ARM

African Rainbow Minerals

We do it better

Mineral Resources and Reserves 2011

Competent person's report on Mineral Resources and Mineral Reserves

This report is issued as the annual update of Mineral Resources and Reserves to inform shareholders and potential investors of the mineral assets held by African Rainbow Minerals Limited (ARM).

Salient features F2011

ARM Ferrous

Khumani	Waste stripping at King progressed in preparation for production.
Beeshoek	Production mainly for the domestic market, came from off-grade stockpiles processed through the jig plant.
Nchwaning	Investigations initiated to model the full package of the manganese seams in 0.5 m layers.
Gloria	Measured and Indicated Mineral Resources (No 1 Seam) increased by 79% to 92.23 million tonnes at 37.8% Mn as a result of remodelling which incorporated 42 new additional surface boreholes. The Inferred Resource decreased to 84 million tonnes.
Dwarsrivier	Surface drilling of 52 boreholes to upgrade the Mineral Resource confidence in the southern portion of the Mine completed. Remodelling to commence when all assay results are received.

ARM Platinum

Nkomati	Underground mineral resource models updated. Measured and Indicated Resources for the underground mine increased to 79.39 from 68.88 million tonnes at the same grade of 0.45% Ni due to increases in the resource volumes.
Two Rivers	New model for the entire Merensky reef was completed. Indicated Mineral Resources for the Merensky increased to 38.36 million tonnes at 3.17g/t (6E).

ARM Coal

Goedgevonden	Production increased by 118% to 5.9 million tonnes.

ARM Copper

Konkola North	Construction of the Konkola North Copper Mine started.

F2011 Mineral Resources/Reserves summary

Platinum	Mineral Resources (Measured and Indicated) Mt	(PGE+Au)g/t	Mineral Reserves (Proved and Probable) Mt	(PGE+Au)g/t	Moz
Two Rivers					
UG2	59.33	4.58(6E)	39.03	3.54(6E)	4.44(6E)
Merensky	38.36	3.17(6E)	–	–	–
Modikwa*					
UG2	141.2	5.89(4E)	55.43	4.86(4E)	8.65(4E)
Merensky	72.00	2.78(4E)	–	–	–
Nkomati	290.59	0.85(4E)	134.89	0.85(4E)	3.69(4E)
Kalplats	69.91	1.48(3E)	–	–	–

6E *= Pt+Pd+Rh+Ru+Ir +Au* ***4E*** *= Pt+Pd+Rh+Au* ***3E*** *= Pt+Pd+Au*
** Mineral Resources are exclusive of Mineral Reserves for Modikwa Mine.*

Nickel	Mineral Resources (Measured and Indicated) Mt	Ni%	Mineral Reserves (Proved and Probable) Mt	Ni%
Nkomati – Total MMZ+PCMZ	290.59	0.34	134.89	0.33

Manganese	Mineral Resources (Measured and Indicated) Mt	Mn%	Fe%	Mineral Reserves (Proved and Probable) Mt	Mn%	Fe%
Nchwaning						
No 1 Seam	126.69	44.9	8.6	106.28	44.9	8.6
No 2 Seam	180.80	42.4	15.5	–	–	–
Gloria						
No 1 Seam	92.23	37.8	4.9	68.25	37.8	4.9
No 2 Seam	29.40	29.9	10.1	–	–	–
Black Rock						
No 1 Seam	43.60	40.6	18.1	–	–	–
No 2 Seam	26.81	38.6	19.8	–	–	–

Iron ore	Mineral Resources (Measured and Indicated) Mt	Fe%	Mineral Reserves (Proved and Probable) Mt	Fe%
Beeshoek	118.97	63.75	55.13	64.04
Khumani				
Bruce	226.97	64.44	196.96	64.43
King	376.46	64.51	348.40	64.60

Chromite	Mineral Resources (Measured and Indicated) Mt	Cr_2O_3%	Mineral Reserves (Proved and Probable) Mt	Cr_2O_3%
Dwarsrivier	48.77	39.05	33.44	35.69
Nkomati	1.43	31.59	1.16	27.57

Coal	Mineral Resources (Measured and Indicated) Mt	Mineral Reserves (Proved and Probable) Mt	Saleable Mt
Goedgevonden	608.0	363.8	206.2

Copper	Mineral Resources (Measured and Indicated) Mt	%TCu	Mineral Reserves (Proved and Probable) Mt	%TCu
Konkola North	57.4	2.42	–	–

General statement

ARM's method of reporting Mineral Resources and Mineral Reserves conforms to the South African Code for Reporting Mineral Resources and Mineral Reserves (SAMREC Code) and the Australian Institute of Mining and Metallurgy Joint Ore Reserves Committee Code (JORC Code).

The convention adopted in this report is that Mineral Resources are reported inclusive of that portion of the total Mineral Resource converted to a Mineral Reserve, except for Modikwa Platinum Mine where the Mineral Resources are reported exclusive of the Mineral Reserves. Resources and reserves are quoted as at 30 June 2011. External consulting firms audit the resources and reserves of the ARM operations on a three- to four-year cycle basis.

Underground resources are in-situ tonnages at the postulated mining width, after deductions for geological losses. Underground Mineral Reserves reflect milled tonnages while surface Mineral Reserves (dumps) are in-situ tonnages without dilution. Both are quoted at the grade fed to the plant. Open-pit Mineral Resources are quoted as in-situ tonnages and Mineral Reserves are tonnages falling within an economic pit-shell.

The evaluation method is generally Ordinary Kriging with mining block sizes ranging from 10 x 10 metres to 100 x 100 metres to 250 x 250 metres in the plan view. The blocks vary in thickness from 2.5 to 10 metres. The evaluation process is fully computerised, generally utilising the Datamine software package.

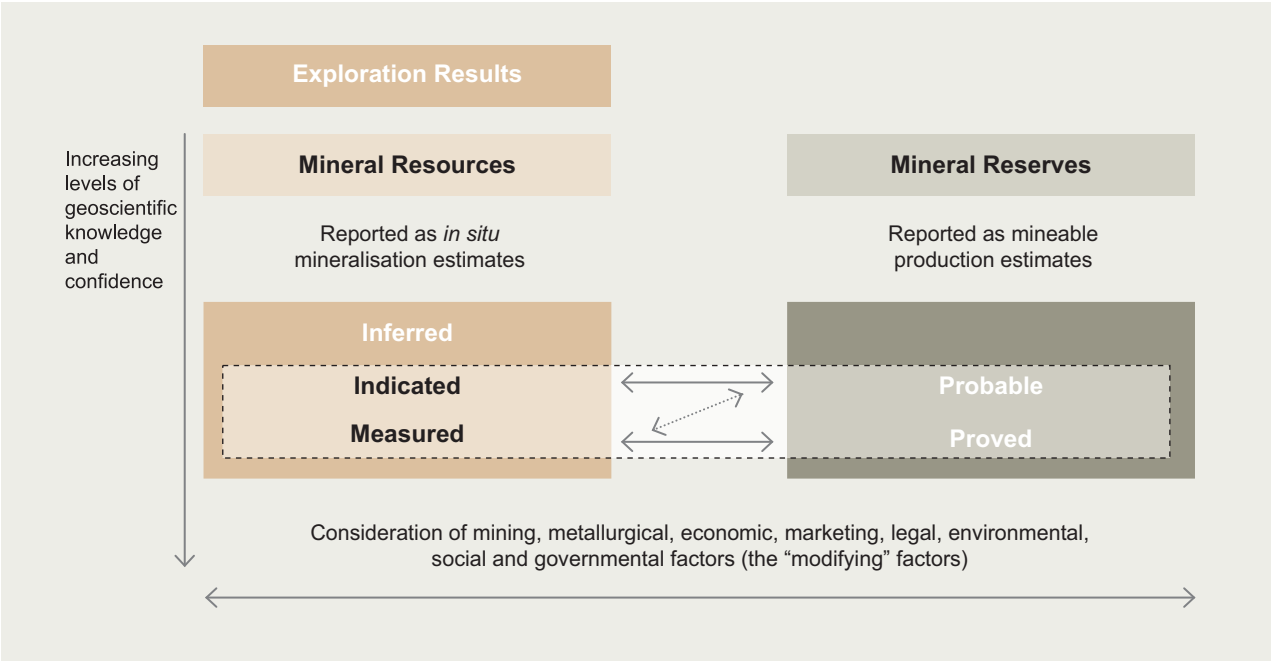
The Mineral Resources and Mineral Reserves are reported on a total basis regardless of the attributable beneficial interest that ARM has on the individual projects or mines. When the attributable beneficial interests on a mine or project is less than 100%, the actual percentage of the attributable interest is specified.

Maps, plans and reports supporting resources and reserves are available for inspection at ARM's registered office and at the relevant mines.

In order to satisfy the requirements of the Minerals and Petroleum Resources Development Act, ARM's operations will have to obtain new mining rights for all properties required to support the planned operations over the next 30 years. The act was effective from 1 May 2004 and the new rights must be obtained within five years from then. The operations are at various stages of application.

Rounding of figures may result in computational discrepancies on the Mineral Resource and Reserve tabulations.

Relationship between Exploration Results, Mineral Resources and Mineral Reserves



Competence

The competent person with overall responsibility for the compilation of the Mineral Reserves and Resources report is Paul van der Merwe, Pr.Sci.Nat, an ARM employee. He consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Paul van der Merwe graduated with a BSc (Hons) in Geology from Free State University. He spent four years as an exploration geologist for FOSKOR. He then joined the Uranium Resource Evaluation Group of the then Atomic Energy Corporation of South Africa for 12 years. While employed there he studied geostatistics and spent some time at the University of Montreal, Canada. In 1991 he joined Anglovaal Mining (now ARM) in the Geostatistics Department and evaluated numerous mineral deposit types for this group in Africa. In 2001, he was appointed as Mineral Resources Manager for the Group. He is registered with the South African Council for Natural Scientific Professions as a Professional Natural Scientist in the field of practice of geological Science, Registration Number 400498/83, and as such is considered to be a Competent Person.

All competent persons at the operations have sufficient relevant experience in the type of deposit and in the activity for which they have taken responsibility. Details of the ARM's competent persons are available from the Company Secretary on written request.

The following competent persons were involved in the calculation of Mineral Resources and Reserves. They are employed by ARM or its subsidiaries and joint venture (JV) partners:

	M Burger/ S v Niekerk	Pr.Sci.Nat Pr.Sci.Nat	Iron
	B Ruzive	Pr.Sci.Nat	Manganese
	A Pretorius*	Pr.Sci.Nat	Chrome
	S Kadzviti	Pr.Sci.Nat	Chrome/ Manganese
	M Davidson	Pr.Sci.Nat	Nickel
	J Woolfe	Pr.Sci.Nat	Nickel/Platinum
	R van Rhyn	Pr.Sci.Nat	Platinum
	S Kadzviti	Pr.Sci.Nat	Nickel/Platinum
	M Cowell	Pr.Sci.Nat	Platinum
	AMEC*		Copper

** External consultants*

P J van der Merwe

24 Impala Road, Chislehurston, Sandton

17 October 2011

Goedgevonden Coal Mine

ARM Ferrous

Assmang Limited Operations

ARM's attributable beneficial interest in Assmang's operations is 50%. The other 50% is held by Assore Limited.

Manganese Mines

Locality

The manganese mines are situated in the Northern Cape province in South Africa, approximately 80 kilometres North-West of the town of Kuruman. Located at latitude 27°07'50"S and longitude 22°50'50"E, the site is accessed via the national N14 route between Johannesburg and Kuruman, and the provincial R31 road.

History

In 1940, ARM Ferrous acquired a manganese ore outcrop on a small hillock known as Black Rock. Several large properties underlain by ore were subsequently found and acquired. Today the Black Rock area is considered to be the largest and richest manganese deposit in the world. Manganese ore operations were extended and today include the Gloria and Nchwaning underground mines. Manganese ore is supplied locally to Assmang-owned smelters, but is mainly exported through Port Elizabeth to Japanese and German customers.

Mining authorisation

The Nchwaning mining lease (ML10/76) comprises an area of 1 986 hectares and is located on the farms Nchwaning (267), Santoy (230) and Belgravia (264). The Gloria mining lease (ML11/83) comprises an area of 1 713 hectares and is located on portion 1 of the farm Gloria (266). The new mining right was executed on the 13th of July 2011. Registration of right is in process.

Geology

The manganese ores of the Kalahari Manganese field are contained within sediments of the Hotazel Formation of the Griqualand West Sequence, a subdivision of the Proterozoic Transvaal Supergroup. At Black Rock, Belgravia and Nchwaning, the Hotazel, Mapedi and Lucknow Formations have been duplicated by thrusting. The thrusted ore bodies comprising Black Rock (Koppie), Belgravia 1 and Belgravia 2 are collectively known as Black Rock ore bodies. The average thickness of the Hotazel Formation is approximately 40 metres.

The manganese orebodies exhibit a complex mineralogy and more than 200 mineral species have been identified to date. The hydrothermal upgrading has resulted in a zoning of the orebody with regard to fault positions. Distal areas exhibit more original and low-grade kutnohorite + braunite assemblages, while areas immediately adjacent to faults exhibit a very high-grade hausmannite ore. The intermediate areas exhibit a very complex mineralogy, which includes bixbyite, braunite and jacobsite amongst a host of other manganese-bearing minerals. A similar type of zoning also exists in the vertical sense. At the top and bottom contacts it is common to have high iron (Fe) and low manganese (Mn) contents while the reverse is true towards the centre of the seam. This vertical zoning has given rise to a mining practice where only the centre 3.5 metre-high portion of the seam is being mined. At the Gloria Mine the intensity of faulting is much less, which also explains the lower grade.

Two manganese seams are present. The No 1 seam is up to 6 metres in thickness, of which 3.5 metres are mined, using a manganese marker zone for control. There is, therefore, minimum dilution. No mining is presently undertaken on No 2 seam at Nchwaning or Gloria.

Nchwaning Mineral Resources and Reserves

Mineral Resource classification at Nchwaning Mine is based on consideration of a number of parameters: kriging variance, kriging efficiency, regression slope, geological structures and quality of assay data. Each of these parameters contributes to the overall classification depending on weighting assigned to each of the parameters. Measured and Indicated Resources have been defined for Nchwaning. Geological losses are built into the grade models.

The Nchwaning Mine was diamond drilled from surface at 330 metre centres and the data is now captured in a Geological Database Management System (GDMS) developed by CAE Datamine. The core was logged and 0.5-metre-long, half-core, diamond-saw cut samples were submitted to Assmang's laboratory at Black Rock for X-ray fluorescence (XRF) analyses. Mn and Fe values were checked by Wet Chemical analyses. Several standards were used to calibrate XRF equipment, and results are compared with other laboratories on a regular basis.

