

1936

Sinking of 5 Shaft (4 995 feet below the collar) is completed. Overwinding accident claims 34 lives.

1937

Year's production exceeds one million tons for the first time.

1939

War is declared against Germany.
Installed milling capacity increases to 2.1 million tons annually.



environmentally aware

Mineral reserve and mineral resource overview

We strive to achieve accuracy, credibility and transparency, and disseminate quality information to stakeholders

DRD's South African operations conform to the Mineral Reserve and Mineral Resource reporting standards of the South African Mineral Resource Committee (SAMREC) Code. South African operations were reviewed for compliance by the international mining consulting firm of Steffen, Robertson and Kirsten (SRK) in June 2001.

The Australasian operation complies with the Mineral Reserve and Mineral Resource reporting standards of the Australasian Joint Ore Reserve Committee (JORC) Code.

The goals of the Company's Mineral Resource Management strategy are accuracy, credibility, transparency and the dissemination of quality information to all stakeholders. Mineral Resources are quoted inclusive of the Mineral Reserve with tonnes and grades quoted *in situ*. The Mineral Reserve is quoted at a cut-off grade calculated from direct mining costs, the previous year's mining and milling efficiencies

and the production plan for the next twelve months. Planning was done using a gold price of R64 528 per kilogram (\$256 per ounce). Mineral Reserves are quoted at a life of mine gold price of R68 143 per kilogram (\$270 per ounce). The Company has a mineral resource management strategy in place optimising each operation's Nett Present Value through the application of an economic cut-off grade per project area. A gold price of R120 000 per kilogram (\$475 per ounce) was used for the calculation of cut-off grades for the exclusion of blocks from the Mineral Resource.

The Mineral Reserves are signed off by the following competent persons:

- Harties and Buffels by Frik Coetzee,
- Blyvoor by Deon van der Mescht,
- Crown and associated operations by Charles Symons, and
- Tolukuma by Graeme Collins.

1940

Mine produces munition.

1945

Second World War ends. 127 employees return to work from active service.

1947

White miners strike for almost two months and a shortage of black labour is experienced.

1948

Mine is struck by a tornado.



Combined operations

The DRD Mineral Resource was decreased in 2001 to 2 028 tonnes (65.2 million ounces) from 2 818 tonnes (90.6 million ounces) of gold in 2000. The Mineral Reserve was decreased in 2001 to 447 tonnes (14.4 million ounces) from 496 tonnes (15.9 million ounces) of gold in 2000. The most significant reasons for these changes, are the exclusion of Durban Deep and West Wits underground sections' Mineral Resources.

Blyvoor Section

The total Mineral Resource was increased by 2.68 tonnes (90 000 ounces) of gold due to operational improvements that resulted in a reduced cut-off grade of 4.80 grams per ton (5.53 grams per ton in 2000). This reduction in cut-off grade resulted in vast areas of previously ignored Middelvlei Reef being incorporated into the life of mine plan. Number 1 Shaft is presently being re-opened in order to gain access to the approximately 2.2 million tonnes of Middelvlei Reef. This opening up will also facilitate access to high-grade Carbon Leader pillars.

The total Mineral Reserve was reduced by 14.31 tonnes (460 000 ounces) of gold due to the exclusion of certain pillars and parts of pillars for rock engineering and practical mining considerations. The decrease in pay-limit is due to a lower rand per ton cost, increase in gold price and less dilution of tonnes from underground.

The surface Resource decreased by 7.15 tonnes (230 000 ounces) of gold due to the re-evaluation of all surface resources. Well-controlled screening resulted in improved reserve grades. The sale of the Number 2 Shaft waste dump incurred a further decrease of the resource inventory.

Crown Section

During September 2000 Crown assumed management responsibility for the West Wits surface mineral reclamation and sand treatment operations. Mineral resource and reserve inventories remained separate for ore accounting reasons. A total Mineral Resource of 30.9 tonnes (1 million ounces) of gold is held on the West Wits lease area. No underground Mineral Resources are declared for this year due to the cessation of all underground mining activities and rehabilitation of the surface shafts.

In addition, all surface Mineral Resources of the original Durban Deep Section are now managed by Crown. A total Mineral Resource of 46.3 tonnes (1.49 million ounces) of gold is held on the Durban Deep lease area. Here again, no underground Mineral Resources are declared for this year due to the cessation of all underground mining activities and rehabilitation of the surface shafts.

1949

Pension fund for daily paid employees is established.

1956

6A sub-vertical shaft is commissioned.

