Disclaimer

This presentation contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the safe harbour created by such sections. All statements other than those of historical facts included in this presentation are forward-looking statements including, without limitation, (i) estimates of future earnings, and the sensitivity of earnings to commodity prices; (ii) estimates of future commodity production and sales; (iii) estimates of future cash costs; (iv) estimates of future cash flows, and the sensitivity of cash flows to commodity prices; (v) statements regarding future debt repayments; (vi) estimates of future capital expenditures; (vii) estimates of reserves, and statements regarding future exploration results and the replacement of reserves. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, commodity price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries in which we operate and governmental regulation and judicial outcomes. The Company does not undertake any obligation to release publicly any revisions to any “forward-looking statement” to reflect events or circumstances after the date of this presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.
## Table of Contents

1. ARM: moving into overdrive  
2. Manganese: Uses and value chain  
3. Black Rock Manganese Ore Mining Operations  
5. Manganese Market Overview  
   - Manganese Ore market  
   - Manganese Alloy market  
6. ARM Ferrous: Manganese

## Section 1
ARM: moving into overdrive
Perfect diversified commodity mix

**ARM market capitalisation:**
R 58 billion or $7.8 billion

**ARM share price:**
R 280 per share
At 19 May 2008

Growing diversified commodity business

**Attributable EBIT split between operations**

<table>
<thead>
<tr>
<th>12 months to 30 June 2007</th>
<th>6 months to 31 December 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iron Ore</strong> 20.6%</td>
<td><strong>Manganese</strong> 41.2%</td>
</tr>
<tr>
<td><strong>Platinum</strong> 37.0%</td>
<td><strong>Chrome</strong> 5.3%</td>
</tr>
<tr>
<td><strong>Nkomati</strong> 20.3%</td>
<td><strong>Thermal Coal</strong> 0.3%</td>
</tr>
<tr>
<td><strong>Group Metals</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Nkomati operating profit split:
  Nickel (86%) and Chrome (14%)

* Nkomati operating profit split:
  Nickel (52%) and Chrome (48%)

Attributable EBIT split between operations calculated from published EBIT (or segmental results) before corporate and exploration expenses and excluding the 45% minority interest in Two Rivers
Long life, quality resource portfolio

![Graph showing life of mine years and reserves as a % of resources for various minerals.]

ARM track record of project delivery

**Completed projects >R5 bn* 2004 - 2007:**
- Nchwaning III Manganese
- Modikwa Platinum
- Two Rivers Platinum
- Nkomati Nickel interim plant
- Nkomati Chrome mine
- Dwarsrivier Chrome

**Projects in progress >R7 bn* 2007 - 2012:**
- Khumani Iron Ore (10 mtpa)
- Nkomati Nickel (20.5 ktpa)
- GGV thermal coal (6.7 mtpa)
- Both Khumani and GGV have the potential to increase volumes further

* Total attributable capital expenditure
Cost competitive growth

ARM target for operations on the respective global cost curves by 2012 (steady state)

Investing in our future
Manganese ore and alloys forms a significant part of ARM

ARM Headline earnings (Rand million, Attributable)

<table>
<thead>
<tr>
<th>Year</th>
<th>ARM Ferrous</th>
<th>ARM Platinum</th>
<th>ARM Coal</th>
<th>Corporate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>250</td>
<td>100</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>2007</td>
<td>500</td>
<td>50</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1H 08</td>
<td>750</td>
<td>77</td>
<td>73</td>
<td>69</td>
</tr>
</tbody>
</table>

Asmang Headline earnings (Rand million, 100%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Manganese</th>
<th>Iron Ore</th>
<th>Chrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>200</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>2007</td>
<td>300</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>1H 08</td>
<td>400</td>
<td>600</td>
<td>500</td>
</tr>
</tbody>
</table>

Manganese division operating Profit (Rand Million, 100%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Ore mining</th>
<th>Alloy smelting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>500</td>
<td>50</td>
</tr>
<tr>
<td>2007</td>
<td>600</td>
<td>50</td>
</tr>
<tr>
<td>1H 08</td>
<td>700</td>
<td>50</td>
</tr>
</tbody>
</table>