At Nchwaning a total of 316 boreholes as well as a total of 30 587 face samples were considered in the grade estimation for Nchwaning 1 orebody. The available data for an area was optimised over a thickness of 3.5 metres and exported into data files for computerised statistical and geostatistical manipulation to determine the average grades of Mn, Fe, silica (SiO_2), calcium (CaO) and magnesium (MgO).

Ordinary Kriging interpolation within Datamine was used to estimate the grade of each 50 x 50 x 3.5 metre block generated within the geological model.

Sub-cell splitting of the 50 x 50 metre blocks was allowed to follow the geological boundaries accurately. The relative density of Nchwaning manganese ore was taken as 4.3 t/m^3.

Trackless mechanised equipment is used in the board and pillar mining method. Mining in the eastern extremity of Nchwaning occurs at a depth of 200 metres while the deepest (current) excavations can be found at a depth of 519 metres below surface.

Ore from Nchwaning No 2 Mine is crushed underground before being hoisted to a surface stockpile via a vertical shaft. Similarly, ore from the Nchwaning No 3 Mine is crushed underground before

ARM Ferrous continued

being conveyed to a surface stockpile via a declined conveyor system. Ore is withdrawn from the surface stockpile and forwarded to two stages of crushing, dry screening and wet screening to yield lumpy and fine products.

At the plant the finer fractions are stockpiled while the coarser fractions are extracted from the respective product boxes into road haulers, sampled, weighed and stored on stacks ahead of despatch. Samples from each stack are analysed for chemical content and size distribution. This ensures good quality control and enables the ore control department to blend various stacks according to customer demand.

Nchwaning year-on-year change

Mineral Reserves for Nchwaning lower seam (1 body) decreased to 106.28 from 107.96 million tonnes mainly due to depletion by production. The Mineral Resources for 1 body changed from 128.6 to 126.69 million tonnes. Nchwaning 2 body Mineral Resources remained at 180.8 million tonnes.

Nchwaning Mine: Lower Seam (1 Body) Manganese Resources and Reserves

	Mineral Resources		
	Mt	Mn%	Fe%
Measured	37.61	46.3	9.0
Indicated	89.08	44.3	8.4
Total Resources 1 Body 2011	**126.69**	**44.9**	**8.6**
Total Resources 1 Body 2010	128.63	45.3	8.7

	Mineral Reserves		
	Mt	Mn%	Fe%
Proved	32.34	46.3	9.0
Probable	73.94	44.3	8.4
Total Reserves 1 Body 2011	**106.28**	**44.9**	**8.6**
Total Reserves 1 Body 2010	107.96	45.3	8.7

Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.
Modifying factors: pillar losses, mining losses.

Nchwaning Mineral Resource Classification Map

ARM Ferrous continued

Nchwaning Mine: Upper Seam (2 Body) Manganese Resources

Mineral Resources	Mt	Mn%	Fe%
Measured Indicated	53.37 127.43	42.0 42.6	16.3 15.2
Total Resources 2 Body 2011	**180.80**	**42.4**	**15.5**
Total Resources 2 Body 2010	180.80	42.4	15.5

Totals are rounded off.

Black Rock Mineral Resources

The Black Rock ore bodies occur in the Black Rock (Koppie), Belgravia 1 and Belgravia 2 areas. They are all part of a large thrust complex. Modelling of these ore bodies was undertaken using 151 Nchwaning boreholes that intersected the thrust complex and 174 Black Rock infill boreholes. A 38% manganese cut-off was used in the modelling. 1 and 2 body seams were modelled at different thicknesses.

Black Rock: Lower Seam (1 Body) Manganese Resources

Mineral Resources	Mt	Mn%	Fe%
Measured Indicated	9.03 34.57	40.3 40.7	18.1 18.1
Total Resources 1 Body 2011	**43.60**	**40.6**	**18.1**
Total Resources 1 Body 2010	–	–	–

Totals are rounded off.

Black Rock: Upper Seam (2 Body) Manganese Resources

Mineral Resources	Mt	Mn%	Fe%
Measured Indicated	8.23 18.58	37.4 39.2	19.8 19.8
Total Resources 2 Body 2011	**26.81**	**38.6**	**19.8**
Total Resources 2 Body 2010	–	–	–

Totals are rounded off.

Gloria Mineral Resources and Reserves

Procedures for drilling and assaying at Gloria Mine are the same as at Nchwaning. A total of 149 boreholes and 6 480 face samples were considered in the evaluation of the Gloria 1 Body Mine. The underground sampling values were used in evaluating areas close to current mining. The boreholes were optimised over a stoping width of 3.5 metres and the relative density was taken as 3.8 t/m^3. The seams were evaluated by means of statistical and geostatistical methods to determine the average grades of Mn, Fe, SiO_2, CaO and MgO. Ordinary Kriging interpolation within Datamine was used to estimate the grade of each 50 x 50 x 3.5 metre block generated within the geological model. Sub-cell splitting of the 50 x 50 metre blocks was allowed to follow the geological boundaries.

Gloria Mine is extracting manganese at depths that vary between 180 to 250 metres. Ore is crushed underground before being conveyed to surface stockpile via a decline shaft.

Gloria year-on-year change

Remodelling of Gloria ore body after drilling of 42 new boreholes resulted in significant 79% increase in Measured and Indicated Mineral Resources to 92.23 million tonnes as the Inferred Resources were upgraded to higher category resources. Mineral Reserves also increased from 39.71 to 68.25 million tonnes. The Mineral Resources for Gloria 2 Body remained the same. No South African markets exist for Gloria 2 Body ore at this time.

ARM Ferrous continued

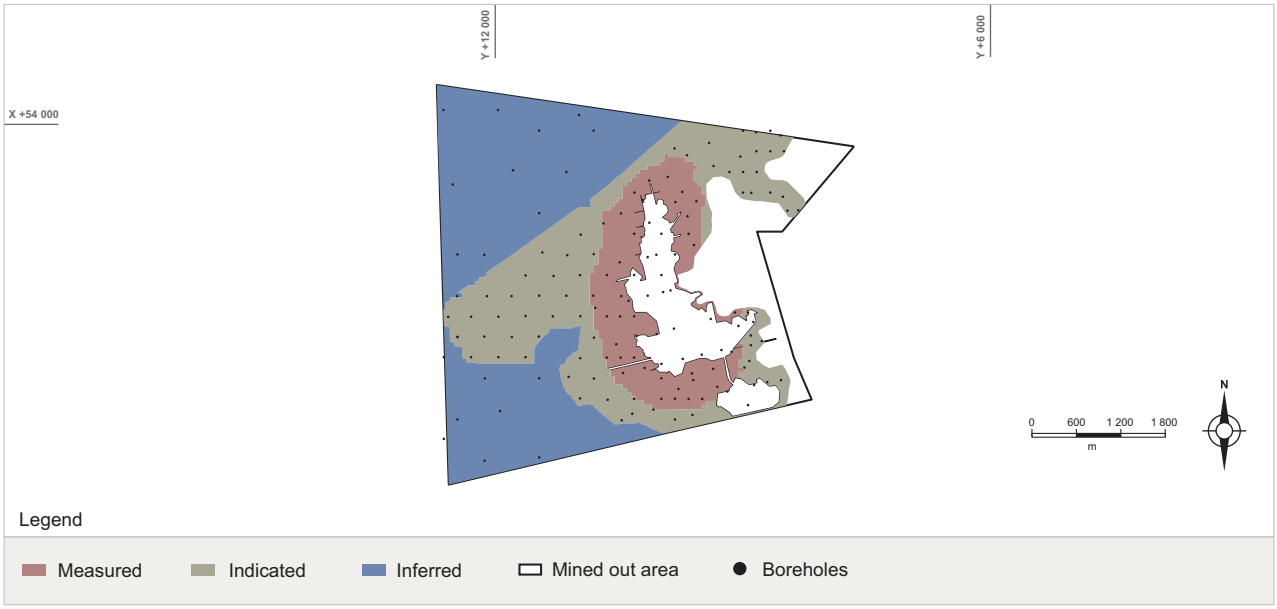
Gloria Mine: Lower Seam (1 Body) Manganese Resources and Reserves

	Mineral Resources		
	Mt	Mn%	Fe%
Measured Indicated	31.46 60.77	37.7 37.8	4.8 4.9
Total Resources 1 Body 2011	**92.23**	**37.8**	**4.9**
Total Resources 1 Body 2010	51.57	38.3	5.5
Inferred 2011	**84.00**	**36.8**	**4.8**
Inferred 2010	128.24	–	–

	Mineral Reserves		
	Mt	Mn%	Fe%
Proved Probable	23.28 44.97	37.7 37.8	4.8 4.9
Total Reserves 1 Body 2011	**68.25**	**37.8**	**4.9**
Total Reserves 1 Body 2010	39.71	38.3	5.5

Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.
Modifying factors: pillar losses, mining losses.

Gloria Mineral Resource Classification Map



Gloria Mine: Upper Seam (2 Body) Manganese Resources

Mineral Resources	Mt	Mn%	Fe%
Measured Indicated	– 29.40	– 29.9	– 10.1
Total Resources 2 Body 2011	**29.40**	**29.9**	**10.1**
Total Resources 2 Body 2010	29.40	29.9	10.1
Inferred 2011	**128.24**		
Inferred 2010	128.24		

Totals are rounded off.

Historical managanese production at Nchwaning and Gloria Mines

Saleable product	Nchwaning	Gloria
Year	**Mt**	**Mt**
2006/2007	2.49	0.43
2007/2008	2.71	0.41
2008/2009	2.63	0.51
2009/2010	1.30	0.67
2010/2011	2.35	0.70

ARM Ferrous continued

Iron Ore Mines

Locality

The iron ore division is made up of the Beeshoek Mine located on the farms Beeshoek 448 and Olynfontein 475, and the Khumani Mine situated on the farms Bruce 544, King 561 and Mokaning 560. All properties are in the Northern Cape approximately 200 kilometres west of Kimberley. The Beeshoek open-pit operations are situated 7 kilometres west of Postmasburg and the new Khumani open pits are adjacent to, and south-east of, the Sishen mine, which is operated by Kumba Resources. Beeshoek and Khumani are located at latitude 28°30'00"S/longitude 23°01'00"E, and latitude 27°45'00"S/longitude 23°00'00"E respectively. Khumani Mine supplies iron ore to the export markets. Exports are railed to the iron ore terminal at Saldanha Bay. Beeshoek ore is supplied to local customers.

History

Mining of iron ore (mainly specularite) was undertaken as early as 40 000 BC on the farm Doornfontein which is due north of Beeshoek. The potential of iron ore in this region was discovered in 1909, but, due to lack of demand and limited infrastructure, this commodity was given little attention. In 1929 the railway line was extended from Koopmansfontein (near Kimberley) to service a manganese mine at Beeshoek. In 1935 The Associated Manganese Mines of South Africa Limited (Assmang) was formed, and in 1964 the Beeshoek iron ore mine was established, with a basic hand sorting operation. In 1975 a full washing and screening plant was installed and production increased to 7 million tonnes over the years. The Khumani Iron Ore Mine was commissioned in 2007 and is ramping up to approximately 10 million tonnes per annum with expansion plans to 16 million tonnes per annum being investigated.

Mining authorisation

The Beeshoek mining lease (ML3/93) comprises an area of 5 686 hectares and is located on the farms Beeshoek (448) and Olynfontein (475). The application for the conversion to a new mining order right submitted during the 2009 financial year is still pending. The application has been forwarded to Pretoria from the Kimberly regional office recommending its approval.

The Khumani mining right comprises an area of 7 388 hectares and is located on the farms Bruce (544), King (561) and Mokaning (560). The mining right was granted during the 2007 financial year.

Geology

The iron ore deposits are contained within a sequence of early Proterozoic sediments of the Transvaal Supergroup deposited between 2 500 and 2 200 million years ago. In general two ore types are present, namely laminated hematite ore forming part of the Manganore Iron Formation and conglomerate ore belonging to the Doornfontein Conglomerate Member at the base of the Gamagara Formation.

The older laminated ore types occur in the upper portion of the Manganore Iron Formation as enriched high-grade hematite bodies. The boundaries of high-grade hematite orebodies crosscut primary sedimentary bedding, indicating that secondary hematitisation of the iron formation took place. In all of these, some of the stratigraphic and sedimentological features of the original iron formation are preserved.

The conglomeratic ore is found in the Doornfontein Conglomerate Member of the Gamagara Formation and is lenticular and not persistently developed along strike. It consists of stacked, upward fining conglomerate-gritstone- shale sedimentary cycles. The lowest conglomerates and gritstones tend to be rich in sub-rounded to rounded hematite ore pebbles and granules and form the main orebodies. The amount of iron ore pebbles decreases upwards in the sequence so that upper conglomerates normally consist of poorly sorted, angular to rounded chert and banded iron formation pebbles.

The erosion of the northern Khumani deposit is less than that in the southern Beeshoek area. The result is that Khumani is characterised by larger stratiform bodies and prominent hanging-wall outcrops. The down-dip portions are well preserved and developed, but in outcrop the deposits are thin and isolated. Numerous deeper extensions occur into the basins due to karst development. A prominent north-south strike of the ore is visible. The southern Beeshoek orebodies were exposed to more erosion and are more localised and smaller. Outcrops are limited to the higher topography on the eastern side of the properties. Down dip to the west, the ore is thin and deep. The strike of the orebodies is also in a north-south direction, but less continuous.

Haematite is the predominant ore mineral, but limonite and speccularite also occur.

Mining operations are all open pit, based on the conventional drill-and-blast, truck-and-shovel operations. Run-of-mine ore is crushed and stored as on or off grade on blending stockpiles. Ore from the stockpiles is either sent to the wash-and-screen plants or, if off grade, to the beneficiation plants. The washing and screening plants consist primarily of tertiary crushing, washing, screening, conveying and stacking equipment. The beneficiation plants consist of tertiary crushers; scrubbers; coarse and fine jigs; lumpy, fines and scaw product stockpiles; and a rapid load-out facility. No chemical is being used in any of the treatment plants.

Mineral Resources and Reserves

In the iron ore operations, the following table shows how the search ellipse (i.e. the ellipsoid used by the Kriging process to determine if a sample is used in the estimation of a block) is used to classify the Minerals Resources:

	Minimum No of samples	Maximum No of samples	Search ellipse settings XYZ (m)
Measured	6	30	100x100x10
Indicated	5	30	200x200x20
Inferred	4	30	400

Only Measured and Indicated Resources are converted to Proved and Probable Reserves respectively. Modifying factors were applied

ARM Ferrous continued

to these resources and financially optimised. The financial outline is used to define the optimal pit by means of the Lersch-Grossman algorithm. The resources within this mining constraint are defined as reserves. These are categorised into different product types, destined for the different plant processes and scheduled for planning.

