

Review of operations





Doornkop, South Africa



Tshepong, South Africa



Elandsrand, South Africa

Harmony's gold mining operations are located in South Africa and Papua New Guinea (PNG). These assets have, during the past financial year, been subject to extensive review, both in terms of what constitutes the current operations and in terms of potential. The 'back to basics' approach that has been the mantra of the new management team has started to deliver results and has set a firm base from which the company will continue to grow in the future.

A major feature of the year has been the number of projects that have come into production and that will, in the year ahead, start to deliver real returns to the bottom line. In addition, two significant transactions were announced during the year:

- the formation of Rand Uranium; and
- the partnership entered into with Newcrest Mining regarding Harmony's assets in PNG.

These transactions will realise value for Harmony and change the structure of assets under management.

Safety

There has been a significant amount of attention dedicated to safety initiatives at Harmony during the year, and some of these efforts are seen in terms of performance. These initiatives have been a key part of the company's restructuring and refocusing initiative, and also part of the broader transformation of the workplace. The emphasis placed on productivity is inclusive of good safety performance and not an add-on.

The commitment to zero fatalities reaches from the chief executive officer of Harmony to every level of the company with a persistent, deliberate and consistent safety awareness effort. The second round of a comprehensive safety auditing programme was completed in June 2008 that included physical workplace audits, fall of ground regulations audits, shaft audits and metallurgical audits (specifically in relation to compliance with the Cyanide Code). Key non-negotiable principles that have been agreed upon include:

- Management to lead by example
- Continuous verbal communication with all team members

- Visible creation of awareness of safety-related issues
- Award and recognition of safety achievements
- The involvement of all stakeholders

While the workforce is motivated to become involved in taking responsibility for their own safety and that of their colleagues, a key management focus has been to improve underground conditions. In this respect, emphasis has been placed on those areas that are deemed to be of the highest potential risk, namely, shaft infrastructure and physical conditions in the workplace. Again, in respect of the latter, the focus is on compliance with standards, the monitoring and management of ground conditions and improving logistics to and from the workplace.

It is with deep regret that the company has reported the death of 21 people at work this year. Nonetheless, in all the key safety parameters, Harmony has improved its performance. The fatal injury frequency rate (FIFR) has decreased by 18% to 0.18 per million man hours. The lost-time injury frequency rate (LTIFR) has improved by 16% year-on-year to 12.83 per million man hours worked, and has, in fact, steadily decreased every year since 2004. The reportable injury frequency rate (RIFR), which is a good indication of the severity of injuries, has also declined by 20% year-on-year to 6.03 per million man hours worked.

There were also a number of significant safety achievements by the various mines during the year, and foremost among these is the achievement by Target of three years of operation without a fatal accident.

At Hidden Valley, safety performance showed much improvement by year-end. Weekly site inspections and the development and roll-out of several training and proficiency programmes have assisted in this.



Target, South Africa



Bambanani, South Africa

Detailed discussion on safety and health management and performance, HIV/AIDS in the workplace, and Harmony's approach to and management of environmental and community matters, can be found in the company's Sustainable Development Report. This is available on the company's website (www.harmony.co.za) or from the contact persons detailed on the inside back cover of this report.

South Africa – operations

In South Africa, the company has 10 underground operating segments (namely Bambanani, Doornkop, Elandsrand, Evander, Joel, Target, Tshepong, Phakisa, Masimong and Virginia), the Kalgold open pit mine, and the Phoenix slimes treatment operation, along with other surface retreatment operations. In total, these operations produced 1 550 527 ounces (48 227kg) of gold during the year, 1 393 247 ounces (90%) from the continuing underground operations, 93 172 ounces (6%) from open pit operations and 64 108 ounces (4%) from surface sources.

These operations generated revenue of R9 210 million and a cash operating profit of R2 537 million. Operating costs were R138 319/kg (or \$591 per ounce). The average grade for the underground operations was 4.82g/t, 1.89g/t for the open pit operations and 0.24g/t for surface sources. In total, the group spent some R2 219 million on capital expenditure at its South African operations in FY08.

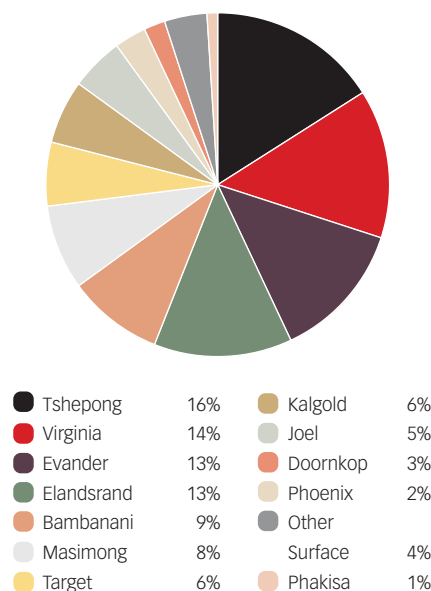
On balance, and given the massive restructuring that has taken place, the South African operations delivered a good performance. Key features of the year include:

- The unavailability of assets: The accident at Elandsrand in October 2007 meant that the mine's production was halted for two months, while the re-development and re-equipping of the Joel North shaft was only concluded three months into the financial year.
- The cessation of Conops at Masimong, Tshepong and Elandsrand mines and the consequent reduction in

the number of employees by some 7 390 people. While this resulted in significant disruptions at these operations, the benefits in costs and efficiencies were already visible by year-end.

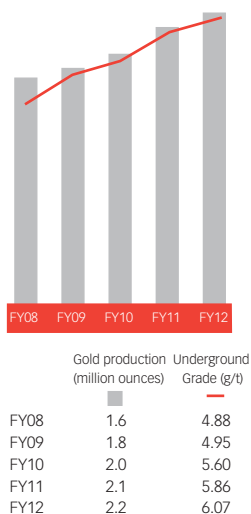
- Spiralling inflation at the South African operations, largely as a result of input costs (steel, labour, stores, timber, reagents, fuel and electricity) all rising at rates higher than inflation.
- The electricity supply crisis in late 2007 and early 2008. Eskom's arrangement to supply the mining industry at a level of around 90% of its contractual obligations has resulted in a number of operational changes. Harmony has been engaging directly with Eskom since the 'power crisis' in January 2008 and, although the situation remains serious, there has been an excellent response by the power utility to Harmony's needs. While Harmony is protecting as far as possible the safety of its employees by investing in emergency generators and alternative sources of supply, we have committed to participating in various power-saving initiatives.

