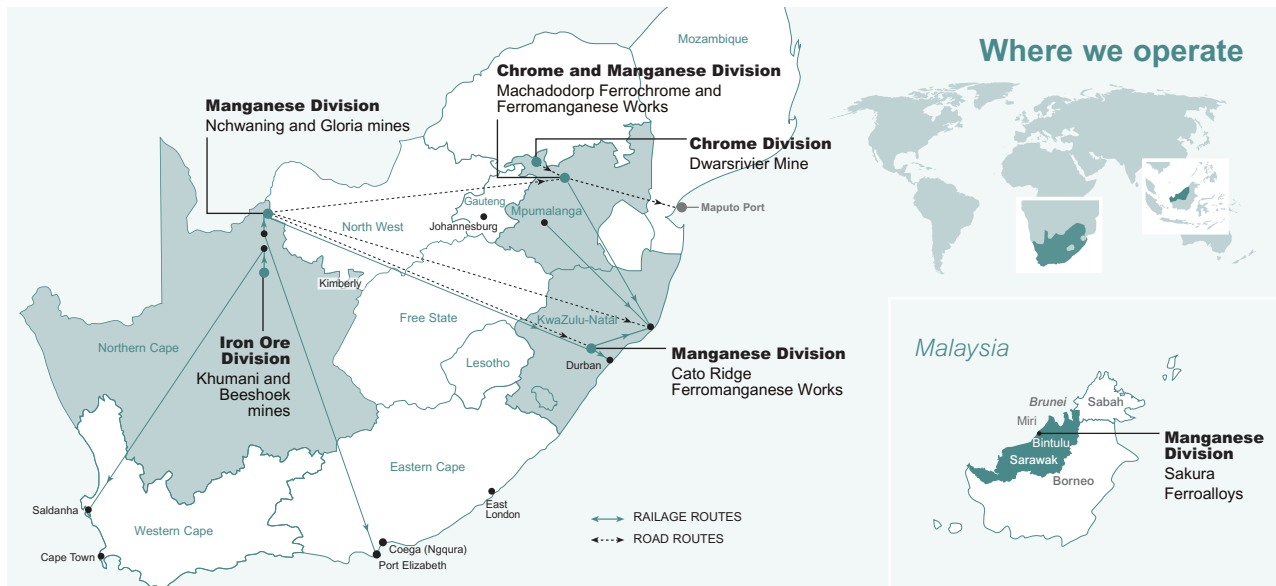
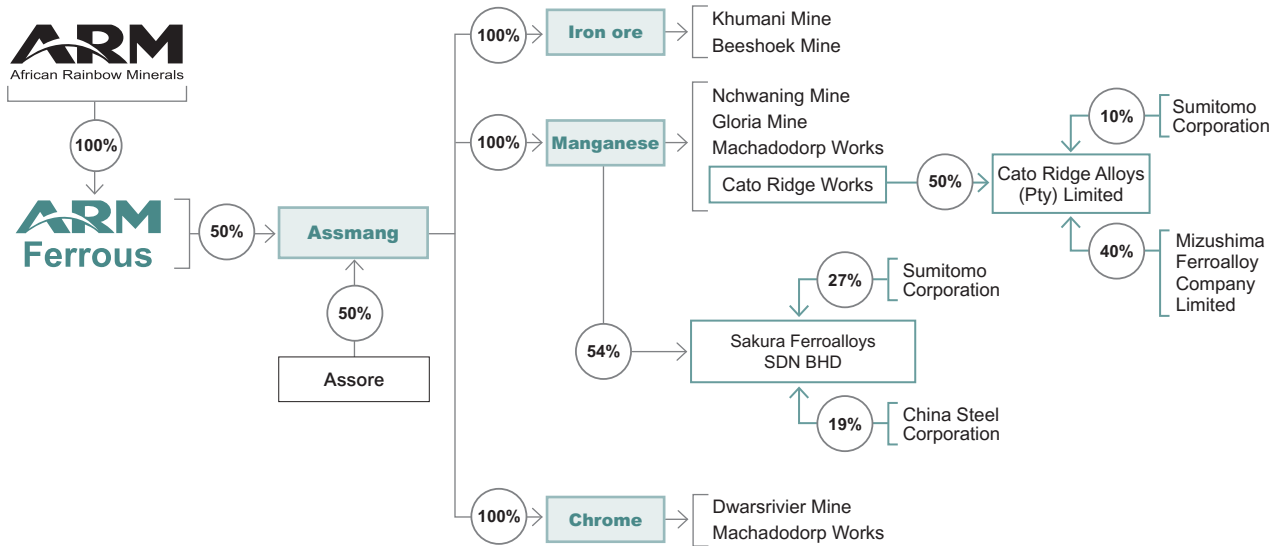