The methodology followed to identify targets is initiated with geological mapping, followed by geophysics (ground magnetics and gravity). Percussion drilling is used to pilot holes through overlying waste rock down to the iron ore bodies. Diamond drilling is the next phase, which is usually on a 200 x 200 metre grid. Further infill drilling is carried out at spacing ranging from 100 x 100 metres to 25 x 25 metres, depending on the complexity of the geological structures. Numerous exploration programmes have been completed in the last 40 years. A total of 2 832 holes (1 315 holes on Khumani and 1 517 holes on Beeshoek) have been drilled. Core samples are logged and split by means of a diamond saw and the half-core is sampled every 0.5 metres. Before submission for assaying, the half-cores are crushed, split and pulverised. Samples with values larger than 60 percent are included in the definition of the orebodies. Any lower-grade samples inside the orebody are defined as internal waste and modelled separately. Each zone is modelled per section, and then wireframed to get a three-dimensional (3D) model.

Ordinary Kriging interpolation within Datamine is used to estimate the grade of each 10 x 10 x 10 metre block generated within the geological model. Density in the resource model is calculated using a fourth degree polynomial fit applied to the estimated Fe grade. Densities range from 4.38 t/m^3 (60 percent Fe) to 5.01 t/m^3 (68 percent Fe). A default density of 3.2 t/m^3 is used for waste.

At the Iron Ore Mines all blast holes are sampled per metre, but composited per hole. All holes are analysed for density and blast holes in ore are sampled and analysed for Fe, potassium oxide (K_2O), sodium oxide (Na_2O), silica (SiO_2), aluminium oxide (Al_2O_3), phosphorus (P), sulphur (S), CaO, MgO, Mn and barium oxide (BaO). Every fifth blast hole is geologically logged per metre, which is used to update the geological model. The chemical results of these holes are used to update the ore block model. The major analytical technique for elemental analyses is XRF spectroscopy. Volumetric titration is used as verification method for the determination of total iron in the ore. International standards (e.g. SARM11) and in-house iron standards are used for calibration of the XRF spectrometer. The Khumani laboratory participates in a round robin group that includes eleven laboratories for verification of assay results.

Iron Ore Mine stacker reclaimer

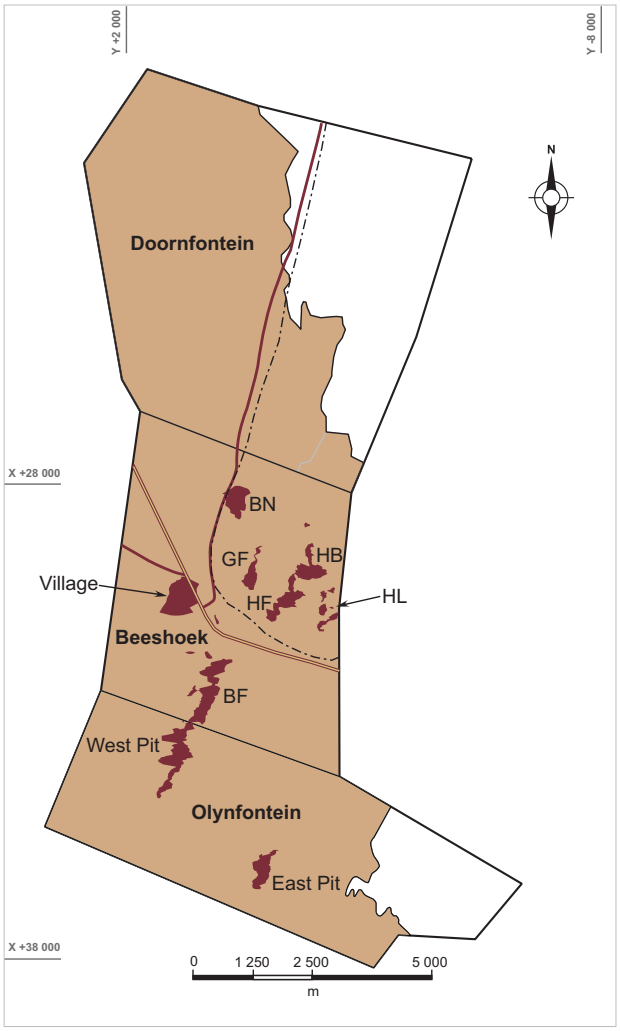
ARM Ferrous continued

Beeshoek Iron Ore Mine: Resources and Reserves

	Measured Resources		Indicated Resources		Inferred Resources		Total Resources Measured + Indicated		Proved Reserves		Probable Reserves		Total Reserves	
Pit/Area	**Mt**	**Fe%**	**Mt**	**Fe%**	**Mt**	**Fe%**	**Mt**	**Fe%**	**Mt**	**Fe%**	**Mt**	**Fe%**	**Mt**	**Fe%**
BN	23.42	63.40	–	–	–	–	23.42	63.40	13.92	63.55	–	–	13.92	63.55
HF/HB	16.00	64.10	–	–	–	–	16.00	64.10	6.87	64.27	–	–	6.87	64.27
BF	8.45	63.51	0.23	63.54	0.001	65.24	8.68	63.51	1.02	61.59	–	–	1.02	61.59
East Pit	8.91	64.63	0.04	64.23	–	–	8.95	64.63	6.16	64.43	0.01	63.64	6.17	64.43
Village	42.71	63.72	2.98	63.57	0.002	63.71	45.69	63.71	27.15	64.24	–	–	27.15	64.24
GF	3.13	63.81	0.09	61.80	–	–	3.22	63.75	–	–	–	–	–	–
HH Ext	0.28	62.63	–	–	–	–	0.28	62.63	–	–	–	–	–	–
HL	3.23	65.07	0.05	65.20	–	–	3.28	65.07	–	–	–	–	–	–
West Pit	9.45	63.19	–	–	0.050	61.88	9.45	63.19	–	–	–	–	–	–
Detrital	–	–	–	–	2.500	60.00	–	–	–	–	–	–	–	–
Total 2011	**115.58**	**63.76**	**3.39**	**63.55**	**2.553**	**60.04**	**118.97**	**63.75**	**55.12**	**64.04**	**0.01**	**63.64**	**55.13**	**64.04**
Total 2010	112.59	63.71	0.76	63.61	2.55	60.04	113.35	63.71	47.64	64.93	0.03	66.45	47.67	64.93

Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.
Modifying factors: Economic pit design, fines generated, customer product specifications.

Beeshoek Open-Pit Locality Map



Beeshoek year-on-year change

Measured and Indicated resources for Beeshoek Mine increased to 118.97 from 113.35 million tonnes, mainly due to the increase in the resources for Village where remodelling of the ore body was undertaken. The 2011 Mineral Reserves increased by 16% to 55.13 million tonnes due to increase in Village and East Pit reserves. A feasibility study for Village pit is still in progress.

Beeshoek Iron Ore Mine

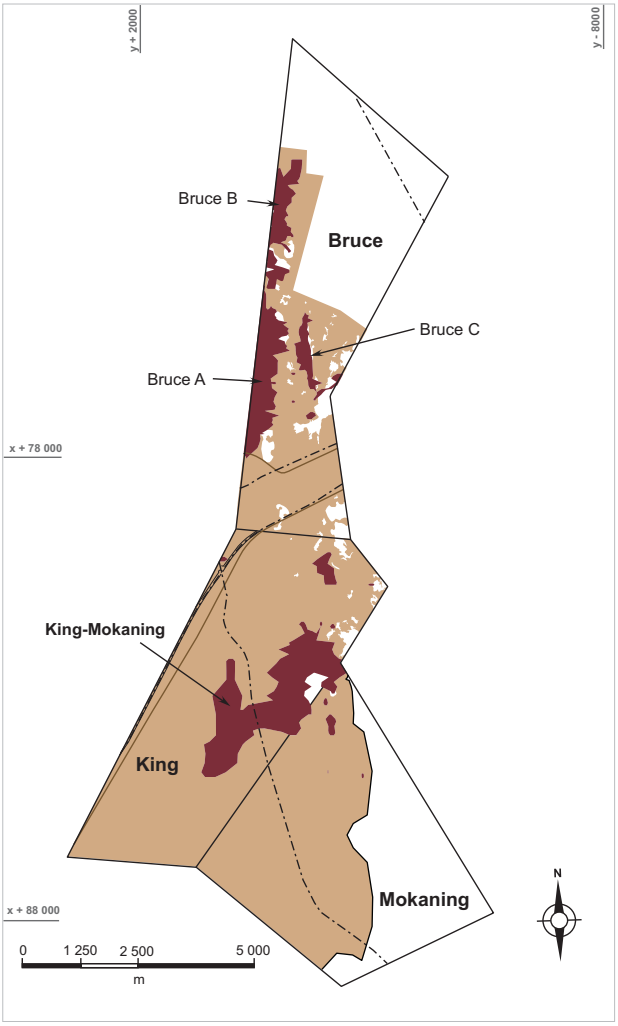
ARM Ferrous continued

Khumani Iron Ore Mine: Resources and Reserves

Pit/Area	Measured Resources		Indicated Resources		Inferred Resources		Total Resources Measured + Indicated		Proved Reserves		Probable Reserves		Total Reserves	
	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%
Bruce A	76.39	64.48	34.36	64.20	0.02	63.93	110.75	64.39	69.13	64.54	31.60	64.21	100.73	64.44
Bruce B	72.32	64.42	25.35	63.98	0.19	65.31	97.67	64.31	69.29	64.41	14.99	63.63	84.28	64.27
Bruce C	11.70	65.45	6.85	65.45	0.36	63.36	18.55	65.45	10.31	65.50	1.64	65.85	11.95	65.55
King/ Mokaning	253.73	64.53	122.73	64.48	4.85	63.02	376.46	64.51	238.90	64.63	109.50	64.55	348.40	64.60
Detrital	–	–	–	–	4.00	60.00	–	–	–	–	–	–	–	–
Total 2011	**414.14**	**64.53**	**189.29**	**64.40**	**9.42**	**61.80**	**603.43**	**64.49**	**387.63**	**64.60**	**157.73**	**64.41**	**545.36**	**64.54**
Total 2010	477.18	64.50	136.55	64.52	26.85	63.43	613.73	64.50	463.77	64.45	79.86	64.32	543.63	64.43

Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.
Modifying factors: Economic pit design, fines generated, customer product specifications.

Khumani Open-Pit Locality Map



Khumani year-on-year change

At Khumani Mine Measured and Indicated resources decreased from 613.73 to 603.43 million tonnes mainly due to Bruce B and C pits where reduced tonnage is attributable to mining depletion and remodeling of Bruce C. Total reserves increased marginally to 545.36 from 543.63 million tonnes in 2010.

Historical production at Beeshoek and Khumani Mines

Saleable product	Beeshoek	Khumani
Year	Mt	Mt
2006/2007	6.70	–
2007/2008	5.30	2.00
2008/2009	2.66	6.65
2009/2010	0.52	8.77
2010/2011	0.96	8.73

Khumani Iron ore stacker reclaimer

ARM Ferrous continued

Chromite Mine

Locality

Chromite operations at Dwarsrivier Mine form part of the chrome division of Assmang Limited. The mine is situated on the farm Dwarsrivier 372KT, approximately 30 kilometres from Steelpoort and 60 kilometres from Lydenburg, in Mpumalanga province in South Africa. Located at longitude 30°05'00"E/latitude 24°59'00"S, Assmang purchased the farm from Gold Fields Limited, together with all surface and mineral rights in October 1998.

History

Neighbouring properties to the north and south of Dwarsrivier had existing chrome mining operations at the time of purchase. The feasibility study of the plant, tailings dam and designs for the opencast and underground mines then commenced. After the completion of the feasibility study, approval to proceed with the final design and construction work was given in July 1999.

Chromite was obtained from the opencast mining areas at a rate of approximately 0.9 million tonnes a year and these areas were mined out within five years. Underground mining commenced in 2005 at a rate of 1.2 million tonnes ROM a year. Dwarsrivier Mine is specifically geared to deliver high quality metallurgical grade chromite to the Machadodorp smelter. In addition, the plant has been designed to produce chemical grade products.

Mining authorisation

An old order Mining Licence 21/99 was granted in October 1999. An application for the conversion to a new order mining right submitted October 2007 is still pending.

Geology

Dwarsrivier Mine is situated in the eastern limb of the Bushveld Complex, which comprises persistent layers of mafic and ultramafic rocks, containing the world's largest known resources of platinum group metals, chromium and vanadium. The mafic rocks termed the Rustenburg Layered Suite, are approximately 8 kilometres thick in the eastern lobe, and are divided formally into five zones.

The rocks of the Marginal Zone at the base of the succession consist mainly of pyroxenites with some dunites and harzburgites. Above the Marginal Zone, the Lower Zone comprises mainly pyroxenites, harzburgites and dunite, and is present only in the northern part of the Eastern Lobe, and only as far south as Steelpoort. The appearance of chromitite layers marks the start of the Critical Zone, economically the most important zone. The layers are grouped into three sets termed the Lower, Middle and Upper groups. The sixth chromitite seam in the Lower Group (LG6), is an important source of chromite ore and is the orebody being mined at Dwarsrivier Mine. In the Eastern Lobe, in the vicinity of Dwarsrivier, the strike is nearly north-south, with a dip of approximately 10 degrees towards the west. Average thickness of the LG6 seam is about 1.86 metres in the Dwarsrivier area. Pipe-like dunite intrusions are evident in the area, as well as dolerite dykes that on average strike northeast-southwest. No significant grade variation is evident, especially not vertically in the ore seam. Small, insignificant regional variations do, however, exist.

Mineral Resources and Reserves

Information was obtained from boreholes with a 300 to 150 metre grid spacing.

Resources were determined with a decreasing level of confidence.

- Measured Resource (150 metres drill grid spacing);
- Indicated Resource (300 metres drill grid spacing); and
- Inferred Resource (drill grid spacing greater than 300 metres).

All possible resources down to a mineable depth of 350 metres below ground level have been considered.

Vertical diamond drill holes are used for geological and grade modelling, except where information is needed to clarify large-scale fault planes. The Mineral Resources at Dwarsrivier Mine are based on a total of 237 diamond drill holes that have been used for grade estimation and orebody modelling purposes. The drill core is NQ size and is geologically and geotechnically logged. The collar position of the drill holes is surveyed, but no down-hole surveys are done, and the holes are assumed to have minimal deflection.