ARM exposed to commodities where South Africa has top global rankings

South Africa's role in world mineral reserves, production and exports (2006)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Reserve Base %</th>
<th>Rank</th>
<th>Production %</th>
<th>Rank</th>
<th>Exports %</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGMs</td>
<td>87.7</td>
<td>1</td>
<td>59.3</td>
<td>1</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Manganese Ore</td>
<td>80.0</td>
<td>1</td>
<td>13.3</td>
<td>2</td>
<td>19.7</td>
<td>2</td>
</tr>
<tr>
<td>Chrome Ore</td>
<td>72.4</td>
<td>1</td>
<td>38.7</td>
<td>1</td>
<td>10.9</td>
<td>4</td>
</tr>
<tr>
<td>Gold</td>
<td>40.1</td>
<td>1</td>
<td>11.1</td>
<td>1</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Nickel</td>
<td>8.4</td>
<td>5</td>
<td>3.1</td>
<td>9</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Coal</td>
<td>6.1</td>
<td>8</td>
<td>4.5</td>
<td>5</td>
<td>8.4</td>
<td>4</td>
</tr>
<tr>
<td>Copper</td>
<td>1.4</td>
<td>14</td>
<td>0.7</td>
<td>16</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>0.9</td>
<td>9</td>
<td>2.8</td>
<td>7</td>
<td>3.6</td>
<td>6</td>
</tr>
<tr>
<td>Ferro-Mn/Fe Si-Mn</td>
<td>*</td>
<td>*</td>
<td>6</td>
<td>4</td>
<td>16.4</td>
<td>2</td>
</tr>
</tbody>
</table>

% = SA as a percentage of world
Rank = Ranked according to world
Section 2
Manganese: Uses and value chain

Steel demand drives manganese production

- 90% of global manganese output is used in the production of iron and steel
  - Largest other use is in aluminium alloys and batteries
- In the past steelmaking technology advancements has resulted in falling unit consumption of manganese
  - Current average consumption is (up to) 9 kg/t (carbon steel)
- But with new high tech steels, consumption is expected to increase for special grades of steel (120 kg/t)
Manganese grade key for steelmaking

- No real substitutes for manganese exist.
- High grade manganese ore reduces alloy costs because:
  - It facilitates the reduction process in steel making.
  - Decreases coke consumption.
  - Yields higher grade end product, i.e., alloy and steel products.
- Direct correlation between the grade of manganese ore and alloys compared with the productivity of steelmaking.
- Intensity of use: The volume of manganese consumed per unit of crude steel production (unit consumption) varies across regions and is a major determinant of total demand for the manganese alloys.
  - China’s intensity of use remains low by global standards.

Manganese value chain

ARM Ferrous products are Manganese Ore, High Carbon Ferro Manganese (HC FeMn), Medium Carbon Ferro Manganese (MC FeMn) and Refined Ferro Manganese.

Manganese has an important role to play in the steel making process:

- Increases hardness, toughness, stiffness and wear resistance as an alloying element.
- Improves tensile strength.
- Desulphurising agent: combines with and removes sulphur from iron.
- Assists in producing fluid slag.
- Deoxidiser.

Manganese: extracted from the Latin word “Magnes”, meaning magnet.
Section 3
Black Rock Manganese Ore Mining Operations

Assmang structure

ARM Ferrous

ASSORE

100%

50%

IRON ORE

CHROME

MANGANESE

Nchwaning Mine

Gloria Mine

Cato Ridge Works

10% Sumitomo
40% MZK

Cato Ridge Alloys
The company’s manganese mines are located in the Northern Cape province.

Black Rock is the main administration centre for the manganese ore mines and is situated 80 kilometres northwest of Kuruman.

