



***Tshipi é Ntle***  
*Manganese Mining*

# International Manganese Institute

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## The Birth of a New Major Manganese Producer

At last year's IMnI conference Tshipi stated that it was set to commence production in 2012.

- In October 2012 we mined our first manganese;
- In November 2012 Tshipi railed its first manganese; and
- In December 2012 Tshipi shipped its first manganese.



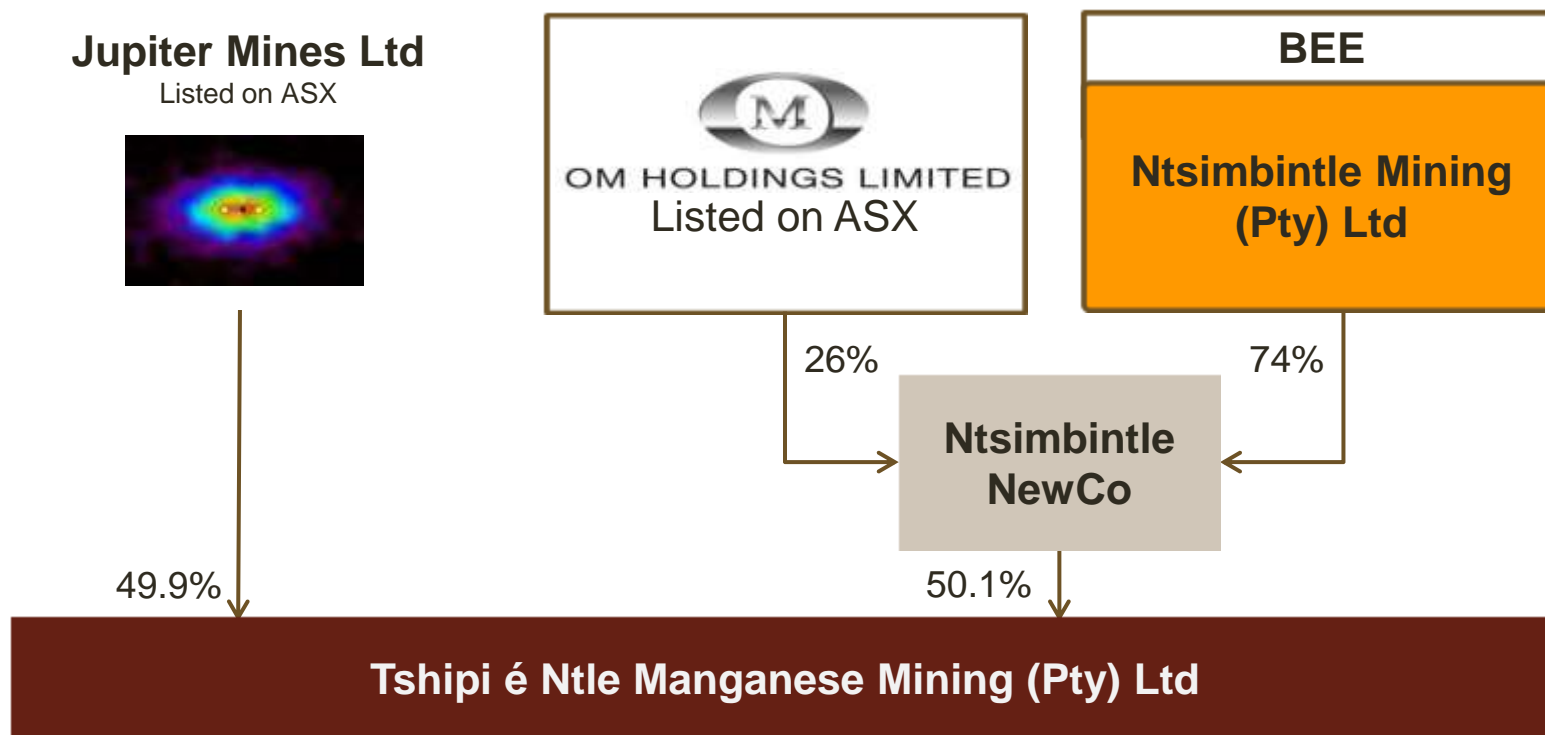
## Company Snapshot

- Tshipi é Ntle Manganese Mining (Pty) Ltd is a privately owned company operating a new large open pit manganese mine in the Kalahari Manganese Field in South Africa.
- The Tshipi Borwa mine:
  - Has a 163 million tonnes resource base @ 37.1% all of which can be mined by open pit;
  - Has been mining and selling manganese since October 2012;
  - The mine has been designed to produce 2.4mt annually for over 60 years; being an open pit mine its production capacity can be easily increased; and
  - Has been developed with a capital budget of \$200m.
- Is owned by two distinct shareholder groups:
  - Ntsimbintle, a controlling Black Economic Empowerment mining house representing many divergent broad based BEE shareholders including Safika Resources, Nkonjane and Kgalagadi Trust and the ASX listed OMH, and
  - Jupiter Mines Limited an ASX listed company controlled by the Pallinghurst Co-Investors.





