

2020

**OPERATIONAL
REPORT**



SUSTAINABLE GOLD

CELEBRATING OUR 70TH ANNIVERSARY

OPERATIONAL PERFORMANCE

SAFE PRODUCTION

Operational excellence is one of the four strategic pillars upon which Harmony has built its business and which is vital to delivering on our strategy – to create value by operating safely and sustainably, and by growing our margins. In striving to maintain operational excellence we prioritise safety, ensure strict cost control and management of grades mined and encourage disciplined mining to improve productivity and efficiencies.

Capitals affected:

Directly



MANUFACTURED CAPITAL



HUMAN CAPITAL



INTELLECTUAL CAPITAL

Indirectly



FINANCIAL CAPITAL



SOCIAL AND RELATIONSHIP CAPITAL



INTELLECTUAL CAPITAL

Stakeholder/s affected:

Employees	Investors, various levels of government and regulators	Communities
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Strategic pillars:



Responsible stewardship



Operational excellence



Cash certainty



Effective capital allocation

Responsible committee:

- Technical committee
- Social and ethics committee

Related risks:

- Covid-19 pandemic – its spread and impact on business
- Failure to eliminate fatalities and improve safety performance
- Depleting Ore Reserve base
- Increasing costs and declining margins
- Failure to achieve our operational objectives
- Supply insecurity, rising cost and continued use of fossil fuel-generated power in South Africa
- Divergent gold price and foreign exchange fluctuations (from plan)
- Ore Reserve/mining inflexibility



■ Phakisa

OUR APPROACH

Our approach to improved operational performance is driven by our commitment to operational excellence and to ensuring safe, consistent, predictable and profitable production. We aim to create an enabling and safe environment for delivery on our operational plans, reduced unit costs and improved productivity so as to maximise the generation of free cash flow. Operational excellence is central to generating cash flow.

Key focus areas of our operational excellence programme include:

Safety and health	Infrastructure maintenance
<ul style="list-style-type: none"> • Journey to proactive safety • Agile response to Covid-19 pandemic • Risk management and focus on critical controls 	<ul style="list-style-type: none"> • Fewer unplanned stoppages
Grade management and mining flexibility	Cost management
<ul style="list-style-type: none"> • Limit mining below cut-off grade • Incorporating flexibility into our mining plans 	<ul style="list-style-type: none"> • Focused cost management and project delivery • Improved productivity
Capital allocation	Environmental and social management
<ul style="list-style-type: none"> • Prioritised and focused capital allocation for growth and to sustain the business 	<ul style="list-style-type: none"> • Sustainable and responsible environmental stewardship • Community engagement and social upliftment

SAFETY AND OPERATIONAL RISK MANAGEMENT

Managing safety risks: Safety is a key material risk for Harmony. Thus, ensuring safe production, preventing loss of life incidents and embedding a proactive safety culture across all of our operations is imperative. We have adopted global best practice safety standards, a four-layered risk management based approach, implemented modernised safety systems, and intensified our focus on leadership development and training to address behaviour to achieve our goal of ensuring that each employee safely returns home every day. See *Safety and health* for further details on our safety performance and management.

Managing operational risks: Operational risk management is an integral feature of our business and operating strategy. It entails managing risks effectively while working in a productive way. Our risk-based approach helps ensure that all supporting systems are functioning efficiently. Safety hazards and operational business risks are identified and dealt with continuously at each of our operations.

Harmony's top three operational risks are:

- The spread of the Covid-19 infection and its potential impact on our employees and business sustainability
- Failure to eliminate loss of life incidents and improve safety performance
- Depleting ore reserve base

OUR PERFORMANCE FY20

Harmony's operational performance in FY20 cannot be discussed without reference to the Covid-19 global pandemic. While the pandemic and the associated national lockdowns in South Africa only fully affected our operations during the fourth quarter, such was the profound and unprecedented impact of this event that it affected every sphere of our business and limited our normal operating capacity.

For a period of five weeks from 26 March to 30 April, we were compelled to almost entirely suspend our operations to comply with the stipulations of the Level 5 lockdown in South Africa, with only care and maintenance, essential services, surface operations and open-pit mining activities being permitted. On 1 May, South Africa moved from Level 5 to level 4, which effectively allowed underground mines to operate at 50% of our labour capacity, and from 1 June we were permitted to ramp-up to 100% production.

However, the ramp-ups that were permitted from early May were, in themselves, severely hampered by several factors, not least of which was the disruptions to our supply chains, a change in operating procedures to accommodate necessary Covid-preventative measures, the compulsory quarantining of our employees before they were allowed back on site, the isolation of those employees who did contract Covid-19, and delays in the return of our foreign employees – numbering some 5 000 highly-skilled miners – to travel cross-border to re-enter South Africa and return to work. Given these challenges, we were only able to return to 100% production by the end of August 2020.

Our operations in South Africa were also impacted by scheduled power interruptions in December 2019, when Eskom declared an unprecedented level 6 load-shedding on 9 December 2019. Electricity consumption was reduced to levels required only for the maintenance of emergency services. The resulting loss of production was estimated at 2 572oz to 2 893oz (80kg to 90kg). The Covid-related lockdown was compounded by further intermittent load shedding. The unreliability of electricity supply, together with its cost – now close to 16% of total costs – is a continuing concern and we are taking steps to mitigate

the situation – see *Environmental management and stewardship*. Total production lost in South Africa owing to load-shedding and the national Covid lockdown is estimated at 160 432oz (4 990kg).

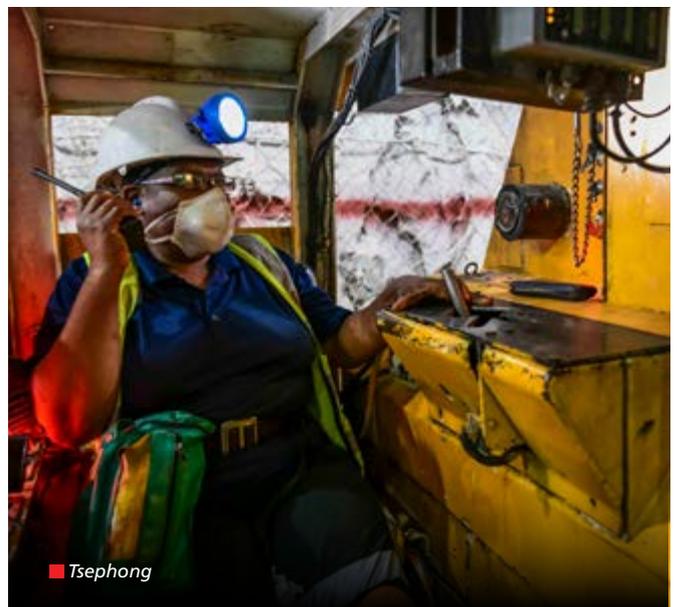
While our Hidden Valley operation in Papua New Guinea was not as severely impacted by the Covid-19 pandemic and associated lockdowns as was the case in South Africa, production was also affected by adjusted operating procedures (especially as it related to personnel who were subject to fly-in-fly-out arrangements and who could not be on site or who were not able to leave the site due to Covid-19 restrictions).

The combination of these factors inevitably resulted in a far lower rate of production for the fourth quarter. Consequently, group production for FY20 decreased by 15% to 1.22Moz of gold and gold equivalents (FY19: 1.44Moz). Aside from the effects of the Covid-19 pandemic, production was also affected by a marginal decrease in the underground grade mined from 5.59g/t in FY19 to 5.45g/t in FY20. That regression was primarily due to geological challenges and seismicity at Kusasalethu. Conversely, surface operations posted a 3.9% improvement in grade to 0.267g/t (FY19: 0.257g/t).

The impact of lower production resulted in an 18% increase in all-in sustaining costs to R651 356/kg (US\$1 293/oz) (FY19: R550 005/kg; US\$1 207/oz).

However, lower production was countered by the significant rise in the gold price as investors sought a safe haven in gold in the wake of the pandemic and a rise in geopolitical tensions. The average gold price received for our product in FY20 rose by 25% to R735 569/kg (US\$1 461/oz) compared to R586 653/kg (US\$1 287/oz) the previous year. This resulted in a production profit of R7 197 million (US\$459 million), representing an annual increase of 9% (FY19: R6 588 million; US\$465 million).

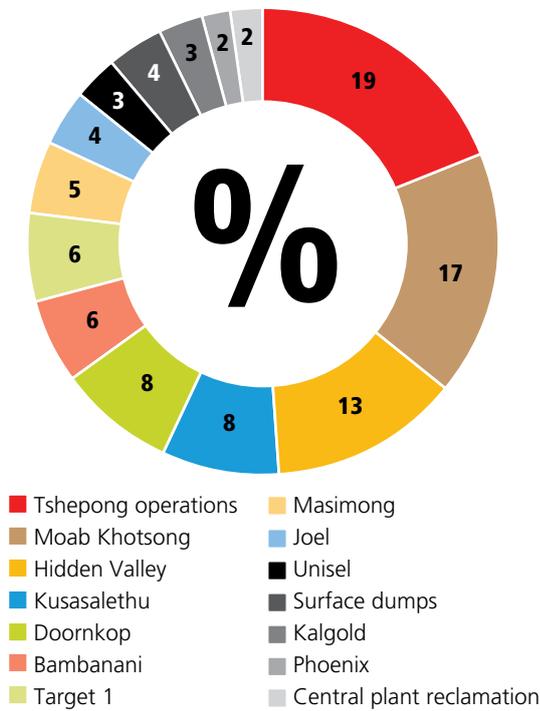
Total capital expenditure was similarly impacted by the national lockdown and the phased start-up of operations which resulted in a decline in expenditure of 24% to R3 553 million (FY19: 4 687 million). Capital spend on development and growth projects in particular was cut back during the fourth quarter of FY20. To redress this, more capital has been allocated towards development in FY21 to ensure that sufficient panels are available to mine.



