	0.039	0.114	2.94	16.28	19.03	49.03	8.80	0.21	2.82	
13	0.046	0.135	2.93	15.85	18.81	49.24	8.84	0.21	2.87	
12	0.052	0.153	2.92	15.47	18.60	49.45	8.86	0.21	2.91	
11	0.057	0.166	2.92	15.15	18.35	49.68	8.90	0.21	2.95	
10	0.061	0.177	2.91	14.86	18.17	49.88	8.93	0.20	2.98	
9	0.063	0.183	2.90	14.68	18.04	50.01	8.95	0.20	3.00	
8	0.065	0.187	2.90	14.54	17.96	50.10	8.97	0.20	3.00	

**Table 6. Muster Dam Inferred Resource (Total)** 

	Muster Dam Inferred Resource - (Oxide+Fresh)										
DTR	BCM	Tonnes	Density	DTR	Fe	SiO <sub>2</sub>	$Al_2O_3$	Р	LOI		
Cutoff	Billions	Billions	t/m³	%	%	%	%	%	%		
15	0.28	0.84	2.97	17.06	19.68	48.47	8.71	0.21	2.67		
14	0.36	1.08	2.97	16.51	19.45	48.74	8.71	0.21	2.71		
13	0.42	1.24	2.97	16.11	19.29	48.94	8.73	0.21	2.73		
12	0.46	1.37	2.96	15.77	19.10	49.14	8.75	0.21	2.75		
11	0.50	1.47	2.96	15.48	18.91	49.36	8.78	0.21	2.77		
10	0.52	1.55	2.95	15.23	18.74	49.56	8.81	0.21	2.78		
9	0.54	1.60	2.95	15.06	18.62	49.70	8.83	0.21	2.78		
8	0.55	1.62	2.95	14.95	18.54	49.79	8.85	0.21	2.78		



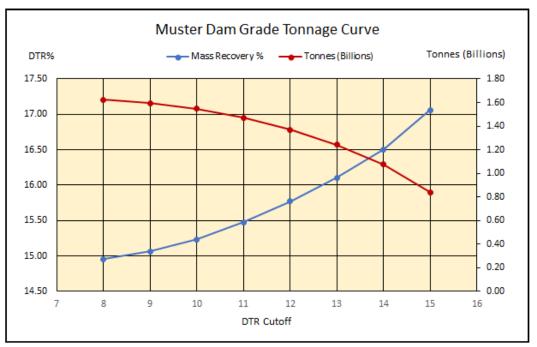


Figure 7. Muster Dam Grade Tonnage Curve

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information originally compiled by Mr. Trevor Thomas, who is a Member of the Australian Institute of Mining and Metallurgy (AUSIMM) and Member of the Australian Institute of Geoscientists (AIG). Mr. Thomas is a full-time employee of Magnetite Mines Limited as Study Director. Mr. Thomas 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code 2012"). Mr. Thomas consents to the disclosure of this information in this report in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Lynn Widenbar, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar is a full time employee of Widenbar and Associates Pty Ltd. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr Widenbar consents to the inclusion in the report of the matters based on his information in the form and context that the information appears.

#### Disclaimer and Disclosure of Interest

Widenbar and Associates Pty Ltd has no material interest in the projects of Magnetite Mines and has no shareholding in Magnetite Mines. The relationship with Magnetite Mines is solely one of professional association between client and independent consultant. Widenbar and Associates' professional fees are



based on time charges for work actually carried out, and are not contingent on any prior understanding concerning the conclusions to be reached.

Mr Lynn Widenbar, the Competent Person, is not, and does not intend to be, a director, officer or other direct employee of Magnetite Mines, and has no material interest in the projects of Magnetite Mines. The Competent Person holds nil interest or shareholding in Magnetite Mines.