Contribution to production by operation



Review of operations (continued)

Forecast production and grade



■ The focus is on getting back to basics, particularly in respect of planning and mineral reserves management, mining mix, and in terms of productivity. Every mine and every shaft underwent a replanning exercise, with new targets having been set. We have set ourselves a target of increasing productivity to 30t per total employee costed (TEC). In FY08, this was 23.5t/TEC.

■ Cost cutting initiatives, with a particular emphasis on cost controls in respect of consumable materials.

Way forward

Harmony is focused on growth, fundamental to which are the various growth projects, namely Elandsrand, the Tshepong decline, Phakisa and Doornkop in South Africa and Hidden Valley in Papua New Guinea. Harmony's aim is to increase its ounces of production

in forthcoming years to up to 2.2m ounces in FY12, as projects reach full production and certain shaft closures occur as some orebodies are depleted.

As indicated in the Exploration review (pages 44 to 57), several opportunities exist in Papua New Guinea and Evander, South Africa, for potential growth. The Phoenix tailings retreatment project has proved itself to be profitable at excellent margins. With this in mind and reference to the Mineral Resources and Ore Reserves section on pages 58 to 97, there is an excellent opportunity to convert these resource ounces into production by developing an additional dedicated retreatment processing facility.

The review that follows deals with our continuing operations.



Target, South Africa



Bambanani, South Africa



Hidden Valley, Papua New Guinea



Bambanani

Key statistics

	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	827	1 164	1 270
	000t (imperial)	912	1 283	1 402
Gold produced	kg	4 945	6 129	6 244
	oz	158 985	197 060	200 739
Average grade	g/t	5.98	5.27	4.91
	oz/t	0.174	0.154	0.143
<i>Financial</i>				
Revenue	R million	932	902	675
	\$ million	128	126	106
Cash costs	R/kg	149 792	135 609	102 643
	\$/oz	641	586	502
Cash operating profit	R million	191	71	34
	\$ million	26	11	5
Capex	R million	107	125	91
	\$ million	15	17	14

Description

The Bambanani mine is located in the Free State Province, near the town of Welkom. It comprises one shaft feeding the Free State One Plant. The mine was acquired by Harmony in 2002. See pages 76 and 77 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

Bambanani delivered a relatively good performance for the year, considering the major transformation this mine has undergone. The mine's southern section of the sub-shaft south area was closed in the third quarter of FY08 in response to the reduced power allocation to Harmony by Eskom, reducing the shaft's tonnages by

50%. The mine's power consumption has decreased from around 82MW to 60MW per month as a result. This strategic decision has had the effect of transforming Bambanani from a high-tonnage lower-grade producer, to a low-tonnage high-grade operation. This also resulted in a significant reduction in the labour complement, with 2 086 people leaving the mine through transfers and voluntary retrenchments.

In total, volumes milled dropped by 29% to 827 000 tonnes, with gold production decreasing by 19% to 4 945kg. Importantly, the grade achieved rose by 13% to 5.98g/t. Cash costs were very well maintained, with unit costs rising by only 10% to R149 792/kg, despite significant inflationary pressures. Capital expenditure decreased to R107 million.

Monitoring seismic activity at Harmony



Doornkop, South Africa



Doornkop, South Africa

South Africa is regarded as one of the most seismically stable regions on the earth with very limited inter-plate natural earthquakes. However with the start of underground gold mining at the turn of the twentieth century, rockbursts have disrupted production and have also been the cause of some serious accidents. Routine seismic monitoring enables seismicity to be quantified and provides a tool to assist in the control of potential rock mass instabilities that could follow as a result of seismicity.

Harmony has put in place significant steps to enable the monitoring of seismic activity at its operations. Each of the mines is rated according to the number of potentially hazardous events recorded as well as the severity of damage experienced during the previous year. It is worth noting that the incidence of seismic activity declined during the past year. This can be significantly attributed to the reduction in the mining of more stressed areas following final extraction as well as the implementation of pro-active seismic interpretations. The high-level of quality control on seismic data acquisition and a diligent and excellent reporting database also assist greatly with the pro-active management of seismicity.

Seismometers that register ground motion are strategically positioned underground at all seismically active mines. All seismicity recorded by the seismometers is processed and analysed daily after which detailed reports are produced and sent to rock engineers and management on these mines to assist with planning. The emphasis is on ensuring the safety of the employees.

The seismic activity monitoring system is upgraded on a continuous basis to ensure that it is kept abreast of emerging technology. The system and the seismic data it produces are frequently audited to ensure absolute effectiveness and accuracy.

While Bambanani and Elandsrand operations are deemed to be more seismically active than Harmony's other operations, the same technologically advanced systems are in place across the board. When undertaking risk assessments at potential future mining sites, seismic monitoring is an essential component of Harmony's production planning- and risk management strategy.

The company is committed to ensuring a safe working environment for all employees and places the utmost importance on the monitoring and pro-active management of seismicity in an effort to reduce seismic activity, injury and damaged caused by seismic events.