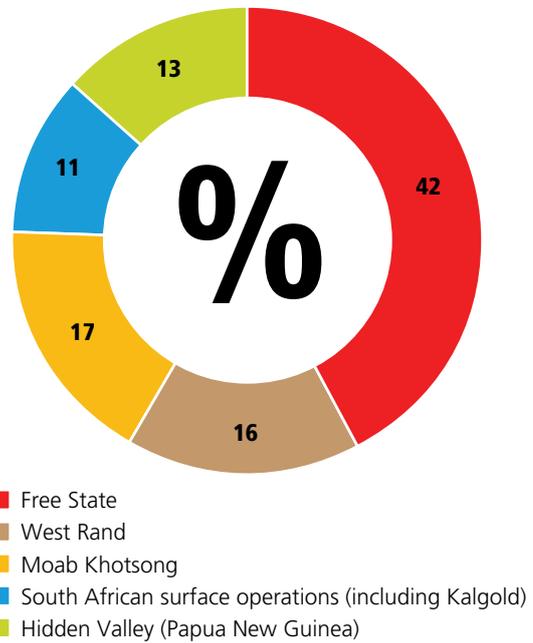
■ Tsephong

OPERATIONAL PERFORMANCE CONTINUED

Contribution to group production by operation



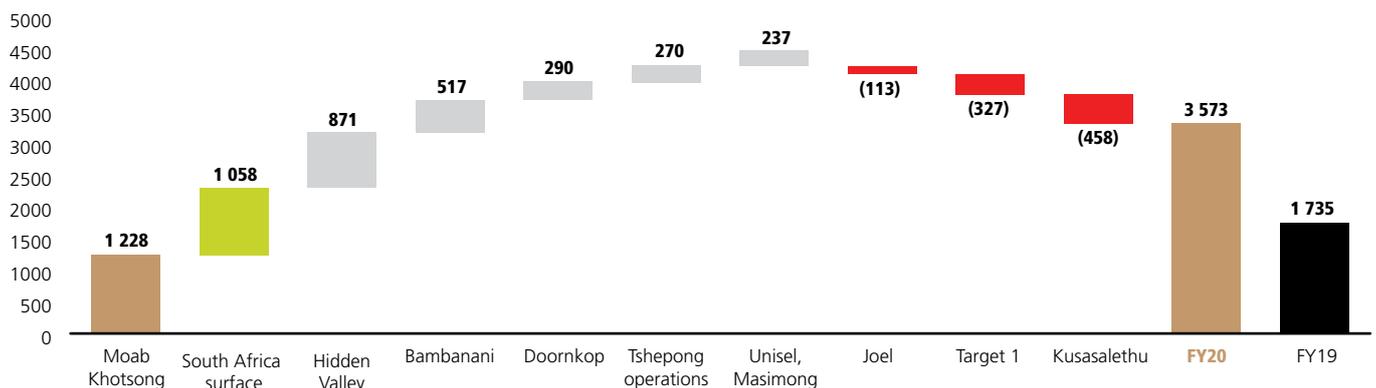
Contribution to group production by region



OPERATING FREE CASH FLOW

Despite the challenges, Harmony remained focused on generating operating free cash flow in FY20. Operating free cash flow increased by more than 100% to R3.6 billion (FY19: R1.7 billion), mainly due to the 25% surge in the average gold price received. Similarly, the operating free cash flow margin increased to 13% (FY19: 7%).

FY20 OPERATING FREE CASH FLOW* (R million)



* Operating free cash flow = Revenue – cash operating cost – capital expenditure +/- impact of run of mine (ROM) costs as per operating results

FY21 OUTLOOK

Given the extreme uncertainty that surrounds the Covid-19 pandemic, its expected duration and the associated socio-economic impacts, it is with some degree of caution that we look towards FY21, particularly from an operational perspective. Having said that, in the next financial year (FY21), we plan to produce approximately 1.26Moz to 1.30Moz of gold at an all-in sustaining unit cost of between R690 000/kg to R710 000/kg.

The acquisition of Mponeng and Mine Waste Solutions, which was finalised at the end of September 2020, will contribute positively to production and revenue in FY21. Mponeng is situated close to our Kusasaletu mine in the West Witwatersrand (West Wits) region. While each of these operations has its own treatment plant, there are possible synergies regarding surface retreatment that can be explored. The mine dumps at Deelkraal, Savuka and Kusasaletu are all in the same region and will provide extra ounces for the group with the increased processing capacity. In addition, Harmony acquired an additional processing plant – the Kopanang plant – which can be used specifically to treat surface sources.

The acquisition of these various assets will help offset the closure of Unisel and the expected decline in production at Masimong and Bambanani as these operations near the end of their operating lives.

Looking ahead, we have a number of growth opportunities. We have applied for the life-of-mine extension at Hidden Valley, begun mining the Great Nologwa shaft pillar and almost completed the Zaaiplaats project feasibility study.

Exploration drilling at Kalgold has yielded favourable results and that operation has the potential to be further expanded. We are also drilling in the vicinity of Target North, situated on the Witwatersrand Basin.

Key focus areas and actions FY21:

- Continue our journey of embedding a proactive safety culture
- Ensure that we meet our operational plans and generate free cash flow
- Integrate Mponeng and Mine Waste Solutions and create synergies in the West Wits region that will unlock value
- Pursue organic brownfields growth strategy
- Continue to drive down unit costs by improving our safety performance, delivering on our production plans, and increasing the productivity of our mining teams

See overleaf for graphs illustrating forecast group growth capital expenditure to FY23 and capital expenditure by operation for FY21.

FY21 production and capital guidance*

Operation	Production	Capital expenditure ^{1,2}		Life of mine
	(oz)	(Rm)	(US\$m)	(years)
Tshepong operations	248 600 – 256 400	1 174	76	20
Moab Khotsong	220 500 – 227 500	746	48	8
Bambanani	67 900 – 70 100	72	5	3
Doornkop	112 700 – 116 300	476	31	16
Joel	51 700 – 53 300	178	11	10
Target 1	80 700 – 83 300	443	28	7
Kusasaletu	123 000 – 127 000	262	17	4
Masimong	62 500 – 64 500	41	3	1.5
Underground operations – total³	967 600 – 998 400	3 392	219	
South African surface operations (tailings and waste rock dumps)	80 700 – 83 300	181	11	14+
Kalgold	39 400 – 40 600	54	4	13
Hidden Valley ⁴	172 300 – 177 700	1 376	88	4
Total	~1.260 – 1.300Moz	5 003	322	

¹ Excludes Wafi-Golpu

² At an exchange rate of R15.55/US\$

³ At an underground recovered grade of ~5.47g/t to 5.53g/t

⁴ Includes deferred stripping

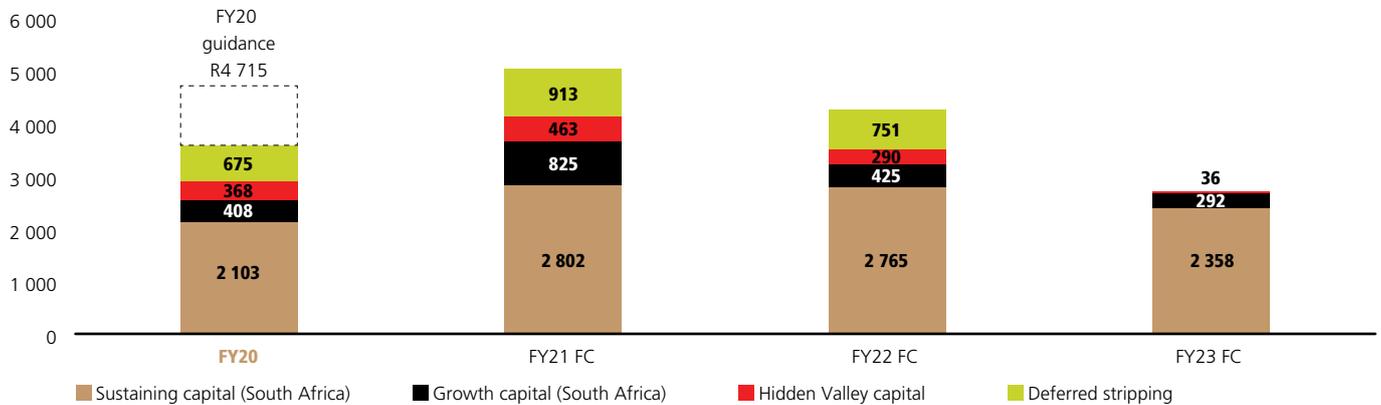
* Guidance on Mponeng and Mine Waste Solutions will be shared in February 2021, once the assets have been integrated into our portfolio

OPERATIONAL PERFORMANCE CONTINUED

Forecast capital expenditure to FY23 and capital expenditure by operation for FY21

In rands:

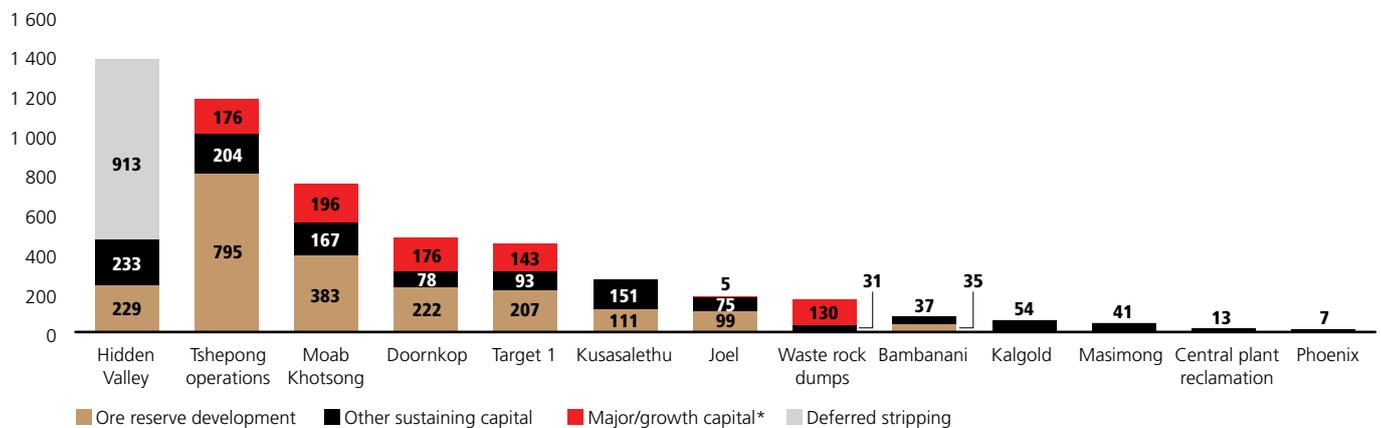
CAPITAL GUIDANCE* (R million)



* Excludes Wafi-Golpu

Hidden Valley capital expenditure guidance based on exchange rate for FY21 FC onwards: 1PGK = R4.2573 or 1US\$ = R15.55

FY21 CAPITAL GUIDANCE PER OPERATION (R million)



* Excluded from all-in sustaining cost

PERFORMANCE BY OPERATION

South Africa – underground operations

When reviewing the individual performance of our operations, one should bear in mind the profound impact the Covid-19 pandemic had on our business. While the pandemic and the associated national lockdowns only fully affected our operations during the fourth quarter, such was the significant and unprecedented impact of this event that it affected every sphere of our business. Capital expenditure was also reduced during the last quarter. It is for this reason that the prioritisation of development will be critical in FY21 to ensure available stoping areas.