The group currently operates three manganese mines:
- Gloria
- Nchwaning 2
- Nchwaning 3

The total production capacity of the 3 mining operations is approximately 4 million tonnes of saleable ore per annum. This can grow to 4.8 million tonnes per annum over 2 years:
- Approximately 75% is exported
- Approximately 25% sold locally to Cato Ridge and other local consumers

Assmang is the largest single producer of manganese ores in South Africa.
Quality Resources

- About 80% of the world’s manganese resources are contained in the Kalahari Manganese Fields (KMF), which is 40km long (North to South) and 15km wide (West to East)
  - 40% of the KMF is high grade and 60% is low grade
  - Assmang has the right to mine 60% of the high grade KMF
  - Homogenous grade distribution within each sub-area

Assmang manganese ore resource statement summary (June 2007)

<table>
<thead>
<tr>
<th></th>
<th>Resources</th>
<th>Mn%</th>
<th>Million tonnes</th>
<th>Mn%</th>
<th>Million tonnes</th>
<th>Mn%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nchwaning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body 1</td>
<td>143.4</td>
<td>45</td>
<td></td>
<td></td>
<td>114.7</td>
<td>45</td>
</tr>
<tr>
<td>Body 2</td>
<td>181.9</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body 1</td>
<td>97.6</td>
<td>38</td>
<td></td>
<td></td>
<td>75.0</td>
<td>38</td>
</tr>
<tr>
<td>Body 2</td>
<td>67.9</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assmang has access to sufficient ore to support continued mining activities at the current production rate for more than 30 years

Geological depiction

- Black Rock
- KMF
- Khumani
- Beeshoek
Hotazel formation

- Manganese orebodies 6 m thick
- Parting between No 1 and No 2 orebody = 20 m
- No 2 body lower in Mn and higher in Fe

Gloria mining operations

Current mining development
- Current production rate = 400,000 tpa doubling in 2 years
- Grade = 38% Mn content
- LoM = > 50 years
- Employees = 200

Gloria consists of:
- Decline
- Second outlet/vent # (shaft)
- Washing & Screening Plant
- Loadout station

No 2 Mn orebody
Mn marker
No 1 Mn orebody
• Current production rate = 3.6 mtpa
• Combined grade = 44% Mn content
• LoM = > 30 years
• Employees = 1 000
• Nchwaning 3 Mine consists of:
  • A vertical 5.6 m diameter persons shaft
  • A vertical 5.6 m diameter ventilation shaft
  • A 2.2 km long decline shaft inclined at 11.5 degrees

Typical high grade Manganese Ore product

<table>
<thead>
<tr>
<th>Mn:Fe</th>
<th>Mn</th>
<th>Phos</th>
<th>Silicon</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>48.5%</td>
<td>0.05%</td>
<td>3 to 6%</td>
</tr>
<tr>
<td>Alumina</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nchwaning mining area

Graben Fault
Nchwaning 3
Nchwaning 2
Nchwaning 1
Nchwaning 3 underground layout

- Ventilation shaft
- Persons shaft
- Decline shaft
- Upper silo tunnel
- Lower silo tunnel
- Workshop
- Run of mine bunkers
- Crusher

Nchwaning section view

- 3 Shaft
- Graben
- 2 Shaft

Manganese seams
Nchwaning estimated position on global cost curve

Mn ore cash cost curve, FOB port basis, 2006

World average – $1.30/dmtu

Source: Hatch

Export manganese ore sales

Assmang manganese ore expected export sales (million tonnes, 100% basis)

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Local</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>2.8</td>
<td>0.7</td>
<td>3.5</td>
</tr>
<tr>
<td>2006</td>
<td>0.6</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td>2007</td>
<td>3.4</td>
<td>0.9</td>
<td>4.3</td>
</tr>
<tr>
<td>2008e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012e</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Black Rock CSI

- Olive Tree Project
- Car wash facility at Black Rock
- Gemstone polishing at Kuruman
- Broiler project at Maruping
- Padstow Bakery Project
Cato Ridge overview