Review of operations (continued)



Doornkop

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	448	541	467
	000t (imperial)	494	597	515
Gold produced	kg	1 373	1 784	1 356
	oz	44 143	57 364	43 593
Average grade	g/t	3.06	3.30	2.90
	oz/t	0.089	0.096	0.085
<i>Financial</i>				
Revenue	R million	258	263	148
	\$ million	35	37	23
Cash costs	R/kg	164 099	101 708	114 145
	\$/oz	703	439	558
Cash operating profit/(loss)	R million	33	82	(7)
	\$ million	4	12	(1)
Capex	R million	349	270	166
	\$ million	48	38	26



Doornkop, South Africa



Doornkop, South Africa

Description

The Doornkop mine is located in the province of Gauteng, near the town of Randfontein. The mine is a joint venture with African Vanguard Resources (Pty) Ltd, a BEE partner that owns 26% of the asset. The Doornkop South Reef Project, which was under development for the past five years, came into production in FY08. While the upper levels of the mine access the lower grade Kimberley Reef, the deepened shaft will access the higher grade South Reef. See pages 82 and 83 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

The South Reef was first mined in the first quarter of FY08. The build-up in volumes was slower than planned, as shaft-equipping and production were in competition for logistical support and infrastructure in the first half of the year. Greater attention was paid to expediting the equipping of the shaft in the third quarter, and mining was suspended for 18 days to be able to achieve this although this did overlap to some degree with the Eskom power shortages. This clearly had an impact on production, however.

During the past year, additional geological information gathered from on-reef development and exploration drilling on the South Reef increased our knowledge of

the sedimentology and grade characteristics of this orebody. This new knowledge led to an extensive review of the geological depositional model and a change to this model from one originally based on a more channelised deposit to what is now perceived to be a more sheet-like deposit formed in a lower energy environment where the grade is more evenly distributed across the orebody. Although this change resulted in a reduced grade estimate for the South Reef overall, in practice, because less selective mining will be necessary, more of the orebody can be extracted.

Trackless mining will continue on the Kimberley Reef for the next two years. Operations on the South Reef continued to improve towards the end of the financial year in terms of volumes, grades and costs. Full production of the project will be reached in July 2012.

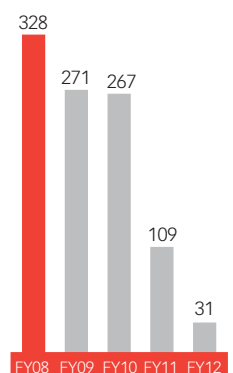
Some 448 000 tonnes were milled at Doornkop during the financial year, down by 17% on the prior year, with 1 373kg of gold produced. The average grade mined declined, by 7% to 3.06g/t. Cash costs, at R164 099/kg, reflect the lower production levels as well as higher input costs. The mine generated a cash operating profit of R33 million for the year. Capital expenditure of R349 million was 29% higher than the previous year.

Doornkop South Reef Project

Key statistics

First production	July 2007	
Full production	July 2012	
Expected annual gold production	10 796kg; 347 000oz	
Capital expenditure	R1 634 million; \$225 million	
	R956 million spent to date	
Life of mine	11 years	
Grade	6.60g/t	
Life of mine ounces	3.06 million	
Future milestones	Rock winder commissioned	November 2008
	Pump station on 207 level commissioned	November 2008

Capital expenditure –
Doornkop South Reef Project
(current year and forecast)
Rm



Review of operations (continued)



Elandsrand

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	890	1 013	895
	000t (imperial)	981	1 117	987
Gold produced	kg	4 934	6 056	5 315
	oz	158 631	194 710	170 867
Average grade	g/t	5.54	5.98	5.94
	oz/t	0.162	0.174	0.173
<i>Financial</i>				
Revenue	R million	964	895	573
	\$ million	133	124	90
Cash costs	R/kg	152 171	121 884	106 981
	\$/oz	652	527	523
Cash operating profit	R million	213	157	4
	\$ million	30	21	1
Capex	R million	318	238	194
	\$ million	44	33	31



Elandsrand, South Africa



Elandsrand, South Africa

Description

Elandsrand mine straddles both Gauteng and North West Province, and is located near the town of Carletonville. The mine was acquired by Harmony in January 2001. See pages 84 to 86 of the Mineral Resources and Ore Reserves statement for further geological information. The mine comprises a twin vertical and sub-vertical shaft system. The Elandsrand metallurgical plant treats ore from the Elandsrand shaft.

The Elandsrand deepening project, which came into production in FY04, involved the development of a new mine beneath the original Elandsrand mine. The project will target the southern, deeper portion of the higher-grade Ventersdorp Contact Reef pay shoot at depths of between 3 000m and 3 600m. The project was re-started by Harmony in FY01 following the acquisition of Elandsrand.

Review of operations

The Elandsrand mine had a very good first quarter in FY08. However, on 2 October 2007 a compressed air pipe fell down the Elandsrand shaft, damaging infrastructure and hampering the exit of miners through the shaft. The mine was out of operation for 42 days and the return to full-scale operations was a slow process. A fall of ground later in the same quarter (which caused the death of one

miner) further impaired this operation's performance. The cessation of Conops during the third quarter provided a further disruption. The mine managed to establish 14 additional production crews (making use of excess labour) and therefore obviated the need for major labour restructuring.

The shaft incident resulted in a delay of two months to the project, although good progress was made in the second half of the year. Major milestones achieved during FY08 included the start of stoping operations on 105 level, intersection of the reef on 109 level and the completion of the 100 level 22kV sub-station. At year-end, 54% of gold production was from the new mine, which is scheduled to be at full production by June 2012.

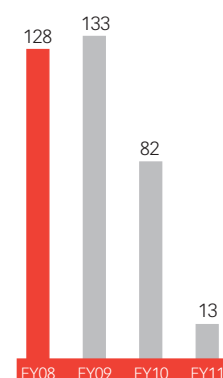
Tonnes milled declined by 12% to 890 000 tonnes. The average grade too was under pressure, at 5.54g/t, from the 5.98g/t the previous year. Consequently, gold production declined by 19% to 4 934kg. Stringent cost control measures implemented at the mine helped to partially limit the increase in cash operating costs (by 25%), to R152 171/kg, despite spiralling input costs, including stores, electricity and contractor wages, and lower production. Cash operating profit rose to R213 million, an increase of 36%, as a result of the received gold price. Capital expenditure of R318 million was 34% higher than in FY07.

