

# ASX Code: MDX Speculative Buy

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Materials
A\$0.40
129.1m
0.1m
A\$51.6m
A\$9.4m
\$0.51-\$0.20

## Directors

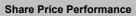
Gilbert George	Non-Executive Chairman
Greg Bromley	Managing Director
Nicholas Smith	Non-Executive Director
Andrew Tsang	Non-Executive Director

#### **Major Shareholders**

Mr Andrew Tsang	20.9%
HSBC Cust Noms (Aust) Ltd	18.5%
Rubicon Nominees Pty Ltd	9.0%
Mr Guo Xiong Zeng	4.5%

#### Analyst

Resources Analyst Guy Le Page +61 8 9321 3277 gtlepage@rmresearch.com.au





# Mindax Limited

# **Targets 50Mt Iron Ore Resource**

## **Investment Highlights**

- In CY2009, Mindax Limited ("Mindax", "MDX", the "Company") is hoping to commence Stage-1 of the RC drilling program at the Mt Forrest Iron Ore Project following a year of intensive and prospect scale mapping (1:1,000) and rock chip sampling which has so far covered approximately 45% of the area of interest;
- The Company's 2008 surface exploration program continued to confirm broad zones of hematite – goethite mineralisation. Numerous rock chip samples returned in excess of 57.5% Fe with an average grade of 61.8% Fe;
- Drilling is likely to focus on areas away from heritage sites and RMWise Research is maintaining an initial resource target in the region of 50Mt;
- Drilling has been completed on the Toccata-Fugue gold-in-soil anomalies at Maynard Hill (adjacent to Troy's Lords goldmines) and returned an encouraging peak value of 0.70g/t gold in the regolith;
- Drilling has also been completed at Meekatharra North. Alteration was observed and was supported by weak gold anomalism. An extensive review of the project is in progress;
- Since RMWise Research's last report, scout drilling at the Yilgarn-Avon JV Uranium Project (with JV partner Quasar Resources) was successful in demonstrating potential for "Roll Front" style uranium deposits in south Western Australia. The tenements cover over 3,200km<sup>2</sup> and are prospective for palaeochannels earmarked for follow up drilling over the next two years. Roll Front deposits account for over 50% of the world's known uranium reserves and lend themselves to In-Situ Leach extraction.

## Outlook

- The long awaited Stage-1 drill program at the Mt Forrest Project will likely focus on the northern end of the Mt Forrest Project with 5,000-7,000 metres planned. The Company has eight outcropping drill targets. In the interim approval has been granted to commence drilling at the Tiger Iron anomaly on the ELs to the west of Mt Forrest;
- Subject to heritage clearances, RMWise Research believes that Mindax has an excellent chance of outlining a 50Mt resource by the end of the Stage-2 drilling program hopefully some time in late CY2009 or possibly early CY2010;
- A heritage claim is understood to have held up clearances to permit drilling however, Mindax has been active in attempting to resolve this situation through various negotiations. Notably, the Wutha Group, who are partners in the project and registered native title applications, do not support this claim;
- The Mt Forrest Project is situated 150km north-west of Menzies, with favourable logistics and at first glance appears more attractive to comparable Midwest iron ore players. The project is proximal to the gas pipeline and rail and has the potential to support a 10Mt pa operation based on the delineation of reserves of 100Mt with ore transported to Menzies then railed to the port of Esperance for export;
- Our valuation of Mindax remains speculative, however the scenario in this report, together with recent iron ore transactions, demonstrates a future value in excess of \$0.83/share or a market capitalisation of ~A\$100m based on an initial resource of 50Mt @ 60% Fe (DSO). It is worth noting that in February 2008 Mindax announced a conceptual target of >600Mt @ 40% Fe and 0.04% Phosphorus including DSO of >90Mt @ +60% Fe, suggesting the Company considers there is considerably more upside in comparison to the assumptions used in this report by RMWise Research.



## **Company Background**

Mindax is an exploration company targeting a portfolio of "Chindia" commodities such as gold, copper, iron and uranium within Western Australia's Yilgarn Craton. Listing in December 2004, the Company has primarily focused its efforts on delineating iron ore resources.

The lead project is centred at Bulga Downs, namely the Mt Forrest Iron Ore Project, situated in the Richardson Ranges approximately 150km north-west of Menzies and 100km south-east of Sandstone.