- Cato Ridge Works and Alloys is situated near Durban in Kwazulu-Natal, 1224 km from the Black Rock operations.
- Cato Ridge Works produces 230,000 tpa High Carbon Ferro Manganese (HC FeMn), of which 160,000 tpa is sold as HC FeMn, the balance being transferred to Cato Ridge Alloys.
- Various grades of Refined FeMn are produced by Cato Ridge Alloys. The Refined FeMn capacity is approximately ~60,000 tpa.
- Metals recovery plant produces about ~20,000 tpa of FeMn.
- Nchwaning and Gloria ore, as well as Mamatwan Sinter, is railed from the Northern Cape province – total ore consumed is ~530,000 tpa.
- Metallurgical coke is imported from China and railed from Durban, Anthracite is railed from central KwaZulu-Natal.
- Products are mainly exported to North America and Europe.

Cato Ridge operations

High Carbon Ferro Manganese – up to 78.5% Mn: One of two producers in the world.

- Furnaces
  - ~160,000 tpa HC FeMn
  - ~230,000 tpa HC FeMn
  - Dedicated to serve Cato Ridge Alloys ~60,000 tpa
  - Refined Ferro Manganese
Cato Ridge operations

<table>
<thead>
<tr>
<th>Furnace 1 &amp; 2</th>
<th>Furnace 3 &amp; 4</th>
<th>Furnace 5</th>
<th>Furnace 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVA</td>
<td>22</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Refractories</td>
<td>carbon</td>
<td>ceramic</td>
<td>carbon</td>
</tr>
</tbody>
</table>

- Power
- Cato Ridge unfortunate incident
- Manganese
- Rising input costs

Cato Ridge typical plant cash cost breakdown

<table>
<thead>
<tr>
<th>Consumables</th>
<th>61.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>3.1%</td>
</tr>
<tr>
<td>Electricity</td>
<td>15.6%</td>
</tr>
<tr>
<td>Labour</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

Cato Ridge estimated position on global cost curve

High Carbon Ferro Manganese cash cost curve (captive ore transfer price, FOB port basis), 2006

World average ~ 600

Source: Hatch

HCFeMn, cumulative tapped output, Mt gross weight
### Manganese alloys sold

**Assmang manganese alloys expected sales (thousand tonnes, 100% basis)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total manganese alloy sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>50,000</td>
</tr>
<tr>
<td>2006</td>
<td>100,000</td>
</tr>
<tr>
<td>2007</td>
<td>150,000</td>
</tr>
<tr>
<td>2008e</td>
<td>250,500</td>
</tr>
<tr>
<td>2009e</td>
<td>300,000</td>
</tr>
<tr>
<td>2010e</td>
<td>350,000</td>
</tr>
</tbody>
</table>

**Split between products (FY 2007)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC FeMn (Furnaces 1 to 6)</td>
<td>170,100</td>
</tr>
<tr>
<td>Metal Recovery Plant</td>
<td>24,200</td>
</tr>
<tr>
<td>Refined FeMn (Cato Ridge alloys)</td>
<td>56,200</td>
</tr>
<tr>
<td>Total manganese alloy sales</td>
<td>250,500</td>
</tr>
</tbody>
</table>

### CSI and Environmental management

- Workforce: 650 permanent employees
- Numerous community development programmes
- HIV/Aids education programmes
- Occupational hygiene and health care by Life Health
- ISO 14 001 Certified
Section 5
Manganese Market Overview

The world of manganese

Data: Hatch Beddows, llbmi.
Note: Rankings shown here are by national manganese mineral resources. 1. JV: BHP Billiton (60%) and Anglo American (40%)
**World manganese ore producing countries**

- **High grade (>44%)**:
  - 1 South Africa
  - 4 Gabon
  - 3 India
  - 6 Kazakhstan
  - 9 Ghana
  - 8 CVRD
  - 2 Ukraine

- **Medium to Low grade (<44%)**:
  - 5 China
  - 20 Ukraine

Bubble size denotes contained manganese reserve base.