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

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#### **References:**

- 1. ASX Announcement 24/05/21 Razorback Iron Ore Project Mineral Resource Upgrade
- 2. ASX Announcement 20/11/18 Ironback Hill Deposit JORC 2012 Resource Update
- 3. ASX Announcement 30/06/21 Maiden Ore Reserve for the Razorback Iron Project
- 4. ASX Announcement 11/05/22 Magnetite Mines Secures Muster Dam Tenement
- 5. ASX Announcement 01/03/21 Muster Dam Iron Project Tenements awarded to Magnetite Mines
- 6. ASX Announcement 09/11/21 Magnetite Mines Gains Access to Muster Dam Data
- 7. ASX Announcement 21/07/22 Positive Interim Metallurgical Test Results



# JORC Code, 2012 Edition – Table 1

Section 1 Samp	oling Techniques and Data	
Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Samples utilized for Resource Estimation were derived from a combination of:  • A total number of 59 drill holes for 15,914m were utilized in the Resource Estimation for the Muster Dam Deposit.  • Drilling occurred over two phases in 2011 by the previous tenement holders Minotaur Exploration Limited (MEP). The initial drilling program (Phase 1) conducted in early 2011 aimed to generate exploration targets for resource definition with the follow up drilling program (Phase 2) centred on the Muster Dam area with the aim of delineating an initial Mineral Resource at this location.  • Reverse Circulation (RC) percussion drilling from surface (49 holes – 13,031m – 2,355 samples)  • RC drilling encountered predominantly dry samples, with some slightly damp samples.  • As related to cross cutting faulting, 3 RC drillholes encountered minor intervals of wet samples.  • Phase 1 RC drill 'chips' were composited to 4m on-site from 1m sample bags using a spear sampler.  • Phase 2 RC and diamond drilling resulted in a total of 2,611 5m sample composites being collected with the RC samples collected for 1m intervals with a 1/8:8 riffle splitter and then composited to 5m intervals using a 25/75 riffle splitter.  • Diamond Drilling (DDH) core samples from surface – HQ and NQ Core diameters (10 holes – 2,883m – 558 samples)  • Phase 1 DDH samples comprised sawn quarter NQ core and was also composited to 4m for a total (RC + DD) of 302 samples. The core sampling was under geological control.  • Phase 2 DDH core sampling continued to be quarter core (generally NQ) composited into 5m intervals.  • Laboratory Analysis: All the composites were sent to Amdel and ALS laboratories in Adelaide and Perth respectively to



Criteria	JORC Code explanation	Commentary
		undergo an industry standard Davis Tube Recovery ("DTR") analytical method. This method is used for measuring the recoverable magnetic fraction of the sample, in effect its magnetite concentration. The lab analyses the 'heads' (unprocessed pulverised feed) and the 'cons' (the Davis Tube concentrate) for major iron-ore specification important elements via lithium borate fusion XRF (codes XF100 for Amdel and ME-XR11B, ME-XR21C & ME-XR21H for ALS). A DTR grind size of to 45microns was used for the follow up 5m sampling.  Representivity of samples: Holes were drilled at an angle in order to intersect lithologies as perpendicular to bedding as possible to obtain as representative samples as possible.  Geophysical logging was completed for the majority of drillholes and has provided downhole magnetic susceptibility and density readings at 0.01m intervals. Cross checking of the downhole density data with the water immersion method for a sub-set of drillcore was undertaken. The mean density of 157 core samples from the drill core/water immersion method was 3.05t/m3.  Consistency of sampling method was maintained for each phase of drilling.  The sampling technique is considered appropriate for a deposit type will all
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Drilling occurred over two phases in 2011 by the previous tenement holders Minotaur Exploration Limited. The initial drilling program (Phase 1) conducted in early 2011 aimed to generate exploration targets for resource definition with the follow up drilling program (Phase 2) centered on the Muster Dam area with the aim of delineating an initial Mineral Resource at this location. Magnetite Mines (MGT) have reviewed the drilling techniques and is satisfied with methodology and accuracy of results.</li> <li>At Muster Dam a total of 59 RC and diamond holes (for 15,914m) have been completed as a series of fence holes on 400m spaced sections.</li> <li>RC Drilling:</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>RC drilling was undertaken by Frank Walsh Drilling using their custom made Walsh RC drill rig.</li> <li>Drilling was undertaken using a standard hammer with a diameter of 5.25 inches (133.4mm)</li> <li>Diamond Drilling:         <ul> <li>The six diamond drillholes at Muster Dam were undertaken by Macquarie Drilling Pty Ltd on a 12 hour day and night shift basis using a McCulloch DR 800 diamond drill rig. With the exclusion of two diamond drillholes that were drilled entirely HQ, all diamond core holes were drilled with HQ until top of fresh rock was determined before a change to NQ drilling inside HQ casing. The top of fresh rock was determined by the onsite geologist and was taken as the point where limonite and hematite veining and staining were no longer present.</li> </ul> </li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>RC drilling encountered predominantly dry samples; some samples were slightly damp and there were minor reports of groundwater inflows, which usually resulted in the RC drilling being stopped.         <ul> <li>Three RC holes had minor intervals of wet samples (MD024 – 5m, MD028 -18m and MD044 – 15m), the last two corresponded to end of hole positions. These two zones might be related to cross cutting oblique faults rather than saturated beds.</li> </ul> </li> <li>DDH core recovery is generally &gt;95% and RC recovery in the fresh rock zone has been very good with some minor zones of moderate recovery.         <ul> <li>All cores were marked up on site by trained field technicians with Total Core Loss and Solid Core Loss recorded.</li> </ul> </li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>RC and Diamond drilling were supervised by trained geologists and samples geologically logged by the previous tenement operator MEP. Magnetite Mines have reviewed the logging and is satisfied with methodology and accuracy of results.</li> <li>For each RC drill hole, meter samples were collected for reference in chip trays are owned and maintained by Magnetite Mines Limited</li> </ul>