South Africa – surface operations

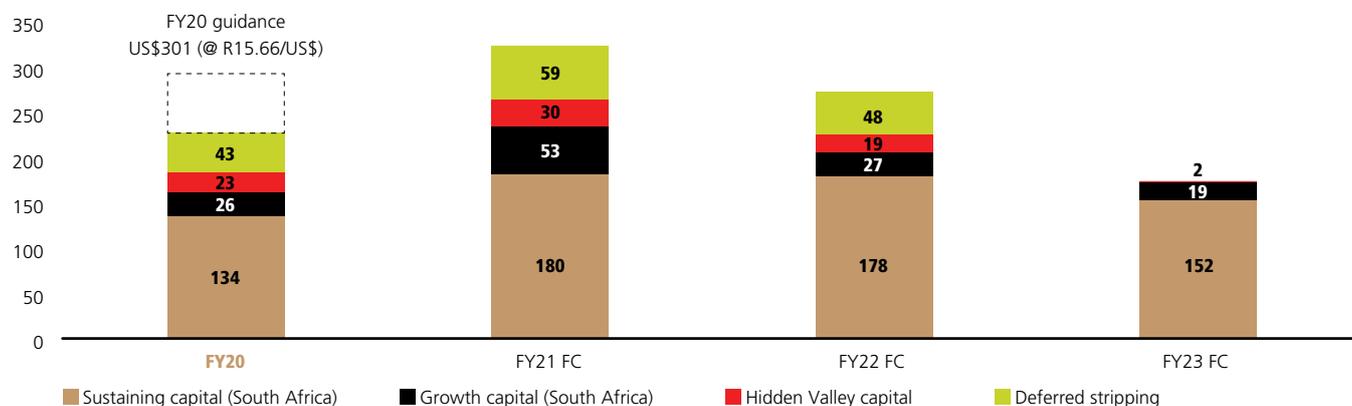
Harmony has one of the largest surface source operations in the world, with close to 300 000 ounces of low-risk, low-cost gold ore to mine.

With a planned combined life of mine of more than 14 years, our surface operations – including Kalgold, Phoenix, Central Plant Reclamation and the waste rock dumps – carried Harmony through the unprecedented Covid-19 pandemic at the onset of the South African lockdown in the fourth quarter of FY20.

Forecast capital expenditure to FY23 and capital expenditure by operation for FY21 continued

In US dollars:

CAPITAL GUIDANCE* (US\$ million)

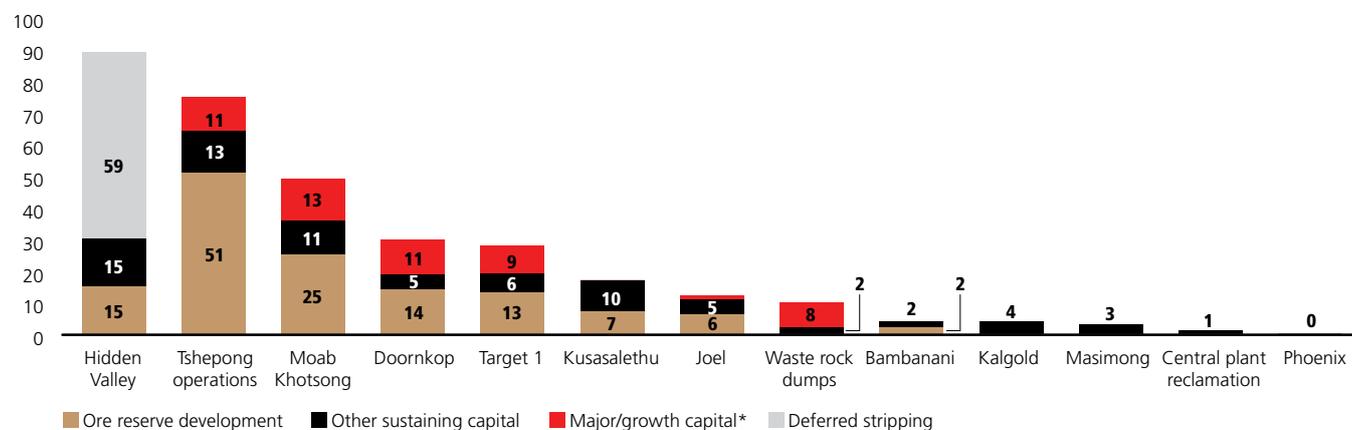


* Excludes Wafi-Golpu

The exchange rate used for the US\$ conversion for FY21 to FY23 is US\$=R15.55

Hidden Valley capital expenditure guidance based on exchange rate for FY21 FC onwards: 1PGK = R4.2573 or 1US\$ = R15.55

FY21 CAPITAL GUIDANCE PER OPERATION (US\$ million)



* Excluded from all-in sustaining cost

The exchange rate used for the US\$ conversion for FY21 is R15.55/US\$

Papua New Guinea – open-cast operations

While there was no national lockdown in Papua New Guinea, our operation here was less severely affected by the outbreak of the Covid-19 pandemic than our South African operations. Operating procedures were adjusted and work rosters extended to accommodate domestic and international quarantining requirements. This in turn impacted labour efficiency and ultimately production.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Tshepong operations

		FY20	FY19	FY18*
Number of employees				
– Permanent		8 224	8 091	8 347
– Contractors		792	724	673
Total		9 016	8 815	9 020
Operational				
Volumes milled	(000t) (metric)	1 417	1 612	1 716
	(000t) (imperial)	1 562	1 777	1 893
Gold produced	(kg)	7 293	7 967	9 394
	(oz)	234 475	256 146	302 026
Gold sold	(kg)	7 399	7 922	9 338
	(oz)	237 882	254 698	300 223
Grade	(g/t)	5.15	4.94	5.47
	(oz/t)	0.150	0.144	0.160
Productivity	(g/TEC)	73.24	84.62	93.93
Development results				
– Total metres		17 551	23 259	23 089
– Reef metres		3 131	3 323	3 159
– Capital metres		140	809	588
Financial				
Revenue	(Rm)	5 452	4 685	5 389
	(US\$m)	348	330	419
Average gold price received	(R/kg)	736 863	591 331	577 058
	(US\$/oz)	1 463	1 297	1 397
Cash operating cost	(Rm)	4 252	4 008	3 829
	(US\$m)	271	283	298
Production profit	(Rm)	1 154	712	1 590
	(US\$m)	74	50	123
Capital expenditure	(Rm)	930	1 130	1 008
	(US\$m)	59	80	78
Operating free cash flow ¹	(Rm)	270	(453)	552
	(US\$m)	17	(32)	43
Cash operating cost	(R/kg)	583 018	503 033	407 575
	(US\$/oz)	1 158	1 103	987
All-in sustaining cost	(R/kg)	713 202	636 281	514 537
	(US\$/oz)	1 416	1 396	1 245
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		2	4	2
Lost-time injury frequency rate	per million hours worked	5.05	7.75	7.80
Environment				
Electricity consumption	(GWh)	549	466	454
Water consumption – primary activities	(ML)	2 813	2 778	2 701
Greenhouse gas emissions	(000t CO ₂ e)	581	535	441
Intensity data per tonne treated				
– energy		0.39	0.29	0.26
– water		1.98	1.72	1.57
– greenhouse gas emissions		0.41	0.33	0.26
Number of reportable environmental incidents		0	0	0
Community				
Local economic development ²	(Rm)	32	18	9
Training and development	(Rm)	94	86	92

* From FY18, the Tshepong and Phakisa mines were integrated and reported on as a single entity, Tshepong operations

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R25 million spent on the local economic development projects

Tshepong operations CONTINUED

Other salient features

Status of operation	Steady state operation: development continues
Life of mine	20 years
Nameplate hoisting capacity (per month)	283 000 tonnes (312 000 tons)
Compliance and certification	<ul style="list-style-type: none"> • New order mining right – December 2007 • ISO 14001 • ISO 9001

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	22.2	5.87	130	4.5	5.48	25	26.7	5.80	155
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	24.4	0.171	4 180	5.0	0.160	800	29.4	0.169	4 980

Overview of operations

The Tshepong operations is a deep-level underground mining operation located in the Free State, near the town of Welkom, approximately 250km from Johannesburg. It is an integrated mining complex that includes the Tshepong and Phakisa underground mines/sections. The amalgamation and reporting of the Tshepong operations as a single entity began in FY18. The close proximity of these two mines has allowed for the integration of operations, which has facilitated the use of excess hoisting capacity and underused infrastructure at Tshepong and the de-bottlenecking of Phakisa's restrained infrastructure. Given that Tshepong is our largest mining complex, our plan is to mine this orebody for the next 20 years.

The Tshepong section is a mature underground operation that uses conventional undercut mining, while the Phakisa section, which is a newer mine, uses the conventional undercut and opencut mining method. Rock from Phakisa is transported via a rail-veyor system to the Nyala shaft, from where it is hoisted to surface. The principal gold-bearing orebody exploited by both sections is the Basal Reef with the B Reef being mined as a high-grade secondary reef. Mining is conducted at depths ranging between 1 500m and 2 300m. The ore mined is processed at the Harmony One plant with gold being recovered using the gold cyanide leaching process.

Operating performance FY20

Regrettably, two fatalities occurred at the Tshepong operations in FY20. As the first of these was a result of a fall-of-ground incident which occurred early in the first quarter, we focused efforts on fall of ground golden controls and installing additional permanent steel netting and finding a solution to secure these nets close to the face using blast on support in an attempt to eliminate further fall of ground injuries.

In FY20, Tshepong was the group's largest operation (contributing 19% of group gold production). Challenges arising from load shedding and operating restrictions resulting from the Covid-related lockdown levels, inevitably resulted in a decline in production year on year. These challenges resulted in a 12% drop year on year in the volume of ore milled to 1.417Mt. However, the decline in volume was countered by a 4% increase in the recovered grade to 5.15g/t. Total gold production for FY20 was 8% lower at 7 293kg (234 475oz).

Operating free cash flow of R270 million (US\$17 million) was recorded in FY20, which was a significant improvement on the R453 million (US\$32 million) loss recorded in FY19. The financial performance was aided by the substantial increase in the gold price during the first half of 2020. The average rand gold price received increased by 25% to R736 863/kg. Revenue increased 16% year on year to R5 452 million (5% increase to US\$348 million). Cash operating costs increased by 6% to R4 252 million (decreased by 4% to US\$271 million) mainly due to annual wage and Eskom electricity tariff increases.

Capital expenditure decreased by 18% to R930 million (decreased by 26% to US\$59 million), largely due to the fact that all such expenditure was suspended during the national lockdown in April 2020 and the subsequent phased start-up of operations.