Source: Hatch; IMnI; Assmang

**Global crude steel production could increase by 1.4Bt over the next 20 years**

- **High-case forecast**
  - 2000: 0.5
  - 2001: 1.0
  - 2002: 1.5
  - 2003: 2.0
  - 2004: 2.5
  - 2005: 3.0
  - 2010: 5.0
  - 2015: 8.0
  - 2020: 12.0
  - 2025: 18.0

- **Low-case forecast**
  - 2000: 0.5
  - 2001: 1.0
  - 2002: 1.5
  - 2003: 2.0
  - 2004: 2.5
  - 2005: 3.0
  - 2010: 5.0
  - 2015: 8.0
  - 2020: 10.0
  - 2025: 12.0

Source: Hatch
Resulting in significant increases in manganese ore and alloy demand

Base case forecast: ~13Mt of extra manganese alloys required

Ratio of ~2.2 tonnes of ore per tonne of alloy

~30 million tonnes of manganese ore depending on alloy content

Actual Forecast

Manganese Ore Market
Manganese ore producers

**Mn Ore Production 2007 (gross tonnes)**

- **China**: 35%
- **South Africa**: 14%
- **Gabon**: 22%
- **Australia**: 13%
- **Brazil**: 13%
- **Indonesia**: 6%
- **ROW**: 3%
- **Kazakhstan**: 3%
- **Ukraine**: 3%
- **Georgia**: 1%
- **Ghana**: 1%

**High Grade Mn Ore Production 2007 (gross tonnes)**

- **South Africa**: 38%
- **Brazil**: 13%
- **Gabon**: 12%

Source: CRU, IMnI, Hatch

**Assmang is ranked third globally based on manganese ore grade**

Average manganese content for ore producing countries

Most suitable for HCFeMn production

Least suitable for HCFeMn production

Source: Hatch
• China dominant producer
• In 2005, price increase resulted in oversupply, from many small producers
• In 2008, similar volume increases are expected but from the larger players

Manganese ore market summary

World Manganese Ore market balance (Contained Mn, Thousand tonnes)

Source: CRU Jan 2007
Limited potential for increased manganese ore supply

Scope for change in manganese ore contained output over the next ten years

<table>
<thead>
<tr>
<th>Country</th>
<th>Output, Kt</th>
<th>Potential for change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>2 050</td>
<td>Current expansions (BHPB, OMH) plus exploration potential.</td>
</tr>
<tr>
<td>Gabon</td>
<td>1 500</td>
<td>Large, high-grade undeveloped resources but remote location.</td>
</tr>
<tr>
<td>South Africa</td>
<td>2 400</td>
<td>Greatest potential. Kalahari hosts world's largest Mn resources.</td>
</tr>
<tr>
<td>Ukraine</td>
<td>650</td>
<td>Large resources but low-grade ore. Tavrichesky may re-open.</td>
</tr>
<tr>
<td>Gabon</td>
<td>500</td>
<td>Low-cost mines but low-grade ore.</td>
</tr>
<tr>
<td>South Africa</td>
<td>2 400</td>
<td>Greatest potential. Kalahari hosts world's largest Mn resources.</td>
</tr>
<tr>
<td>Ukraine</td>
<td>650</td>
<td>Large resources but low-grade ore. Tavrichesky may re-open.</td>
</tr>
<tr>
<td>Stable output</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gabon</td>
<td>500</td>
<td>Low-cost mines but low-grade ore.</td>
</tr>
<tr>
<td>Ghana</td>
<td>600</td>
<td>Already operating at capacity. Limited resources.</td>
</tr>
<tr>
<td>India</td>
<td>800</td>
<td>Domestic oriented output.</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>200</td>
<td>High-cost mines, low-grade ore and remote location.</td>
</tr>
<tr>
<td>Others</td>
<td>50</td>
<td>No other countries host significant Mn resources.</td>
</tr>
<tr>
<td>Probable declines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>600</td>
<td>Long-term decline. Resources near exhaustion within 20 years.</td>
</tr>
<tr>
<td>China</td>
<td>3 050</td>
<td>Long-term decline. Resources near exhaustion within 20 years.</td>
</tr>
<tr>
<td>Total</td>
<td>12 000</td>
<td>Compared to ~30 million required over 20 years.</td>
</tr>
</tbody>
</table>