Another key project for the Company is the Yilgarn-Avon Joint Venture ("YAJV") Uranium Project in the palaeochannels in the south-west of Western Australia. The YAJV is a 50/50 joint venture between Mindax (the manager) and Quasar Resources PL ("Quasar"), an affiliate of Heathgate Resources PL ("Heathgate"). Heathgate are the owner/operator of the Beverley uranium mine in South Australia and a world leader in In-Situ-Leach (ISL) uranium extraction technology.

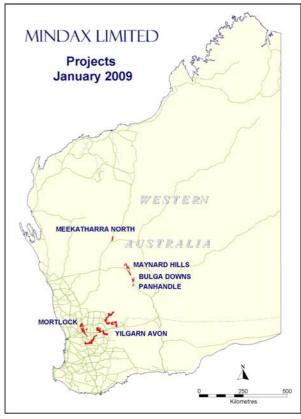
The YAJV also has the Mortlock Project near Goomalling, where Mindax is following up broad intersections of copper-gold mineralisation comparable to the

Boddington and Hemlo mineralisation styles.

Significant iron mineralisation has been identified at Mt Forrest - Bulga Downs. To date, mapping, rock chip sampling and incidental drill intercepts confirm the occurrence of hematite mineralisation with grades ranging between 57.5% to 67% Fe and magnetite grades between 35% and 50%. The surface outcrop at Bulga Downs suggests the possibilities of a resource in the order of 750Mt magnetite > haematite combined over an apparent iron formation strike length of 17km. The project also includes the Paradise Bore inferred gold resource of 36Koz (JORC).

The Yilgarn Uranium Project is testing for Roll Front or redox uranium mineralisation in palaeochannels in the south-west of Australia. This work has already identified sub-economic mineralisation in the base of the Yilgarn palaeochannel channel. The program is a new exploration initiative based on high uranium in highly acid and saline groundwaters.

Figure 1: Mindax Project areas



Source: Mindax Limited

Figure 2: Magnetite BIF



Source: Mindax Limited

#### Figure 3: Hematised Breccia



Source: Mindax Limited



The Mortlock Project is centered on the Southern Brook/Centre Forrest copper-gold mineralisation, and is similar in style to the Hemlo gold mines in Ontario, Canada. Disseminated chalcopyrite-gold mineralisation has been identified over significant widths by previous drilling and new exploration targets have been defined by airborne geophysics. The project includes the right to earn up to 80% in tenements held by Sipa Exploration NL ("Sipa").

## **Exploration Overview**

## **Key Exploration Projects**

## Bulga Downs - Mt Forrest Iron Ore Project (MDX: 100%)

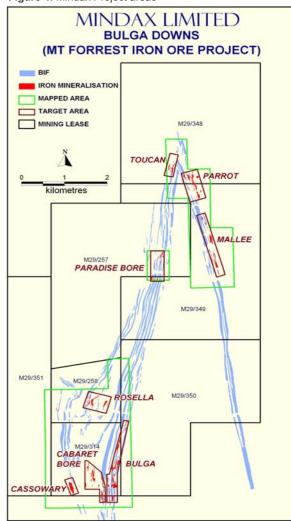
The Mt Forrest Iron Ore Project lies 100km south-east of Sandstone within the Richardson Ranges. The project is well located the central Goldfields in approximately 150km north-west of Menzies and in close proximity to road, rail and gas pipeline. Haulage to the port of Esperance remains an option.

Systematic reconnaissance sampling by Mindax indicates extensive hematite-magnetite mineralisation with unusually low phosphorus content. These iron formations are composed of multiple bands across thicknesses ranging between 500m and 2000m over a strike length of 17km. The western fold limb of the structure trends in a north-easterly direction for 10km and then folds back upon itself trending to the southeast through the boundary of the tenements to the south-east.

A small high-grade hematite deposit occurs at Mt Richardson, due south of the Mindax leases.

Exploration priority will be given to identifying direct shipping hematite ores with investigation of the significant potential for magnetite ore to be undertaken at a later point.

ject Figure 4: Mindax Project areas



Source: Mindax Limited

All flora and fauna surveys have been conducted on the tenements covering the length of the Richardson Ranges.

The collection of nearly 1394 samples together with detailed 1:1000 mapping has now covered around 40% of the area of interest with 921 samples collected at 25m spacings (table 1). Other elements, such as Phosphorus (0.058%) and Silica (5.13%), were within acceptable levels.