Criteria	JORC Code explanation	Commentary
Onteria		Remaining DDH core samples were retained and are owned and maintained by Magnetite Mines Limited
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC and DDH Core – Phase 1. The diamond core sampling comprised sawn quarter NQ core and was also composited to 4m for a total (RC + DD) of 302 samples. The core sampling was under geological control.</li> <li>RC and DDH Core – Phase 2. Follow up RC and diamond drilling resulted in a total of 2,611 5m sample composites being collected with the RC samples collected for 1m intervals with a 1/8:8 riffle splitter and then composited to 5m intervals using a 25/75 riffle splitter. The diamond core sampling continued to be quarter core (generally NQ) composited into 5m intervals.</li> <li>Once the core was metre marked the core was cut to produce ½ core for sampling. ½ core was collected for 5m intervals to produce 5m composites. The 5m composites were sent to ALS Laboratories along with standards and blanks inserted in the sampling regime. Duplicates samples were obtained by collecting the other section of ½ core for the same sample interval as the primary/alpha sample. Each 5m ½ core composite was placed in a labelled white polyweave bag and secured using a plastic zip tie for dispatch to the analytical laboratory.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Both the RC and diamond samples were assayed at ALS Chemex Laboratories, with sample preparation done in Adelaide and analysis carried out in Perth.</li> <li>Sample preparation of DTR/XRF samples was carried out in ALS's Adelaide sample preparation facility with sample preparation consisting of the following: Logging of sample numbers and weight of samples Dry and coarse crush entire sample to &lt; 3.35mm Split to ~ 2kg using Jones riffle splitter (if required) Homogenise sample via mat rolling Sub-sample to produce a 150g sub-sample from the homogenised sample</li> <li>DTR test work produces two products, a magnetite concentrate or "Conc" sample from the Davis Tube and the initial input sample or "Head" sample. Both the "Head" and "Conc" samples are subject to Fusion</li> </ul>