1957

Rand Mines Limited appointed as consulting engineers and technical advisors.



up-to-date, facilitative,

Mineral reserve and mineral resource overview

North West Section

The major changes to the Mineral Reserve and Mineral Resource of the Buffels Section, now falling under North West Section (or North West Operations), result from re-incorporation of small pillars. A total of 144.60 tonnes (4.65 million ounces) of gold is held in resource. A decrease of 7.46 tonnes (240 000 ounces) is shown this year due to a screening operation on the surface dumps to improve the grade.

Mineral Resource of Harties, now also falling under North West Section, has been decreased to 57.53 million tonnes containing 364 tonnes (11.69 million ounces) of gold. Pillars previously listed as abandoned, but which are now to be mined, have been reincorporated into the Resource, as has marginal ore on the western side of the mine. Mineral Reserves are stated at a cut-off grade of 4.4 grams per ton, and at delivered to the plant grades and tonnages. Investigations were completed on some of the reefs outcropping on the property and their suitability for opencast mining confirmed.

Opencast Mineral Resources are reflected as such in the resource summary (8.3 million tonnes at 3.03 grams per ton containing 25.2 tonnes or 809 000 ounces of gold).

Tolukuma Section

Management of the Tolukuma Section was taken over by DRD in June 2000. Tolukuma is a high-grade epithermal, vein-hosted, gold-silver deposit, which has sharp grade boundaries and a high conversion rate from Resource to Reserve.

This is the first year that Tolukuma has published a Reserve, and consequently there is no variance to report.

The Tolukuma Mineral Resource has decreased by 106 000 tonnes containing 3.01 tonnes (97 000 ounces) of gold, due

to mining depletion. It was further reduced through the transfer of 97 000 tonnes containing 1.74 tonnes (56 000 ounces) of gold to pre-mineral resource when development of the south end of Gulbadi showed the vein relationships to be more complex than was originally revealed by exploratory drilling. Further development in this area is planned. The Resource has increased by 31 000 tonnes containing 1.28 tonnes (41 000 ounces) of gold through the inclusion of mineralisation that has been developed on the 120 Vein and the Cross Vein.

Full definitions applied within the Company, over and above the SAMREC Code, are available on the DRD website at www.durbans.com.

1961

Mine is awarded its first Chamber of Mines Safety Division Millionaire Shield for one million consecutive underground fatality-free shifts.

1967

Cresswell Park Township is established. Company is classified as a marginal mine for the state loan scheme.

1968

Company is qualified as a state-assisted mine in terms of the Gold Mines Assistance Act.

1977

Additional assistance is received from the State in the form of a special loan facility.



Group metallurgical capital projects

Following initial project investments, expenditure on upgrades to metallurgical processes declined significantly in the year, as planned. As a consequence the projects department was restructured and capital projects are now managed on mine.

In total R12 million was spent on metallurgical and slimes dam capital projects – the former mainly to ensure continued material supply into the plants, and the latter to responsibly dispose of tailings.

The sand preconcentration plants at Knights and West Wits are both operating according to plan, and optimisation of operations to improve economics is ongoing. The Crown preconcentration plant was converted to a tailings scavenging mode to ensure the highest possible profitability.

Efforts to produce gold in a form that can be fed to a value-adding facility were terminated during the year, as this was deemed to be a non-core activity.

It has been ascertained that the Harties

acid plant requires supplementary sulphur to operate at full capacity, and the Knights flotation plant has been able to make up some of this shortfall. Investigations have been conducted to generate pyrite from the Buffels multigold plant and Crown spiral plant.

As the Tolukuma Mine accesses deeper reserves, the sulphide mineralogy has a negative effect on metallurgical operations. Extensive testwork has been carried out to modify the process using flotation. However, the problems have finally been addressed by blending the different feedstocks. Plant scale test work is now being undertaken to remove the deleterious sulphides, using gravity concentration techniques.

Projects/investigations planned for the new financial year include:

- alternative deposition sites
- supplementation of water requirements with waste waters
- rationalisation of the North West Operations plant

- identification of surface sources for North West Operations
- ongoing maintenance of slimes dams

Deepmine

The Deepmine Collaborative Research programme in which DRD participated, was completed during the 2000/2001 financial year. The knowledge gained and technology developed from the Deepmine research will now be communicated to the Company's operations through a series of knowledge transfer schools and technology deployment exercises that will cover the entire scope of the programme.

1978

Flooding of lower levels of the mine occurs, seriously disrupting operations.

1980

Due to the substantial increase in the gold price, the Company earns its highest working profit of R44.4 million.