The chromitite seam is bounded above and below by pyroxenites. As such, the ore horizon is clearly defined. The core is sampled from the top contact downwards at 0.5 metre intervals. The core is split and half is retained as reference material in the core sheds. The other half is crushed and split into representative samples, which are crushed and pulverised for chemical analysis. The samples are analysed using fusion/ICP-OES for chrome oxide (Cr_2O_3), SiO_2, FeO, Al_2O_3, MgO and CaO. Three laboratories, all ISO 17025 accredited for this method, are used. Every tenth sample is analysed in duplicate. SARM 8 and SARM 9 standards, as well as in-house reference material, are included every 20 to 30 samples in each batch. The density for each sample is measured using a gas pycnometer.

Mineral Resources have been estimated using Ordinary Kriging, where Cr_2O_3, FeO, Al_2O_3, MnO and MgO-contents of the LG6 seam and densities were determined, using block sizes of 50 x 50 x 4 metres.

During mining, a slightly diluted run of mine ore inclusive of the 'false' hangingwall is fed to the beneficiation plant. In the dense media separation part of the plant, the coarse fraction is upgraded to 40 percent Cr_2O_3, with a yield of 80 percent. In the spiral section of the plant the finer fraction is upgraded to 44 percent Cr_2O_3, and 46 percent Cr_2O_3 respectively, for metallurgical grade fines and chemical grade fines. A 67 percent yield is achieved in the spiral circuit.

ARM Ferrous continued

Dwarsrivier Chrome Mine: Chrome Resources and Reserves

	Mineral Resources		
	Mt	Cr_2O_3%	FeO%
Measured	17.25	39.20	23.07
Indicated	31.52	38.97	23.01
Total Measured and Indicated 2011	**48.77**	**39.05**	**23.03**
Total Measured and Indicated 2010	50.60	39.03	22.98
Inferred	**48.05**	**39.15**	**23.01**

	Mineral Reserves		
	Mt	Cr_2O_3%	FeO%
Proved	9.57	35.75	22.00
Probable	23.87	35.66	22.04
Total Reserves 2011	**33.44**	**35.69**	**22.03**
Total Reserves 2010	39.50	35.75	22.00

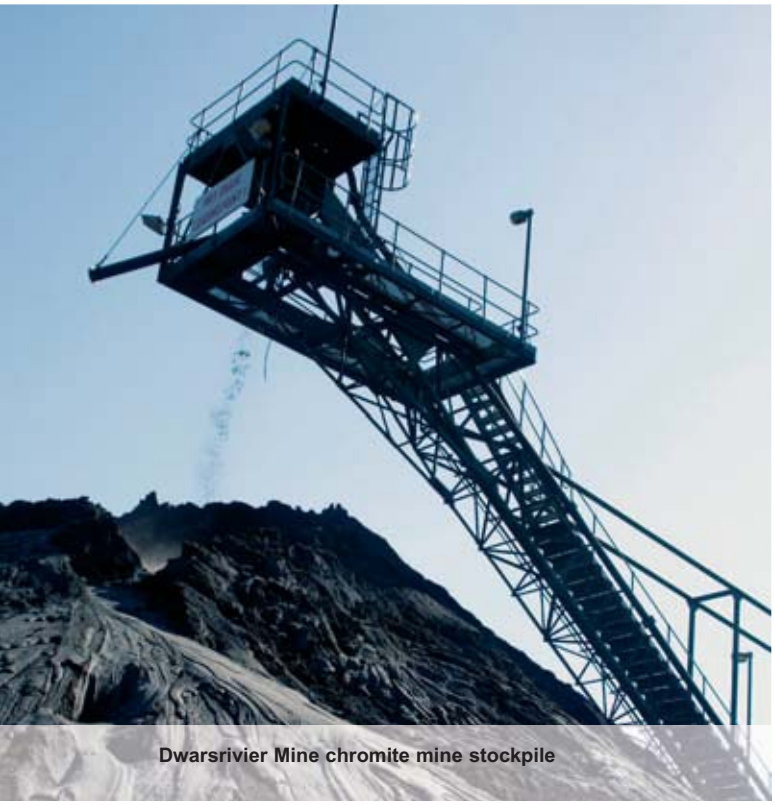
Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.
Modifying factors: pillar losses, mining losses.

Year-on-year change

2011 Mineral Resources decreased by 1.83 to 48.77 million tonnes mainly due to mining depletion. Mineral Reserves reduced to 33.44 from 39. 50 million tonnes due to removal of additional structural blocks, reduction of pillar extraction factor from 77% to 75% and mining depletions during the year.

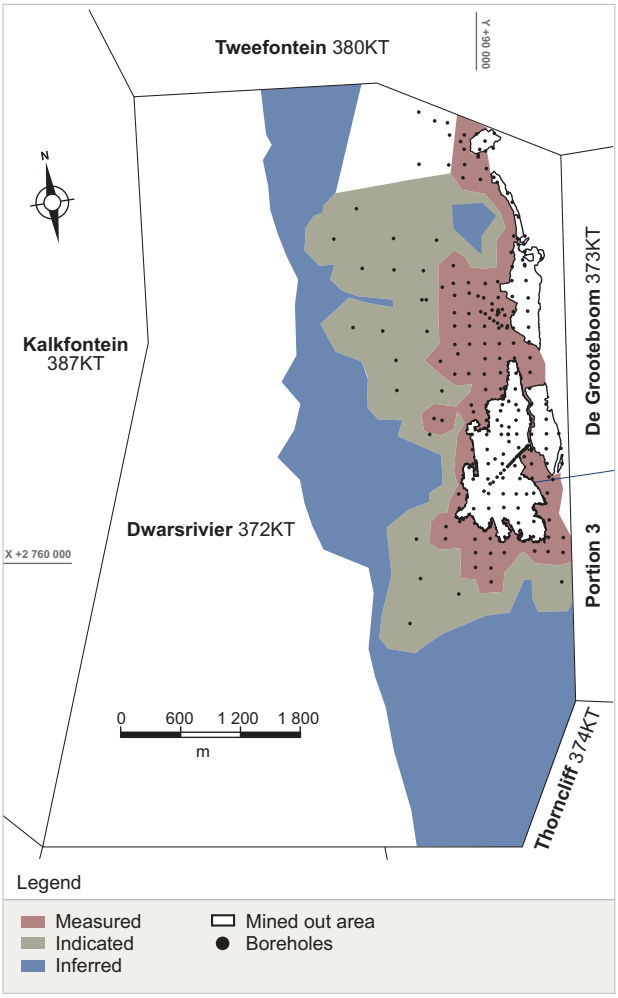
Historical production at Dwarsrivier Chrome Mine

Year	Mt
2006/2007	1.01
2007/2008	1.24
2008/2009	1.03
2009/2010	0.78
2010/2011	1.25



Dwarsrivier Mine chromite mine stockpile

Dwarsrivier Mineral Resource Classification Map



ARM Platinum

Nkomati Nickel-Copper-Cobalt-PGM-Chromite Mine

ARM's attributable beneficial interest in Nkomati operations is 50%. The other 50% is held by Norilsk Nickel Africa (Pty) Limited.

Locality

The Nkomati Mine is situated some 300 kilometres east of Johannesburg in Mpumalanga province in South Africa. Situated at latitude 25º40'S and longitude 30º30'E, the site is accessed via the national N4 highway between Johannesburg and Machadodorp, the R341 provincial road and the R351 tarred road.

History

Nickel, copper, cobalt, PGM and chromite mineralisation is hosted by the Uitkomst Complex, a layered mafic-ultramafic, Bushveld satellite intrusion. The Uitkomst Complex outcrops on the farms Slaaihoek 540JT and Nkomati 770JT. In 1929, the mineral rights on Slaaihoek were purchased by ETC, an Anglovaal subsidiary, to mine gold at the old Mamre and Slaaihoek mines. In the early 1970s, an Anglo American/INCO joint venture began exploring Uitkomst for nickel. In 1990, Anglo American (AAC) completed a feasibility study on an open-pit operation exploiting the large disseminated sulphide resource on Uitkomst, with negative results. Exploration on Slaaihoek by Anglovaal began in earnest in 1989, and in 1991, the massive sulphide body (MSB) was discovered by surface drilling. In 1995, the Nkomati JV between Anglovaal and AAC was formed and in January 1997, underground production started on the MSB. In 2004, Anglovaal acquired AAC's interest and in 2005, a 50:50 JV was formed between ARM and LionOre, then a global nickel producer and owner of the Activox technology. In February 2006, Nkomati approved the Phase 1 expansion project to exploit the MMZ, one of the disseminated sulphide orebodies, by underground and open-pit mining at a rate of 100 000 tonnes per month of ore to maintain annual nickel production at approximately 5 000 tonnes in concentrate after the MSB became depleted. The project was completed in 2007 and in the same year, Norilsk Nickel acquired LionOre, together with its 50% share in Nkomati. The MSB orebody has now been completely mined out.

The Phase 2a expansion project, increasing MMZ ore production to 375 000 tonnes per month with the construction of a new plant, was commissioned during 2010. The Phase 2b expansion, involving the upgrading of the 100 000 tonnes per month MMZ plant to a 250 000 tonnes per month PCMZ plant was completed during this financial year. The PCMZ, which will be mined only in the open pit, is a disseminated chromite-rich sulphide body within the PCR unit (overlying the MMZ), which has to be treated separately to liberate the chromite fines. At full production, Nkomati will produce approximately 20 500 tonnes of nickel in concentrate per year.

Nkomati has also been producing lumpy chromite, chips and fines since 2006 from the Oxidized Massive Chromitite, a layer which overlies the PCMZ orebody in the open pits. A chrome washing plant to treat the fines stockpile was commissioned in 2008. In addition, the Oxidized PCR, which is the highly weathered PCR unit immediately below the Oxidized Massive Chromitite, is being stockpiled for future processing for its chromite content.

Mining authorisation

Old order Mining Licences, numbers 3/2001 and 27/2003, exist on the farms Slaaihoek and Nkomati respectively for the mining of nickel, copper, cobalt, platinum group metals (PGMs) and chromite. An application for the conversion to a new order mining right was approved during 2009.

Geology

The Uitkomst Complex is a Bushveld-age layered, mafic ultramafic body intruded into the basal sediments of the Transvaal Supergroup, which lies unconformably on an Archean granitic basement. The complex is a long linear body, which outcrops in the Slaaihoek valley for approximately 8 kilometres and dips below an escarpment where it has been drilled at depth for an additional 4 kilometres. The complex, which dips at approximately 4 degrees to the northwest, is still open-ended.

From the base to top, the stratigraphy of the Uitkomst Complex comprises the Basal Gabbro Unit (up to 15 metres thick), the Lower Pyroxenite Unit (average 35 metres), the Chromititic Peridotite Unit (30 to 60 metres), the Massive Chromitite Unit (up to 10 metres), the Peridotite Unit (330 metres), the Upper Pyroxenite Unit (65 metres), the Gabbronorite Unit (250 metres), and the Upper Gabbro Unit (50 metres). The complex and surrounding sediments are intruded by numerous diabase sills up to 30 metres in thickness.

There are five sulphide zones in the Uitkomst Complex: the MSB, situated at and below the base of the complex, but which has now been mined out; the BMZ within the Basal Gabbro; the MMZ, occurring within the Lower Pyroxenite, the PCMZ, which occurs with the Chromititic Peridotite (PCR), and the PRDMZ, which occurs in the Peridotite Unit, but which is not yet included in the mine's resource base. In addition, the Massive Chromitite Unit (MCHR), situated at the top of the PCR unit, is mined where it is fully oxidised (weathered) in the open-pit area. The dominant sulphide minerals are pyrrhotite, pentlandite and chalcopyrite; cobalt is mostly in solid solution in the pentlandite, and the PGMs occur as separate minerals, merenskyite being dominant.

Mineral Resources and Reserves

There have been numerous diamond, percussion and RC drilling campaigns since 1972 totalling approximately 185 000 metres in 1 250 boreholes. Consequently, various sampling and assaying protocols as well as varying standards of QA/QC have been used. Core sizes have been mainly NQ and TNW. Before 1990 (Anglo American holes), half core samples over widths ranging from 1 m to 5 m were taken. Samples were assayed at Anglo American Research Laboratory (AARL) for total nickel, copper and cobalt using AA and for "sulphide" nickel using a peroxide leach/AA finish. Composite samples were assayed for platinum and palladium by Pb-collection fire assay/ICP, S by combustion, and a range of major elements by fusion, and RD using the Archimedes bath method. Between 1990 and 1997 (Anglovaal

ARM Platinum continued

holes), assays were carried out at the Anglovaal Research Laboratory (AVRL), with internal standard checks. Nickel analyses were also carried out by the partial digestion methods and comparisons between AARL and AVRL to ensure that the data was compatible. In 2003, a 50 m spaced drilling programme was carried out in the shallow open pit area. Samples from this drilling were analysed at AVRL for nickel, copper cobalt using an aqua regia partial extraction/AA finish. Platinum, palladium, rhodium and gold were analysed by Pb collection fire-assay/AA finish. Analyses also included Cr_2O_3, MgO, FeO, S and RD. Duplicates and internal standards were used and a suite of referee samples were analysed at Genalysis Laboratory in Perth. Comparisons indicated good correlations between laboratories. In 2005, it was decided to resample many of the Anglo American drill holes to improve the sample density for PGEs in the open pit area. Drill core was resampled (quarter core) at 1 metre intervals. Assays were carried out by SGS Laboratory in Johannesburg for Pt, Pd and Au by Pb-collection fire assay/AA and for Ni, Cu and Co by aqua regia leach/AA. Blanks, duplicates and AMIS standards were included.

In 2007/08, a 50 m infill diamond drilling programme (116 holes – 18 000 m) was completed in the shallower part of Pit 3. In the Pit 2 area, another 44 holes (3 450 m) were added to the database. Half core samples from the Pit 3 drilling were analysed at Genalysis Laboratory Services in Perth for Ni, Cu, Co by aqua regia partial digestion/ICP; for Pt, Pd and Au by Pb collection fire assay/ICP; high chrome samples for Cr_2O_3 by fusion/ICP and SG by gas pycnometer. AMIS standards, duplicates and blank samples were used for internal QA/QC. Half core samples from the Pit 2 drilling were analysed at Nkomati's mine laboratory for Ni, Cu and Co by aqua regia partial digestion/AA.