Operational review



André Joubert
Chief Executive: ARM Ferrous

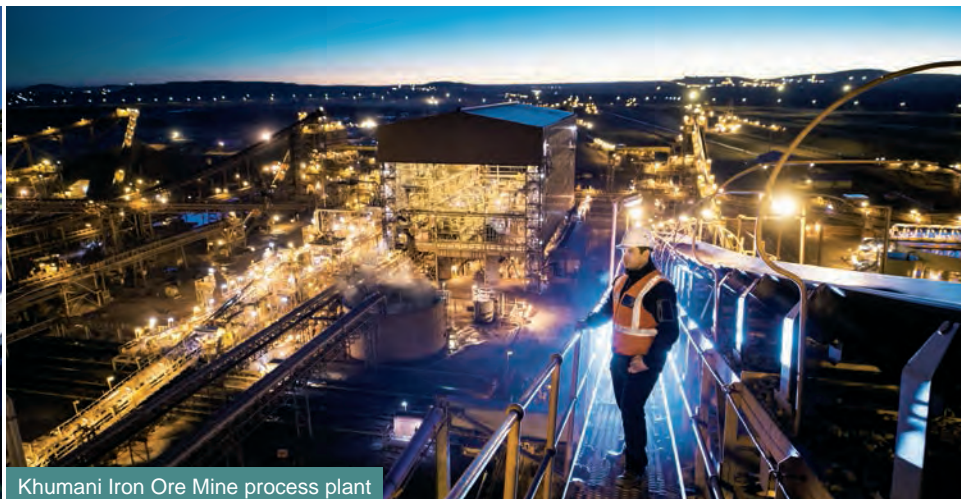
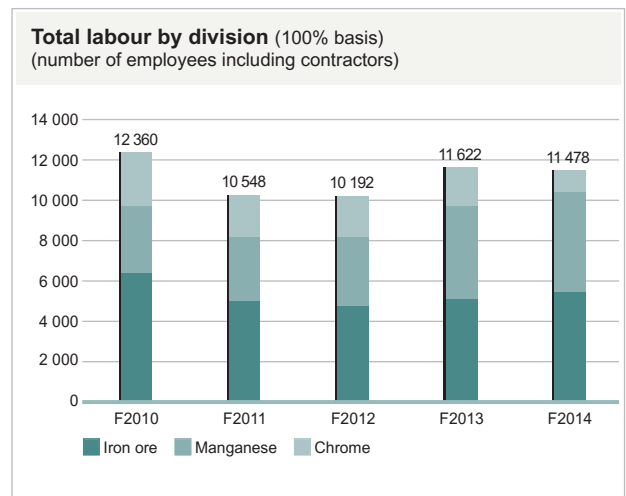
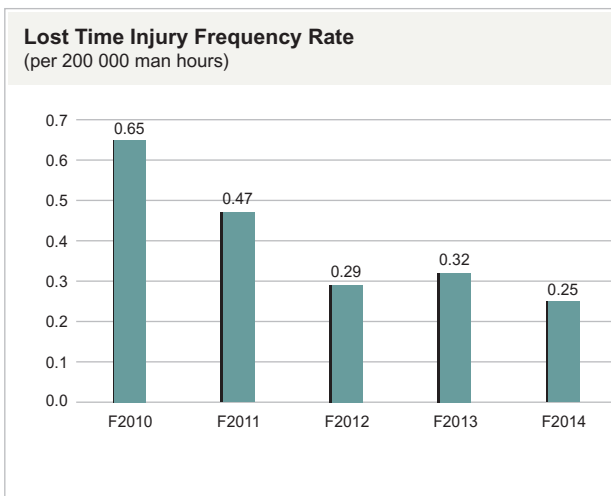
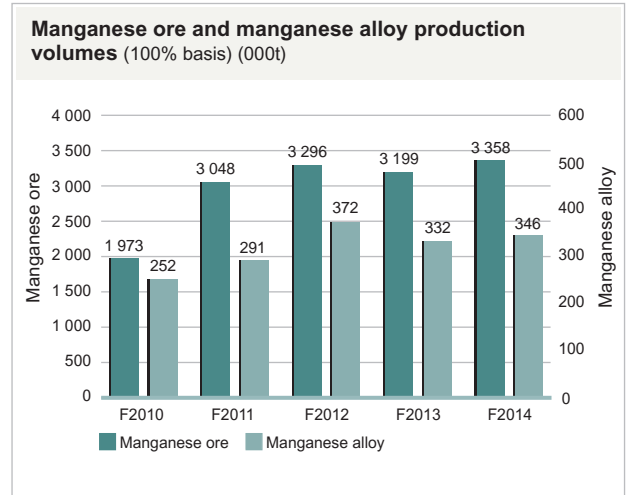
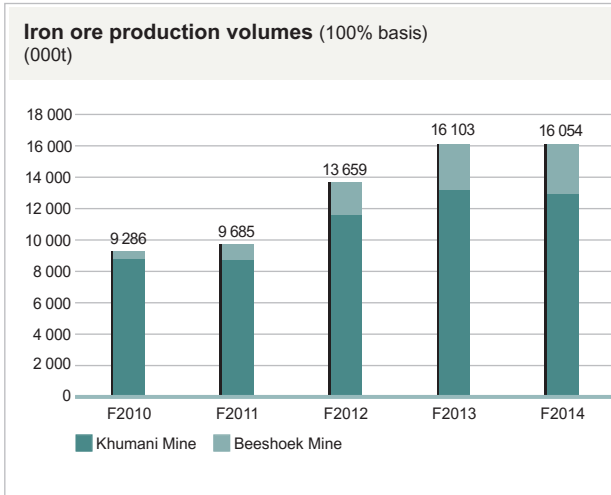
Divisional structure



The ARM Ferrous contribution to headline earnings increased significantly from R3 194 million in F2013 to **R3 736 million** in F2014.

Total attributable capital expenditure
R1 753 million

Total Community Responsibility expenditure
R136 million



Khumani Iron Ore Mine process plant

Scorecard

F2014 objectives	F2014 performance	F2015 objectives
Iron ore		
Focus on creating steady state conditions, achieving benchmarked operational efficiencies and maintaining operating margins.	The Khumani Operational Excellence Programme scope was initiated and finalised. The main aim of the programme is to improve operational efficiencies and increase saleable production. The programme was initiated in January 2014 and progressive improvements made enabled the Khumani Plant to process an additional 1.2 million tonnes of off-grade iron ore through the jig plant.	Expand the Khumani Operational Excellence Programme to cover the whole value chain. The main aim being to de-bottleneck all processes and systems to maximise production output within resource and design constraints. This will include the enhancement of resource management, maintenance and support services practices and the implementation of an improved business performance management systems to ensure operating margins can be maintained.
Adhere to contractual requirements of the 14 million tonnes per annum agreement with Transnet and improve throughput performance at the load-out stations.	A total of 13.65 million tonnes of iron ore was exported. Improved performance through the load-out stations was achieved and design load-out rates were demonstrated.	Export a total of 13.5 million tonnes of saleable iron ore for the financial year. Commission the third party load-out facility to improve the operational flexibility between Beeshoek and Khumani.
Prepare to develop the Beeshoek Village Pit and purchase own production fleet at Beeshoek Mine.	Preparations to develop the Beeshoek Village Pit were initiated. This entailed the relocation of critical operational infrastructure, the relocation of the majority of employees from the Beeshoek Mine Village to Postmasburg and the purchasing of the production fleet required.	Complete the relocation process of employees to Postmasburg and initiate the waste stripping process to enable iron ore extraction from the Village Pit.
Agree with Transnet on future capacity allocation through the Saldanha Export Channel.	A formal request was submitted to Transnet on future capacity allocation through the Saldanha Export Channel. The Transnet re-allocation process has not been finalised.	Identify and initiate actions and projects to sustain and secure current as well as future water supply demand capacity to support the potential increase in off-grade ROM processing capacity at Khumani.
Manganese ore		
Agree with Transnet on future capacity allocation.	A formal request was submitted to Transnet on future capacity allocation. The Transnet re-allocation process has not been finalised.	Monitor the Transnet re-allocation process for future export capacity and agree on capacity allocations.
Complete the revised scope to expand production at the Black Rock Mine complex, approve the project and initiate the execution of the planned project activities.	The project review was successfully completed and the revised scope and budget was approved by the ARM and Assore Boards. The project programme was initiated and early project preparation work was completed.	Manage the Operation Readiness initiatives and Expansion Project Programme to ensure the achievement of the key milestones, within time and on budget. Successfully insource underground mining development originally included as part of the EPCM contractor scope.
Manganese alloy		
Complete a review of the short-to-medium term strategy for the South African based smelters to ensure financial sustainability of these smelters.	The short-to-medium term strategy for the South African based manganese smelters was completed during the second half of the financial year.	Re-engineering and re-structuring of both smelter operations to align with the short-to-medium term strategy will be initiated.
Investigate innovative means of increasing competitiveness of the smelters, i.e. co-generation opportunities, alternative ore mixes, maximising output from a single smelter site.	<ul style="list-style-type: none"> Alternative operational initiatives were identified and narrowed down to the few options which will ensure sustainable smelter businesses over the medium term creating financial sustainability for the overall Manganese Division. The production of sintered pellets from manganese slimes and the replacement of manganese ore with the slimes sintered pellets on one of the smelter furnaces were successfully done. 	Evaluation of alternative options identified in the strategy to further improve the sustainability of the manganese smelters will be investigated.
Initiate the successful execution of the Sakura Ferroalloys Project in Malaysia. Project construction planned to commence in February 2014.	Successfully concluded the necessary contracts with contractors and suppliers. Appointed key personnel in Malaysia and commenced with civil construction on site.	Ensure successful construction of the Sakura Smelter as per the agreed project plan.