1982

Gold hedging operations are entered into for the first time.

ambitious, equitable, a

Review of operations

DRD currently owns three mining and processing operations (referred to as Sections) in South Africa, as well as one in Papua New Guinea. An overview of each Section follows

Blyvoor Section

Blyvooruitzicht Gold Mining Company Limited ("Blyvoor") is situated in the Carletonville goldfields on the North Western edge of the Witwatersrand Basin. Blyvoor was established in 1937 and gold production commenced in 1942. It was the first mine in the "West Wits" line and acquired the Doornfontein mine as a wholly owned subsidiary in December 1995.

The Blyvoor Section has two main gold bearing horizons, the Carbon Leader Reef, which is one of the principle ore-bodies in the goldfield, and the Middelvlei Reef which is situated 75 metres above the Carbon Leader Reef horizon.

Gold production increased from 6.43 to 6.87 tonnes (206 600 to 220 800 ounces). Due to lower than expected values between

35 and 38 levels, the Blyvoor 2000 project necessitated rationalisation during the latter half of the 2000/2001 financial year. To optimise the mine's resources, the Blyvoor Expansion Project was launched. This project facilitates the commissioning of infrastructure and the opening up of areas to enable effective mining of payable mineral reserves. Underground production is expected to double in 2002, and the audited life of mine has therefore been decreased to 9 years. Cash cost for the year is expected to be \$225 per ounce.

The life of mine plan exploits the vast mineral resource in the Blyvoor and Doornfontein lease areas, and production will be sourced from the high grade Carbon Leader Reef pillars, the Carbon Leader reserve in the Blyvoor 2000 tribute area, as well as the

reclamation of "old gold" in worked out areas, low cost high volume mining of the Middelvlei Reef and mining of surface dumps.

1985

2 447 million tons are milled, establishing a new annual production record at an average recovery grade of 3.08 grams per ton milled. A dividend of 100 cents per share is declared.

1989

A dramatic drop in the gold price marks the end of the boom period. Company rationalises operations and implements retrenchment programme.

1991

Rand Mines (Mining and Services) Limited unbundles its holdings.

1993

Recognition agreement with National Union of Mineworkers is ratified. Eleventh million fatality-free shift is achieved.



Crown Section

The Crown Section is involved in the clearing of old slime and sand dumps and the environmental clean-up of land across Central Johannesburg, and has produced approximately 63 tonnes (2 million ounces) of gold since inception. Crown has four operating plants situated at Crown Mines, City Deep, Knights and West Wits, with an installed capacity to treat 13 million tonnes of sand and tailings producing 4.80 tonnes (154 300 ounces) of gold per annum.

The Section performed well during the year with each of the plants achieving steady state. Gold production for the year was 5.33 tonnes (171 300 ounces). The operations have eight years of audited life, and as one of the largest surface retreatment operations in South Africa, the Crown Section has the

potential to acquire additional reserves both on the East and the West Rand.

The capital expenditure programme for the new year is almost totally directed at the tailings complex, with R10 million allocated to upgrading of the tailings complex and R5 million for a new reclamation site at Knights. Cash cost for the year is expected to be \$221 per ounce.

1994

Durban Deep is closed, and approximately 4 600 employees are retrenched, leaving 1 200 people in service.
A new Board of Directors is appointed for Randgold & Exploration and a new management team is installed at the mine.
Merger with Rand Leases is proposed.

1995

Durban Roodepoort Deep, Limited celebrates its centenary.

1997

Merger with Blyvooruitzicht Gold Mining Company Limited and Buffelsfontein Gold Mines Limited increasing gold production to 15.43 tonnes (496 000 ounces).

1998

Crown Consolidated Gold Recoveries Limited is acquired.



experienced, flexible, c

Review of operations (continued)

Non-recurring costs demanded by DRD's restructuring initiatives, in particular hedge book costs, are almost behind the Company, and improved profitability is predicted. The major opportunities lie in the four key operations, namely the North West, Blyvoor and Crown Sections, as well as the Papua New Guinea-based Tolukuma Mine

North West Section

The Buffels and Harties sections have been restructured and now fall under a single management structure known as the North West Section or the North West Operations. This section is situated in the Klerksdorp goldfield region of the Witwatersrand Basin, exploiting the Vaal Reef gold-bearing horizon. Buffels started gold production in 1954, while production at Harties commenced a year later.

Since the inception of the original Buffels and Harties Sections, over 2 228 tonnes (71 million ounces) of gold have been produced. The North West Operations produced 18.92 tonnes (608 000 ounces) of gold during the 2000/2001 financial year, 15.60 tonnes (501 000 ounces) from underground operations and 3.33 tonnes (107 000 ounces) from surface rock dump reclamation.