The underground MMZ and PCMZ mineral resources are based on surface and underground diamond drilling. Surface boreholes in the open pit area are at 100 metre spacing other than those areas where 50 m infill diamond drilling has been undertaken. Underground holes are spaced 10 to 20 metres apart and the drill core is sampled at 1 metre intervals. The Nkomati mine laboratory analyses samples for Ni, Cu and Co using aqua regia leach/ICP, while the PGE assays are carried out by SGS and Mintek Laboratories in Johannesburg. Both laboratories use blanks, standards and check assays for quality control.

Geological wireframe models are generated from the entire borehole database in Datamine but only diamond drill holes are used for the variography and grade estimation is by ordinary kriging. Block sizes for the resource model is 50 metres x 50 metres x 2.5 metres for the open pit and underground resource model while the massive chromitite resource is based on 10 metres x 10 metres x 1 metre blocks. Mineral Resource classification is based on borehole spacing and geological continuity of the ore body. The area with infill drilling 50 metres x 50 metres was classified as measured and where the drilling spacing was up to 100 metres x 100 metres was classified as indicated. Downdip portion of the underground model with up to 500 metres x 100 metre borehole spacing was classified as inferred.

The open pit resources are based on the 2009 resource model. Deswick Mining Consultants undertook resource estimation for the remaining portions of the massive chromitite lenses 1 and 3. The models produced were internally reviewed and are the basis of the 2011 resource statement for the massive chromitite. The new underground resources and reserves are based on the new model generated in 2010. The model which is based on new borehole database and new wireframes replaces the 2006 underground model.

Mining operations to date comprise a mechanised underground and open pit mining operation which feeds two concentrators producing concentrate containing PGMs, nickel, copper and cobalt. Final products are transported to various third parties for toll treatment. Chrome products are sold to local and export markets.

Nkomati Mine: Resources

	Measured Resources						Indicated Resources						Inferred Resources						Total Resources (Measured and Indicated)				
	Cut-off (Ni)%	Mt	Ni%	Cu%	Co%	4E g/t	Cut-off (Ni)%	Mt	Ni%	Cu%	Co%	4E g/t	Cut-off (Ni)%	Mt	Ni%	Cu%	Co%	4E g/t	Mt	Ni%	Cu%	Co%	4E g/t
Underground Mine																							
MMZ	0.30	6.50	0.58	0.23	0.03	1.18	0.30	43.70	0.48	0.21	0.03	1.08	0.30	1.80	0.36	0.24	0.02	0.80	50.20	0.49	0.21	0.03	1.09
PCMZ	0.30	2.29	0.37	0.12	0.02	0.83	0.30	26.90	0.38	0.13	0.02	0.83	0.30	52.10	0.37	0.12	0.02	0.90	29.19	0.38	0.13	0.02	0.83
Open Pit																							
MMZ Pit 3	0.16	23.70	0.40	0.18	0.02	0.98	0.16	69.90	0.37	0.17	0.02	0.94	–	–	–	–	–	–	93.60	0.38	0.17	0.02	0.95
PCMZ Pit 3	0.16	20.50	0.27	0.08	0.01	0.79	0.16	97.10	0.22	0.07	0.01	0.66	–	–	–	–	–	–	117.60	0.23	0.07	0.01	0.68
Total 2011 Mineral Resources		**52.99**	**0.37**	**0.14**	**0.02**	**0.92**		**237.60**	**0.33**	**0.13**	**0.02**	**0.84**		**53.90**	**0.37**	**0.12**	**0.02**	**0.90**	**290.59**	**0.34**	**0.13**	**0.02**	**0.85**
Total 2010 Mineral Resources		43.18	0.36	0.13	0.02	0.92		222.85	0.34	0.14	0.02	0.84		–	–	–	–	–	266.03	0.34	0.13	0.02	0.85

***4E** = Platinum + palladium + rhodium + gold.*
Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.

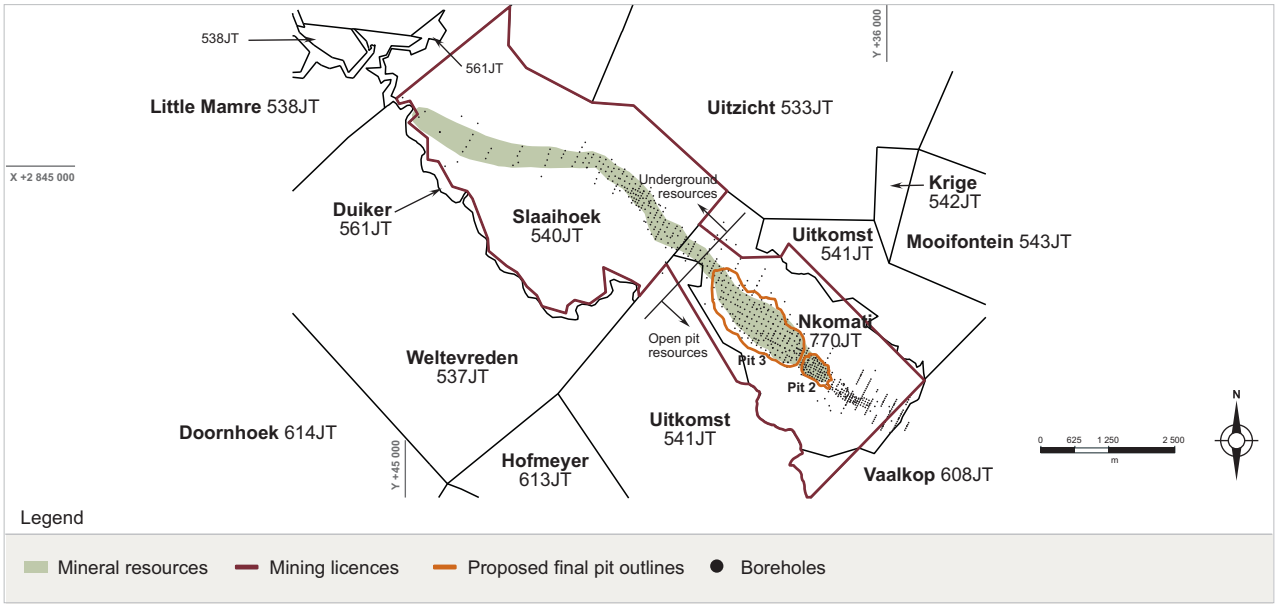
ARM Platinum continued

Nkomati Mine: Reserves

	Proved Reserves						Probable Reserves						Total Reserves				
	Cut-off (Ni)%	Mt	Ni%	Cu%	Co%	4E g/t	Cut-off (Ni)%	Mt	Ni%	Cu%	Co%	4E g/t	Mt	Ni%	Cu%	Co%	4E g/t
Underground Mine																	
MMZ (underground)	–	–	–	–	–	–	0.35	10.66	0.48	0.21	0.03	1.15	10.66	0.48	0.21	0.03	1.15
Open Pit																	
MMZ Pits 3	0.16	21.56	0.40	0.17	0.02	0.96	0.16	44.00	0.36	0.16	0.02	0.92	65.56	0.37	0.16	0.02	0.93
PCMZ Pits 3	0.16	19.11	0.27	0.08	0.01	0.78	0.16	39.56	0.23	0.07	0.01	0.68	58.67	0.24	0.07	0.01	0.71
Total 2011 Mineral Reserve		**40.67**	**0.34**	**0.13**	**0.02**	**0.88**		**94.22**	**0.32**	**0.13**	**0.02**	**0.85**	**134.89**	**0.33**	**0.13**	**0.02**	**0.85**
Total 2010 Mineral Reserve		–	–	–	–	–		129.51	0.34	0.13	0.02	0.87	129.51	0.34	0.13	0.02	0.87

***4E** = platinum + palladium + rhodium + gold.*
Totals ar rounded off.
Modifying factors: Economic pit design, geotechnical, and metallurgical factors.

Nkomati Mine Locality Map



Oxidised Massive Chromitite Resources

	Measured Resources		Indicated Resources		Inferred Resources		Total Resources (Measured + Indicated)	
	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%
Total 2011 Chromitite (at 20% Cr_2O_3 cut-off) Resources	**1.43**	**31.59**	**–**	**–**	**–**	**–**	**1.43**	**31.59**
Total 2010 Chromitite (at 30% Cr_2O_3 cut-off) Resources	**–**	–	**2.00**	31.63	**–**	–	**2.00**	31.63

Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.

ARM Platinum continued

Oxidised Massive Chromitite Reserves

	Proved Reserves		Probable Reserves		Total Reserves	
	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%
Total 2011 Chromitite (at 20% Cr_2O_3 cut-off) Reserves	**1.16**	**27.57**	**–**	**–**	**1.16**	**27.57**
Total 2010 Chromitite (at 30% Cr_2O_3 cut-off) Reserves	–	–	2.00	31.63	2.00	31.63

Totals are rounded off.
Modifying factors: Economic pit design, geotechnical, and metallurgical factors.

Chromite Stockpile Reserves

	Proved Reserves		Probable Reserves		Total Reserves	
	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%
PCR stockpile	1.81	19.20	–	–	1.81	19.20
ROM Chromite stockpile	0.10	32.00	–	–	0.1	32.00
High Sulphur chromite stockpile	0.09	34.11	–	–	0.09	34.11
Chromite fines stockpile	0.02	23.00	–	–	0.02	23.00
2011 Total stockpiles Reserves	**2.02**	**20.54**	**–**	**–**	**2.02**	**20.54**

Totals are rounded off.

Oxidised Chromititic Peridotite (PCR)

	Measured Mineral Resources		Indicated Mineral Resources		Inferred Mineral Resources	
	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%
Total 2011 Oxidized PCR	**–**	**–**	**–**	**–**	**0.80**	**15.70**
Total 2010 Oxidized PCR	–	–	–	–	3.70	10.30

Totals are rounded off.

Year-on-year change

The Measured and Indicated Resources for Nkomati Mine increased from 266.03 million tonnes at 0.34% Ni to 290.59 million tonnes at 0.34% Ni due to the application of a lower cut off for the MMZ in the open pit area and the increase in the PCMZ wireframe volume for the underground model. The Mineral Reserves increased from 129.51 million tonnes at 0.34% Ni to 134.89 million tonnes at 0.33% Ni mainly due to increase in the MMZ underground reserves from 6.54 million tonnes at 0.59%Ni to 10.66 million tonnes at 0.48% Ni. The massive chromitite resources decreased from 2.0 to 1.4 million tonnes due to depletion by mining.

Historical production at Nkomati Nickel Mine

Financial year	Tonnes Ni ore milled
2006/2007	359 000
2007/2008	1 070 000
2008/2009	1 258 818
2009/2010	3 308 142
2010/2011	5 259 288

ARM Platinum continued

Two Rivers Platinum Mine

ARM's attributable beneficial interest in Two River's operations is 55%. The other 45% is held by Impala Platinum.

Mining operations to date comprise a mechanised underground and open pit mining operation which feeds two concentrators producing concentrate containing PGMs, nickel, copper and cobalt. Final products are transported to various third parties for toll treatment. Chrome products are sold to local and export markets.

Locality

Two Rivers Platinum Mine is located within the southern sector of the eastern limb of the Bushveld complex, on the farm Dwarsrivier 372KT. Situated at longitude 30º07'00E and latitude 24º 59'00S, the UG2 and Merensky reefs are present on the farm.

History

Exploration, development and production history in the area dates from the early 1920s. During 1929, Lydenburg Platinum Areas Limited started mining activity. No records are available. Following the acquisition by Gold Fields Mining and Development Limited, exploration started up again in 1987 and was mainly directed at the Merensky Reef. Assmang acquired the farm in September 1998 primarily to exploit the LG6 Chromitite. During 2001, Avmin acquired the PGE rights on the Dwarsrivier farm from Assmang and targeted the UG2 Reef.

In June 2005, following a full feasibility study and a period of trial underground mining, the joint venture announced the release of a 220 000 ounce-per-year PGM mine. As a result an underground mine was established. The plant was commissioned in July 2006.

Mining authorisation

Two Rivers holds an old order Mining Licence no. 4/2003 on Dwarsrivier 372KT relating only to the PGEs contained in the Merensky and UG2 reefs. An application for a new order conversion of the mining licence was submitted in July 2007. This application is still pending.

Geology

The UG2 Reef outcrops in the Klein Dwarsrivier valley over a north-south strike length of 7.5 kilometres, dipping to the west at between 7 and 10 degrees. The extreme topography results in the UG2 occurring at a depth of 935 metres on the western boundary.

The following reef facies have been defined for the UG2 at Two Rivers:

- UG2 Normal reef facies characterised by a 100-120 centimetre thick chromitite which is overlain by up to three chromitite 'leaders' collectively termed the UG2A chromitites.
- UG2 Split Reef facies in the southern, west-central and north-eastern parts, characterised by a chromitite seam that is separated by a layer of a fine to medium grained internal pyroxenite unit.
- The UG2 Multiple Split reef facies represented by multiple splitting of the UG2 chromitite by internal pyroxenite.

The UG2 is usually bottom loaded with peak PGM values occurring in the basal 10-centimetre sample.

The Merensky Reef consists mainly of orthopyroxene with lesser amounts of plagioclase and clinopyroxene. Thin chromitite layers, usually 1 to 4 millimetres thick generally, occur near the upper and lower contacts of the reef.

Two Rivers Platinum Mine flotation section

ARM Platinum continued

Mineral Resources and Reserves

The majority of resources at Two Rivers are classified as Indicated Mineral Resources, and it is only the areas around the North decline and the Main decline that are classified as Measured Resources due to the more closely spaced drilling in this area. Measured resources were also defined up to 250 metres beyond current mining faces.

A total of 218 surface diamond boreholes had intersected the UG2, of which 35 were drilled by Gold Fields of South Africa and 18 by Assmang. This provided a total of 409 individual UG2 reef intersections, with an average spacing grid of 500 metres over the whole property and 250-metre grid spacing over the area planned for the first five years of mining. The drill hole spacing in the area of the open pit is 50 metres on dip and 100 metres on strike. It was standard for Two Rivers to drill three non-directional deflections off each mother hole. An additional 15 new boreholes were drilled in 2008.

The holes were halved by diamond saw and the half-core sampled at 20 centimetres. Samples were crushed and split and submitted for assaying. All samples were assayed by Ni-sulphide collection fire-assay with an ICP-MS finish to determine Pt, Pd, Rh, Ru, iridium (Ir) and Au values. Base metals (Ni, Cu, Co) were also assayed by aqua regia digestion/OES finish. Duplicate samples and check analyses were carried out. The earlier Gold Fields and Assmang samples were assayed by Pb-collector fire-assay with gravimetric finish. In order to combine the data, some of the original core samples were re-assayed by means of Ni-sulphide collection fire-assay and a regression equation was derived at to re-cast the original Pb-collection data as Ni-sulphide assay 'equivalents'. The Merensky Reef resource is based on a total of 96 surface diamond drill holes. The same sampling protocol was used as for the UG2, but assays were carried out by Pb-collection fire-assay with ICP-MS finish for Pt, Pd Rh and Au.