F2014 objectives	F2014 performance	F2015 objectives
Chrome		
<ul style="list-style-type: none"> Complete the execution of the business re-engineering initiatives and achieve sustained improved business performance. Review innovative means of improving business results i.e. PGM recovery from the tailings stream of Dwarsrivier Mine. 	<ul style="list-style-type: none"> The Dwarsrivier re-engineering and restructuring initiatives were completed during the year. Cost reduction objectives were achieved while maintaining underground and final product production volume output. 	<ul style="list-style-type: none"> Increasing the underground production volumes with the implementation of the operational initiatives while maintaining the production cost profile. Increase final product production volumes through the development of the new North shaft and improvement of the plant yield.

Overview

Operational overview – attributable to ARM		F2014	F2013	% change	Operational target F2015
Manganese ore sales volumes	000t	1 354	1 428	(5)	↑
Nchwaning*	000t	1 023	1 092	(6)	↑
Gloria*	000t	331	335	(1)	→
Ferromanganese sales volumes	000t	139	130	7	→
Cato Ridge	000t	104	105	1	→
Machadodorp	000t	35	25	40	→
Iron ore sales volumes	000t	7 820	8 035	(3)	↑
Khumani	000t	6 709	7 028	(5)	↑
Beeshoek	000t	1 111	1 006	11	↑
Chrome sales volumes					
Dwarsrivier chrome ore*	000t	494	527	(6)	→
Machadodorp charge chrome	000t	16	39	(59)	↓

* Excludes intra-company sales.

Financial overview – attributable to ARM		F2014	F2013	% change
EBITDA	R million	5 888	5 304	11
Capital expenditure	R million	1 753	1 951	(10)
Headline earnings	R million	3 736	3 194	17

Sustainability overview – 100% basis		F2014	F2013	% change
LTIFR*		0.25	0.32	(22)
CSR Spend**	R million	136	101	35
Electricity consumption	000 MWh	1 216	1 199	1
Water consumption	million m ³	11.7	13.7	(15)
Total Scope 1 and Scope 2 emissions	tCO ₂ e	845 948	829 829	2

* LTIFR: Lost Time Injury Frequency Rate per 200 000 man-hours.

** CSR: Corporate Social Responsibility.

All figures are on a 100% basis except the Scope 1 and Scope 2 emissions (tCO₂e), which is attributable to ARM (as per the Carbon Disclosure Project submission).

Operational and financial review

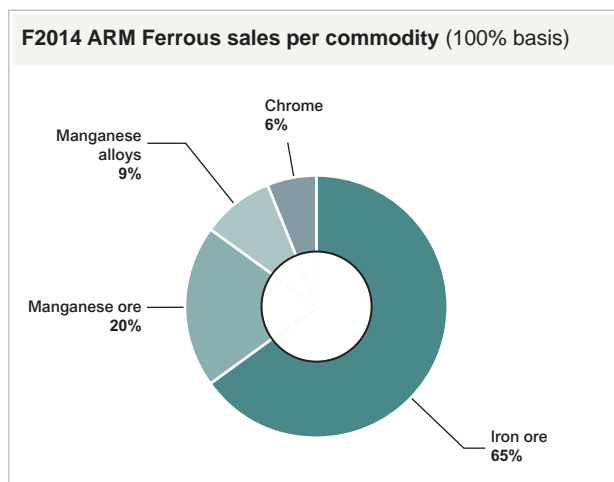
Assmang reported a record turnover of R27.56 billion for F2014 (F2013: R24.92 billion). The increased revenue was mainly due to higher US Dollar prices realised for lumpy iron ore and high-grade manganese ore together with a 17% weakening of the Rand. US Dollar prices for iron ore fines and low-grade manganese ore were lower as oversupply of both products in the market put prices under pressure.

Iron ore export sales volumes were 3% lower mainly due to interrupted water supply at the Khumani Mine in the first half of the financial year. The mine is currently working with the Sedibeng Water Board to ensure a long-term solution to the water supply issues in the area. Local iron ore sales from the Beeshoek Mine remained constant at 2 million tonnes.

Manganese ore sales volumes decreased 5% to 2.7 million tonnes due to reduced local sales.

Manganese alloy sales volumes however increased marginally to 279 thousand tonnes. The manganese alloy market remains under pressure and as a result, the ARM Ferrous smelters continued to produce at below capacity. ARM and Assore are currently reviewing the strategy for the smelters and have since implemented a number of cost-saving changes at the smelters to ensure that they preserve cash.

Chrome ore sales volumes decreased by 6% to 988 thousand tonnes, while chrome alloy sales volumes decreased.



Assmang cost and EBITDA margin performance

Commodity group	Cost of sales unit cost change %	On-mine production cost unit cost change %	EBITDA margin %
Iron ore	8	10	54
Manganese ore	13	14	34
Manganese alloys	20	12	5
Chrome ore	(4)	(2)	14

Iron ore

The Iron Ore Division contributed a significant R3 178 million to the Assmang headline earnings. This represents a 14.9% increase compared to the previous corresponding year.

Export sales from Khumani decreased by 4% from 14.0 million tonnes to 13.4 million tonnes mainly due to interrupted water supply at the mine. The production unit cost increased by 10.6% for the same reason.

Beeshoek Mine production increased from 2.9 million tonnes to 3.1 million tonnes. External sales from Beeshoek Mine increased by 10% from 2.0 million tonnes to 2.2 million tonnes (of which 2 million tonnes was sold locally). A total of 0.4 million tonnes iron ore was moved from Beeshoek Mine to Khumani Mine and sold into the export market to maximise export sales.

Manganese

The Manganese Division's contribution to headline earnings was 12.6% higher. The US Dollar prices realised for manganese ore were largely flat whilst the manganese alloys prices decreased.

Manganese ore sales volumes decreased from 2.9 million tonnes to 2.7 million tonnes due to reduced manganese ore local sales. On-mine unit production cost increased by 14% due to increased tramming distances between shaft infrastructure and underground work areas. Capital expenditure to upgrade the mine and reduce distances to and from work areas has already been approved as part of the Manganese Ore Expansion Project.

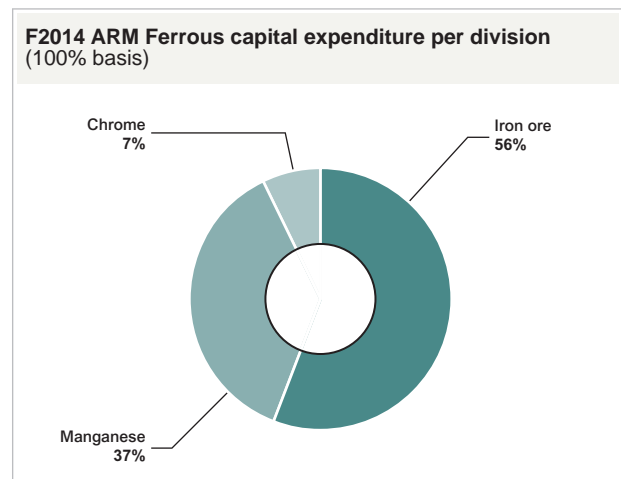
Manganese alloy sales volumes were 4% higher at 279 000 tonnes. One furnace and the raw material feeder system was impaired at Machadodorp Works. The strategy for South African smelters is currently under review.

The increase in unit production cost was mainly due to higher than inflation increase of electricity rates. Both Machadodorp and Cato Ridge operations implemented initiatives to reduce costs through efficiency improvements and cost optimisation. Manganese alloys unit production costs were contained to increase by 12% despite above-inflation electricity cost and labour increases.