Criteria	JORC Code explanation	Commentary
Criteria	SOICE Code explanation	XRF (ALS Analytical Code - ME-XRF11b) analysis for the following element suite reported in ppm or percent: Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu, Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn, Zr and LOI.  In some cases the "Conc" material recovered from the Davis Tube is very low i.e. less than 1g resulting in ALS recording these as No Sample Supplied i.e. NSS with no subsequent XRF analysis performed.  For RC QA/QC samples consisting of standards, blank, field duplicates and an alternate laboratory duplicate were collected or inserted in the sampling regime. Field duplicates were collected at approximately 1 in every 10 samples, beginning at the 5th sample (i.e. 5th, 15th, 25th), ensuring that at least one duplicate fell within the mineralisation zone. Standards and blanks were inserted at regular intervals of 1 in 20 (beginning at interval '20'). The collection and or insertion of a QA/QC sample into the sampling regime at this rate ensured that there were at least 4 or greater than 10% QA/QC samples per RC drillhole.  For DDH core the core was cut to produce ¼ core for sampling. ¼ core was collected for 5m intervals to produce 5m composites. The 5m composites were sent to ALS Laboratories along with standards and blanks inserted in the sampling regime. Duplicates samples were obtained by collecting the other section of ¼ core for the same sample interval as the primary/alpha sample.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Two twinned DD and RC holes have been drilled and compared, and the difference between DTR results was considered insignificant by Minotaur Exploration (MEP) resource geologists.</li> <li>A single alternate laboratory sample was collected from each diamond hole and sent to Amdel Laboratories as a QA/QC check of the primary analytical laboratory's DTR and XRF analysis of primary/alpha samples.</li> <li>The project geologist analysed the assay data with respect to quality control as each batch was received from the analytical</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>laboratory. Subsequently, data from each type of QA/QC samples were evaluated separately in a series of graphs and tables produced using Minotaur's drillhole database and plotted in Excel.</li> <li>MGT have tested referee samples to verify MEP results; preliminary results have shown excellent agreement with original data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Resource definition drillhole locations were originally pegged by MEP personnel using a differential GPS system with an accuracy of ± 20cm. Additional and infill drillholes were pegged using a combination of the original DGPS located collars/lines/pegs, chain and handheld Garmin GPS with accuracy of ± 5m.</li> <li>Post drilling location of all drill collars was undertaken by GAA Wireline using a differential GPS system with accuracy of ± 40cm.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Drill hole spacing is considered appropriate for the level of confidence quoted.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	RC and diamond drill holes were oriented, wherever possible, perpendicular to the mineralisation dip.
Sample security	The measures taken to ensure sample security.	Samples were delivered by MEP to ALS and Amdel by courier contractors with sample receipt advices sent electronically once logged into the ALS and Amdel systems.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No independent reviews of audits of sampling have been carried out.</li> </ul>



# Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Magnetite Mines Limited has secured the EL 6746 lease over the Muster Dam iron deposit. The Muster Dam tenement EL 6746 covers approximately 180km² and contains the Muster Dam, Peaked Hill and Duffields prospects.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>All on-the-ground work was undertaken by MEP and contractors working under MEP.</li> <li>The RC chip trays, DDH core, coarse residues and pulps, in addition to databases were purchased from MEP by MGT for review.</li> <li>An appraisal of previous work was undertaken by MGT, including verification of geological logging and referee sampling of previous assays. This was inclusive of a MGT-led handheld XRF analysis of historic head-grade pulps and correlation with previous results which showed excellent correlation and accuracy. This was undertaken on 50 samples from 3 diamond drill holes (MDD001, 003 and 006).</li> <li>In addition specific gravity measurements were verified agasins historic analyses. A total of 116 specific gravity measurements on 4 diamond drill core holes to verify historic Archimedes s.g. measurements was undertaken by MGT on available dill core.</li> <li>MGT's results and interpretation were in line with previous work undertaken by MEP.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The prospect lies within folded Neoproterozoic sediments of the Nackara Arc of the Adelaide Fold Belt. The rocks exposed at Mutooroo contain diamictitic siltstones (tillites), quartz sandstones, calcareous siltstones, dolomite and magnetic ironstone units of the Braemar Ironstone Facies.</li> <li>Magnetite mineralisation primarily occurs as very fine-grained crystals, mean 45 µm, maximum 210 µm, within the silty matrix of the diamictites and siltstones.</li> <li>The tillitic lithology is medium to dark grey, massive and contains erratics from 0.5mm to 1m in diameter. The fragments are</li> </ul>