Ordinary Kriging interpolation within Datamine was used to estimate the grade of each 50 x 50 x 1-metre block generated within the geological model. The UG2 was wireframed and estimated as two units based on the Pt:Pd ratio as observed in the drill hole database. Sub-cell splitting of blocks was allowed to follow the geological boundaries accurately. Relative density was calculated for each sample and determined by Kriging in the resource model.

Total in-situ resources were reduced by 30 percent to account for geological losses due to potholes, faults, dykes and replacement pegmatoids.

The resource to reserve conversion was done using the Mine 2-4D optimisation software package to select the optimum economic cut subject to the geological, geotechnical and trackless mining constraints.

New UG2 and Merensky geological and grade models generated during this financial year have been used in the current mineral resource and reserve statements. The entire Merensky reef was modelled in the 2010 resource update.

UG2 Mineral Resources

	(UG2 + Internal Pyroxenite)								
	Mt	**Pt g/t**	**Pd g/t**	**Rh g/t**	**Au g/t**	**(3PGE + Au) g/t**	**(5PGE + Au) g/t**	**Pt Moz**	**6E Moz**
Measured	12.68	2.59	1.46	0.49	0.04	4.58	5.49	1.05	2.24
Indicated	46.65	2.00	1.20	0.37	0.04	3.62	4.33	3.00	6.49
Total 2011	**59.33**	**2.13**	**1.26**	**0.40**	**0.04**	**3.82**	**4.58**	**4.06**	**8.73**
Total 2010	55.65	2.17	1.27	0.41	0.04	3.89	4.67	3.88	8.36
Inferred	1.17	2.69	1.43	0.50	0.04	4.66	5.66	0.10	0.21

***3PGE** = platinum + palladium + rhodium; **5PGE** = platinum + palladium + rhodium + iridium + ruthenium; **6E** = 5PGE + gold.*
Mineral Resources are inclusive of Mineral Reserves.
Totals are rounded off.

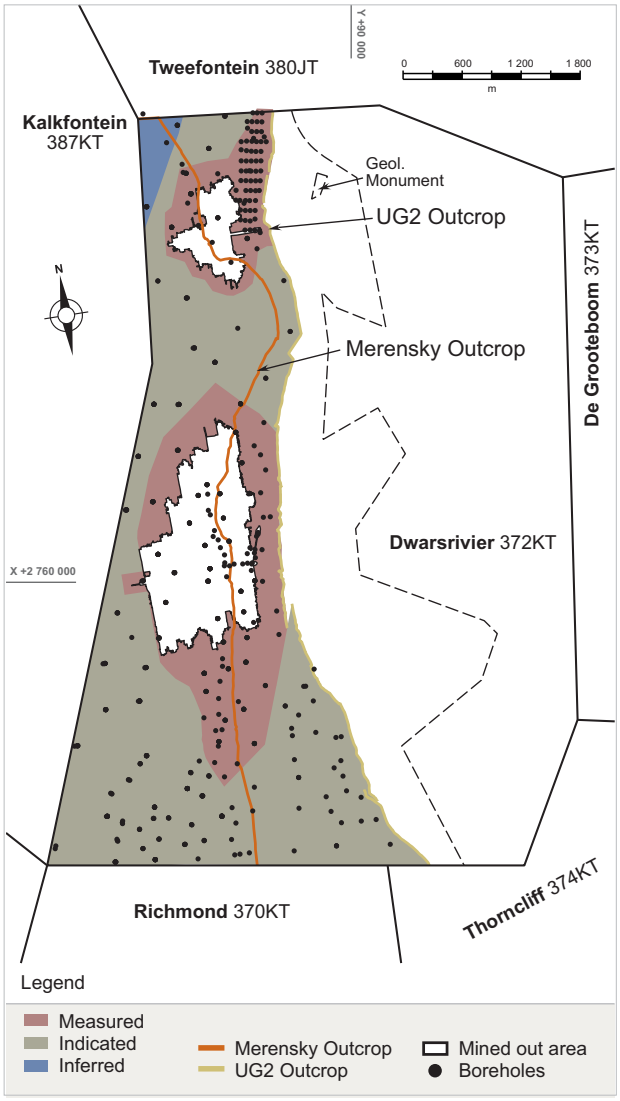
UG2 Mineral Reserves

	(UG2 + Internal Pyroxenite)								
	Mt	**Pt g/t**	**Pd g/t**	**Rh g/t**	**Au g/t**	**(3PGE + Au) g/t**	**(5PGE + Au) g/t**	**Pt Moz**	**6E Moz**
Proved	9.57	1.87	1.04	0.36	0.03	3.30	3.96	0.58	1.22
Probable	29.45	1.57	0.93	0.30	0.03	2.83	3.40	1.49	3.22
Total 2011	**39.03**	**1.64**	**0.95**	**0.32**	**0.03**	**2.95**	**3.54**	**2.06**	**4.44**
Total 2010	35.92	1.65	0.95	0.32	0.03	2.94	3.54	1.90	4.09

***3PGE** = platinum + palladium + rhodium; **5PGE** = platinum + palladium + rhodium + iridium + ruthenium; **6E** = 5PGE + gold.*
Totals are rounded off.
Modifying factors: Mining losses, dilution, geotechnical and metallurgical factors.

ARM Platinum continued

Two Rivers Mine UG2 Resource Classification Map



Two Rivers Platinum Mine underground workshop

Two Rivers Platinum Mine milling section

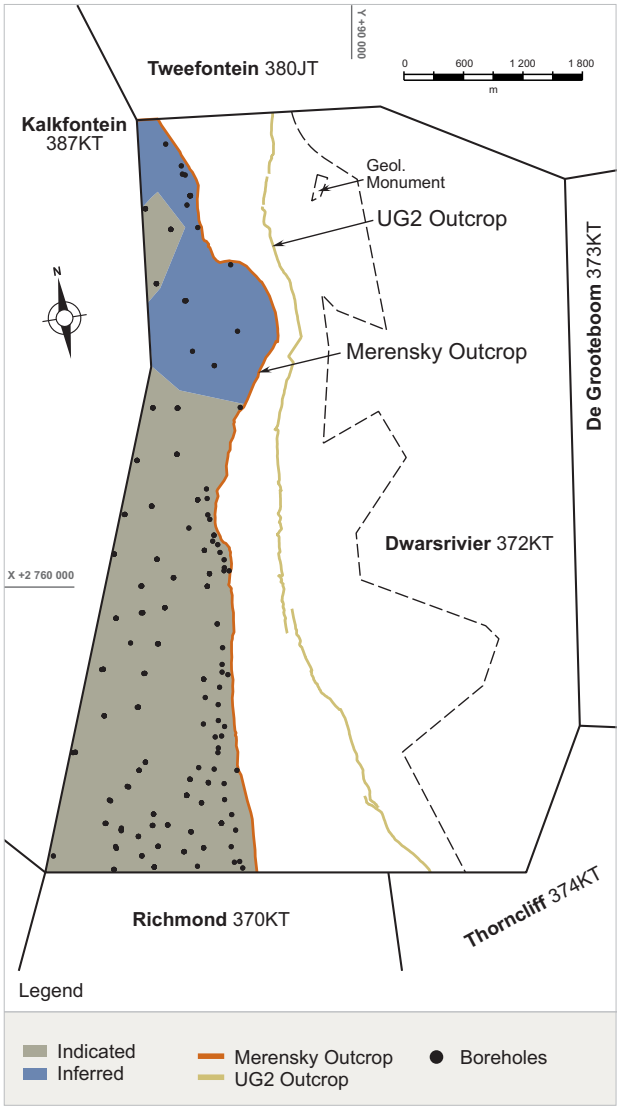
ARM Platinum continued

Merensky Reef Mineral Resources

	Mt	Pt g/t	Pd g/t	Rh g/t	Au g/t	(3PGE + Au) g/t	6E g/t	Pt Moz	6E Moz
Measured	–	–	–	–	–	–	–	–	–
Indicated	38.36	1.73	0.96	0.10	0.20	2.98	3.17	2.13	3.91
Total 2011	**38.36**	**1.73**	**0.96**	**0.10**	**0.20**	**2.98**	**3.17**	**2.13**	**3.91**
Total 2010	18.70	2.01	0.98	0.07	0.28	3.34	3.55	1.21	2.13
Inferred	10.39	1.64	0.88	0.11	0.18	2.81	2.99	0.55	1.00

3PGE *= platinum + palladium + rhodium;* ***5PGE*** *= platinum + palladium + rhodium + iridium + ruthenium;* ***6E*** *= 5PGE + gold.*
Totals are rounded off.

Two Rivers Mine Merensky Resource Classification Map



Year-on-year change

The 2011 Mineral resource tonnage increased to 59.33 million tonnes at 4.58 g/t (6E) due to the inclusion of the full thickness of the UG2 reef in the model. Similarly the mineral reserves also increased to 39.03 million tonnes at 3.54 g/t (6E).

The Merensky Indicated Reserves increased from 18.70 million tonnes at 3.55 g/t (6E) to 38.36 million tonnes at 3.17 g/t (6E) due to evaluation of the entire thickness of the Merensky reef.

Historical production at Two Rivers Platinum Mine

Financial year	Mt
2006/2007	1.28
2007/2008	2.33
2008/2009	2.69
2009/2010	2.92
2010/2011	2.95

Two Rivers Platinum Mine ore stockpile

ARM Platinum continued

Modikwa Platinum Mine

ARM's attributable beneficial interest in Modikwa's operations is 41.5%. The other 50% is held by Anglo Platinum.

Locality

Modikwa platinum underground mine is situated some 15 kilometres north of Burgersfort and 15 kilometres east of Steelpoort, along the border between the Mpumalanga and Limpopo provinces in South Africa. Located at longitude 30º10'E and latitude 24º40'S, the site is accessed via the R37 road between Polokwane and Burgersfort.

History

Exploration in the area started in the mid 1920s with the discovery of the Merensky Reef. During the late 1980s further drilling was completed on the UG2 and Merensky reefs. In the late 1990s a feasibility study was completed on the exploitation of the UG2. During 2001 a 50:50 JV agreement was signed between Rustenburg Platinum Mines and ARM Mining Consortium Limited. ARM's effective stake in Modikwa is 41.5 percent, through its 83 percent ownership of ARM Mining Consortium. The other 8.5 percent is held by the Mampudima and Matimatjatji community companies through their 17 percent shareholding in ARM Mining Consortium.

Mining authorisation

The application for new order rights was submitted on 31 March 2009. The approval of the application is still pending.

Geology

The igneous layering at Modikwa mine is north-northwest striking with an average dip of 10 degrees to the west. Both the UG2 and Merensky reefs are present. The UG2 occurs as a chromitite layer with average thickness of approximately 60 centimetres. Three leader chromitites occur above the main seam. Gentle undulations of the UG2 with amplitudes of less than 2 metres are pervasively developed across the mine area. Potholes of varying size appear to be randomly distributed within the North shaft area. Potholes are less abundant in the South shaft area, which is more disturbed by faulting. The Onverwacht Hill area is characterised by the presence of several large ultramafic pegmatoid intrusions that disrupt and locally replace the UG2.

Mineral Resources and Reserves

The resource over a minimum resource width of 1.02 m has been classified in accordance with the SAMREC code. The classification is based on data constraints, information risk assessments, geological, geostatistical considerations and after review by the Competent Persons Team.

The mineral resource is based on 1 815 surface diamond drillhole intersections and 3 511 underground sample sections. These logs and values are kept in separate electronic databases and combined for estimation purposes after rigorous data validation. Samples are submitted to Anglo Platinum Laboratories (AR) and Mintek Laboratories (primary laboratories) and to Genalysis (check laboratory) for analysis.

The UG2 Resource Cut is divided into three units comprising the UG2 Reef and dilution cuts in the hangingwall and footwall to make up the mining cut. Estimation of the three sub-units in the mining cut is carried out separately and independently. Two-dimensional block models with block sizes of 125 m x 125 m, 250 m x 250 m and 500 m x 500 m, depending on the drillhole/sample section spacing are created. The Pt, Pd, Rh, Au, Cu and Ni grades, width and density are interpolated using Ordinary Kriging. Resources are reported after deduction of geological losses and exclude resources converted to reserves. The geological losses account for losses due to pegmatoidal intrusions, faults, dykes and potholes. Part of the Resources are converted to Mineral Reserves by applying appropriate mining, metallurgical and economic factors, i.e "modifying factors".

A minimum mining cut of 102 centimetres is used to calculate the amount of footwall waste that is included in the mining cut. Where the hangingwall and the main seam thickness are greater than 102 centimetres, an additional 5 centimetres of footwall waste is included. The basal contact of the UG2 layer is typically high-grade and it is important that this contact is not left in the footwall during mining. The UG2 is accessed via two primary declines from surface – and a fleet of mechanised equipment is used for the mining operations. Run-of-mine tonnage is processed at the Modikwa concentrator and the PGE rich concentrate is transported to Anglo Platinum's Polokwane smelter and refining facilities.