Elandsrand New Mine Project

Key statistics

First production	October 2003	
Full production	June 2012	
Expected annual gold production	11 502kg; 370 000 oz	
Capital expenditure	R1 040 million; \$139 million	
	R812 million spent to date	
Life of mine	23 years	
Grade (average reserve head grade)	6.46 g/t	
Life of mine ounces	7.95 million	
Future milestones	115 level pump station to be commissioned	December 2008
	Access development on 113 level complete	January 2009

Capital expenditure –
Elandsrand New Mine Project
(Current year and forecast)
Rm



Review of operations (continued)



Phakisa, South Africa

Evander operations

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	1 312	1 511	1 541
	000t (imperial)	1 447	1 667	1 700
Gold produced	kg	7 466	7 322	8 536
	oz	240 037	235 443	274 439
Average grade	g/t	5.69	4.85	5.54
	oz/t	0.166	0.141	0.161
<i>Financial</i>				
Revenue	R million	1 402	1 088	903
	\$ million	193	151	142
Cash costs	R/kg	122 598	111 433	82 448
	\$/oz	525	481	404
Cash operating profit	R million	486	272	199
	\$ million	66	38	31
Capex	R million	242	204	167
	\$ million	33	28	26

Description

The Evander operations consist of four operating shafts, Evander 2 and 5 (operating as one unit), and Evander 7 and 8. Ore mined and hoisted at the Evander 2 and 5 shafts is milled and thickened at the Winkelhaak plant and the resultant slurry is pumped to the carbon-in-leach (CIL) circuit at the Kinross plant. Ore from Evander 7 and 8 shafts is transported underground and hoisted directly into the Kinross plant at the Evander 7 shaft. The complex has one hybrid CIP/CIL plant. These mines are located in the province of Mpumalanga, near the town of Evander. See pages 80 and 81 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

The Evander mines delivered an excellent performance for the year, with improvements achieved in both grade and cost control. The former was as a result of an intensive effort to improve the mining mix by moving operations to more profitable panels, and a labour restructuring exercise at Evander 7 shaft. This improved

performance was achieved despite a number of operational challenges, including a two-day loss of production in the first quarter owing to an incident with a service water pipe at Evander 7, poor environmental conditions in the No 2 decline area at 8 shaft, and the closure of the upper pillar section of 7 shaft. Some 600 employees were transferred or opted for voluntary retrenchment. A new production plan for Evander 7 shaft was also implemented in the third quarter, with improvements in efficiencies and profitability as a result, although the restructuring had an initial negative impact on production. Additional ventilation is now available following the completion of the fourth airway at 8 shaft and seven new cooling units were installed in various development ends at Evander 8 shaft to improve environmental conditions.

Overall, volumes decreased during the year to 1 312 000 tonnes, although the grade improved by 17% to 5.69g/t. Consequently, gold production rose by 2% to 7 466kg, while unit cash costs were very well contained to a 10% increase, at R122 598/kg. Cash operating profit of R486 million was recorded. Capital expenditure for the year rose by 19% to R242 million.

Taking hard decisions on Conops



Phakisa, South Africa



Tshepong, South Africa

For some years, mining companies have been trying to implement the concept of continuous operations (Conops) on the basis that it is, in theory, a better practice to utilise the company's capital intensive, fixed assets for every day (excluding public holidays) of the year rather than for 80% of the year. It was estimated that Conops should result in increased production of around 25%, with a cost increase in the region of 18%, which would lead to increased profitability.

Harmony has been one of the few companies that had actually been able to implement Conops, with some degree of success and with the cooperation of the labour unions.

However as part of the complete review of the company in FY08, Harmony's executive took a long and hard look at the real benefits of Conops. In essence, they undertook a due diligence as if the company was evaluating it for the first time. These internal due diligences were conducted at the Tshepong, Elandsrand, Masimong, Evander No 8 and Winkelhaak shafts, as well as at Randfontein's Cooke operations. (Target is the only other shaft in the group that uses Conops.)

The objective of these studies was to:

- Establish whether Conops has been successfully implemented at these mines and to what extent the original objective of improved profitability (without compromising safety) had been met.
- Understand the gap between the actual performance at these operations and the potential performance after implementation of Conops at these operations.
- Understand the reasons for the underperformance versus the Conops potential, and propose actions to the operations to close the gap. These actions were based on best practice and knowledge-sharing within the group.

The assessments were done in three phases.

First, an internal perception survey was undertaken. Responses indicated that management was generally positively disposed towards and understood the strategic importance of Conops. They also showed that mine employees, including unions and associations, partially preferred Conops to the traditional working cycle because of the job creation and Conops allowances. This was especially so for employees who reside far from the operations. However, the fatigue that set in after five days proved to be a negative factor for many and for management. It was at the middle-management level that Conops was not liked for a variety of reasons.

The second phase of the evaluation comprised an evaluation of pre- and post-Conops results against a defined benchmark for the operation. This exercise revealed, amongst other indicators, that productivity pre- and post-Conops implementation increased between a low of 2% at Elandsrand and a high of 18.5% at Evander 8.

In the final phase, a thorough fact-finding process was conducted within the mining, engineering (production as well as shafts and services), human resources and financial disciplines in order to understand the reasons behind the gaps that prevented the full realisation and potential of Conops. As part of the process, all service functions, engineering maintenance, response time to breakdowns, weekend service level requirements as well as commissioning and maintaining of related equipment were scrutinised.

Conops proved to be unsuitable at Masimong and was discontinued here in November 2007, with the additional workforce being transferred to Phakisa. Action plans were drawn up by each shaft management team for the remaining operations to address those issues that were identified as requiring attention. Based on these assessments, Conops was stopped at Tshepong in January 2008, and at Elandsrand in February 2008 and Evander 2 and 5 and at Randfontein's Cooke 1, 2 and 3 operations by the end of FY08. Conops continues to operate successfully at Evander 8.