Criteria	JORC Code explanation	Commentary
		typically metasediments, metavolcanics and granites.  The magnetite is similar to that seen in the bedded lithology type. Hematite occurs, but is irregularly distributed through the rock as individual monomineralic particles and as composite magnetite-hematite particles interpreted to be secondary replacement of magnetite by hematite.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Refer to details of drilling in tables in the body of this report in table 14-1 and 14-2 below.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Exploration results are not being reported.</li> <li>A cutoff grade of 10% mass recovery has been applied to the Mineral Resource Estimate.</li> <li>The cutoff grade has been applied to the Mineral Estimate based on mining parameter inputs utilised in similar deposits (Razorback Iron Ore Project currently utilises an 11% eDTR cutoff) and with a bulk mining, open pit mining scenario envisaged for a mining development.</li> <li>No mining studies have occurred on this project to inform cutoff parameters.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Exploration results are not being reported.</li> <li>However, drill holes are oriented to cut at right angles across the mineralised zones where practicable.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole</li> </ul>	<ul> <li>Appropriate maps and sections are available in the body of the Mineral Resource Estimate.</li> </ul>



Criteria	JORC Code explanation	Commentary
	collar locations and appropriate sectional views.	
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Reporting of results in this report is considered balanced.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Exploration results are not being reported.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Infill drilling at a 100 x100m scale is planned towards JORC classification improvement.</li> <li>Metallurgical drilling is planned to test spatial distribution of geometallurgical properties of the deposit.</li> <li>Step-out drilling to test lateral mineralisation at Muster Dam and Duffields prospects is planned.</li> <li>The nature of drill hole locations is commercially sensitive and is not disclosed herein.</li> </ul>

# Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The data has been reviewed previously for an earlier resource estimation study.</li> <li>All data was supplied as CSV files and imported into Micromine 2022.5 for validation and processing. No errors were found.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person has not made a site visit. Negotiations are still underway with various landowners and indigenous representatives to secure access for a site visit.</li> <li>The CP has reviewed diamond drill core and RC chips which are stored in the MGT warehouse in Adelaide.</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> </ul>	<ul> <li>There is reasonable confidence in the geological logging and interpretation.</li> <li>Two major lithologies (diamictite and siltstone) have been geologically modelled and are used to control the data used in estimation and the orientation of search ellipses.</li> <li>The geological interpretation is consistent</li> </ul>