Outlook for FY21

The key focus for FY21 will be to improve the mine's operational flexibility, especially on development. We hope to achieve higher outputs per crew and ultimately drive up the volume and mine at the reserve grade.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Moab Khotsong

		FY20	FY19	FY18*
Number of employees				
– Permanent		5 343	5 421	5 804
– Contractors		1 086	1 036	1 014
Total		6 551	6 457	6 818
Operational				
Volumes milled	(000t) (metric)	746	970	327
	(000t) (imperial)	822	1 069	360
Gold produced	(kg)	6 592	7 928	3 296
	(oz)	211 938	254 891	105 969
Gold sold	(kg)	6 799	7 794	3 165
	(oz)	218 592	250 583	101 757
Grade	(g/t)	8.84	8.17	10.08
	(oz/t)	0.258	0.238	0.294
Productivity	(g/TEC)	102.76	120.67	135.17
Development results				
– Total metres		8 815	10 472	9 527
– Reef metres		1 173	1 202	1 328
– Capital metres		1 363	1 432	380
Financial				
Revenue	(Rm)	5 008	4 470	1 672
	(US\$m)	320	315	130
Average gold price received	(R/kg)	736 533	573 522	528 387
	(US\$/oz)	1 463	1 258	1 279
Cash operating cost	(Rm)	3 283	3 167	1 037
	(US\$m)	210	223	81
Production profit	(Rm)	1 664	1 369	720
	(US\$m)	106	96	56
Capital expenditure	(Rm)	498	559	173
	(US\$m)	32	39	13
Operating free cash flow ¹	(Rm)	1 228	745	462
	(US\$m)	78	53	36
Cash operating cost	(R/kg)	497 953	399 414	314 526
	(US\$/oz)	989	876	761
All-in sustaining cost	(R/kg)	566 942	477 581	420 286
	(US\$/oz)	1 126	1 048	1 017
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		1	1	1
Lost-time injury frequency rate	per million hours worked	7.95	9.75	11.18
Environment ²				
Electricity consumption	(GWh)	738	766	114
Water consumption – primary activities	(ML)	5 975	6 898	1 702
Greenhouse gas emissions	(000t CO ₂ e)	784	700	110
Intensity data per tonne treated				
– energy		0.99	0.79	0.35
– water		8.01	7.11	5.20
– greenhouse gas emissions		0.81	0.72	0.35
Number of reportable environmental incidents		0	0	0
Community				
Local economic development ³	(Rm)	22	19	7
Training and development	(Rm)	56	48	13

* Incorporated into Harmony's portfolio from 1 March 2018. The figures reported for FY19 are for the four months from March 2018 to June 2018

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Note: figures include Nufcor

³ Figures include R5 million spent on the local economic development projects

Moab Khotsong CONTINUED

Other salient features

Status of operation	Steady state operation: development continues
Life of mine	8 years
Nameplate hoisting capacity (per month)	160 000 tonnes (176 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right• ISO 14001

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	3.2	7.93	25	3.3	8.57	28	6.5	8.26	53
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	3.5	0.317	808	3.6	0.343	909	7.2	0.330	1 718

Overview of operations

Moab Khotsong is a deep-level mine situated near the towns of Orkney and Klerksdorp, approximately 180km south-west of Johannesburg. The mine, which began producing in 2003, was acquired from AngloGold Ashanti Limited in March 2018.

Mining is based on a scattered mining method together with an integrated backfill support system that incorporates bracket pillars. The geology at Moab Khotsong is structurally complex with large fault-loss areas between the three mining areas (top mine (Great Nologwa), middle mine and lower mine (growth project and Zaaiplaats project in prefeasibility study phase). The mine exploits the Vaal Reef as its primary orebody. The economic reef horizons are mined between 1 791m and 3 052m below surface. Ore mined is processed at the Great Nologwa gold plant. The plant uses the reverse gold leach method, with gold and uranium being recovered through gold cyanide and acid uranium leaching.

Operating performance FY20

We deeply regret to report that one employee lost his life in a mining-related incident in FY20. World best practice standards have been implemented, a risk management approach is being embedded, and learnings from the incident are being applied to improve the safety performance at Moab Khotsong.

The volume of ore milled and gold output was negatively impacted by damage caused by seismic activity in the operation's highest-grade section during the third quarter. Only once the affected areas had been rehabilitated and declared safe were mining crews allowed to re-access them. Production was further affected by the Covid-19 pandemic in the fourth quarter. A 24% year on year reduction in ore milled to 746 000t resulted in the 17% decrease in gold production to 6 592kg (211 938oz). This was, however, offset by the 8% increase in recovered grade, which increased to 8.84g/t.

The mine is the group's second largest gold operation (contributing 17% of total group production) and the largest contributor to operating free cash flow. The operation recorded revenue of R5 008 million (US\$320 million) and incurred cash operating costs of R3 283 million (US\$210 million) and capital expenditure of R498 million (US\$32 million), resulting in the operation generating operating free cash flow of R1 228 million (US\$78 million) in FY20.

A notable outcome of FY20 was the board's approval of the Great Nologwa pillar extraction feasibility study. Safety was a key aspect of the feasibility study process. Harmony has extensive pillar mining expertise which will be used in developing the infrastructure for extraction and mining of the pillar. The project has extended Moab Khotsong's life of mine by approximately two years.

Outlook for FY21

With eight years of life of mine left, the priority focus in FY21 will be to improve our safety performance; increase mining face lengths and achieve the reserve grade.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Bambanani

		FY20	FY19	FY18
Number of employees				
– Permanent		1 561	1 513	1 568
– Contractors		129	157	163
Total		1 690	1 661	1 731
Operational				
Volumes milled	(000t) (metric)	200	230	233
	(000t) (imperial)	221	254	257
Gold produced	(kg)	2 132	2 515	2 821
	(oz)	68 545	80 860	90 698
Gold sold	(kg)	2 162	2 495	2 804
	(oz)	69 510	80 216	90 151
Grade	(g/t)	10.66	10.93	12.11
	(oz/t)	0.310	0.318	0.353
Productivity	(g/TEC)	112.43	135.22	150.60
Development results				
– Total metres		1 184	1 173	1 495
– Reef metres		0	0	0
– Capital metres		0	0	0
Financial				
Revenue	(Rm)	1 591	1 477	1 616
	(US\$m)	102	104	126
Average gold price received	(R/kg)	735 972	591 962	576 398
	(US\$/oz)	1 461	1 299	1 395
Cash operating cost	(Rm)	1 025	985	905
	(US\$m)	65	69	70
Production profit	(Rm)	551	483	720
	(US\$m)	36	34	56
Capital expenditure	(Rm)	50	61	64
	(US\$m)	3	4	5
Operating free cash flow ¹	(Rm)	517	431	647
	(US\$m)	33	30	51
Cash operating cost	(R/kg)	480 620	391 550	320 724
	(US\$/oz)	954	859	776
All-in sustaining cost	(R/kg)	522 990	441 226	360 462
	(US\$/oz)	1 039	968	873
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	1	1
Lost-time injury frequency rate	per million hours worked	2.71	2.65	2.43
Environment				
Electricity consumption	(GWh)	132	146	145
Water consumption – primary activities	(ML)	1 120	1 470	1 527
Greenhouse gas emissions	(000t CO ₂ e)	140	133	141
Intensity data per tonne treated				
– energy		0.66	0.63	0.62
– water		5.6	6.39	6.60
– greenhouse gas emissions		0.70	0.57	0.62
Number of reportable environmental incidents		1	0	0
Community				
Local economic development ²	(Rm)	8	4	11
Training and development	(Rm)	23	26	25

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R5 million spent on the local economic development projects

Bambanani CONTINUED

Other salient features

Status of operation	Mature operation with focus on mining of the shaft pillar for the next few
Life of mine	3 years
Nameplate hoisting capacity (per month)	32 000 tonnes (35 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – December 2007• ISO 14001 – not certified but operates according to standards requirements• ISO 9001

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	0.6	10.99	6	–	–	–	0.6	10.99	6
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	0.6	0.320	207	–	–	–	0.6	0.320	207

Overview of operations

Bambanani is a mature, deep-level mine located in the Free State, near Welkom and about 260km south of Johannesburg. The mine consists of two surface shafts with the East shaft being used to convey our employees and the West shaft used to hoist ore to the surface.

Bambanani is in the final stages of its life of mine with only three more years to mine and mining is limited to the extraction of the high-grade shaft pillar. Mining is conducted to a depth of 2 219m. The Basal Reef is the predominant gold-bearing reef exploited at Bambanani. The ore mined is sent to the Harmony One plant for processing. Given the high risk of seismicity at Bambanani, efforts are focused on managing support systems and the rehabilitation of areas with challenging ground conditions.

Operating performance FY20

The operation, which is Harmony's third most profitable mine contributing 6% to overall group production, is performing well, with safety and disciplined mining being key to its success. Having said that, Bambanani was similarly impacted by disruptions caused by the Covid-19 pandemic and associated restrictions.

Gold produced was 15% lower at 2 132kg (68 545oz), owing to the 13% decrease in ore milled to 200 000t and a 2% decline in recovered grade to 10.66g/t. However, the financial performance was aided by the significant increase in the gold price received, which averaged at R735 972kg in FY20. This resulted in an 8% rise in revenue to R1.59 million.

Cash operating costs increased by 4% to R1 025 million, mainly due to annual wage increases. Capital expenditure decreased by 18% to R50 million on account of the national lockdown in April 2020 and subsequent phased start-up of operations.

Outlook for FY21

Given that the operation is nearing the end of its life of mine, the key focus in FY21 will be to continue mining the remainder of the shaft pillar in a safe and productive manner.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Doornkop

		FY20	FY19	FY18
Number of employees				
– Permanent		3 249	3 133	3 073
– Contractors		585	751	669
Total		3 924	3 884	3 742
Operational				
Volumes milled	(000t) (metric)	681	730	696
	(000t) (imperial)	750	805	767
Gold produced	(kg)	2 994	3 273	3 429
	(oz)	96 259	105 229	110 245
Gold sold	(kg)	3 038	3 255	3 404
	(oz)	97 673	104 650	109 440
Grade	(g/t)	4.40	4.48	4.93
	(oz/t)	0.128	0.131	0.144
Productivity	(g/TEC)	74.83	85.07	94.97
Development results				
– Total metres		6 042	8 834	9 595
– Reef metres		1 474	1 621	1 478
– Capital metres		315	497	806
Financial				
Revenue	(Rm)	2 270	1 931	1 958
	(US\$m)	145	136	152
Average gold price received	(R/kg)	747 282	593 301	575 077
	(US\$/oz)	1 484	1 302	1 392
Cash operating cost	(Rm)	1 699	1 593	1 418
	(US\$m)	109	112	110
Production profit	(Rm)	540	367	547
	(US\$m)	35	26	43
Capital expenditure	(Rm)	281	308	274
	(US\$m)	18	22	21
Operating free cash flow ¹	(Rm)	290	30	266
	(US\$m)	19	2	21
Cash operating cost	(R/kg)	567 632	486 795	413 586
	(US\$/oz)	1 127	1 068	1 001
All-in sustaining cost	(R/kg)	649 041	572 132	508 065
	(US\$/oz)	1 289	1 255	1 230
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		1	2	0
Lost-time injury frequency rate	per million hours worked	6.10	5.22	6.78
Environment				
Electricity consumption	(GWh)	204	212	193
Water consumption – primary activities	(ML)	² 665	266	344
Greenhouse gas emissions	(000t CO ₂ e)	217	193	199
Intensity data per tonne treated				
– energy		0.3	0.29	0.28
– water		0.98	0.36	0.49
– greenhouse gas emissions		0.32	0.26	0.27
Number of reportable environmental incidents		0	0	0
Community				
Local economic development ³	(Rm)	9	8	6
Training and development	(Rm)	41	46	47

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Year on year decrease due to the installation of the 5ML recycling plant

³ Figures include R3 million spent on the local economic development projects

Doornkop CONTINUED

Other salient features

Status of operation	Mining takes place on the South Reef at this single-shaft operation
Life of mine	16 years
Nameplate hoisting capacity (per month)	103 000 tonnes (113 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – October 2008• ISO 14001• ISO 9001• OHSAS 18001• Cyanide code certified

Mineral Reserve estimates at 30 June 2020

	Proved			Probable			Total		
Reserves (metric)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	5.2	5.33	28	4.6	5.03	23	9.8	5.19	51
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	5.8	0.155	896	5.1	0.147	742	10.8	0.151	1 638

Overview of operations

Doornkop is a deep-level single-shaft operation located in Gauteng, approximately 30km west of Johannesburg, on the northern rim of the Witwatersrand Basin. While a mature operation, it still has a 16-year life of mine left.