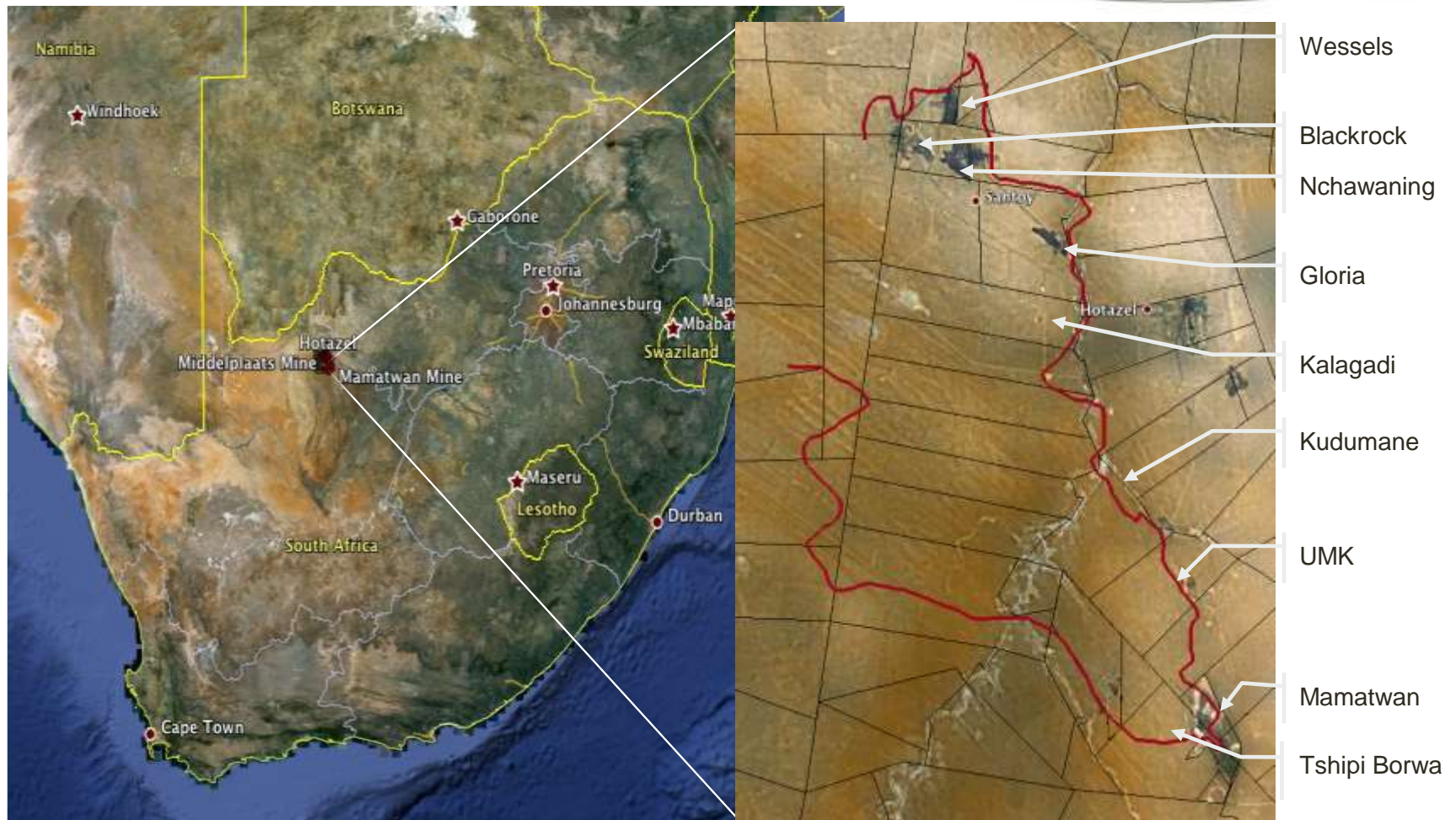
## Tshipi Ownership Structure





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## Tshipi Borwa Mine Location







## Unparalleled Ore Resources

Tshipi will be a consistent producer for many decades



Tshipi owns some of the best open pit manganese ore resources in the world.

- 163mt open pit resources grading 37.1% manganese with low iron, sulphur and phosphorus. (SAMREC complaint).
- Further resources down dip (deeper than 250m).
- Ore is continuous over the strike of the property.
- Thickest intersection recorded was 47m, equivalent to the height of a 16 story building.

## Tshipi Borwa – Operations

- Located 40km from the town of Kathu which is serviced by daily scheduled flights from Johannesburg.
- Open pit mining of a thick pay-zone (15-17m) which has little undulation, faulting and fracturing.
- The ore horizon has been accessed 70m below the surface.
- To date over 14m BCM moved for the initial open pit box cut.
- Processing and beneficiating consists of crushing and screening.
- Designed to produce 2.4mtpa product.
- Two grades produced (fines 20% and Lumpy 80% of production).
- Rail siding complete and fully operational since September 2012.
- Transnet rail contract signed and Tshipi regularly receives its weekly train allocation.
- To date over 220 000 tonnes railed to Tshipi's dedicated Port Elizabeth stockpile area.
- Over 185 000 tonnes shipped to customers in the Far East.





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## Mining





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## Processing



Tshipi Borwa Mine - May 2013





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## Train Load-Out Station