Mineral Resources and Reserves UG2

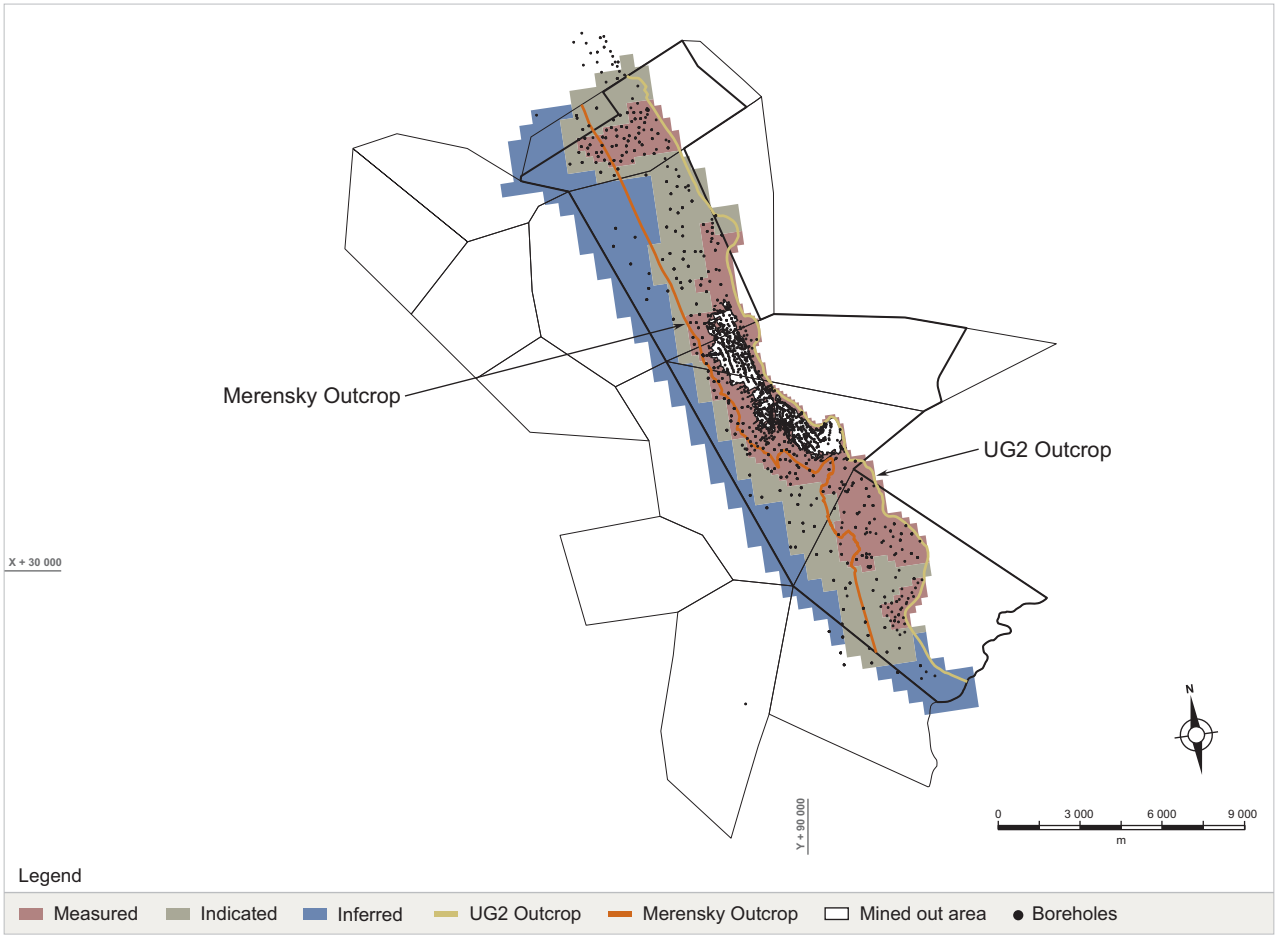
	Mineral Resources		
	Mt	3PGE + Au g/t	Moz
Measured	50.2	5.89	9.5
Indicated	91.0	5.88	17.2
Total Measured and Indicated 2011	**141.2**	**5.89**	**26.7**
Total Measured and Indicated 2010	149.01	5.86	28.08
Inferred	75.5	6.18	15.0

	Mineral Reserves		
	Mt	3PGE + Au g/t	Moz
Proved	20.49	4.96	3.27
Probable	34.94	4.79	5.38
Total Reserves 2011	**55.43**	**4.86**	**8.65**
Total Reserves 2010	47.57	4.94	7.55

***3PGE** = platinum + palladium + rhodium.*
Mineral Resources are exclusive of Reserves.
Totals are rounded off.

ARM Platinum continued

Modikwa Mine UG2 Resource Classification Map



Mineral Resources Merensky Reef

	Mineral Resources		
	Mt	3PGE + Au g/t	Moz
Measured	17.95	2.94	1.70
Indicated	54.05	2.73	4.74
Total Measured and Indicated 2011	**72.00**	**2.78**	**6.44**
Total Measured and Indicated 2010	72.00	2.78	6.44
Inferred	136.84	2.65	11.66

***3PGE** = platinum + palladium + rhodium.*
Totals are rounded off.

Year-on-year change

The Mineral Reserves at Modikwa increased to 55.4 million tonnes compared with the 2010 statement due to an increase of the S2 shaft scheduled area. The Measured and Indicated Mineral Resources decreased from 149.0 to 141.2 million tonnes due to conversion of resources (Measured and Indicated) and re-evaluation.

Historical production at Modikwa Mine

Financial year	Mt
2006/2007	2.32
2007/2008	2.26
2008/2009	2.45
2009/2010	2.27
2010/2011	2.30

ARM Platinum continued

Kalplats Platinum Projects

ARM's attributable beneficial interest in Kalplats' operations is currently 90%.

Locality

The Kalplats Platinum Projects are situated 330 kilometres west of Johannesburg and some 90 kilometres southwest of Mafikeng in the North West Province of South Africa. Situated at latitude 26º30'S and longitude 24º50'E, the project area is accessed from Stella on the N14 national road linking Mafikeng and Vryburg.

History

Anglo American discovered the Kalplats platinum deposits in the early 1990's and Harmony Gold Mining Company Limited acquired the project from Anglo in 1999. Subsequently ARM acquired the project as part of the merger of the Anglovaal, ARM and Harmony assets in 2004. Pre-2004, exploration comprised a combination of rotary air blast (RAB), reverse circulation (RC) and diamond drilling. Anglo drilled a total of 6 000 metres in 133 holes, while Harmony drilled a total of 35 640 metres in 399 holes. Harmony commissioned a feasibility study in 2003 and excavated a 500 tonne bulk sample for metallurgical test work. The study assessed the viability of both an open pit and underground mining operation. The feasibility study was completed early in 2004.

In 2005, ARM Platinum entered into two joint venture agreements with Platinum Australia Limited (PLA), one over the "Kalplats Project" in which ARM Platinum has a 90 percent share and which provides for PLA to earn up to 49 percent by completing a bankable feasibility study and making the Panton metallurgical process available at no cost. The other joint venture agreement covers the "Kalplats Extended Project" (Extended Project) in which ARM Platinum and PLA each has a 50% share and contributes equally to the exploration expenditure. Both projects are managed by PLA.

PLA continued drilling from 2006 with increased focus on the Vela, Scorpio, Sirius, Mira, Serpens North, Serpens South and Crux deposits. PLA's drilling consisted of a combination of RC and diamond drilling and focussed on extending existing holes and infill drilling along and between existing drill lines. PLA completed 683 drill holes for a total of 92 529 m. Late in 2009, PLA completed a pre-feasibility study on a 1.5 million tonne of ore per year open pit mining operation and is currently finalising a bankable feasibility study.

Limited drilling was carried out on a soil geochemical anomaly in the Extended Project area with initial positive results.

Prospecting rights

In September 2006, ARM Platinum was granted a new order prospecting right (PR492 of 2006) over the Kalplats Project covering portions of the farms Groot Gewaagd 270, Gemsbok Pan 309, Koodoos Rand 321 and Papiesvlakte 323 (approximately 3,810 hectares). In April 2007, a new order prospecting right (DME1056) (approximately 62 985 hectares) was granted to ARM Platinum over the Extended Project area which covers an additional 20 kilometre of strike to the north and 18 kilometres to the south of the Kalplats Project area.

Geology

PGE mineralisation is hosted mainly by magnetite-rich gabbros within the Stella Layered Intrusion (SLI), a 3.0 billion year old layered complex intruded into the Kraaipan Greenstone Belt. Mineralisation is contained in eight separate, subvertically dipping zones known as Crater, Orion, Vela, Sirius, Mira, Serpens North and Serpens South and Crux, each with strike lengths of between approximately 500 and 1 000 metres and widths of between 15 and 45 metres. In addition, drilling has outlined at least three additional deposits known as Scorpio, Tucana and Pointer.

Three main sub-parallel reef packages within each zone have been recognised. They are the Main Reef (the highest grade reef), Mid Reef and LG Reef. The area is structurally complex, and thrusting has caused duplication of reefs in some cases.

Mineral Resources

Geological modelling and resource estimation was done by Coffey Mining on all eight major deposits in the Kalplats PGM Project.

Resources have been calculated to a depth of 200m below surface at a cut of grade of 0.5 g/t 3E. Tonnages and grades are reported only for the entire thickness of a package of seven reefs, namely the UM, UUM, LM, MR, LG, MMW and the Main Reef Residual layers.

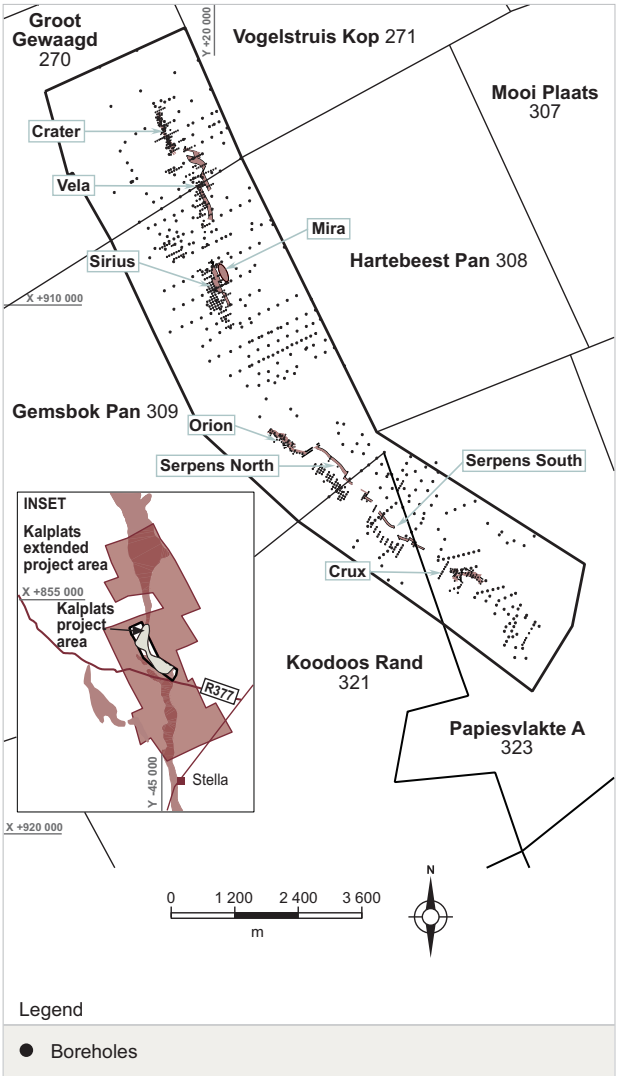
ARM Platinum continued

Kalplats Mineral Resources

	Measured Resources		Indicated Resources		Total Measured and Indicated Resources			Inferred Resources		Total Mineral Resources		
Deposit	**Mt**	**3E g/t**	**Mt**	**3E g/t**	**Mt**	**3E g/t**	**3E Moz**	**Mt**	**3E g/t**	**Mt**	**3E g/t**	**3E Moz**
Crater	1.34	1.89	6.22	1.85	7.55	1.86	0.45	18.66	2.11	26.22	2.04	1.72
Orion	4.20	1.57	4.01	1.56	8.21	1.57	0.41	3.64	1.61	11.86	1.58	0.60
Crux	7.70	1.55	10.88	1.40	18.58	1.46	0.87	9.46	1.35	28.04	1.42	1.28
Sirius	0.80	1.52	5.31	1.49	6.11	1.49	0.29	3.38	1.27	9.48	1.41	0.43
Mira	–	–	2.71	1.42	2.71	1.42	0.12	3.93	1.44	6.63	1.43	0.31
Vela	–	–	21.79	1.36	21.79	1.36	0.95	14.87	1.32	36.66	1.34	1.58
Serpens N	–	–	4.96	1.41	4.96	1.41	0.22	2.74	1.47	7.70	1.43	0.35
Serpens S	–	–	–	–	–	–	–	10.76	1.34	10.76	1.34	0.46
Total 2011	**14.04**	**1.59**	**55.88**	**1.46**	**69.91**	**1.48**	**3.33**	**67.44**	**1.57**	**137.36**	**1.53**	**6.74**
Total 2010	14.04	1.59	50.91	1.46	64.95	1.49	3.11	72.40	1.56	137.36	1.53	6.74

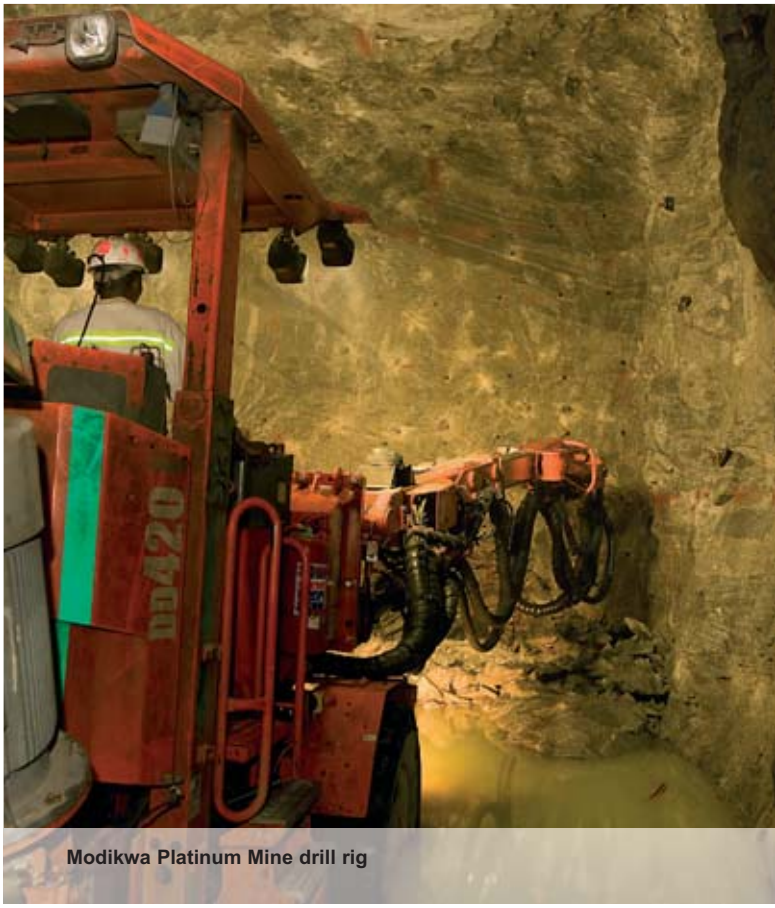
3E *= platinum + palladium + gold.*
Totals are rounded off.
Resources include UM, UUM, LM, MR, LG, MMW and the Main Reef Residual layers, which is the total mineralized width for all seven layers.
Cut off grade of 0.5 g/t 3E has been applied.