Table 1: Analysis of 921 rock chip samples to 31 December 2008

Grade Range	No. of Samples	Minimum	Maximum	Average
Fe (%)		Fe%	Fe%	Fe%
0.0 - 50.0	111	30.98	49.96	45.14
50.0 - 57.5	313	50.00	57.46	54.46
57.5 - 60.0	201	57.51	59.97	58.82
60.0 - 70.0	296	60.01	66.83	62.08

Source: Mindax Limited

Drilling is due to commence shortly on a gold and iron anomaly at the Tiger Prospect situated to the west of the Mt Forrest tenements.

### Yilgarn Avon JV – Uranium (MDX: 50%)

Mindax in conjunction with Quasar Resources (associated company of Heathgate Resources) is searching for Roll Front uranium in palaeochannels in the south-west of Western Australia. During 2008, the uranium portfolio was significantly expanded and the YAJV now has a commanding land position of 3,200km<sup>2</sup> in this newly emerging province. The project has the added advantage of fundamental research through the CRC LEME uranium-in-water project.

Significant uranium anomalism in ground waters to >1000ppb U and suitable traps within the drainages have already been identified. Reconnaissance drilling has also identified mineralisation in basal gravels in the upper portions of the palaeochannel.

The project is founded on the concept of uranium transported in water. Uranium



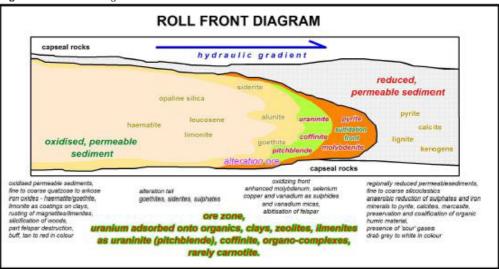
Source: Mindax Limited

is derived from a number of highly radiogenic granitoids eroded over time within the Yilgarn region. The uranium rich waters are transported within ancient palaeochannel drainage systems with deposition initiated through the presence of reducing sediments at the tail end of the watercourse.

Figure 5: YAJV tenement holdings and project area



Figure 6: Roll Front diagram for Uranium



Source: Mindax Limited

## Sandstone – Bulga Downs Gold Project

Previous drilling at Bulga Downs has returned ore grade intercepts The Bulga Downs Project lies 100km south-east of Sandstone within the Richardson Ranges and includes the Paradise Bore Prospect with an oxide resource of 36,000oz gold. This is hosted in the Cabaret Trend, a mineralised structure that has returned drill intersections of >3g/t gold over a 10km strike. Other gold anomalism occurs on the Illara and Edale structures immediately to the west of the Mt Forrest fold. Nine of the ten RC drill holes completed at Toucan during October 2007 intersected mineralisation with a best result to date of 1m @ 21.20g/t Au in TPC-005 from 56m downhole.

Additional results included:

- 13m @ 2.93g/t Au from 35m in TPC-038
- 5m @ 3.38g/t Au from 16m in TPC-035
- 3m @ 6.17g/t Au from 14m in TPC-004

Drilling to date confirms that mineralisation persists at depth and is open to the north extending over an initial strike distance of 700m. Further drilling is planned at Paradise Bore and Macaw. Twenty-eight holes are planned to infill the Paradise Bore resource and nine exploration holes will be completed at Macaw

A number of permitting issues are required to be resolved prior to any further work taking place.

## **Other Exploration Projects**

Yilgarn Avon JV – Mortlock Project (Cu, Au, U, 50% & operator) - The YAJV has an application over 200km<sup>2</sup> at Boonjading in the western part of the area covering the Centre Forest and Southern Brook prospects. Some of the more promising intercepts include 61m @ 0.83g/t Au, 37m @ 0.72g/t Au and 0.26% Cu. Exploration has outlined a mineralised zone over 6km in length, (open along strike in both directions) within a broader geochemical and geophysical anomaly over 20km in apparent strike. Follow up exploration is likely to focus on the corridor passing through Centre Forest and Southern Brook containing known mineralisation with aerial EM and field work likely to commence shortly.