Review of operations (continued)



Joel

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	407	457	395
	000t (imperial)	449	504	436
Gold produced	kg	1 904	2 486	1 823
	oz	61 215	79 923	58 595
Average grade	g/t	4.68	5.44	4.61
	oz/t	0.136	0.158	0.134
<i>Financial</i>				
Revenue	R million	375	366	199
	\$ million	52	51	31
Cash costs	R/kg	149 305	96 750	101 846
	\$/oz	639	418	498
Cash operating profit	R million	91	125	13
	\$ million	13	18	2
Capex	R million	39	28	23
	\$ million	5	4	4

Description

The Joel mine is located in the Free State province, near the town of Theunissen. The mine comprises two shafts and ore is transported to the central plant near Virginia. The mine was acquired by Harmony in 2002. See pages 77 and 78 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

Hoisting resumed at Joel's North shaft in the second quarter of the year, following the re-equipping of the shaft bottom, so the annual statistics are not a true reflection of performance. The original development and equipping of the shaft did not allow for the effective removal of spillage from the shaft bottom, and would have halted all operations

prematurely if this had not been dealt with. In addition, production was lost in the third quarter when delays were experienced when the North shaft winder motor was changed. Nonetheless, performance improved once the initial restart-up issues had been resolved. The mine also successfully dealt with a significant intersection of water on the 129 level development. Production showed improvement and consistency towards year-end.

As a result of the disruption to production, tonnes milled decreased by 11% to 407 000 tonnes for the year. The grade, at 4.68g/t, was down by 14%, and gold produced consequently decreased by 23% to 1 904kg. In line with the decreased production and inflationary pressures, cash costs rose by some 54%, to R149 305/kg. Cash operating profit decreased to R91 million, while capex for the year was R39 million.



Masimong

Key statistics

	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	809	974	925
	000t (imperial)	892	1 074	1 020
Gold produced	Kg	3 657	4 602	4 235
	oz	117 575	147 958	136 153
Average grade	g/t	4.52	4.73	4.58
	oz/t	0.132	0.138	0.133
<i>Revenue</i>				
Revenue	R million	698	681	464
	\$ million	96	95	73
Cash costs	R/kg	174 080	129 376	100 018
	\$/oz	745	559	489
Cash operating profit	R million	61	85	40
	\$ million	8	13	6
Capex	R million	114	109	92
	\$ million	16	15	14

Description

The Masimong mine is located in the Free State province, near the town of Riebeeckstad. The mine comprises No 5 shaft, which is the operating shaft, and No 4 shaft, which was closed but is still used for ventilation purposes and as a second escape route. Masimong was acquired by Harmony in 2001. See pages 71 to 74 of the Mineral Resources and Ore Reserves statement for further geological information.

Performance during the year

The cessation of Conops at Masimong resulted in labour disruptions, which in turn had an impact on the volumes mined and productivity. An intensive cost restructuring process and people transformation programme had a positive impact towards year-end, with improvements in both production and efficiencies. By the end of the year,

productivity levels had risen by 63%, from 16 tonnes per TEC to 26 tonnes per TEC. The people programme, which is based on an aspect of a transformation initiative initially undertaken at Tshepong that was tailored for Masimong, involves the devolvement of responsibility to self-directed work teams, with specific emphasis on safety, team-building and productivity. Employee numbers have dropped dramatically at Masimong, not only as a result of the cessation of Conops, but also as a result of restructuring for better efficiencies.

Notwithstanding these positive interventions, production declined by 21% to 3 657kg, on the back of a 17% decrease in tonnes milled to 809 000 tonnes. Grade declined by 4% to 4.52g/t. Cash costs rose to R174 080/kg as a result of the lower production, and higher input costs. Capital expenditure, at R114 million, increasing by 5% on the previous year.



Phakisa

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000 t (metric)	31	-	-
	000t (imperial)	34	-	-
Gold produced	kg	131	-	-
	oz	4 212	-	-
Average grade	g/t	4.23	-	-
	oz/t	0.123	-	-
<i>Financial</i>				
Revenue	R million	28	-	-
	\$ million	4	-	-
Cash costs	R/kg	130 221	-	-
	\$/oz	558	-	-
Cash operating profit	R million	11	-	-
	\$ million	2	-	-
Capex	R million	293	227	147
	\$ million	40	32	23



Phakisa, South Africa



Phakisa, South Africa

Description

The Phakisa mine is located in the Free State province, near the town of Odendaalsrus. The mine was brought into production in FY08 and comprises a single shaft system extending to a depth of 2 427 m below surface. Sinking at Phakisa started in February 1994 and was suspended in May 1999, 2 357 m below collar. It was acquired by Harmony in 2002 and sinking recommenced in July 2003. The Nyala shaft, 5.5km away, is used as a second escape route and for the hoisting of rock. See page 77 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

It was an exciting year for Phakisa, as it made the transition from project into operation in the second quarter of the financial year and, by year-end, good momentum had built up. Production build-up was only

slightly hampered by power shortages at the end of 2007/beginning of 2008, although the requisite mining mix is expected to take time to achieve, until flexibility can be gained from the developed reserve. Ventilation constraints and issues with cleaning resulted in development being slower than anticipated although, by year-end, these teething problems had largely been overcome. The first modular ice plant to be installed at Phakisa will be commissioned in October 2008 and this will assist in alleviating ventilation constraints. (See box on page 36) The mine is expected to be in full production by June 2011.

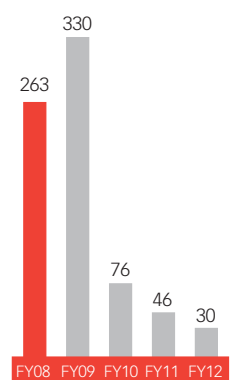
As at the end of the June 2008, a total of 31 000 tonnes had been milled. A grade of 4.23g/t was achieved at this start-up operation and, as a result, 131kg of gold was produced. Cash costs achieved reflect a good performance at R130 221/kg and a maiden operating profit was achieved of R11 million. Significant capital continued to be expended, with capex rising to R293 million, a 29% increase on the prior year.

Phakisa project

Key statistics

First production	September 2008	
Full production	June 2011	
Expected annual gold production	253 360oz	
Capital expenditure	R1 348 million; \$185.5 million	
	R866 million spent to date	
Life of mine	22 years	
Grade (average reserve head grade)	8.31 g/t	
Life of mine ounces	5.32 million	
Future milestones	First revenue from 69 level	September 2008
	Start decline project	November 2008

Capital expenditure – Phakisa (Current year and forecast) Rm



Review of operations (continued)

Ice at depth – new plant for Phakisa



An ice-based cooling system is to be implemented at Harmony's Phakisa mine. The original proposal for Phakisa, conducted under the management of the then mine owners, AngloGold, allowed for a refrigerated cooling system. However, following the acquisition of the mine by Harmony, plans were put in place to expand and deepen the operation, as a consequence of which the refrigeration requirements were increased and it became apparent that the existing size of the shaft barrel would not be large enough to accommodate the diameter of the pipes that would be necessary to transport sufficient quantities of refrigerated water. This together, with various other benefits, indicated an ice-based cooling system would be more efficient.