Manganese ore prices were overdue an upward correction

Manganese Ore pricing - US cents per Mn unit, fiscal year

Source: Assmang
Outlook for manganese ore market

Increased consolidation in the market means more disciplined marketing
- Ukrainian, Georgian and Eastern European capacity now under Ukrainian ownership, particularly in Europe (Privat)
- Similar to Iron Ore producers

Backward integration of steelmakers into manganese
- Arcelor Mittal purchased the OFZ smelter in Slovakia and became partners in the Kalagadi mine and smelter project in South Africa

Reducing grades, particularly in China
- Grades fallen from around 26% to 19% Mn

Rail and port bottlenecks continue – expansion slow and expensive
- Especially true for high grade producers
- South African export capacity expansion potential still being finalised
  - Accommodation of new BEE entrants

Production cost and capital pressures continue
- Labour; Electricity; Explosives; Steel; Tyres

Manganese Alloys Market
China has become a large producer of crude steel

China is the largest producer of Ferro Manganese

Source: Assmang; International Iron and Steel Institute (IISI)
Accounts for 98% of world steel production

Source: IMnI
2005: China 43%

Million tons of crude steel

World production of manganese ferro-alloys by region (2007)
China’s manganese alloy production has almost doubled in 3 years

- China exports about 18% of its alloy production and is an important swing exporter
- China’s growth is skewed towards Silicon ferro manganese
- Assmang produces mainly HC FeMn, with sales to North America and Europe being less exposed to Chinese growth in exported alloys
- Assmang is also targeting developing regions in South Africa, India, South America and the Middle East

Increased manganese ore imports required from China

- Consumption of manganese alloys in China, split by origin of manganese ore (in units of contained Mn)

Source: Hatch
Chinese manganese alloy market is changing

**Cost pressures**
- Price increases of electricity and raw materials
- Seaborne freight
- Increasing cost of labour
- Increasing input in environmental protection

**Cost reduction**
- Increased manganese grade in alloy and ore
- Chinese production required for local consumption, possibly going to import a large amount of alloy
- More efficient production and improved use of technology

**Increasing Cost of Ferro Alloys**
- Increase of export tariff from 10% to 20%
- Increasing demand for Chinese manganese alloys
- Governmental intervention in closing down inefficient smelting capacity

Source: Minmetals

**Typical world alloy cost breakdown**

Structure of world average Electric Arc Furnace site operating costs for HCFeMn, 2006, %

- Mn Ore 42%
- Electricity 24%
- Reductant 16%
- Other 18%

Source: IMnI; Assmang

Assmang benefits from being an integrated alloy producer
South Africa’s manganese ore output may need to increase by at least 150% to meet anticipated growth in demand for manganese alloys in steelmaking.

<table>
<thead>
<tr>
<th>Thousand tonnes</th>
<th>2006</th>
<th>~2026</th>
<th>Change</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>2000</td>
<td>4000</td>
<td>+2000</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>600</td>
<td>100</td>
<td>-500</td>
<td>Nearing exhaustion</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>200</td>
<td>+200</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>3100</td>
<td>200</td>
<td>-2900</td>
<td>Nearing exhaustion</td>
</tr>
<tr>
<td>Gabon</td>
<td>1500</td>
<td>2500</td>
<td>+1000</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>100</td>
<td>200</td>
<td>+100</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>600</td>
<td>600</td>
<td>-</td>
<td>Nearing exhaustion</td>
</tr>
<tr>
<td>India</td>
<td>800</td>
<td>1000</td>
<td>+200</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>300</td>
<td>300</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>2300</td>
<td>5800</td>
<td>+3500</td>
<td></td>
</tr>
<tr>
<td>Ukraine</td>
<td>700</td>
<td>2200</td>
<td>+1500</td>
<td>Re-open Tavrichesky</td>
</tr>
<tr>
<td>Total</td>
<td>11600</td>
<td>17100</td>
<td>+5500</td>
<td>13 mt required</td>
</tr>
</tbody>
</table>

Data: Hatch Beddows. Note: 1. Mn contained. Data is approximate only.