Kalplats Platinum Projects Locality Map



Year-on-year change

Total Measured and Indicated Resources are 69.91 million tonnes at 1.48 g/t (3E), while the total resources (including Inferred) remain at 137.36 million tonnes at 1.53 g/t (3E).



Modikwa Platinum Mine drill rig

ARM Coal

Goedgevonden Coal Mine

ARM's attributable beneficial interest in Goedgevonden's operations is 26%. The other 74% is held by Xstrata.

Locality

The Goedgevonden Mine is situated in the Witbank Coalfield about 7 kilometres south of the town of Ogies in Mpumalanga province in South Africa .

History

A total of 548 surface diamond boreholes were drilled during 1964 to 2004 by Duiker Mining and Xstrata SA. Anglo Coal supplied an additional 102 boreholes for the Zaaiwater area. Most boreholes were drilled down to basement to define the seam locality and basement topography. Owing to the different campaigns, the database had to be validated to produce a consistent set of data.

Mining authorisation

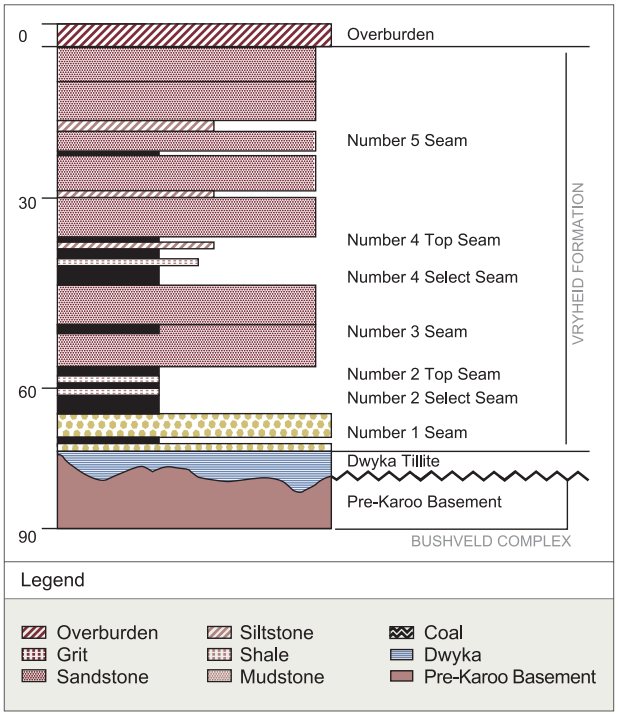
New order mining rights were granted and registered.

Geology

The stratigraphy of the Witbank Coalfield consists of five seams numbered from oldest to youngest: No 5 to No 1 seam. The seams vary in thickness from less than 0.5 metres to over 6 metres and do not exceed 300 metres in depth from surface. The coal seams dip at less than 5 degrees. However, coal seam morphology and qualities may be locally influenced by basement topography, surface weathering and intrusion of dolerite dykes and sills. The coal qualities vary both within and between individual coal seams. Low quality coals, suitable for the local steam coal market, have a calorific value of between 18 to 22Mj/kg, whereas the high quality export steam coal has a calorific value of greater than 27Mj/kg. The Goedgevonden open-cut mine is expected to produce about 3.2 million additional tonnes annually for export and 3.4 million tonnes a year for domestic thermal generation coal. The planned stripping ratio is between 3.35:1 and 1.85:1 in the early years of production. Using a mining contractor, Xstrata SA started mining on the Goedgevonden property at a rate of 1 million tonnes a year (run-of-mine).

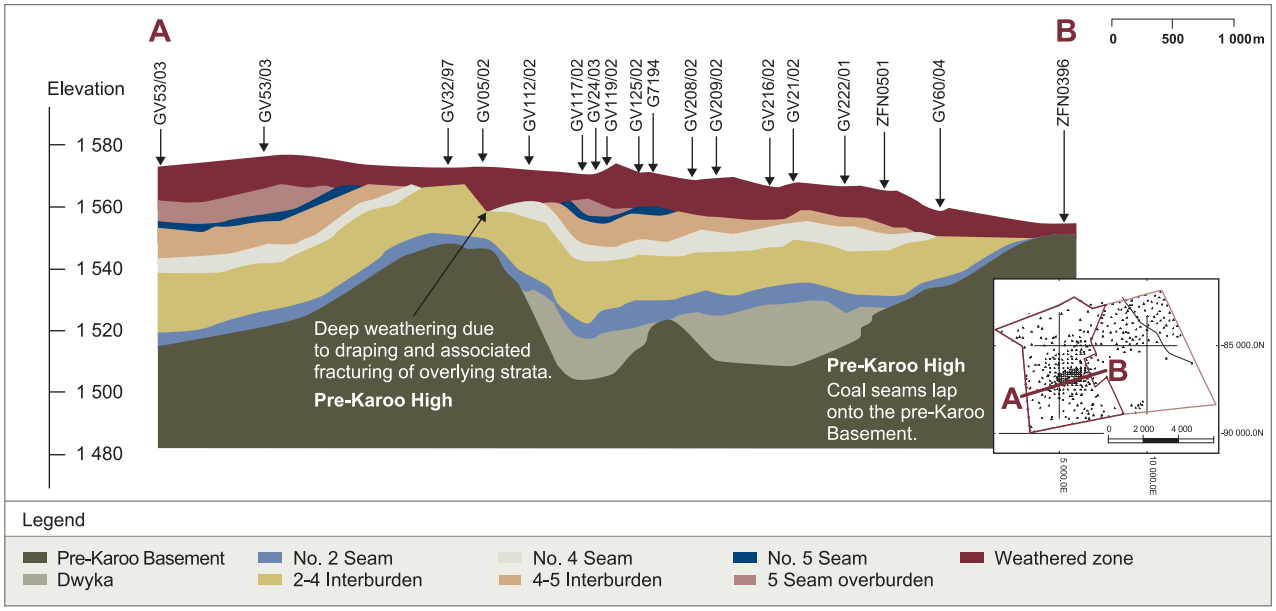
All five coal seams are developed on Goedgevonden (See Figure). The No 1 seam is of low quality, thin and only developed in paleo-low areas. The No 2 seam is extensively developed and is of good quality and is, on average, 5.5 metres thick. The No 3 seam at Goedgevonden is of good quality but, with an average thickness of only 0.3 metres, is uneconomic. The No 4 seam, being closer to surface and although of the same thickness as the No 2 seam, is influenced by weathering and is not as extensively developed. The No 5 seam is of good quality, but is preserved as erosional remnants on the high ground only and thus not extensively developed over the area. No major faults, structural disturbances or intrusives were observed in the boreholes drilled to date.

Wireframes for the seam composites for the No 2, 4 and 5 seams were generated in Datamine. Two-dimensional block models were generated with block sizes of 50 x 50 metres. All estimations of the individual blocks were done using inverse distance cubed with an isotropic search. Other software packages used in the evaluation are 'Washproduct' and 'Xpac'.



ARM Coal continued

Section showing Goedgevonden Coal seams



The following table with regard to Goedgevonden Coal Resources and Reserves was obtained from Xstrata, reflecting the status as at 30 June 2011. Mineral Resources and Reserves of the Xstrata mines are the responsibility of the Xstrata SA Resources and Reserves team. No ARM employee is involved in the compilation of Xstrata SA's Mineral Resources and Reserves.

Goedgevonden Resources

	Measured Mt	Indicated Mt	Measured and Indicated Mt	Inferred Mt	Proved Mt	Probable Mt	Total Reserves Mt	Saleable Mt
Total Resources 2011	**566.6**	**41.4**	**608.0**	**–**	**357.7**	**6.1**	**363.8**	**206.2**
Total Resources 2010	522.9	27.7	550.6	63.2	364.4	–	364.4	195.4

Historical production at Goedgevonden

Saleable product	
Financial year	**Mt**
2006/2007	1.6
2007/2008	1.6
2008/2009	2.5
2009/2010	2.7
2010/2011	5.9

ARM Copper

Konkola North Copper Project

ARM and its 50:50 strategic joint venture partner Vale, owners of Konnoco Zambia, announced on 27 August 2010 the release of the Konkola North Copper Mine in Zambia. ZCCM Investment Holdings plc has a buy-in right into Konnoco Zambia of either 15% or 20% with 5% thereof being a free carry.

The Konkola North Copper Project is located within the Greater Konkola Area of the Zambian Copperbelt and consists of a large scale mining licence covering an area of approximately 44 square kilometres.

The Vale/ARM joint venture intends to focus initially on the development of the northern portion of the deposit, known as the South and East Limb areas and the re-equipping of the existing infrastructure at the South Limb, which includes a 423 metre vertical shaft, two ventilation shafts and three ore haulage levels. At the East Limb, the Company is considering the sinking of a decline shaft to access the mineralisation.

The expected life of mine of Konkola North is 28 years. A further three year exploration programme to evaluate area "A", which has potential to double the output to 100 000 tonnes copper per annum in concentrate is in progress.

Konkola North's Area "A" hosts a potentially world-class resource, with approximately 220 million tonnes of ore at grades of 2.64% copper. The Company has completed a first phase definition drilling phase of Area "A". Following the geological data processing and interpretation, another drilling programme will be planned to further define the copper resources in this area.

The mine's throughput design is 2.5 mtpa of ore at an average mill head grade of 2.3% copper, yeilding 45 000 tonnes of contained copper in concentrate to be toll smelted in Zambia.

Construction commenced in August 2010 with commissioning of the concentrator plant expected 27 months later and the mine is planned to reach full production in 2015.

Mineral Resources

Mineral Resources at Konkola North Project are stated at a 1% total copper cut-off grade.

Konkola North Copper Mine concentrator construction

The Konkola North Copper Project

Mineral Resources	Mt	%TCu	Mt Contained Cu
Measured South Limb	0.7	2.70	0.02
Indicated South Limb	23.9	2.13	0.51
Total South Limb	**24.6**	**2.15**	**0.53**
Measured East Limb	4.0	2.64	0.11
Indicated East Limb	16.6	2.58	0.43
Total East Limb	**20.6**	**2.59**	**0.54**
Measured Fold axis	0.4	2.10	0.01
Indicated Fold axis	11.8	2.70	0.32
Total Fold axis	**12.2**	**2.68**	**0.33**
Total Measured and Indictated 2011	**57.4**	**2.42**	**1.39**
Total Measured and Indictated 2010	57.4	2.42	1.39
Inferred South Limb	13.8	2.22	
Inferred East Limb	0.4	2.00	
Inferred Fold axis	9.7	2.25	
Inferred Area A	219.5	2.64	

Totals are rounded off.

ARM Copper

ARM's attributable beneficial interest in exploration ventures is 30%. Vale owns 30%, whilst the balance of 40% is owned by Gécamines.

Democratic Republic of Congo (DRC)

Situated in the DRC in close proximity to the city of Lubumbashi, the Kalumine Copper-Cobalt Project, a joint venture with La Générale des Carrières et des Mines (Gécamines), comprises approximately 77 square kilometers. The mining license area hosts numerous deposits, including the Lupoto, Kasonta, Kasonta South, Niamumenda and Karavia prospects.

Exploration drilling commenced in March 2007. At Lupoto a small-scale mining operation was commissioned in 2008 and a total of 2.25 million tonnes of copper ore with an average grade of 4.5% Cu was mined and upgraded through a screening and sorting process. A total of 1 663 tonnes of lumpy ore at a grade of 22.46% Cu and 15 931 tonnes of fine ore material at a grade of 12.69% Cu was produced and sold to third parties. The remainder of the ore comprises a stockpile of 1.1 million tonnes with an average grade of 4.5% Copper. All mining and processing related work has now stopped, and the copper furnace previously commissioned is on care and maintenance. The company will focus on exploration and resource definition work.

Kalumines Properties (DRC) – Mineral Resources

Mineral Resources are at 0.5% total copper cut-off grade.

Mineral Resources	Mt	%TCu	Mt Contained Cu
Lupoto			
Indicated Domain 1	12.25	2.33	0.29
Indicated Domain 2	10.40	2.63	0.27
Total Indicated Mineral Resources (Lupoto)	22.65	2.47	0.56
Kasonta			
Indicated Domain 1	10.03	1.29	0.13
Indicated Domain 2	8.73	1.74	0.15
Total Indicated Mineral Resources (Kasonta)	18.76	1.50	0.28
Karu East			
Indicated Domain 2	6.81	2.10	0.14
Total Indicated Mineral Resources (Karu East)	6.81	2.10	0.14
Niamumenda			
Indicated Domain 1	1.96	1.44	0.03
Indicated Domain 2	2.07	2.46	0.05
Total Indicated Mineral Resource (Niamumenda)	4.03	1.96	0.08
Total Indicated Mineral Resources	**52.25**	**2.03**	**1.06**
Lupoto			
Inferred Domain 1	12.28	1.85	0.23
Inferred Domain 2	0.75	2.37	0.02
Kasonta			
Inferred Domain 1	4.13	1.31	0.05
Inferred Domain 2	0.016	0.79	–
Karu East			
Inferred Domain 2	0.15	2.70	0.004
Niamumenda			
Inferred Domain 1	0.56	1.17	0.007
Inferred Domain 2	0.003	0.67	–

Totals are rounded off.

Gold: Harmony

ARM owns 14,8% of Harmony's issued share capital. Harmony, South Africa's third largest gold producer, is separately run by its own management team. Resources and Reserves of the Harmony mines are the responsibility of the Harmony team and are published in Harmony's Annual Report.

Definitions

The definitions of Mineral Resources and Reserves, quoted from the SAMREC Code, are as follows:

A 'Mineral Resource'	is a concentration or occurrence of material of economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, or estimated from specific geological evidence, sampling and knowledge interpreted from an appropriately constrained and portrayed geological model. Mineral Resources are subdivided, and must be so reported, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated or Measured categories.
An 'Inferred Mineral Resource'	is that part of a Mineral Resource for which volume or tonnage, grade and mineral content can be estimated with only a low level of confidence. It is inferred from geological evidence and sampling and assumed but not verified geologically or through analysis of grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited in scope or of uncertain quality and reliability.
An 'Indicated Mineral Resource'	is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on information from exploration, sampling and testing of material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological or grade continuity but are spaced closely enough for continuity to be assumed.
A 'Measured Mineral Resource'	is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.
A 'Mineral Reserve'	is the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project and a Life-of-Mine Plan for an operation must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed.
A 'Probable Mineral Reserve'	is the economically mineable material derived from a Measured or Indicated Mineral Resource or both. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life-of-Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.
A 'Proved Mineral Reserve'	is the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Pre-Feasibility Study for a project or a Life-of-Mine Plan for an operation must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.