Cooling systems are essential aspects of deep-level mining in South Africa where the virgin rock temperature in gold mines is around 56°C and temperatures in underground working areas must be kept below 27.5°C. While most mines use refrigerated water for cooling, this has its disadvantages, not least of which is the distances over which the water has to be pumped to the rock face.

The ice plant at Phakisa is located on surface. From here, it is transported on a conveyor belt to the shaft and into a vertical pipe. The ice then free falls 1 677m into a 5 million litre storage dam located underground. The ice in the underground dam serves a dual purpose – it is used firstly for cooling and secondly to provide water at the stope face for drilling purposes.

Ice-based cooling systems have several advantages:

- Although substantial amounts of energy are consumed to change solid water (ice) at 0°C to liquid water at 0°C – 334KJ/kg – just 4.187KJ/kg are needed to reduce the temperature of water by 1°C, this does imply that less ice than water would be required to generate 10MW of

cooling: in fact, it takes 26.3kg/s of ice versus 217kg/s of refrigerated water to generate 10MW of cooling.

- The cost of pumping or transporting cooled water is significantly (87.5%) cheaper with the ice-based system than with the refrigerated plant owing to the greatly reduced distance over which the cooled water has to be pumped – 800m as opposed to 2 400m.
- The pipes required to transport the ice in the shaft are half the size of those required to transport water.
- The pressure rating in the pipes is furthermore greatly reduced.
- The ice dam located underground results in a 'leaving water' temperature of 2–3°C versus that of 9–12°C with refrigeration.
- Although the costs of refrigeration and the ice plant are comparable, less ice is required.
- Any surplus water either evaporates or is used in the condensers underground.

In all, the savings benefits of the ice plant are estimated to be R23.80/tonne over the life of mine.

The ice plant runs for 24 hours a day and uses 93 cubic metres of water per hour. It consumes 6.3MW of power which is drawn down from Eskom with a performance coefficient of 2.2. In terms of cooling and energy capacity, 25l of ice provides the same amount of cooling as does 400l of water. Furthermore, per unit of ice, the energy count is 322KJ while for a comparable unit of water it is 4.187KJ. The ice thus generates more cooling per litre.

Plant components were sourced from companies around the globe and are currently being assembled by Harmony personnel. Engineers from companies in India, the US and Japan will assist with the commissioning of the plant which is scheduled for November 2008.



Target

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	622	820	737
	000t (imperial)	686	904	813
Gold produced	kg	2 644	4 430	4 672
	oz	85 006	142 433	150 196
Average grade	g/t	4.25	5.41	6.34
	oz/t	0.124	0.158	0.185
<i>Financial</i>				
Revenue	R million	503	657	517
	\$ million	69	91	81
Cash costs	R/kg	141 027	85 678	70 699
	\$/oz	605	370	346
Cash operating profit	R million	129	277	187
	\$ million	18	38	29
Capex	R million	256	121	61
	\$ million	35	16	10

Target experienced a dismal year as a combination of falls of ground, flooding, the low availability of mechanised equipment and belt systems, and poor fragmentation in the massive stopes, all conspired to significantly reduce volumes and flexibility. The mine also continued to contend with issues such as grade and grade estimation, an area which received a great deal of attention in the last quarter, and which showed signs of improvement.

More positively, some of the new trackless fleet arrived in the second half of the year and the water handling problems (that caused flooding of the ends) had largely

been addressed by year-end. A good performance was achieved from the narrow reef, conventional stoping areas.

For the year, tonnes milled decreased by 24% to 622 000 tonnes and, together with a 21% decline in the average grade to 4.25g/t, gold production was significantly down, at 2 644kg. Consequently, cash operating costs were under pressure, inflated by higher input costs, and rising to R141 027/kg. A cash operating profit of R129 million was reported. Capital expenditure more than doubled during the year to R256 million.

Review of operations (continued)



Tshepong

Key statistics	Units	FY08	FY07	FY06
Production				
Tonnes milled	000t (metric)	1 495	1 654	1 620
	000t (imperial)	1 649	1 824	1 786
Gold produced	kg	8 495	9 919	10 429
	oz	273 119	318 887	335 289
Average grade	g/t	5.68	5.99	6.44
	oz/t	0.166	0.175	0.188
Financial				
Revenue	R million	1 621	1 460	1 144
	\$ million	223	203	180
Cash costs	R/kg	106 658	81 324	68 011
	\$/oz	457	351	332
Cash operating profit	R million	715	653	435
	\$ million	98	92	69
Capex	R million	195	188	150
	\$ million	27	26	21

Description

The Tshepong mine is located in the Free State province, near the town of Odendaalsrus. The mine comprises a vertical shaft transporting ore to Free State 1 Plant. The Tshepong sub 66 decline project is currently in a build-up phase, and the Sub 71 Decline project is under development.

Review of operations

Operations at Tshepong mine were hampered by a number of fires and seismic events that significantly affected production in the first half of the year. The termination of Conops in the third quarter initially had a negative impact on volumes and productivity, but improved performance was reported in the fourth quarter.