Chrome

Chrome ore sales from Dwarsrivier Mine decreased by 6% to 0.99 million tonnes as more chrome ore became available for the local and export markets.

Capital expenditure



The total capital expenditure was 10% less at R3.64 billion (F2013: R4.06 billion).

The main capital expenditure items included the equipment procured for the Beeshoek Mine's planned Village Pit and the East Pit waste removal. The final completion and commissioning of the Wet High Intensity Magnetic Separation (WHIMS) plant, the railway line deviation around the King Pit and the off-grade 2 plant design work contributed to the majority of Khumani Mine's capital. At Black Rock Mine, the major capital expenditure was for underground mining equipment, waste development and the Gloria vent shaft pre-sink. At Dwarsrivier Mine capital was spent on the mine optimisation project, the north underground shaft and plant equipment.

Logistics

Iron ore export sales were 13.64 million tonnes. Assmang also made its rapid load-out facility and mine stockpile capacity available for a BEE entrant, which enabled them to rail and export about 350 000 tonnes.

Manganese ore export sales were approximately 2.6 million tonnes. The manganese ore rail export channel to Port Elizabeth continued to operate under difficult conditions. Manganese ore is exported via Durban using a combination of rail and road transport. Some test consignments were also done through the Multi-Purpose Terminal in Saldanha, by making use of opportunistic rail capacity on the iron ore export line.

Assmang and Transnet continue to engage regarding future export capacity and growth for both iron ore and manganese ore. Transnet concluded its feasibility study to expand the manganese ore export capacity to 12 million tons per annum through the Port of Ngqura by February 2019 and to 16 million tonnes per annum by October 2020.

Human capital – Safety

ARM Ferrous achieved its best ever safety performance in F2014. The Lost Time Injury Frequency Rate (LTIFR) per 200 000 man-hours at ARM Ferrous improved by 22% to 0.25 (F2013: 0.32). The Division reported 31 lost-time injuries (F2013: 42), of which 16 were classified as reportable in terms of the Mine Health and Safety Act and the Occupational Health and Safety Act (F2013: 20). There were no fatalities at the ARM Ferrous operations in F2014.

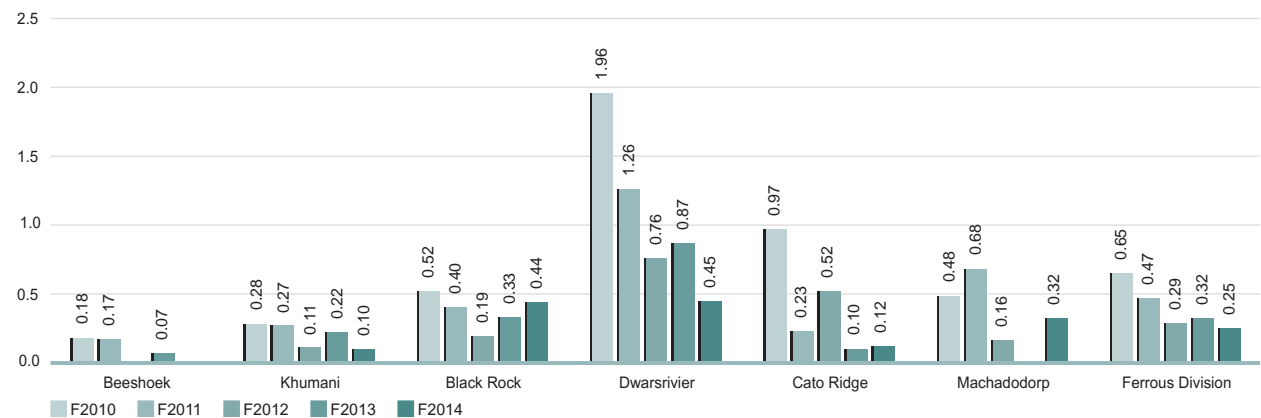
Details of the fatality-free shifts worked and dates of last fatalities at each operation are listed in the table below.

Operation	Total fatality-free shifts worked	Date of last fatality
Beeshoek Mine	2 630 489	March 2003
Black Rock Mine	3 021 918	April 2009
Dwarsrivier Mine	2 372 206	January 2009
Khumani Mine	4 272 640	February 2009
Cato Ridge Works	1 705 679	February 2008
Machadodorp Works	828 187	February 2011

Safety performance highlights for the year include:

- Dwarsrivier Mine completed 2 million fatality-free shifts during November 2013.
- Khumani Mine completed 4 million fatality free-shifts during March 2014.
- Beeshoek Mine completed 18 consecutive months without a lost-time injury and also achieved 12 000 fatality-free production shifts. The mine has not had a fatality since March 2003. Beeshoek Mine also received the award as the best mine in the base metals class at the annual Mine Safe conference.
- Cato Ridge Works achieved 349 consecutive days without a lost-time injury as at 30 June 2014.
- Black Rock Mine completed 3 million fatality-free shifts during June 2014.

ARM Ferrous safety performance (LTIFR)
(per 200 000 man-hours)



Human capital – Occupational health and wellness

The ARM Ferrous operations have implemented integrated policies on HIV, TB and sexually transmitted infections as required by the National Strategic Plan 2012 – 2016 and the Mining Charter. All operations offer primary health care services on site. HIV counselling is offered to all employees who visit the site clinics, but HIV testing remains voluntary – referred to as Counselling and Voluntary Testing (CVT).

As a result of CVT, 9 711 (F2013: 4 852) employees received counselling for HIV & Aids, 4 699 elected to be tested (F2013: 3 575) and 847 received Anti-Retroviral treatment (ARVs) compared to 329 in F2013. HIV prevalence at the ARM Ferrous operations is estimated to be below those of the districts in which they operate.

Various operations are involved in HIV & Aids related community outreach and awareness programmes. Dwarsrivier Mine built a new structure for the Ngwaabe community home based care in Sekhukhune and Black Rock Mine built a new structure for the Thusano community wellness centre. Beeshoek Mine funded a community feeding scheme for TB patients and people living with HIV & Aids in partnership with the South African National Tuberculosis Association (SANTA). Khumani Mine conducted wellness screening for orphans and vulnerable children in the Deben community where 30 orphans were referred for specialist treatment.

In terms of our integrated HIV, TB and sexually transmitted infections policy, TB screening was conducted on 21 026 employees (F2013: 12 689), with 50 new cases identified (F2013: 59). 45 TB cases were treated and successfully cured during the year. 14 cases of multi-drug resistant TB (MDR TB) were reported: 13 from Khumani and one from Black Rock. All 14 cases were admitted to special MDR hospitals for further management as required by the Department of Health.

Khumani is certified and accredited in terms of SANS 16001: 2013, which is the management system for wellness and disease management. Beeshoek is planning to undergo the first phase audits for certification in terms of SANS 16001: 2013 in September 2014. Gap analyses have been performed at all other ARM Ferrous operations in order to align the wellness and disease management programmes with the SANS 16001 standard, with a view to future certification.

Hearing conservation remains a focus at our operations, with 21 551 audiometric tests being conducted, including both employees and contractors during the year. Of these, 108 cases (F2013: 45) were referred for further investigation. Only one noise-induced hearing loss case was accepted for compensation for the year. All equipment at the ARM Ferrous mining operations emit sound levels below the 110 dB(A) maximum specified by the Department of Mineral Resources (DMR).