- Yilgarn Avon Sipa JV Mortlock Program (Cu, Au, U, YAJV earning 80% & operator) The YAJV has the right to earn 80% in Sipa's tenements surrounding the Boonjading application. The project extends south of the Kalguddering uranium mineralisation and the Wongan Hills greenstone hosted copper-gold mineralisation. The geoscientific data indicates a target horizon comprising EM geophysical anomalies and regional geochemical responses extending over 20km of strike. Field work is expected to commence shortly.
- Panhandle Project Au, Cu (100%) The project lies southwest of the Bulga Downs Project, 130km southeast of Sandstone with recent reconnaissance exploration returning anomalous tin and silver assays adjacent to areas of known copper mineralisation which has provided further impetus for further base metal exploration.
- Maynard Hills Au (100%) The Maynard Hills Project was initially focused on gold exploration primarily due to its proximity to Paradise Bore and the Lord Henry and Lord Nelson gold mines that lie on the same Edale and Illara structures trending north-west. Recently Mindax announced the presence of alluvium covered iron mineralisation on the tenement. Results from around 1,500m of aircore drilling at the Toccata and Fugue gold-in-soil anomalies on Maynard North returned an encouraging peak value of 0.70g/t gold in the regolith. This anomaly demonstrates geochemical and geophysical signatures similar to the Lord's gold mines to the south.
- Meekatharra North Project Au (100%) The Meekatharra North Project is situated 20km from the Paddy's Flat field where previous production of 2.5Moz of gold has been recorded. A 7,000m RAB and air-core drilling program has been completed with assays indicating a number of zones of interest (>0.1g/t Au).

## 2008 Exploration Program

- Mapping & sampling at Mt Forrest-Bulga Downs Fe Project covers over 45% of the area and generated a100Mt DSO hematite target;
- Scout drilling of upper palaeochannels in YAJV Yilgarn Uranium Project with subeconomic intercepts of uranium;
- Drilling at Maynard North identifies gold anomaly for follow up;
- Drilling at Panhandle inconclusive for gold but copper and iron potential being assessed;
- Drilling at Meekatharra North continues to identify anomalous gold and alteration;
- Definition of target zones for gold and copper in YAJV Mortlock Project.

## **2009 Exploration Objectives**

- Define iron ore resources at Mt Forrest Project;
- Regional exploration on Exploration Licenses surrounding the Mt Forrest;
- Reconnaissance aircore drilling of the Yilgarn Palaeochannel targeting potential trap sites for uranium mineralisation;
- Delineation of Cu-Au and base metal targets using surface geochemistry and scout drilling at the Mortlock Project;
- Flying an airbourne electromagnetic survey over the Southern Brook/Centre Forest mineralisation and their strike extensions;
- Continued RAB/aircore drilling at the Meekatharra North Project to follow up anomalism in previous drilling and to test new structural positions;
- Field investigations of the iron and copper-gold potential of the Panhandle Project;
- Follow-up of the anomalous gold aircore drilling results at the Toccata Prospect (Maynard Hills Project) together with follow up exploration/drilling of Maynard Hills iron targets.



A 100Mt reserves has the potential to support a 2Mt ramping up to 10Mt per annum operation. 15 April 2009

## **Production Scenario**

RMWise Research considers a 100Mt resource may have the potential to support a 2Mt, ramping up to 10Mt per annum operation with ongoing magnetite potential based on the DSO infrastructure. Both lump and fine ore would be transported to Menzies then the port of Esperance for export.

Capital expenditures for this type of project are likely to be in excess of A\$500m, however favourable logistics (and hopefully project economics) should be capable of attracting this level of capital.

Based on similar operations in Western Australia RMWise Research anticipates break even prices of +A\$80 per tonne for Lump Iron and +A\$60 per tonne for fines would be required.

# **Iron Ore Price Outlook**

RMWise Research is anticipating 2009's steel output and iron ore trade may fall 8% and 5% respectively compared to CY2008. In 2009, carbon steel production is expected to fall to 1.232 billion Mt, down from an estimated 1.339 billion Mt (2008). Total iron ore seaborne trade is expected to drop to 829 million Mt from 870 million Mt. Production cuts by steelmakers are stabilising and rebalancing markets, but an overhang will still prevent strong growth with global recession prospects in 2009 having changed the outlook dramatically.

On the other hand, the longer-term outlook remains strong due to the lack of new non-Chinese steel capacity relative to demand. The iron ore oversupply caused by collapsed Chinese and European steel production means iron ore price falls of 20-30% are likely in 2009. Iron ore miners Vale, Rio Tinto and FMG cut production by 10%, helping to rebalance the market however longer term, there will still be too much supply in 2011 and 2012 despite major project delays.

Recent reductions in spot prices from \$190/mt to \$55-50/mt have also forced "uneconomic" producers in China and India out of business. Seaborne demand for iron ore is likely to be in the order of 813 million Mt in 2009, 942 million Mt in 2010, 1.06 billion Mt in 2011 and 1.17 billion Mt in 2012. China's demand for seaborne iron ore meanwhile is forecast at 453 million Mt in 2008, 545 million in 2010, 635 million Mt in 2011 and 735 million Mt in 2012.