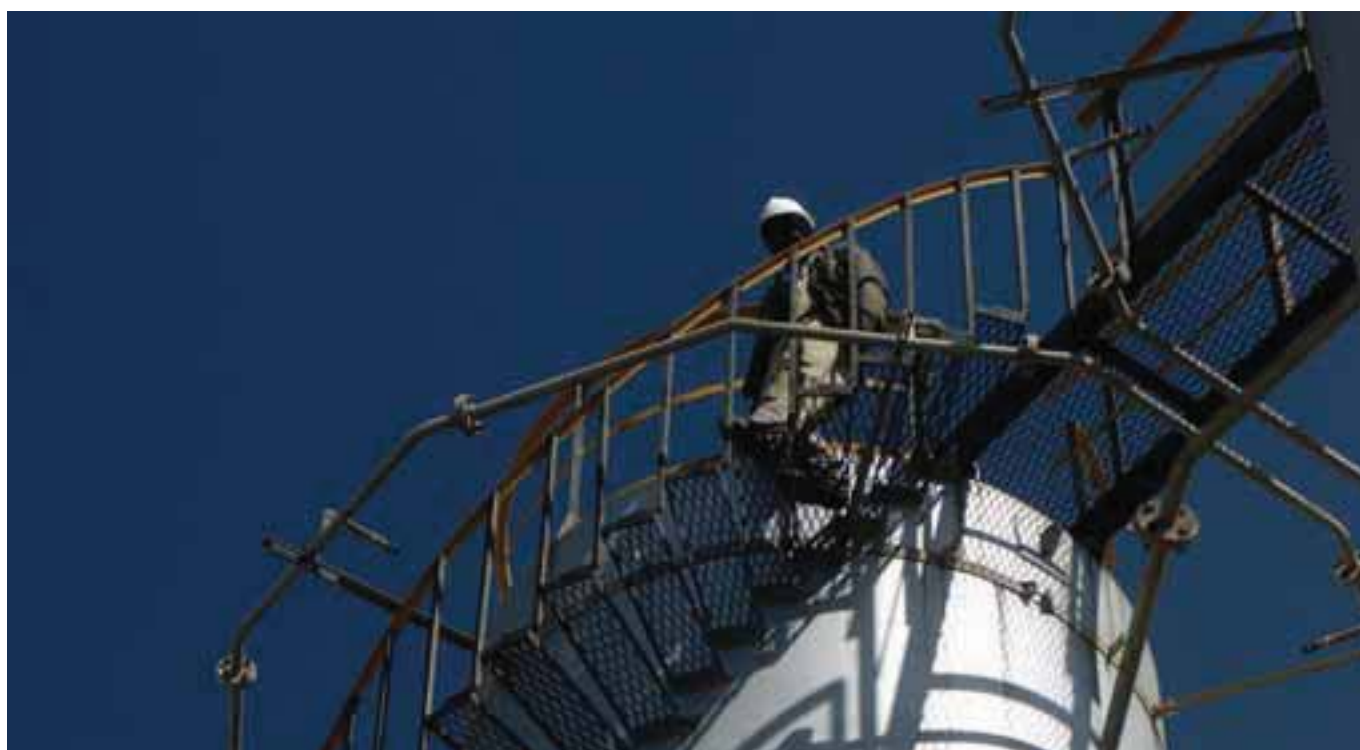
The Sub 66 Decline project commenced production during the year, although the build-up will continue over the next two years. Emphasis is now being placed on significantly increasing mineable reserves. Poor ground conditions caused some delays to the project, although the final mining component was completed in June 2008, and all

project work is scheduled to be concluded by December 2008. The full utilisation of the declines will allow the mine to access the higher grade portion of the orebody and to explore the synergies that will be created through the link with Phakisa. This link will substantially increase flexibility in terms of ventilation, men and material at Phakisa.

Tonnes milled declined by 10% to 1 495 000 tonnes during the year, with gold production decreasing by 14% to 8 495kg. Cash costs rose by 31% to R106 658/kg as a result of decreased production and rising input costs. Cash operating profit, of R715 million, was supported by the rising gold price. Capital expenditure was maintained at a similar level to FY07 at R195 million.

Sub 71 Decline Project

Good progress was also made with the Sub 71 Decline Project, with a total of 1 089m having been developed by year-end. The escalation of input costs, combined with skills shortages (design and engineering draughting personnel) had a negative impact on the project. First production from the project is expected in August 2012, with full production anticipated in July 2017. Total capex for the project is estimated at R132.4 million.



Virginia operations

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	2 130	2 274	2 148
	000t (imperial)	2 349	2 507	2 368
Gold produced	kg	7 786	8 303	8 593
	oz	250 324	266 948	276 285
Average grade	g/t	4.00	3.65	4.00
	oz/t	0.107	0.106	0.117
<i>Financial</i>				
Revenue	R million	1 488	1 232	930
	\$ million	204	172	146
Cash costs	R/kg	174 091	126 364	99 826
	\$/oz	719	546	487
Cash operating profit	R million	180	183	73
	\$ million	24	25	11
Capex	R million	152	135	83
	\$ million	20	19	14

Description

The Virginia operations comprise the Harmony 2, Merriespruit 1 and 3, Unisel and Brand shafts. They are located in the Free State province, near the town of Virginia. See pages 71 to 73 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

Considering the age of these assets and the nature of mining being undertaken, these operations achieved a solid and safe performance.

Total tonnes mined amounted to 2 130 000 tonnes, at an average grade of 4.0g/t, 10% higher than FY07. Gold production, at 7 786kg, was lower by 6% than that from the same operations in the prior year, reflecting the declining profile of these mines as they reach the end of their lives.

Cash operating costs were higher as input costs such as electricity and stores rose to R174 091/kg. These mines generated a cash operating profit of R180 million. Capital expenditure was R152 million.

Review of operations (continued)



South Africa – open cast and surface operations Kalgold

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	1 530	1 578	1 821
	000t (imperial)	1 687	1 740	2 008
Gold produced	kg	2 898	1 746	2 397
	oz	93 172	56 129	77 071
Average grade	g/t	1.89	1.11	1.32
	oz/t	0.055	0.032	0.038
<i>Financial</i>				
Revenue	R million	557	257	250
	\$ million	77	36	39
Cash costs	R/kg	95 939	112 227	84 252
	\$/oz	411	485	412
Cash operating profit	R million	279	61	48
	\$ million	39	9	8
Capex	R million	10	3	2
	\$ million	1	–	–

Description

The Kalgold mine is an open pit operation located near the town of Mafikeng in North West Province. A CIL plant is located on site. The mine was acquired by Harmony in July 1999. See pages 90 and 91 of the Mineral Resources and Ore Reserves statement for further geological information.