The operation focuses on narrow-reef conventional mining of the South Reef gold-bearing conglomerate reef. Mining of this reef is undertaken to a depth of 2 219m below surface. Ore from the operation is processed at the Doornkop plant, which uses the carbon-in-pulp process to extract the gold.

Operating performance FY20

Regrettably, there was one fatality at the Doornkop plant in the first quarter, this after the operation recorded the first ever 4 million fatality-free shifts in 2018, which was the first to be recorded in the history of South African gold mining industry.

A 7% year on year decrease in volumes milled to 681 000 tonnes as well as the decline in underground recovered grade to 4.40g/t resulted in a 9% decline in gold production to 2 994kg (96 259oz) in FY20. The decline in production was on account of the Covid-19 pandemic and national lockdown imposed on South Africa at the end of March. This was offset by the substantial 26% rise in gold price received to R747 282/kg, which facilitated an 18% increase in revenue to R2 270 million (FY19: R1 931 million).

Cash operating costs increased by 7% to R1 699 million mainly due to annual wages and Eskom electricity tariff increases. Capital expenditure decreased by 9% to R281 million mainly due to all expenditure being stopped during the national lockdown in April 2020 and the subsequent phased start-up of operations.

Outlook for FY21

Achieving planned development targets to enable the life-of-mine production build up and to enhance mining flexibility will remain the priorities for FY21. A focus on safety, development and disciplined mining will ensure that we achieve our production targets at this mine.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Joel

		FY20	FY19	FY18
Number of employees				
– Permanent		1 883	1 867	1 914
– Contractors		131	115	184
Total		2 014	1 982	2 098
Operational				
Volumes milled	(000t) (metric)	349	429	454
	(000t) (imperial)	384	473	501
Gold produced	(kg)	1 391	1 567	1 635
	(oz)	44 722	50 379	52 566
Gold sold	(kg)	1 412	1 612	1 656
	(oz)	45 397	51 827	53 242
Grade	(g/t)	3.99	3.65	3.60
	(oz/t)	0.116	0.107	0.105
Productivity	(g/TEC)	64.01	78.10	82.23
Development results				
– Total metres		2 734	3 378	3 331
– Reef metres		832	1 288	431
– Capital metres		0	0	620
Financial				
Revenue	(Rm)	1 037	957	954
	(US\$m)	66	67	74
Average gold price received	(R/kg)	734 620	593 531	576 023
	(US\$/oz)	1 459	1 302	1 394
Cash operating cost	(Rm)	999	967	910
	(US\$m)	64	68	71
Production profit	(Rm)	27	(14)	34
	(US\$m)	2	(2)	3
Capital expenditure	(Rm)	151	187	250
	(US\$m)	10	13	19
Operating free cash flow ¹	(Rm)	(113)	(197)	(206)
	(US\$m)	(8)	(14)	(16)
Cash operating cost	(R/kg)	718 024	617 116	556 468
	(US\$/oz)	1 426	1 354	1 347
All-in sustaining cost	(R/kg)	826 970	701 644	661 921
	(US\$/oz)	1 642	1 539	1 602
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	2
Lost-time injury frequency rate	per million hours worked	2.03	3.16	2.87
Environment				
Electricity consumption	(GWh)	85	87	81
Water consumption – primary activities	(ML)	853	838	788
Greenhouse gas emissions	(000t CO ₂ e)	90	80	79
Intensity data per tonne treated				
– energy		0.24	0.20	0.18
– water		2.44	1.95	1.74
– greenhouse gas emissions		0.26	0.19	0.18
Number of reportable environmental incidents		0	0	0
Community				
Local economic development ²	(Rm)	6	4	5
Training and development	(Rm)	18	19	23

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R3 million spent on the local economic development projects

Joel CONTINUED

Other salient features

Status of operation	Twin-shaft operation – technically challenging, decline project nearing completion
Life of mine	10 years
Nameplate hoisting capacity (per month)	60 000 tonnes (83 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – December 2007• ISO 14001 – not certified but operates according to the standard's requirements• ISO 9001• SAS 18001

Mineral Reserve estimates at 30 June 2020

	Proved			Probable			Total		
Reserves (metric)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	2.9	4.85	14	1.4	4.68	7	4.3	4.80	21
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	3.2	0.142	447	1.6	0.137	214	4.7	0.140	661

Overview of operations

Joel is a twin-shaft mining operation located in the Free State, approximately 290km southwest of Johannesburg, on the southern edge of the Witwatersrand Basin.

A pre-developed scattered mining system is used. This system allows for unpay and geologically complex areas to be left unmined, with some cognisance taken of the overall panel configuration and stability of footwall development. This allows for mining to be selective, based on the proven ore reserve during the development phase. The primary economic reef that is mined is the narrow tabular Beatrix Reef deposit, which is accessed via conventional grid development. Mining is currently being conducted to a depth of 1 379m below collar. As the Joel plant was decommissioned in FY19, ore mined is now processed at the Harmony One plant.

Operating performance FY20

In FY20, gold production decreased by 11% to 1 391kg (44 722oz), owing to the 19% decrease in tonnes milled to 349 000 tonnes, despite a 9% increase in the recovered grade to 3.99g/t. The decline in ore milled was primarily the result of the lockdown and restrictions associated with the Covid-19 pandemic.

The exceptional rise in the gold price assisted to increase revenue to R1 037 million. Cash operating costs increased by 3% to R999 million mainly due to annual wage and Eskom electricity tariff increases. Capital expenditure decreased by 19% to R151 million owing to all expenditure being stopped during the national lockdown in April 2020 and subsequent phased start-up of operations.

Underpinning Joel's performance was a good safety record, with the mine achieving 1 million fatality free shifts in FY20.

Another notable achievement during the year was the progression of the 137 decline project, which is now approximately 90% completed and is now in the final phase. The decline project was initiated to extend the life of Joel by approximately eight to nine years and is included in the current life-of-mine plan of 10 years.

However, the following installations were not completed due to the impact of Covid-19:

- Installation and commission of Bulkhead 2 & 5, 137 level tip 2 & 5 and escape way
- Installation of the 129 – 137 level chairlift
- Decline steel barricade

This outstanding project work is planned to be completed by April 2021.

Outlook for FY21

The key focus areas in FY21 will be to complete all construction work commitments in the project area. Our development plan to open reserves will also be prioritised. In addition, we will continue with exploration drilling to identify new reserves below 137 level and in the "Klippan area". Ultimately, this will increase our volumes and grade output resulting in a safe and profitable FY21.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Target 1

		FY20	FY19	FY18
Number of employees				
– Permanent		1 682	1 604	1 663
– Contractors		380	335	284
Total		2 062	1 939	1 947
Operational				
Volumes milled	(000t) (metric)	543	588	680
	(000t) (imperial)	598	650	749
Gold produced	(kg)	2 244	2 653	2 854
	(oz)	72 146	85 296	91 758
Gold sold	(kg)	2 237	2 685	2 828
	(oz)	71 921	86 324	90 922
Grade	(g/t)	4.13	4.51	4.20
	(oz/t)	0.121	0.131	0.123
Productivity	(g/TEC)	108.58	132.94	146.90
Development results				
– Total metres		2 152	3 378	3 883
– Reef metres		96	118	431
– Capital metres		191	179	620
Financial				
Revenue	(Rm)	1 524	1 585	1 630
	(US\$m)	97	112	127
Average gold price received	(R/kg)	681 388	590 298	576 316
	(US\$/oz)	1 353	1 295	1 395
Cash operating cost	(Rm)	1 505	1 478	1 334
	(US\$m)	96	104	104
Production profit	(Rm)	25	94	312
	(US\$m)	1	7	24
Capital expenditure	(Rm)	347	297	309
	(US\$m)	22	21	24
Operating free cash flow ¹	(Rm)	(327)	(190)	(13)
	(US\$m)	(21)	(13)	(1)
Cash operating cost	(R/kg)	670 647	557 264	467 271
	(US\$/oz)	1 332	1 222	1 131
All-in sustaining cost	(R/kg)	817 066	662 816	582 200
	(US\$/oz)	1 623	1 454	1 409
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	1
Lost-time injury frequency rate	per million hours worked	9.62	6.35	10.18
Environment				
Electricity consumption	(GWh)	212	173	187
Water consumption – primary activities	(ML)	471	474	553
Greenhouse gas emissions	(000t CO ₂ e)	229	162	189
Intensity data per tonne treated				
– energy		0.39	0.29	0.23
– water		0.87	0.81	0.81
– greenhouse gas emissions		0.42	0.28	0.27
Number of reportable environmental incidents		0	0	0
Community				
Local economic development ²	(Rm)	8	6	4
Training and development	(Rm)	38	45	41

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R6 million spent on the local economic development projects

Target 1 CONTINUED

Other salient features

Status of operation	Crusher and related infrastructure project well underway
Life of mine	7 years
Nameplate hoisting capacity (per month)	97 000 tonnes (107 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – December 2007• ISO 14001• ISO 9001• OHSAS 18001• Cyanide code certified

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	3.3	4.31	14	1.9	4.23	8	5.1	4.28	22
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	3.6	0.126	452	2.1	0.123	255	5.7	0.125	707

Overview of operations

Target 1 is an advanced, single-shaft, deep-level mine located in the Free State, some 270km southwest of Johannesburg. It has a planned life of mine of seven years.

While most of the ore extracted comes from mechanised mining (massive mining techniques), conventional stoping is still employed primarily to de-stress areas ahead of mechanised mining. The gold mineralisation currently exploited is contained within a succession of Elsburg and Dreyerskuil quartz pebble conglomerate reefs. These reefs are mined to a depth of approximately 2 300m below the surface. Ore mined is milled and processed at the Target plant with gold recovered by means of gold cyanide leaching.

Operating performance FY20

The process to embed a proactive culture of safety is yielding results with Target having achieved 2 million fatality free shifts in FY20.