## Valuation

The valuation of Mindax remains speculative, however the scenario below demonstrates a future value of \$0.83 per share or market capitalisation of A\$100m on the basis of resource drilling delineating an initial resource of 50Mt @ 60% Fe (DSO).

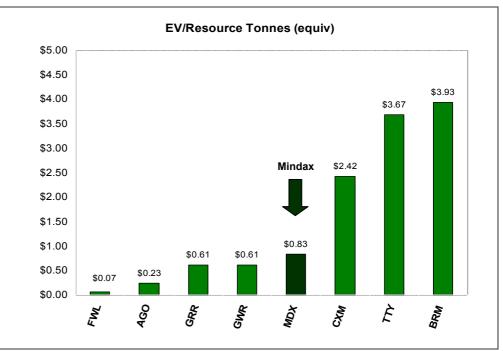
The graph below plots the enterprise value per tonne of total Fe resources. At the lower end of the spectrum is Ferrowest Ltd ("FML", "Ferrowest") with an EV/Resource tonne of \$0.07. Ferrowest is developing the 'Yalgoo Iron Project', a project aimed at producing seaborne traded merchant pig iron from the 100% company owned Yogi deposit, 14km east of Yalgoo in the midwest of Western Australia. At the other end of the spectrum are Territory Resources Ltd ("TTY") and Brockman Resources Ltd ("BRM") with EV/Resource tonne at \$3.67 and \$3.93 respectively. Both companies have relatively small resources in comparison to their respective high enterprise values.

More recently the proposed acquisition of a 50% interest in the Lake Giles Iron Ore Project by Minmetals Mining Corporation Limited from Macarthur Minerals Limited for C\$100 million (A\$123 million) implies a value of around A\$1.50 per tonne of iron ore which would potentially value Mindax (based on total resources of 50Mt) at around A\$0.60/share.

Valuation of Mindax is based around the delineation of a 50Mt resources







Source: Mindax Limited

## **Directors**

#### Mr Gregory Bromley, ARMIT, FAIMM CPGeo

#### **Managing Director**

Gregory is a geologist with 35 years experience in the mining and exploration industry. Gregory's early career was with the CRA Group (now RTZ) where he undertook exploration project assignments in WA and NSW. In 1987 he joined Normandy Mining Group and filling a number of roles including Exploration Manager WA, Exploration Technical Manager for the Normandy Group throughout Australia and Group Consultant for Europe, Africa and the Americas. In 1996 he was principal of Bromley & Co, Consulting Geologists operating locally and in Africa, Asia and Latin America including management of the Agbaou gold project in Cote d'Ivoire. Gregory joined the Board of Mindax in 2003 as Managing Director.

## Mr Gilbert George, M.Sc. M. Econ.

Working in Australia and Japan in Government positions, Gilbert established a business development consultancy in 1988. He is the principal of Gilbert George & Associates Pty Ltd which provides strategic advice to companies worldwide spanning the resource, IT, food processing and service sectors. Resource experience includes gold, manganese, oil and heavy mineral sands. He is Chairman of Malawi Minerals Ltd. Gilbert has been a member of a number of charities and state government and international advisory committees, including the Asian Round Table. Gilbert joined the board in 2004 as Chairman.

## Mr Nicholas J. Smith, LLB

Nicholas is a solicitor who has spent most of his working life in the corporate/commercial area, with business experience both within Australia and offshore. Between 1987 and 1999 he was Group General Counsel for the Normandy Mining Group where he was responsible for the Group's legal function including the legal aspects of the Group's M&A and project acquisition program. Since 1999 he has been the principal of Portcullis Corporate Advisory Pty Ltd a provider of corporate and strategic advice. Nicholas joined the board in 2003.

#### Mr Andrew Tsang

Andrew is a naturalised Australian citizen who was born and educated in China and who has successfully established and run construction, engineering and property development businesses both in China and Australia as well as establishing successful import agencies for Australian manufactured goods into China. Andrew joined the board in 2008.

#### Director

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#### 1. . . . . . . .

Director

Director



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15 April 2009

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Speculative Buy	We forecast strong earnings growth or value creation that may achieve a return well above that of the broader market. These companies also carry a higher than normal level of risk.
Hold	A sound well managed company that may achieve market performance or less, perhaps due to an overvalued share price, broader sector issues, or internal challenges.
Sell	Risk is high and upside low or very difficult to determine. We expect a strong underperformance relative to the market and see better opportunities elsewhere.

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