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Criteria J	IORC Code explanation	Commentary
Dimensions •	The use of geology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.	<ul> <li>and there have been no alternative interpretations.</li> <li>The mineralisation extends approximately</li> </ul>
	Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	6.5 km in length, is typically 450m to 500m thick and extends from surface (approximately 230 to 235 RL) to a depth of 300m.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.  The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).  In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.  Any assumptions behind modelling of selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>The model has been domained using the interpreted diamictite and siltstone geological wireframes. Only data within each domain are used to estimate blocks in that domain.</li> <li>Statistical analysis of the distribution of key variables has been carried out; no top cuts (capping) have been applied.</li> <li>Variography has been carried out on DTR to define the parameters required for Ordinary Kriging.</li> <li>Ordinary Kriging using the functions within Micromine 2022.5 have been used to interpolate block values</li> <li>Variable block sizes are used in different parts of the deposit to allow for variations in the dip and strike of the mineralisation</li> <li>Block sizes in the North West where the mineralisation strikes East-West are 50m x 10m x 5m (E, N, RL).</li> <li>Block sizes in the centre of the deposit where the mineralisation strikes NNW-SSE are 25m x 25m x 5m (E, N, RL) and where it strikes North-South they are 10m x 50m x 5m (E, N, RL).</li> <li>Block sizes in the south of the deposit where the mineralisation strikes SW-NE are 25m x 25m x 5m (E, N, RL).</li> <li>Search orientations are dynamically variable using an unfolding surface to control search ellipses and simplify the major variations in strike along the mineralisation.</li> <li>First pass search ellipse is 500m along strike, 400m down dip and 30m across dip.</li> <li>Second pass search ellipse is 600m along strike, 600m down dip and 40m across dip.</li> <li>No assumptions have been made regarding selective mining units.</li> <li>Validation has been carried out using the following methods: <ul> <li>Visual comparison of drill hole and block grades in section, plan and three-D.</li> <li>Comparison of declustered mean drill holes against block model grades.</li> <li>Generation of swathe plots.</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
		All validation methods produced acceptable results.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>A cutoff 10% Mass Recovery has been adopted; this has been based on preliminary mine planning work carried out on other, similar projects owned by MGT.</li> <li>The cutoff grade has been applied to the Mineral Estimate based on mining parameter inputs utilised in similar deposits (Razorback Iron Ore Project currently utilises an 11% eDTR cutoff) and with a bulk mining, open pit mining scenario envisaged for a mining development.</li> <li>No mining studies have occurred on this project to inform cutoff parameters.</li> </ul>
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>Mining is expected to be by conventional open pit methods.</li> <li>No assumptions have been made at this stage regarding the scale mining or selective mining unit; no dilution has been applied to the resource model.</li> </ul>
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Of the six diamond holes, one (MDD004) was drilled at the preliminary drill section at Muster Dam as a hole dedicated to metallurgical/comminution test work. This included an extensive range of grinding, abrasion, and impact tests. Beneficiation testing was carried out on a bulk sample of 141.5 kg of drill core composited from holes MDD001, 003, 005 and 006.
Environmental factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields</li> </ul>	<ul> <li>Tailings – based on the 15.23% mass recovery, ~85% mass will be deported to the tailings fraction. The low sulphide nature of the mineralisation will likely yield low to no acidic tailings fractions and likely of low toxicity based on comparable Braemar Formation deposits.</li> <li>Flora and Fauna – A high level online review of the tenement area indicated that some vulnerable flora and fauna species</li> </ul>



Criteria	JORC Code explanation	Commentary
	project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	may be present at the tenement area. MGT intends to run baseline surveys to confirm the presence of any endangered species prior to any mining activities and in line with permitting requirements for exploration or mine development.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>There is a considerable amount of downhole geophysical logging which provides density information. MGT has also measured density on remaining core and generated</li> <li>Bulk density has been modelled by Ordinary Kriging in Micromine 2022.5 software.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The Muster Dam Mineral Resource has been classified in the Inferred category.</li> <li>A number of factors have been considered in arriving at this classification, including:</li> <li>Geological continuity;</li> <li>Data quality;</li> <li>Drill hole spacing;</li> <li>Modelling technique;</li> <li>Estimation properties including search strategy, number of informing data and average distance of data from blocks.</li> <li>The classification reflects the CP's view of the deposit.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	There have been no reviews or audits of the Mineral Resource Estimate.
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> </ul>	<ul> <li>The relative accuracy is reflected in the JORC resource categories.</li> <li>Inferred resources are considered global in nature.</li> <li>No production data is available as the deposit has not yet been mined.</li> </ul>



Criteria	JORC Code explanation	Commentary			
	<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>				

Hole ID	Туре	Easting	Northing	Azimuth	Depth	Dip	Datum	Projection	RL
MDD001	DD	489271	6410187	235	275	-70	GDA94	MGA54	232
MDD002	DD	488753	6410796	225	325	-70	GDA94	MGA54	235
MDD003	DD	487198	6411648	173	300	-65	GDA94	MGA54	238
MDD004	DD	489874	6409451	287	300	-60	GDA94	MGA54	217
MDD005	DD	489695	6408652	270	300	-60	GDA94	MGA54	218
MDD006	DD	489741	6407314	310	300	-65	GDA94	MGA54	232