ARM Ferrous has a biological monitoring programme in place to monitor amongst others, exposure to manganese and coal, tar, pitch and volatiles (CTPVs) at the smelting operations: Cato Ridge Works and Machadodorp Works.

Human capital – Transformation

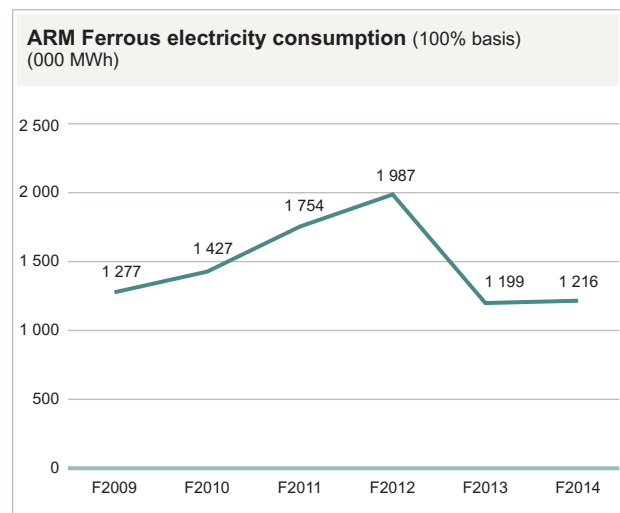
The mines in the ARM Ferrous Division all scored above 80% against the guidelines of the Mining Charter for the 2013 calendar year, receiving a classification of excellent performance.

Natural capital – Environment

Due to the energy intensive smelting activities at Cato Ridge Works and Machadodorp Works, ARM Ferrous accounted for 67% of ARM's total carbon footprint for F2014. The division produced an estimated 845 948 equivalent tonnes of CO₂ (tCO₂e) Scope 1 and 2 emissions on an attributable basis (F2013: 829 829 tCO₂e).

During F2014 the division consumed 1 215 622 MWh (F2013: 1 199 190 MWh) of electricity.

ARM Ferrous is a member of the Energy Intensive Users Association and has developed an Energy Efficiency Charter to map its development and implementation of energy-efficient practices. The main contributors of direct (Scope 1) Green House Gas (GHG) emissions are the two smelter operations, Cato Ridge Works and Machadodorp Works. Production teams at the two smelters focus on increasing efficiency, which reduces energy consumption and emissions. Energy targets form part of their bonus incentive systems, both individually and at team level.



Energy saving and carbon emissions reduction initiatives implemented by operations during the last two years, include:

- Machadodorp Works: Installed a new raw materials handling system. The new system came into operation in September 2013 and reduces fuel use by an estimated 59 000 litres per year.
- Machadodorp Works: Installed a dual tap hole system in furnace number 3 that has led to improved metal recovery and greater direct energy transfer.
- Machadodorp Works: Started recycling bag house filter dust in the pelletising/briquetting process. This eliminates the need to transport the filter dust to a waste facility, thereby saving fuel and reducing Scope 3 emissions.
- Khumani Mine: Installed a 100 kW solar plant saving the mine approximately 170 000 kWh a year. The mine is currently considering expanding the installation to 1 MW.

- Dwarsrivier Mine: Installed four new efficient ventilation fans to replace six booster fans and four other fans. .
- Cato Ridge: Installed variable speed drives on furnace 1 and 2 water cooling fans as an energy-efficiency measure.

Water is a scarce resource in the Northern Cape where Black Rock Mine, Beeshoek Mine and Khumani Mine are located. Water shortages and concerns about water supply infrastructure are potential growth constraints in these areas. ARM Ferrous operations accounted for 60% of the total abstracted by ARM operations. Beeshoek accounted for 56% of the division's water, although most of the mine's water is supplied to local communities and the mine's employee village. The volume of water abstracted by the ARM Ferrous operations was reduced by 15% to 11.7 million m³ in F2014 (F2013: 13.7 million m³).

Social and relationship capital – Corporate Social Responsibility

ARM Ferrous investment in Local Economic Development (LED) in terms of our Social Labour Plans (SLPs) increased 41% to R111 million in F2014 (F2013: R79 million). Corporate Social Investment (CSI) expenditure was R25 million (F2013: R21 million), bringing the total investment in CSR projects to R136 million (F2013: R101 million).

ARM Ferrous sponsors 26 qualified engineers to teach at schools located within Assmang's host communities through the TEACHSA initiative. The project supports the strengthening of Mathematics, Science and English and accelerate skills development.

Significant LED projects supported by ARM Ferrous include:

- An infrastructure revamp at the Ditharapaneng water scheme to improve access to potable water in needy communities by Black Rock Mine.
- Black Rock Mine's cadet training programme – mine trade training of unemployed youth.
- Electrification of households at Kalkfontein community by Dwarsrivier Mine.
- Tyre service centre employees were trained by Super Quick at Dwarsrivier Mine.
- Construction of the Ngwaabe home-based care centre by Dwarsrivier Mine.
- Provision of water and sanitation at Deben by Khumani Mine.
- Road repairs and upgrade at Gamagara municipal area by Khumani Mine.
- Financial support for Chazon Tekna school, a private school with a focus on English, Maths and Science by Machadodorp Works.
- Support for the Simunye Brick Making Plant by Machadodorp Works.
- Beeshoek Mine supported 25 bursary recipients studying at accredited tertiary institutions.

CSI projects included:

- Beeshoek Mine constructed a kitchen and Grade R classroom at Agang Thuto Primary School.
- Financial support and kit for the annual soccer tournament for Tsantsabane Youth Teams provided by Beeshoek Mine.

- Beeshoek Mine supported the Ammosal Rugby and Football Club with sports kit, development and scouting of under 15 and under 17 players.
- Providing extra lessons in English, Maths, Science and Accounting for Matric learners at eight neighbouring schools by Cato Ridge Works.

Intellectual capital – Mining authorisation

The Beeshoek Mine converted Mining Rights was executed on 16 March 2012 and registered on 29 May 2013. A company called Razita Mining Resources Proprietary Limited ("Razita") has recently been granted a prospecting right over an area that overlaps with parts of the Beeshoek mining area. Assmang has instituted review proceedings against the Department of Mineral Resources (DMR) and Razita requesting the court to review and set aside the DMR's decision to grant the prospecting right to Razita over an area that overlaps with the Beeshoek mining area. It is expected that the review application will be set down for hearing in the first quarter of 2015.

The Khumani Mine Mining Right was executed on 25 January 2007 and registered on 5 March 2007.

The Black Rock Mine converted Mining Rights was executed on 13 July 2011 and now awaits registration. Part of Black Rock Mining Right area overlaps with a mining right recently granted to Main Street 778 (Pty) Ltd (Main Street). Assmang and Main Street have now entered into an agreement in terms of which Main Street has agreed to rectify the overlap by making an application in terms of Section 102 of the MPRDA amending the Main Street mining area by excluding the overlapping area. The parties now await the approval of Main Street's section 102 application.

The Dwarsrivier Mine Mining Rights (for chrome ore) were executed on 15 May 2013 and have been lodged for registration. Abandonment documents have been submitted for the abandonment of the seam sold to Samancor.