As well as Covid-related challenges, Target 1 was impacted by some flexibility constraints in the massive stoping section and ventilation constraints at the start of FY20. As such, there was an 8% year on year decline in both ore milled and recovered grade to 543 000t and 4.13g/t respectively, resulting in a 15% decrease in gold production to 2 244kg (72 146oz).

Such was the substantial decline in production that revenue declined marginally to R1 524 million, despite the increase in the average gold price received. Cash operating costs were marginally higher year on year, increasing to R1 505 million mainly due to annual wage and Eskom electricity tariff increases.

Capital expenditure increased substantially to R347 million mainly due to an increase in capital expenditure on the decline project as well as other sustaining capital.

Outlook for FY21

Target is set to achieve higher volumes and grades during FY21, which will result in lower unit costs. This is the result of the Target 1 optimisation project to improve productivity and efficiencies which began in FY19 and will continue into FY21. The capital project involves the moving of the rock crusher and related infrastructure and services closer to the mining working areas.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Kusasaletu

		FY20	FY19	FY18
Number of employees				
– Permanent		4 237	4 011	3 980
– Contractors		603	930	692
Total		4 840	4 941	4 672
Operational				
Volumes milled	(000t) (metric)	615	742	670
	(000t) (imperial)	678	817	738
Gold produced	(kg)	3 015	4 989	4 429
	(oz)	96 934	160 400	142 395
Gold sold	(kg)	3 085	5 028	4 301
	(oz)	99 185	161 653	138 281
Grade	(g/t)	4.90	6.72	6.61
	(oz/t)	0.143	0.196	0.193
Productivity	(g/TEC)	57.08	98.94	91.54
Development results				
– Total metres		3 039	5 437	4 016
– Reef metres		1 019	1 217	776
– Capital metres		0	0	0
Financial				
Revenue	(Rm)	2 293	2 975	2 483
	(US\$m)	146	210	193
Average gold price received	(R/kg)	743 153	591 742	577 313
	(US\$/oz)	1 476	1 298	1 397
Cash operating cost	(Rm)	2 562	2 377	2 091
	(US\$m)	164	168	163
Production profit	(Rm)	(284)	580	457
	(US\$m)	(19)	41	35
Capital expenditure	(Rm)	188	316	289
	(US\$m)	12	22	22
Operating free cash flow ¹	(Rm)	(458)	282	103
	(US\$m)	(29)	20	8
Cash operating cost	(R/kg)	849 782	476 417	472 177
	(US\$/oz)	1 687	1 045	1 143
All-in sustaining cost	(R/kg)	923 054	556 621	554 302
	(US\$/oz)	1 833	1 221	1 342
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		2	3	5
Lost-time injury frequency rate	per million hours worked	10.72	9.05	6.25
Environment				
Electricity consumption	(GWh)	599	624	595
Water consumption – primary activities	(ML)	2 720	3 205	2 609
Greenhouse gas emissions	(000t CO ₂ e)	635	569	577
Intensity data per tonne treated				
– energy		0.97	0.84	0.90
– water		4.42	4.32	3.89
– greenhouse gas emissions		1.03	0.77	0.3
Number of reportable environmental incidents		0	0	2
Community				
Local economic development ²	(Rm)	9	9	6
Training and development	(Rm)	38	52	33

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R6 million spent on the local economic development projects

Kusasaletu CONTINUED

Other salient features

Status of operation	Mature, steady state operation positioned for profitability
Life of mine	4 years
Nameplate hoisting capacity (per month)	172 000 tonnes (190 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – December 2007• ISO 14001• ISO 9001• Cyanide Code

Mineral Reserve estimates at 30 June 2020

	Proved			Probable			Total		
Reserves (metric)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	1.8	6.92	13	1.3	7.68	10	3.1	7.24	23
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	2.0	0.202	410	1.4	0.224	320	3.5	0.211	730

Overview of operations

Kusasaletu is a mature, deep-level mine located 90km west of Johannesburg, near the border of Gauteng and North West provinces. With mining conducted at a depth of 3 388m, Kusasaletu is Harmony's deepest mine, with a remaining four-year life of mine.

The mine comprises twin vertical and twin sub-vertical shaft systems and uses conventional mining methods in a sequential grid layout. The mine exploits the Ventersdorp Contact Reef as its primary ore body. Ore mined is treated at the Kusasaletu plant. A shortened life-of-mine plan was implemented in FY16. This plan aims to optimise the mine's cash flow at a higher grade and create a stronger operating margin while providing the flexibility necessary to access the high-grade payshoot of the Ventersdorp Contact Reef below infrastructure, should economic circumstances allow.

Once Mponeng and Mine Waste Solutions have been integrated in our portfolio of assets, we believe there are various surface and service synergies in the West Wits area that could potentially unlock value through driving down units costs.

Operating performance FY20

Tragically, two fatalities occurred at Kusasaletu in FY20, and a third post year-end.

Gold production declined substantially by 40% to 3 015kg (96 934oz), as a result of an 17% regression in the volume of ore milled to 615 000 tonnes and a 27% decrease in recovered grade to 4.90g/t (0.143oz/t). This resulted in Kusasaletu recording a loss of R458 million in FY20, reflectively a more than 100% decrease year on year.

The significant decline in the underground recovered grade was primarily due to geological factors and, to a lesser extent, seismicity. In respect of geology, given the erratic nature of the Ventersdorp Contact Reef, some areas planned to be mined yielded much lower grades than anticipated. Plans were implemented to counter the grade issue, including the fast-tracking of new high-grade raises. By year-end, Kusasaletu was back on track and operating efficiently.

However, the decline in production was somewhat countered by exceptional rise in the gold price enabling the operation to record revenue R2 293 million in FY20. This represented a decline of 23%.

Cash operating costs increased by 8% to R2 562 million mainly due to annual wage and Eskom electricity tariff increases. Capital expenditure decreased by 41% to R188 million (US\$12 million) mainly due to the planned decrease in development for FY20 as well as the restrictions related to the national lockdown in April 2020 and the subsequent phased start-up of operations.

Outlook for FY21

It is anticipated that the mine will be in a position to exceed its production plan and grade guidance now that there is access to the high-grade areas. A 'paired panel mining model', which allows crews to mine more than one panel at any given time, has been rolled out. This improved performance will be evident in the next reporting period.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Masimong

		FY20	FY19	FY18
Number of employees				
– Permanent		2 083	2 247	2 432
– Contractors		135	120	108
Total		2 218	2 367	2 540
Operational				
Volumes milled	(000t) (metric)	489	602	647
	(000t) (imperial)	539	664	714
Gold produced	(kg)	1 999	2 309	2 623
	(oz)	64 269	74 237	84 332
Gold sold	(kg)	2 027	2 291	2 609
	(oz)	65 169	73 657	83 882
Grade	(g/t)	4.09	3.84	4.05
	(oz/t)	0.119	0.112	0.118
Productivity	(g/TEC)	79.22	82.48	92.82
Development results				
– Total metres		2 246	3 167	5 287
– Reef metres		759	765	2 067
Financial				
Revenue	(Rm)	1 401	1 359	1 505
	(US\$m)	89	96	117
Average gold price received	(R/kg)	691 282	593 003	576 729
	(US\$/oz)	1 373	1 301	1 396
Cash operating cost	(Rm)	1 241	1 214	1 161
	(US\$m)	79	86	90
Production profit	(Rm)	143	154	351
	(US\$m)	9	11	27
Capital expenditure	(Rm)	24	109	129
	(US\$m)	2	8	10
Operating free cash flow ¹	(Rm)	136	36	215
	(US\$m)	8	2	17
Cash operating cost	(R/kg)	620 804	525 703	442 586
	(US\$/oz)	1 233	1 153	1 071
All-in sustaining cost	(R/kg)	655 888	593 408	513 197
	(US\$/oz)	1 302	1 302	1 242
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	1
Lost-time injury frequency rate	per million hours worked	7.51	5.88	8.61
Environment				
Electricity consumption	(GWh)	138	161	173
Water consumption – primary activities	(ML)	510	721	824
Greenhouse gas emissions	(000t CO ₂ e)	146	147	167
Intensity data per tonne treated				
– energy		0.28	0.27	0.27
– water		1.04	1.20	1.27
– greenhouse gas emissions		0.3	0.24	0.27
Number of reportable environmental incidents		0	0	2
Community				
Local economic development ²	(Rm)	11	6	6
Training and development	(Rm)	23	26	27

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R10 million spent on the local economic development

Masimong CONTINUED

Other salient features

Status of operation	Mature, single shaft operation nearing the end of its life of mine
Life of mine	1.5 years
Nameplate hoisting capacity (per month)	112 000 tonnes (124 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – December 2007• ISO 14001• ISO 9001• OHSAS 18001

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	0.8	4.26	3	0.02	2.95	0.1	0.8	4.23	3
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	0.9	0.124	108	0.03	0.086	2	0.9	0.123	110

Overview of operations

Masimong is a deep-level mine located in the Free State, near Welkom, some 260km from Johannesburg. The operation is close to the end of its mine life, with approximately 18 months of mining left. Masimong – together with Unisel – is a mine that is testimony to the effectiveness of Harmony's business model.

The Masimong complex comprises two shafts with the 5 shaft being used as the operating shaft and 4 shaft used for ventilation, pumping and as a second escape outlet. Masimong exploits the Basal Reef and the B-Reef by means of conventional tabular narrow reef stoping method. Mining is conducted at a depth of between 1 650m and 2 010m below collar. The ore mined is processed at the nearby Harmony One plant.

Operating performance FY20

The Covid-19 lockdown and associated restrictions were reflected in Masimong's operating performance in FY20. Gold production decreased by 13% to 1 999kg (64 269oz), due to a 19% decrease in tonnes milled to 489 000 tonnes in FY20. However, the decline in production was somewhat arrested by the 6.5% rise in recovered grade to 4.09g/t.

The significantly higher increase in the gold price contributed to the 3% increase in revenue to R1 401 million despite the drop in production. This performance was underpinned by a good safety record with no loss of life incidents being recorded in FY20.

Cash operating costs increased by 2% to R1 241 million mainly due to annual wage increases. Capital expenditure decreased by 78% to R24 million (decreased by 75% to US\$2 million) mainly due to a planned decrease in development as well as the effects of the national lockdown in April 2020.