JORC Table 1-1 Muster Dam DD Holes



Hole ID	Туре	Easting	Northing	Azimuth	Depth	Dip	Datum	Projection	RL
MD001	RC	489509	6409886	231	300	-65	GDA94	MGA54	234
MD002	RC	489631	6409971	231	281	-65	GDA94	MGA54	231
MD003	RC	489269	6410191	236	272	-70	GDA94	MGA54	234
MD004	RC	489392	6410276	235	300	-65	GDA94	MGA54	232
MD005	RC	489023	6410515	231	297	-70	GDA94	MGA54	231
MD006	RC	489117	6410593	230	300	-65	GDA94	MGA54	231
MD007	RC	488749	6410800	221	300	-70	GDA94	MGA54	236
MD008	RC	488856	6410907	221	300	-65	GDA94	MGA54	234
MD009	RC	488519	6411081	220	263	-70	GDA94	MGA54	241
MD010	RC	488625	6411186	223	300	-65	GDA94	MGA54	241
MD011	RC	488124	6411311	208	300	-65	GDA94	MGA54	246
MD012	RC	488192	6411445	204	300	-65	GDA94	MGA54	245
MD013	RC	488236	6411532	206	260	-60	GDA94	MGA54	244
MD014	RC	487749	6411400	180	300	-65	GDA94	MGA54	245
MD015	RC	487748	6411551	184	300	-65	GDA94	MGA54	240
MD016	RC	487749	6411700	179	274	-65	GDA94	MGA54	240
MD017	RC	487198	6411420	184	300	-65	GDA94	MGA54	243
MD018	RC	487202	6411550	177	300	-65	GDA94	MGA54	241
MD019	RC	487199	6411720	177	300	-65	GDA94	MGA54	240
MD020	RC	487199	6411820	180	300	-65	GDA94	MGA54	240
MD021	RC	489726	6409052	270	315	-65	GDA94	MGA54	221
MD022	RC	489871	6409055	270	300	-65	GDA94	MGA54	225
MD023	RC	490021	6409055	270	300	-65	GDA94	MGA54	222
MD024	RC	489620	6408652	270	163	-65	GDA94	MGA54	220
MD025	RC	489760	6408651	270	289	-65	GDA94	MGA54	218
MD026	RC	489900	6408651	270	300	-65	GDA94	MGA54	219
MD027	RC	489700	6408280	250	258	-65	GDA94	MGA54	223
MD028	RC	489836	6408330	250	272	-65	GDA94	MGA54	223
MD029	RC	489982	6408383	250	300	-65	GDA94	MGA54	225
MD030	RC	489821	6407881	270	300	-65	GDA94	MGA54	231
MD031	RC	489971	6407882	270	300	-65	GDA94	MGA54	228
MD032	RC	490120	6407883	270	300	-65	GDA94	MGA54	226
MD033	RC	489686	6407361	310	265	-65	GDA94	MGA54	237
MD034	RC	489801	6407263	310	300	-65	GDA94	MGA54	230
MD035	RC	489399	6407025	320	200	-65	GDA94	MGA54	236
MD036	RC	489463	6406951	320	300	-65	GDA94	MGA54	235
MD037	RC	489447	6409842	236	150	-65	GDA94	MGA54	236
MD038	RC	489206	6410147	234	150	-65	GDA94	MGA54	235
MD039	RC	488941	6410446	230	120	-65	GDA94	MGA54	234
MD040	RC	488693	6410745	225	200	-65	GDA94	MGA54	238
MD042	RC	489518	6408653	270	200	-65	GDA94	MGA54	219
MD043	RC	488464	6411027	250	250	-65	GDA94	MGA54	241
MD044	RC	488573	6411135	232	150	-60	GDA94	MGA54	241
MD045	RC	488089	6411242	207	300	-60	GDA94	MGA54	246
MD046	RC	488165	6411393	207	150	-60	GDA94	MGA54	245
MD047	RC	487749	6411317	180	300	-60	GDA94	MGA54	247
MD048	RC	487749	6411472	180	300	-60	GDA94	MGA54	244
MD049	RC	487199	6411499	180	300	-65	GDA94	MGA54	241

**JORC Table 1-1 Muster Dam RC Drill Holes** 