High Carbon Ferro Manganese Demand/Supply Balance

- Forecast expected to match manganese ore
- Small surpluses expected from 2012

Source: IMnI, CRU 16 April 2008, Manganese Market Review
Manganese alloy prices have experienced an upward correction similar to ore

Ferro Manganese Prices, Calendar year averages, US Delivered, $/t

<p>| | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Assmang

Outlook for manganese alloy market

Increased raw material shortages
- Manganese ore – increased consolidation and control, amid a reducing resource
- Reductant - Coking Coal + 300%
- Labour – Specialised skills base
- Electricity

Electricity shortages resulting in increased costs and volatile production
- South African power shortages expected to persist
- Chinese power disruptions

Environmental and safety regulations are becoming more stringent
- Closure of inefficient operations
- Production disruptions/reductions due to increased regulatory interventions

Government imposed price interventions in China
- Minimum quota based pricing
- Export taxes
- Anti-dumping restrictions

Future expansion significantly more expensive

Improvements in technology
Section 6
ARM Ferrous: Manganese

Assmang manganese competitive advantage

Timing
- Nchwaning III – only new manganese ore mine in last seven years
- Invested capital in new mine – lower cost of invested capital

High Grade
- Currently mining 60% of high grade resources in KMF (in SA)
- 3rd highest grade globally
  - Nchwaning average grade over life of mine = 44%Mn
  - Gloria average grade over life of mine = 36%Mn

Low Cost
- Bottom quartile on the cost curve for ore and alloy
- Integrated High Carbon Ferro Manganese alloy producer
- New cost effective infrastructure, shafts and plants
Assmang manganese competitive advantage

Experience
→ 75 years of mining/marketing experience
→ Customer relationship
→ 60% of Nchwaning resources mined i.e. still 40% available at low cost mining
→ 20% of Gloria resources mined

Customers
→ Established customer base over many years in ore and alloys operations

Refined FeMn capability
→ To facilitate higher steel grade demand

Consistency
→ Consistency of product key to customers
→ Homogenous ore body
→ New underground blending stockpiles at Nchwaning

Assmang Manganese competitive advantage

Product
→ Excellent blend ore and ideal for use in high grade alloys and steel products
→ Low degradation in transport and furnaces
→ Less fines – improved smelter efficiencies
→ Low phosphorous

Infrastructure
→ Excellent surface infrastructure currently in place
→ New town for housing employees
→ Water link in place
→ Power supply secured (with ability to supplement Eskom electricity if required)
→ Rail links in place

Strong financial position to pursue further opportunities to develop the business
Assmang volume growth

- Manganese Ore mining capacity = 5.4 million tonnes per annum (incl new plant)
  - Local / Cato Ridge capacity requirements = 0.9 million tonnes per annum
  - Total volume available for export = 4.5 million tonnes per annum

- Resource can support significant increase in production, but volume growth constrained by
  - Significant increases in capital cost
  - Logistical constraints
  - Future market demand
  - Electricity: Ability to expand alloy capacity – Cato Ridge planned 80 000 tonne per annum increase delayed till 2014 (EIA outstanding)

- Main export channel is through Port Elizabeth, Assmang will need to continue to be innovative

<table>
<thead>
<tr>
<th>Million tonnes of exported manganese ore</th>
<th>PE total capacity</th>
<th>Assmang allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>2010/11</td>
<td>4.2</td>
<td>↓</td>
</tr>
<tr>
<td>2012</td>
<td>6.0</td>
<td>↓</td>
</tr>
<tr>
<td>Other logistics options</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Assmang anticipated export capacity</td>
<td>3.4</td>
<td></td>
</tr>
</tbody>
</table>

Currently feasibilities are underway to increase South Africa’s manganese export capacity to 14 million tonnes in the long term.
Thank you