Review of operations

Kalgold achieved excellent results for the year. Water shortages were experienced for most of last year and the first quarter of FY08, with a significant impact on production. This was followed by abnormally high rainfall and electricity disruptions, resulting in several

days lost production during the year, which was compounded by a number of plant breakdowns. Kalgold is on the domestic electricity grid and was subject to extensive load shedding. Discussions have been held with Eskom on the supply of uninterrupted power to the mine.

While volumes milled declined by 3%, to 1 530 000 tonnes, the grade achieved by the mine was significantly higher, at 1.89g/t. As a result, gold production more than doubled to 2 898kg, and cash operating profit more than quadrupled to R279 million. Cash operating costs declined, largely as a result of increased gold production, by 15% to R95 939/kg. Capex for the year amounted to R10 million.



Phoenix

Key statistics	Units	FY08	FY07	FY06
<i>Production</i>				
Tonnes milled	000t (metric)	6 378	2 148	813
	000t (imperial)	7 033	2 368	897
Gold produced	kg	1 002	664	494
	oz	32 215	21 346	15 902
Average grade	g/t	0.19	0.31	0.61
	oz/t	0.005	0.009	0.018
<i>Financial</i>				
Revenue	R million	191	94	54
	\$ million	26	13	9
Cash costs	R/kg	75 184	67 854	82 734
	\$/oz	381	293	404
Cash operating profit	R million	102	49	13
	\$ million	14	7	3
Capex	R million	4	–	25
	\$ million	–	–	4

Description

Phoenix is a tailings retreatment operation, located at and adjacent to Harmony's current and historical mining operations in the Free State province.

In total, throughput more than doubled during the year, to 6 378 000 tonnes milled, while gold production was up by 51% to 1 002kg. The grade, down from 0.31g/t to 0.19g/t, was lower than expected and is proving to be highly variable and dependent on the time at which the original deposition was done.

Review of operations

Slimes tonnage reclamation steadily increased as the year progressed, to an average 500 000 tonnes per month by year-end, which is at full capacity. The focus during the year was on improving efficiencies, recoveries and ultimately profitability.

Cash operating costs were well maintained, with an 11% rise being mainly attributable to the higher cost of reagents. A cash operating profit of R102 million was recorded.

Review of operations (continued)



Papua New Guinea

Key statistics	Units	FY08
Production		
Tonnes milled over LOM	Metric tonnes	42 million
	Imperial tons	46 million
Expected annual production	Gold kg	7931
	Gold oz	255 000
	Silver kg	124 414
	Silver oz	4 000 000
	Average grade (of reserve)	g/t
	oz/t	0.1
Financial		
Expected cash costs	\$/oz	255
Capex	\$ million	542
	A\$ million	605
Life of mine	years	10.3

Description

The Hidden Valley mine is located in Morobe Province in Papua New Guinea (PNG), some 300km north-west of Port Moresby and 90km south-west of Lae. The mine, which is currently under construction, will process some 4.2 million tonnes of ore per year from two open pits: one large open pit processing the Hamata orebody and the second larger open pit processing the Hidden Valley and Kaveroi orebodies. Annual gold production is expected to peak at 275 000 ounces in 2019.

The mine is located in a highly prospective area and it is envisaged that, as exploration continues, the life of the process facility will be extended from other sources. Extending the mine life however would require the construction of a new tailings storage facility (TSF).

In April 2008, Harmony and Newcrest reached agreement on entering into a partnership for the development of Harmony's PNG assets, which include Hidden Valley. This transaction was concluded post financial year-end, with Newcrest buying an initial 30% stake in the project and agreeing to fund development and construction costs of approximately \$300 million to earn-in another 20%. See the exploration review (pages 46 to 56) for further information and pages 92 to 94 of the Mineral Resource and Ore Reserve section for geological information.

Review of the year

Heavy rainfall in the first quarter, delays with the construction of the SAG mill in the Czech Republic and a revised engineering design construction schedule for the overland conveyor, had a negative impact on the

project timeline during the year. Most of these issues had been resolved or expedited by year-end. The mill segments are expected to begin arriving in PNG in November 2008 and to be fully delivered to site by mid-January 2009. The start of milling is on track for mid-2009. The execution of the design and fabrication of the overland conveyor remains a critical issue and, although the design is progressing well, its completion depends on the rapid ramp-up of construction facilities. A shortage of civil engineering and contract labour is having an effect on this.

Waste removal and the development of the Hamata pit began in 2007. Stripping of the organics and construction of an access road to haul waste to the main dam of the TSF was completed during the year. In respect of mining operations, good progress was made with waste removal, which was 16% ahead of plan by year-end. However, the movement of ore was behind schedule as a result of delayed access.

Most of the plant platforms are in place, with the main civil contractor mobilising on site in the March quarter to begin plant pad preparation and construction. Good progress was also made with the establishment of the TSF.

The first phase of grade drilling was completed during the year at Hamata, with results indicating the continuity of the ore lodes identified in the resource model. This was followed by the start of waste removal and stripping.

Drilling of the Kaveroi resource (~3000m) also confirmed the known mineralisation at depth, as well as continuity of the previously unmodelled supergene zone at the meta-sediment/granodiorite contact. Preliminary geological models have been completed, and are informing the planned stripping programmes.

The construction of the permanent camp to house employees was all but completed by year-end. The site will be able to accommodate the 800 people needed to run both mining and processing operations at peak production.

A detailed review of capital cost estimates for Hidden Valley and the construction schedule was undertaken in late FY08. The review confirmed the expected commissioning of the mine in mid-2009. By year-end, engineering design was 91% complete, procurement was 87% complete and the overall project was 57% complete.

The capital cost estimate has increased to A\$605 million (\$542 million, R3 940 million). As per the joint venture signed with Newcrest and concluded subsequent to year end, Newcrest will fund up to \$300 million of expenditure in PNG, including that on project construction costs to earn 50% of the PNG assets, in addition to paying Harmony \$229 million for the initial 30% stake in its PNG assets.