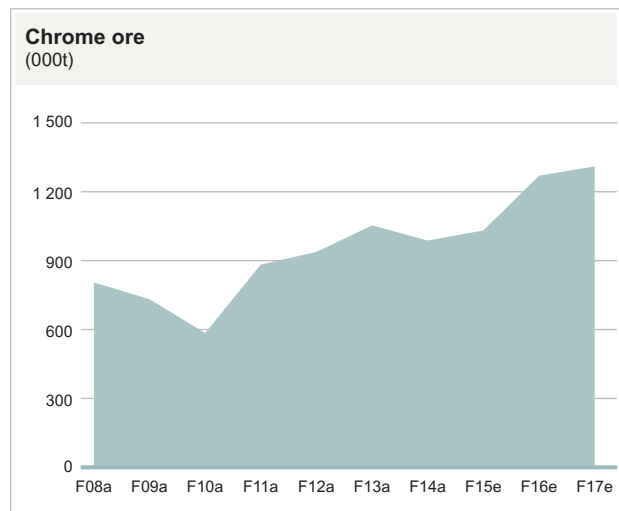
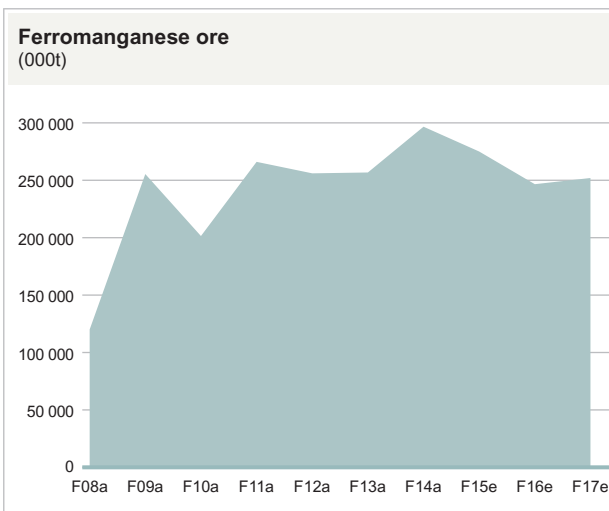
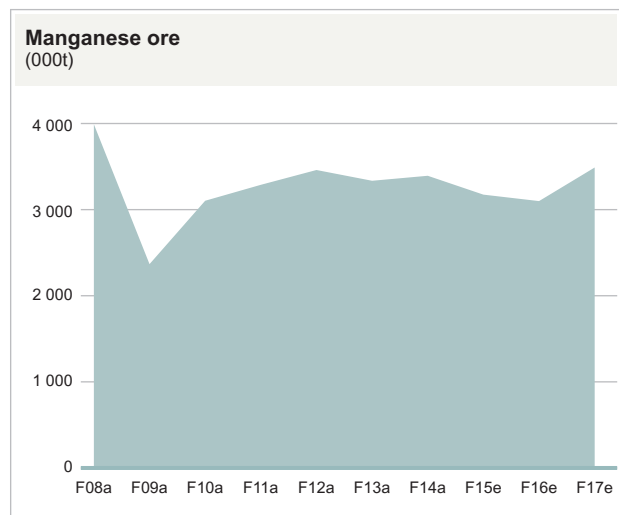
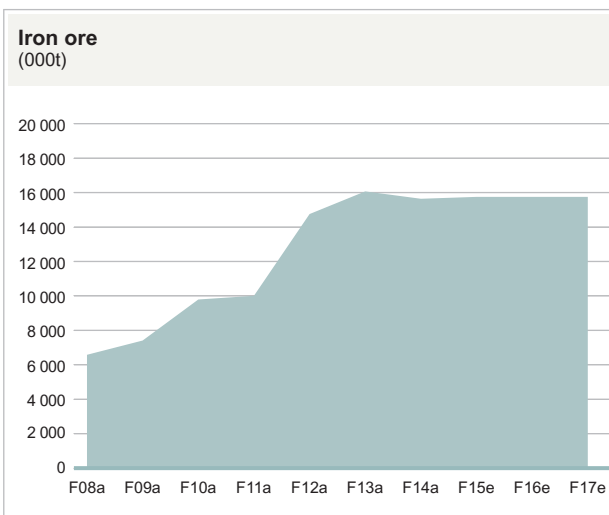
Projects

The following future prospects have been identified within Assmang to enhance the financial performance of the Ferrous Division:

- Evaluating possible alternative investment and production scenarios for the iron ore mines to ensure that capital efficiency is maximised. This will entail the evaluation of various options to sustain an export capacity of 14 Mtpa saleable product whilst considering life of mine and capital investment implications. The evaluation will further determine the extent to which the export qualities and volumes can be sustained into the future as well as the relevant impact these options will have on the Life of Mine (LOM) expectations of both Khumani and Beeshoek. The outcome of this evaluation will inform the production and capital schedules to be planned for the next business cycle.
- De-bottlenecking of the Khumani Plant feed and discard systems to enable the sustainable processing of 13 million tonnes of off-grade ROM material per annum through the jig plant.

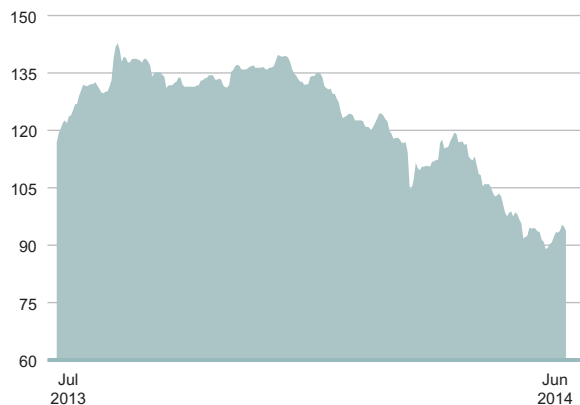
- Continued development of the Beeshoek Village Pit to enable Beeshoek to sustain a saleable production output of 3 million tonnes per annum. The first saleable production from Village Pit is scheduled in F2016.
- Maximising the beneficiation capacity at both Beeshoek and Khumani by identifying and targeting suitable alternative iron ore resources that can be fed to these facilities and converted into a saleable product. This will include the testing and development of suitable technologies and processes to upgrade lower yielding iron ore resources within the current lease areas.
- Execution of the approved Black Rock Mine Expansion Project to increase the saleable production capacity of the Black Rock Mine complex from 3.2 Mtpa to 4.6 Mtpa, thus enhancing the financial returns delivered by Black Rock through ensuring that the unit cost of production can be reduced in real terms over the life of mine and by specifically targeting saleable production from Seam 2, within the Nchwaning complex.
- Ensuring the short- to medium-term financial sustainability of the local smelters by identifying the optimal smelter configuration between the two local operations and extracting maximum value from synergies to be realised between these two operations will remain the focus for the foreseeable future. One single senior management structure for both smelters was implemented during the past financial year and the smelter business will be restructured and right-sized to the expected future alloy demand.
- Ensuring the successful construction of the Sakura Smelter in Malaysia and to be within time and within budget.
- Complete the roll-out of our automated business processes to ensure that our people and our resources can be managed efficiently and effectively such that their full value can be realised.