The recently completed mine plan audited for the year 2002 covers six years and places additional emphasis on the opening up of old mining areas for remnant and pillar extraction. The implementation team has extensive experience and expertise in the extraction of deep level remnants and pillars, as well as the final clean up of gold from previously worked out areas. This far-reaching opening up and development programme entails operations on some 4 500 metres per month. The increase in the immediately available mineral reserves will facilitate greater flexibility to operations. Cash cost for the year is expected to be \$223 per ounce.

Significant opportunity exists along the sub-outcrop of the Vaal Reef in what is locally known as the medium grade reef areas. The

applied cut-off grade is 6 grams per ton. The mining of the medium grade area will require capital expenditure of R13.3 million over a period of fourteen months. Development in the triplication block between the Eastern and Orangia shafts has created additional reserves.

Screening of the Number 2 shaft rock dump has recently been introduced and has resulted in an increase in grade delivered to the low-grade gold plant. Surface rock dump material at Harties will be depleted by 2002 and the focus is on sourcing alternative ore supplies from both underground and outcropping reefs on surface. There is great opencast potential to the west of the Harties mine and applications for prospecting and mining have been submitted to the relevant authorities.

1999

Hartebeestfontein Gold Mining Company Limited (Harties) is acquired.

2000

Dome Resources NL and its high-grade Tolukuma mine in Papua New Guinea are acquired. The Company closes its Durban Deep and West Wits Sections, which were no longer able to benefit from synergies with the operations of Randfontein Estates Limited. Hedging programmes, soon to be replaced by a selective hedging policy, are entered into.

2001

DRD's 1.1 million ounce production mark is passed.



Tolukuma Section

Tolukuma mine is situated about 100 kilometres north of Port Moresby in Papua New Guinea, at an elevation of 1 550 metres. It was purchased by Dome Resources from Newmont in 1993, and acquired by DRD in the first half of 2000, the Company's objective being to re-engineer and further develop the operation.

Open pit production at the mine commenced in 1995, and underground in mid-1997.

The Tolukuma deposit is an epithermal low sulphidation quartz vein system notable for its high-grade "bonanza" style mineralisation. Quartz veins average one to two metres in width over a strike length of over one kilometre.

Total refined metal production for the year amounted to 2.08 tonnes (66 999 ounces) of gold equivalent (gold and silver by revenue) comprising 1.98 tonnes (63 593 ounces) of

refined gold and 5.66 tonnes (181 967 ounces) of refined silver. Total cash costs are AuD 381 per ounce of gold equivalent. Gold production was down on the previous year's performance as a result of lower feed grade and mill throughput. A strict ore blending regime and tight process control was required to counter the effects of high sulphide levels in the ore, which impact upon gold recovery and increased consumable usage.

Open cut mining continued to progress well at the Tolimi lode, with staged cutbacks being mined to the final pit design. Additional surface work carried out included preparation of the access to the Degot Creek vein and the new Main Drive Portal.

Underground activities continued in the Tolimi and Gulbadi lodes with development achieving target. Extremely high stibnite levels in

the underground ore from P5-Tolimi required careful blending with ore from other sources and tight process control to diminish the effect on mill recovery.

Most exploration activity was concentrated on the mining lease, ML 104, and surrounding nearby exploration leases close to the Tolukuma Mine, with the objective of finding additional mill feed. The mine has three years' life from the current resource. Dome Resources has consolidated an extensive holding (5 892 km²) of exploration licences around Tolukuma.



*we are implementing an
efficient health and safety
management programme*

Health and safety

DRD recognises the importance of an efficient health and safety management programme, and the Company has focused its efforts towards implementation of the requirements of the Mine Health & Safety Act in all operations. The Company's Health and Safety Policy was finalised and is being endorsed and implemented in all operations.

The implementation of DRD's risk management strategy allows for an ongoing structured approach to the identification, assessment and management of risk. Employees are continually exposed to environmental conditions that give rise to health hazards, and the occupational exposure levels of workers are being determined and monitored in compliance with the Mine Health and Safety Act.

Blyvooruitzicht won the Intermine Safety Competition of the Carletonville Association of Mine Managers for the third year running and achieved two million fatality-free shifts in November 2000.

Medical surveillance programmes are being conducted at four occupational medical centres where 5 118 initial, 13 478 periodical and 2 133 exit medical examinations were performed during the 2000/2001 financial year. The Medical Bureau for Occupational Diseases certified 168 cases of occupational lung diseases and 103 cases of noise induced hearing loss during the year. Management is concerned about these figures, and is committed to identifying and assessing the critical factors that threaten the safety and health of employees.

Safety Training Programmes for employees are in place, and efforts are being made to ensure that each individual, including management, will accept responsibility for his or her own safety and that of fellow workers. The adherence and execution of the guidelines and conditions outlined in the Total Risk Management Strategy are considered a priority as the Company's workforce is its most valuable asset.