Outlook for FY21

The Masimong management team will focus their efforts on maintaining its current safety and production performance.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – UNDERGROUND OPERATIONS

Unisel

		FY20	FY19	FY18
Number of employees				
– Permanent		750	880	1 016
– Contractors		77	52	80
Total		827	932	1 096
Operational				
Volumes milled	(000t) (metric)	219	256	376
	(000t) (imperial)	242	283	415
Gold produced	(kg)	982	1 212	1 280
	(oz)	31 573	38 966	41 152
Gold sold	(kg)	994	1 207	1 272
	(oz)	31 958	38 807	40 896
Grade	(g/t)	4.48	4.73	3.40
	(oz/t)	0.130	0.138	0.099
Productivity	(g/TEC)	98.59	110.50	70.04
Development results				
– Total metres		1 048	2 035	2 921
– Reef metres		299	1 177	1 325
– Capital metres		0	0	1 028
Financial				
Revenue	(Rm)	681	713	733
	(US\$m)	43	50	57
Average gold price received	(R/kg)	684 727	590 468	576 222
	(US\$/oz)	1 360	1 295	1 395
Cash operating cost	(Rm)	573	569	774
	(US\$m)	37	40	60
Production profit	(Rm)	101	149	(38)
	(US\$m)	6	10	(3)
Capital expenditure	(Rm)	7	45	85
	(US\$m)	–	3	7
Operating free cash flow ¹	(Rm)	100	99	(126)
	(US\$m)	6	7	(10)
Cash operating cost	(R/kg)	583 274	469 108	604 311
	(US\$/oz)	1 158	1 029	1 463
All-in sustaining cost	(R/kg)	613 382	523 823	678 436
	(US\$/oz)	1 218	1 149	1 642
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	0
Lost-time injury frequency rate	per million hours worked	1.66	4.02	10.86
Environment				
Electricity consumption	(GWh)	51	62	99
Water consumption – primary activities	(ML)	414	367	488
Greenhouse gas emissions	(000t CO ₂ e)	54	57	96
Intensity data per tonne treated				
– energy		0.23	0.03	0.26
– water		1.89	0.36	1.30
– greenhouse gas emissions		0.25	0.04	0.26
Number of reportable environmental incidents		0	1	0
Community				
Local economic development ²	(Rm)	4	3	5
Training and development	(Rm)	8	11	19

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R10 million spent on the local economic development

Unisel CONTINUED

Other salient features

Status of operation	Mature operation reaching the end of its life of mine. Mining focused on higher grade areas of shaft pillar
Life of mine	3 months
Nameplate hoisting capacity (per month)	63 000 tonnes (69 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – December 2007• ISO 9001

Overview of operations

Unisel is a single-shaft, intermediate depth mine located in the Free State, near Virginia, approximately 270km southwest of Johannesburg. Having been in production since 1979, Unisel is nearing the end of its life of mine. The mine will be closed in the first half of FY21. Despite this, the mine has served a myriad of stakeholders in the Free State well over the past 40 years.

Conventional scattered mining and targeted pillar reclamation are the principal mining methods that are used to access the Basal Reef, the primary gold-bearing orebody exploited at Unisel. Mining is conducted at depths between 1 100m and 2 200m. The mined ore is processed at the nearby Harmony One plant.

Employees and unions receive regular updates on the mine's performance and future plans. Post closure, Harmony will arrange to transfer the Unisel workforce to other operations where positions are available. Portable skills training will be a key focus going forward.

Operating performance FY20

In FY20, Unisel recorded its fifth consecutive year without a fatality.

Gold production was 19% lower year on year at 982kg (31 573oz), due largely to only mining the shaft pillar area and the resultant drop in ore milled by 14% to 219 000t and in recovered grade by 5% to 4.48g/t.

Despite an exceptional rise in the gold price in the second half of the financial year under review, revenue declined by 4% to R681 million. Operating free cash flow increased marginally to R100 million. There was a 1% increase in cash operating costs to R573 million on account of an increase in government royalties as well as the annual wage increases.

Capital expenditure decreased by 84% to R7 million mainly due to the fact that the shaft was expected to close in the next financial year.

Outlook for FY21

The mine has reached the end of its life and is set to close in the second quarter of FY21.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – SURFACE OPERATIONS

Kalgold

		FY20	FY19	FY18
Number of employees				
– Permanent		253	238	237
– Contractors		361	346	334
Total		614	584	571
Operational				
Volumes milled	(000t) (metric)	1 541	1 619	1 550
	(000t) (imperial)	1 700	1 785	1 709
Gold produced	(kg)	1 153	1 249	1 250
	(oz)	37 070	40 156	40 189
Gold sold	(kg)	1 151	1 263	1 231
	(oz)	37 006	40 605	39 577
Grade	(g/t)	0.75	0.77	0.81
	(oz/t)	0.022	0.022	0.024
Productivity	(g/TEC)	128.80	150.85	147.96
Financial				
Revenue	(Rm)	855	750	710
	(US\$m)	55	53	55
Average gold price received	(R/kg)	742 533	593 482	576 630
	(US\$/oz)	1 474	1 302	1 396
Cash operating cost	(Rm)	674	695	565
	(US\$m)	43	49	44
Production profit	(Rm)	183	50	157
	(US\$m)	12	3	12
Capital expenditure	(Rm)	99	61	108
	(US\$m)	6	4	8
Operating free cash flow ¹	(Rm)	84	(4)	34
	(US\$m)	6	0	3
Cash operating cost	(R/kg)	584 218	556 283	452 365
	(US\$/oz)	1 160	1 220	1 095
All-in sustaining cost	(R/kg)	690 239	624 147	552 032
	(US\$/oz)	1 371	1 369	1 336
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	0
Lost-time injury frequency rate	per million hours worked	1.65	0.88	0
Environment				
Electricity consumption	(GWh)	54	54	53
Water consumption – primary activities	(ML)	307	583	324
Greenhouse gas emissions	(000t CO ₂ e)	72	66	51
Intensity data per tonne treated				
– energy		0.04	0.03	0.03
– water		0.2	0.36	0.21
– greenhouse gas emissions		0.05	0.04	0.03
Number of reportable environmental incidents		0	1	0
Community				
Local economic development ²	(Rm)	8	9	3
Training and development	(Rm)	9	5	6

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

² Figures include R3 million spent on the local economic development projects

Kalgold CONTINUED

Other salient features

Status of operation	Open-pit mining operation
Life of mine	13 years
Nameplate hoisting capacity (per month)	112 000 tonnes (124 000 tons)
Compliance and certification	<ul style="list-style-type: none">• New order mining right – August 2008• ISO 14001• ISO 9001

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	6.7	0.93	6	13.2	1.14	15	19.9	1.07	21

Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	7.4	0.027	201	14.5	0.033	482	21.9	0.031	683

Overview of operations

Kalgold is a long-life open-pit gold mine situated on the Kraaipan Greenstone Belt, 55km southwest of Mahikeng in North West Province.

Mining takes place from the A-Zone pit, where mining is ramping up at the pillar between the A-Zone and Watertank pit. The mined ore is processed at the carbon-in-leach Kalgold plant.

Operating performance FY20

Kalgold maintained its fatality-free record in FY20.

Gold production decreased by 8% to 1 153kg (37 070oz), due to a drop in ore milled by 5% to 1 541 000t and a 3% decrease in recovered grade to 0.748g/t. Heavy rainfall in the fourth quarter resulted in the operation losing 18 mining days in the pit, and affecting stockpile levels. While Kalgold was not compelled to suspend operations during the Covid-19 lockdown, it was indirectly impacted by associated restrictions imposed from the end of March.

Owing to the rise in the gold price over the period under review, however, revenue increased by 14% to R855 million. Cash operating costs decreased by 3% to R674 million (12% decrease to US\$43 million) due to an increase in deferred stripping cost being capitalised.

Capital expenditure increased by 62% to R99 million, mainly due to an increase in deferred stripping costs.

Outlook for FY21

With a 13-year life of mine left, the key focus areas in FY21 will be to optimise the pit design so as to produce safe, profitable ounces by mining the A zone and Watertank pits. Feasibility studies are underway to potentially expand the milling capacity of the operation – there are two options being considered, one to expand milling capacity by 300 000t a month, the other by 450 000t a month. The results from the exploration drilling at Kalgold outline an expanded, robust mineralised system that extends beyond the current resource limits. Resource development drilling underway has outlined a mineralised zone that now comprises over 2.1km of strike and extends to in excess of 300m below surface. The intersections show good continuity of geology and mineralisation and presents an exciting organic growth opportunity for Harmony.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – SURFACE OPERATIONS

Phoenix (tailings retreatment)

		FY20	FY19	FY18
Number of employees				
– Permanent		83	87	87
– Contractors		261	249	252
Total		344	336	339
Operational				
Volumes milled	(000t) (metric)	6 227	6 133	5 962
	(000t) (imperial)	6 866	6 762	6 575
Gold produced	(kg)	818	756	737
	(oz)	26 299	24 306	23 695
Gold sold	(kg)	823	750	739
	(oz)	26 459	24 113	23 759
Grade	(g/t)	0.131	0.123	0.124
	(oz/t)	0.004	0.004	0.004
Productivity	(g/TEC)	385.12	185.84	183.88
Financial				
Revenue	(Rm)	589	433	397
	(US\$m)	38	31	31
Average gold price received	(R/kg)	715 787	577 889	537 547
	(US\$/oz)	1 421	1 268	1 301
Cash operating cost	(Rm)	363	344	326
	(US\$m)	23	24	25
Production profit	(Rm)	223	92	71
	(US\$m)	14	7	5
Capital expenditure	(Rm)	7	6	3
	(US\$m)	–	–	–
Operating free cash flow ¹	(Rm)	219	83	68
	(US\$m)	14	7	6
Cash operating cost	(R/kg)	443 972	455 370	442 526
	(US\$/oz)	882	999	1 071
All-in sustaining cost	(R/kg)	453 937	462 579	446 268
	(US\$/oz)	901	1 015	1 080
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	0
Lost-time injury frequency rate	per million hours worked	0	0	0
Environment				
Electricity consumption	(GWh)	40	41	41
Water consumption – primary activities	(ML)	320	304	260
Greenhouse gas emissions	(000t CO ₂ e)	43	37	40
Intensity data per tonne treated				
– energy		0.01	0.007	0.007
– water		0.05	0.05	0.04
– greenhouse gas emissions		0.01	0.006	0.007
Number of reportable environmental incidents		0	1	0

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

Phoenix (tailings retreatment) CONTINUED

Other salient features

Status of operation	Retreatment of tailings
Life of mine	8 years

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	48.7	0.28	14	–	–	–	48.7	0.28	14
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	53.7	0.008	442	–	–	–	53.7	0.008	442

Overview of operations

Phoenix is a tailings retreatment operation situated in Virginia in the Free State.

The operation involves the retreatment of tailings from Harmony's tailings storage facilities in the Free State region to extract any residual gold. The operation makes use of the Saaiplaas plant to retreat tailings. It is 100% owned by the black economic empowerment company, Tswelopele Beneficiation Operation (Proprietary) Limited, of which Harmony is a 75% shareholder.

Operating performance FY20

With its safety performance intact, Phoenix continued to improve its operating performance year on year due to an increase in volumes processed and the containment of costs. Unlike Harmony's underground operations, Phoenix was not impacted by the Covid-19 national lockdown and was able to continue operating throughout.

Gold production increased by 8% to 818kg, mainly as a result of a 2% increase in volumes processed to 6.2 million tonnes and a 7% rise in the recovered grade to 0.131g/t. This was reflected in the substantial increase in revenue to R589 million (US\$38 million).