ARM Ferrous sales volumes from 2008 to 2017 (100% basis)

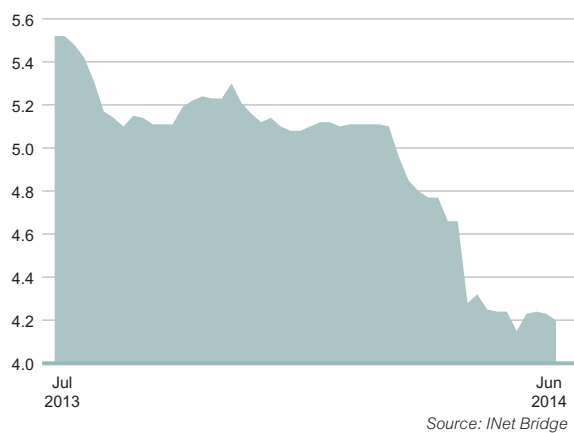


Ferrous pricing trends for F2014 (July 2013 to June 2014)

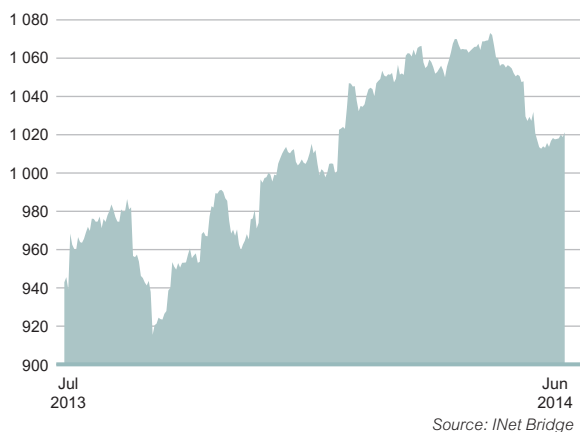
Iron ore fines spot prices 62% Fe
(CIF) (US\$/t)



Manganese ore spot prices 44%
(CIF) (US\$/mtu)



Ferromanganese spot prices 78%
(CIF) (US\$/t)



Market review

Steel

Growth in global steel production has once again continued during 2014 and the total is expected to be above 1 640 million tonnes for the calendar year. This is despite conflicts taking place in the Middle East and Ukraine and renewed signs of an economic downturn in Europe. There has been much speculation regarding falling growth rates in China along with potential lending and property bubbles, but Chinese steel production seems to be headed for yet another record year at well over 815 million tonnes. Optimists believe that Chinese growth will go on based on more stimulus measures being implemented by Chinese Central Government with investment into social housing, new rail lines and urban infrastructure.

In Asia, steel production is expected to remain strong with a revival of growth taking place in India due to the advent of a new pro-business government. North American production will remain at reasonable levels but there are renewed concerns regarding Europe, particularly Italy and France.

Iron ore

Despite an expectation that significant additional iron ore supply entering the market in the second half of 2013 would depress prices, the reality was that projects were delayed and demand was sufficiently robust that prices remained at relatively high levels. Since early 2014, a new reality has hit the market and after 10 years of very high prices and enhanced producer margins, it is now clear that iron ore has become a buyer's market. Most of the large Australian projects have now been commissioned and ramped up although there are still some in construction phase. In Brazil, Vale continues with expansion and other major projects are finally being brought on stream.

For now the price range for the 62% fines index seems to have been established between US\$80 and US\$105/t CIF China. This has meant that producers in the upper part of the cost curve have had to cut back or cease production in both China and elsewhere. Because much of the new production is lower grade, the differential between the higher and lower grade pricing indices has increased dramatically as have the penalties for impurities such as silica. Discounts to contract customers are also increasing. Should steel production falter or the supply side deliver more ore than forecast, it is not impossible that prices may fall below the current range.

An additional source of volatility over the last year has been the lumpy premium which has varied from as high as US\$19/t at the end of 2013 to a low of below US\$3/t in June 2014. It is clear that the extremely high levels which resulted from the Chinese authorities' environmental crackdown on polluting sinter plants were unsustainable. Likewise the extreme low levels did not reflect the Value in Use of lumpy ore and it is anticipated that going forward, lumpy premiums should increase.

ARM together with Assore Ltd has continued the strategy of marketing to those customers particularly in China, who derive maximum benefit from the physical and chemical characteristics of Assmang's ore. This has resulted in higher revenue and better customer retention. Spot shipments which are generally sold by competitive tender demonstrate that Assmang's ore is sought after. Although some long-term contract customers still purchase

on an FOB Saldanha basis, the initiative to convert more sales to a CIF basis continues. This gives Assmang more control over the loading and ensures that the most competitive freight rates are obtained. The strategy of diversifying away from China has proved difficult and for the past year. The percentage of export sales into China increased by 7% to 66%. On the positive side, the percentage of sales into Japan increased and Europe's percentage was maintained. No sales were made into India but with the anticipated increase in steel production, the decrease in seaborne ore prices and the problems with the domestic iron ore industry in that country it is expected to re-enter that market.

The South African market also proved challenging for the year. Local steel producers are under pressure because the announced infrastructure spend by Government has not yet gained traction because of the prolonged strikes in the platinum and metal industries. The marginal sales tonnage decrease from the previous year was a good result in the circumstances and there is optimism on tonnages for the next 12 months.

Manganese ore

Manganese ore has also moved into the position where it has become a buyer's market although the dynamic is different from the iron ore market. For the first three quarters of the financial year, prices remained at reasonable levels but then plummeted to the extent that they penetrated deep into the cost curve.

Steel production at record levels means that manganese consumption is also at record levels. However, the supply-side has again overtaken the demand. Over the last year the main culprit has been South Africa where the new producers in the Kalahari ramped up their production to the extent they flooded the market with medium grade semi-carbonate ore. Prices stabilised after there was a reduction in exports from Gabon, South Africa and Australia.

Although the higher grade ores are generally not in oversupply, these prices were also dragged down and the 44% Mn Metal Bulletin index fell to a low of \$4.15/mtu CIF China. They have subsequently recovered marginally and it is believed that the differential between the high grade and medium grade is now at a more realistic level.

However, going forward pricing is very much dependent on the cost structure of the new Kalahari entrants and the availability of cost competitive logistics in South Africa. Although Assmang is disappointed that Transnet Freight Rail has still not announced the allocations for its MECA 2 process (valid until Coega is commissioned in 2018/19), the high cost of road logistics from the Kalahari to the various ports is one important factor which is supporting prices. It is not expected that manganese ore prices will extend their gains much further in the short term because if this were to happen it would induce marginal production back into the market.

Manganese alloys

The picture on manganese alloys has not changed much in the last 12 months. Particularly on High Carbon Ferromanganese, the situation is very much one of potential oversupply. In the latter half of 2013, there were some supply cutbacks by major

producers which caused a minor recovery particularly in the European market. The exceptionally cold winter in North America also caused a strong temporary upward movement in that market when logistics were disrupted, but since then prices in both geographical areas which are the main seaborne markets have eroded. Once again without some supply side discipline it is difficult to see any positive movement in prices.

The situation in Medium Carbon Ferromanganese currently appears better. There were cutbacks on the supply side and prices did recover. However, margins may have become sufficiently attractive to entice marginal tonnage back into the market and our expectation is that prices may erode gradually.

In general, alloy plant margins are under pressure worldwide. Several smelters around the world have managed to negotiate with either governments or utilities for more favourable power rates an option which is not open to South African smelters which are becoming less competitive due to the above-inflation increases in administered prices. The proposed additional increase by Eskom in 2015 will only make the competitive position worse.