Tshipi Borwa Mine – May 2013





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## Product



Tshipi Borwa Mine - May 2013





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## Rail Siding



Tshipi Borwa Mine - May 2013



## Product Specifications

Marketing and sales are handled exclusively by Singapore based OMT – [Marketing@Tshipi.co.za](mailto:Marketing@Tshipi.co.za)

Fines %	Mn	Fe	CaO	MgO	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	LOI
Primary (TS1) Max	38.0	6.0	17.0	5.0	1.0	15.0	0.1	30
Primary TS1 Min	35.0	4.5	12.0	3.0	0.1	2.0	0.02	7
<b>Primary (TS1) Typical</b>	<b>36.0</b>	<b>5.0</b>	<b>15.5</b>	<b>3.4</b>	<b>0.27</b>	<b>5.5</b>	<b>0.04</b>	<b>17</b>

Fines: 90% -6mm +1mm

Lumpy %	Mn	Fe	CaO	MgO	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	LOI
Primary (TS1) Max	38.5	6.0	17.0	5.0	1.0	15.0	0.1	30
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<b>Primary (TS1) Typical</b>	<b>36.5</b>	<b>5.0</b>	<b>15.5</b>	<b>3.4</b>	<b>0.27</b>	<b>5.5</b>	<b>0.04</b>	<b>17</b>

Lumpy: 90% -75mm +6mm





## Conclusion

What makes Tshipi different?

- Producer capable of significant consistent and reliable production for decades;
- Exceptional ore resources - Ore in continuous thick tabular mineralised zone;
- Open pit;
- Access to infrastructure;
- Simple mining with little processing;
- Access to rail and port entitlement;
- New efficient mining operation designed for the future, and
- Scalable and expandable production.

All ensuring a low cost of production.

But most importantly Tshipi benefits from:

- Great team and people who are hard working.
- A team who all want to make a difference to South Africa.



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