Chrome

The stainless steel, ferrochrome and chrome ore markets continue to be powered by China. Stainless production in China has risen to over 20 million tonnes per annum, which is more than 50% of the world total. China is also the largest consumer of ferrochrome particularly because it has a low scrap ratio and also produces a significant percentage of non-nickel containing stainless. As a result, it is also the largest ferrochrome producer with an estimated market share of 36%, compared to South Africa's 32%. However, China is poorly endowed with chrome ore deposits and is by far the largest importer of ore. In 2013, imports were greater than 12 million tonnes with South Africa supplying more than 50%.

Ferrochrome is still oversupplied and although there have been some closures of smaller producers in China, several large new smelters have been commissioned. New capacity is planned in Finland and Kazakhstan, and the South African producers have increased their capacity utilisation post the Eskom buybacks. Although Assmang is no longer operating chrome furnaces, it is still producing charge chrome from historical slag and has established niche markets for these products. With the substantial over capacity, it is not anticipated that ferrochrome prices will have much recovery in the short term.

Chrome ore prices have performed better than expected, principally as a result of the prolonged strike action in the platinum sector which deprived the market of much of the low grade UG2 concentrates. Prices for metallurgical grades recovered substantially but the expectation is that as the UG2 production ramps up and reaches the market there will be a decline in prices in the short term. In the medium term, the continued cost pressures on South African charge chrome smelters may result in further production cutbacks, freeing up more chrome ore for export. On the more positive side, if platinum production is curtailed there may be less UG2 available in future.

Iron Ore Division

Beeshoek and Khumani iron ore mines



Management: Jointly managed by ARM and Assore, through Assmang. ARM provides administration and technical services, while Assore performs the sales and marketing function as well as technical consulting services.

Resources – Measured and Indicated (100% basis)	Beeshoek Khumani	110.33 million tonnes, 64.02% iron 646.40 million tonnes, 64.25% iron
Reserves – Proved and Probable (100% basis)	Beeshoek – Dumps	46.13 million tonnes, 64.31% iron 7.50 million tonnes, 55.17% iron
	Khumani – Dumps	550.10 million tonnes, 64.41% iron 5.59 million tonnes, 56.70% iron
Total labour	5 427 employees includes 3 200 contractors	

Iron Ore Division – operational statistics

		F2011	F2012	F2013	F2014	% change
Attributable headline earnings	R million	2 327	2 968	2 766	3 178	15
Operating margin	%	61	55	47	46	
Total iron ore sales	000t	10 006	14 753	16 070	15 640	(3)
Beeshoek Iron Ore Mine						
Iron ore produce	000t	960	2 104	2 936	3 124	6
Iron ore sold	000t	688	1 389	2 013	2 223	10
Sales revenue	R million	407	724	1 236	1 668	35
Total costs	R million	263	367	656	726	11
Operating profit	R million	144	357	580	942	62
Capital expenditure	R million	83	306	550	931	69
Khumani Iron Ore Mine						
Iron ore produced	000t	8 725	11 555	13 167	12 930	(2)
Iron ore sold	000t	9 318	13 364	14 057	13 418	(5)
Sales revenue	R million	9 935	14 572	14 454	15 999	11
Total costs	R million	3 598	6 558	7 567	8 608	14
Operating profit	R million	6 341	8 013	6 887	7 391	7
Capital expenditure	R million	3 142	3 033	2 159	1 127	(48)



Refer to pages 203 to 204 for the Iron Ore Division segmental information.

Manganese Division

Nchwaning and Gloria Manganese Ore Mines and Cato Ridge Ferromanganese Works



Management: Jointly managed by ARM and Assore, through Assmang. ARM provides administration and technical services, while Assore performs the sales and marketing function as well as technical consulting services.

	Nchwaning			Gloria				
		Tonnes (000)	Mn%	Fe%		Tonnes (000)	Mn%	Fe%
Resources – Measured and Indicated (100% basis)	Seam 1	136.58	43.1	9.4	Seam 1	125.68	37.4	4.7
	Seam 2	182.96	40.7	17.0	Seam 2	31.55	28.3	9.8
Reserves – Proved and Probable (100% basis)	Seam 1	102.76	43.2	9.3	Seam 1	100.52	37.5	4.7
	Seam 2	118.98	40.9	16.7	Seam 2	–	–	–
Black Rock								
Resources – Measured and Indicated (100% basis)	Seam 1	43.60	40.6	18.1				
	Seam 2	26.81	38.6	19.8				
Reserves – Proved and Probable (100% basis)	Seam 1	–	–	–				
	Seam 2	–	–	–				
Total labour	4 959 employees includes 1 878 contractors							

Manganese Division – operational statistics

		F2011	F2012	F2013	F2014	% change
Attributable contribution to headline earnings	R million	688	611	470	529	13
Operating margin	%	36	19	21	18	
Manganese ore						
Manganese ore produced	000t	3 048	3 296	3 199	3 358	5
Manganese ore sales*	000t	2 882	2 905	2 856	2 708	(5)
Sales revenue*	R million	4 338	3 985	4 950	5 556	12
Total costs	R million	2 398	3 136	3 545	3 962	12
Operating profit	R million	1 940	849	1 405	1 594	13
Capital expenditure	R million	238	470	777	1 269	63
Manganese alloys						
Manganese alloys produced	000t	291	372	332	342	3
Manganese alloys sold	000t	218	270	260	279	7
Sales revenue	R million	2 127	2 367	2 486	2 730	10
Total costs	R million	1 889	1 936	2 337	2 849	22
Operating profit	R million	238	431	149	(119)	(180)
Capital expenditure	R million	418	415	446	73	(84)

* Excluding intra-group sales.



Refer to pages 203 to 204 for the Manganese Division segmental information.

Chrome Division

Dwarsrivier Chrome Mine and Machadodorp Ferrochrome Works



Management: Jointly managed by ARM and Assore, through Assmang. ARM provides administration and technical services, while Assore performs the sales and marketing function as well as technical consulting services.

Resources – Measured and Indicated (100% basis)	51.00 million tonnes at 38.14% Cr ₂ O ₃
Reserves – Proved and Probable (100% basis)	35.02 million tonnes at 34.12% Cr ₂ O ₃
Total labour	1 092 employees including 516 contractors

Chrome Division – operational statistics

		F2011	F2012	F2013	F2014	% change
Attributable headline earnings	R million	(116)	(86)	1	64	>100
Operating margin	%	(11)	(13)	(10)	–	
Dwarsrivier chrome ore						
Chrome ore produced	000t	866	1 004	1 033	1 014	(2)
Chrome ore sold*	000t	373	521	1 054	988	(6)
Sales revenue*	R million	401	596	1 191	1 291	8
Total costs	R million	454	544	1 193	1 190	–
Operating (loss)/profit	R million	(53)	52	(2)	101	>100
Capital expenditure	R million	77	211	132	243	84
Machadodorp charge chrome						
Charge chrome produced	000t	237	186	23	22	(4)
Charge chrome sold	000t	238	174	77	32	(58)
Sales revenue	R million	1 867	1 444	685	317	(54)
Total costs	R million	2 048	1 754	862	234	(73)
Operating (loss)/profit	R million	(181)	(310)	(177)	83	147
Capital expenditure	R million	140	81	–	–	–

* Excluding intra-group sales.



Refer to page 203 to 204 for the Chrome Division segmental information.