Operational success depends on maintaining plant efficiency and reducing pump and pipe failures (adequate spillage control).

Outlook for FY21

The aim is to finish the feasibility work on identifying the optimum second source feed for processing on account of the fact that the current feed is nearing the end of its life. Another focus will be to investigate the possibility of boosting gold recovery by reducing residence time in processing.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – SURFACE OPERATIONS

Central Plant Reclamation (tailings retreatment)

		FY20	FY19	FY18
Number of employees				
– Permanent		97	99	100
– Contractors		151	136	182
Total		248	235	282
Operational				
Volumes milled	(000t) (metric)	4 020	3 872	3 810
	(000t) (imperial)	4 433	4 269	4 201
Gold produced	(kg)	625	579	502
	(oz)	20 094	18 615	16 139
Gold sold	(kg)	625	577	508
	(oz)	20 093	18 551	16 333
Grade	(g/t)	0.155	0.150	0.132
	(oz/t)	0.005	0.004	0.004
Productivity	(g/TEC)	325.83	307.23	261.72
Financial				
Revenue	(Rm)	468	342	293
	(US\$m)	30	24	23
Average gold price received	(R/kg)	749 216	592 359	576 829
	(US\$/oz)	1 488	1 299	1 396
Cash operating cost	(Rm)	234	212	191
	(US\$m)	15	15	15
Production profit	(Rm)	234	130	98
	(US\$m)	15	9	8
Capital expenditure	(Rm)	12	7	22
	(US\$m)	1	1	2
Operating free cash flow ¹	(Rm)	222	123	80
	(US\$m)	14	8	6
Cash operating cost	(R/kg)	373 798	366 364	381 131
	(US\$/oz)	742	804	923
All-in sustaining cost	(R/kg)	389 611	378 038	420 016
	(US\$/oz)	774	829	1 017
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	0
Lost-time injury frequency rate	per million hours worked	0	2.09	0
Environment				
Electricity consumption	(GWh)	24	23	24
Water consumption – primary activities	(ML)	171	191	180
Greenhouse gas emissions	(000t CO ₂ e)	25	21	23
Intensity data per tonne treated				
– energy		0.01	0.01	0.01
– water		0.04	0.05	0.05
– greenhouse gas emissions		0.01	0.005	0.006
Number of reportable environmental incidents		0	0	1

Note: Reported as part of waste rock dumps prior to the conversion of Central Plant to a tailings retreatment facility, which began operating in FY18

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

Central Plant Reclamation (tailings retreatment) CONTINUED

Other salient features

Status of operation	Retreatment of tailings
Life of mine	15 years

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	–	–	–	55.4	0.27	15	55.4	0.27	15
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	–	–	–	61.0	0.008	476	61.0	0.008	476

Overview of operations

The Central Plant Reclamation, is a tailings retreatment operation situated near Welkom in the Free State. Originally built to process waste rock dumps, the Central Plant was converted into a tailings retreatment facility in FY17.

Operating performance FY20

Central Plant performed well in FY20 despite the disruptions caused by the Covid-19 pandemic and associated national lockdown. The operation recorded a 4% increase in volumes processed to 4 million tonnes and a 3% increase in recovered grade to 0.155g/t resulting in an 8% increase in gold production to 625kg (20 094oz). This performance was reflected in the substantial rise in revenue to R468 million.

All-in sustaining unit cost increased by 3% to R389 611/kg (in US\$ terms decreased by 7% to US\$774/oz).

The capital expenditure for FY20 increased by 68% to R12 million on account of an increase in plant maintenance.

Outlook for FY21

Key focus areas in FY21 will be to continue safe operations and deliver operational excellence.

OPERATIONAL PERFORMANCE CONTINUED

SOUTH AFRICA – SURFACE OPERATIONS

Waste rock dumps

		FY20	FY19	FY18
Operational				
Volumes milled	(000t) (metric)	4 476	4 307	2 821
	(000t) (imperial)	4 936	4 749	3 110
Gold produced	(kg)	1 753	1 515	1 081
	(oz)	56 630	48 708	34 755
Gold sold	(kg)	1 780	1 497	1 074
	(oz)	57 229	48 129	34 530
Grade	(g/t)	0.392	0.352	0.383
	(oz/t)	0.011	0.010	0.011
Financial				
Revenue	(Rm)	1 388	879	610
	(US\$m)	89	62	47
Average gold price received	(R/kg)	779 835	587 483	567 737
	(US\$/oz)	1 549	1 289	1 374
Cash operating cost	(Rm)	853	692	450
	(US\$m)	54	49	35
Production profit	(Rm)	527	195	164
	(US\$m)	34	14	13
Capital expenditure	(Rm)	2	8	3
	(US\$m)	–	1	–
Operating free cash flow ¹	(Rm)	533	179	157
	(US\$m)	34	12	12
Cash operating cost	(R/kg)	486 792	456 473	415 993
	(US\$/oz)	967	1 001	1 007
All-in sustaining cost	(R/kg)	484 507	462 178	417 462
	(US\$/oz)	962	1 014	1 010
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	0
Lost-time injury frequency rate	per million hours worked	0	0	0
Environment				
Electricity consumption	(GWh)	*	*	*
Water consumption – primary activities	(ML)	*	*	*
Greenhouse gas emissions	(000t CO ₂ e)	*	*	*
Intensity data per tonne treated				
– energy		*	*	*
– water		*	*	*
– greenhouse gas emissions		*	*	*
Number of reportable environmental incidents		0	0	0

* Electricity and water consumption and related emission and intensity data for the respective plants at which the waste rock dumps are processed are accounted for as part of the primary operation's environmental results

¹ Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results

Waste rock dumps CONTINUED

Other salient features

Status of operation	Processing of waste rock dumps is dependent on the availability of spare plant capacity and plant requirements for grinding material
Life of mine	± 1 year

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	–	–	–	3.5	0.50	2	3.5	0.50	2
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	–	–	–	3.8	0.015	56	3.8	0.015	56

Overview of operations

Production from the processing of surface rock dumps, which are situated across Harmony's operations, depends entirely on the availability of spare mill capacity at the Harmony One and Target plants. Waste and waste rock dump deliveries to Kusasalethu plant (situated near the border of Gauteng and North West provinces) supplement mining volumes in order to secure sufficient backfill to use as support in stoping areas. Waste rock dumps situated near Orkney (acquired as part of the Moab Khotso operations) are treated at the Great Nologwa and Mispah plants. Milling of waste rock dumps at the Doornkop plant, situated in Gauteng, began in FY18.

Operating performance FY20

An increase of 4% in ore milled to 4Mt, coupled with an 11% rise in recovered grade to 0.392g/t, delivered a 16% rise in gold produced to 1 753kg (56 360oz). The performance of the waste rock dumps year on year benefitted from the reduction in underground production during the duration of the national lockdown in South Africa. The operation recorded an excellent financial performance with revenue increasing to R1.4 billion in FY20.

Outlook for FY21

The priority for FY21 will be to maintain safe, profitable production.

OPERATIONAL PERFORMANCE CONTINUED

PAPUA NEW GUINEA

Hidden Valley

		FY20	FY19	FY18'
Number of employees				
– Permanent		1 434	1 391	1 295
– Contractors		748	709	790
Total		2 182	2 100	2 085
Operational				
Volumes milled	(000t) (metric)	3 906	3 886	2 499
	(000t) (imperial)	4 307	4 285	2 757
Gold produced	(kg)	4 872	6 222	2 862
	(oz)	156 639	200 042	92 015
Gold sold	(kg)	4 949	6 192	2 763
	(oz)	159 113	199 077	88 833
Grade	(g/t)	1.25	1.60	1.36
	(oz/t)	0.036	0.047	0.039
Financial				
Revenue	(Rm)	3 748	3 591	409
	(US\$m)	239	253	31
Average gold price received	(R/kg)	757 348	579 902	550 956
	(US\$/oz)	1 504	1 272	1 283
Cash operating cost	(Rm)	1 696	1 371	228
	(US\$m)	108	97	17
Production profit	(Rm)	2 109	2 229	175
	(US\$m)	134	157	14
Capital expenditure	(Rm)	959	1 591	1 563
	(US\$m)	61	112	122
Operating free cash flow ²	(Rm)	871	573	(1 374)
	(US\$m)	56	40	(107)
Cash operating cost	(R/kg)	348 054	220 323	287 028
	(US\$/oz)	691	483	669
All-in sustaining cost	(R/kg)	562 648	497 399	466 256
	(US\$/oz)	1 120	1 090	1 094
Average exchange rate	(R/US\$)	15.66	14.18	12.85
Safety				
Number of fatalities		0	0	0
Lost-time injury frequency rate	per million hours worked	0.68	0.35	0
Environment				
Electricity consumption	(GWh)	120	117	59
Water consumption – primary activities	(ML)	1 810	1 827	1 359
Greenhouse gas emissions	(000t CO ₂ e)	165	208	57
Intensity data per tonne treated				
– energy		0.04	0.03	0.02
– water		0.46	0.47	0.54
– greenhouse gas emissions		0.04	0.05	0.02
Number of reportable environmental incidents		7	2	0

¹ FY18 gold produced includes 2 068kg (66 499oz) and gold sold 2 021kg (64 976oz) capitalised as part of pre-stripping of stages 5 and 6. Revenue of R1 045 million (US\$85 million) and the associated costs were capitalised during FY18.

² Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run of mine (ROM) costs as per operating results.

Hidden Valley CONTINUED

Other salient features

Status of operation	Open-pit mining operation producing gold and silver (by-product). Post reinvestment, the pre-stripping of stage 5 commenced in October 2016. Commercial levels of production were achieved in the June 2018 production month. Stage 6 stripping began in FY19
Life of mine	4 years

Mineral Reserve estimates at 30 June 2020

Reserves (metric)	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
	2.3	1.32	3	14.2	1.61	23	16.5	1.57	26
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	2.5	0.039	98	15.6	0.047	733	18.2	0.046	831

Overview of operations

The Hidden Valley mine is an open pit gold and silver mine, situated in the Morobe Province in Papua New Guinea, some 210km northwest of Port Moresby. The mine is located at elevations between 2 800m and 1 700m above sea level within steep mountainous and forested terrain that experiences approximately 3m of rainfall per year. The major gold and silver deposits of Hidden Valley are located in the Morobe Granodiorite of the Wau Graben.

Crushed ore is conveyed from the Hidden Valley pit via a 5.5km long overland pipe conveyor and is treated at the Hidden Valley processing plant, which uses a two stage crushing circuit followed by a semi-autogenous grinding (SAG) mill, gravity, counter current decantation (CCD)/Merrill Crowe circuit for silver and a carbon-in-leach circuit for gold.

Operating performance FY20

Hidden Valley's safety and injury frequency rates are industry leading and the operation achieved a fourth consecutive year of zero fatalities and recorded more than 2 million fatality free shifts in FY20. This is testament to the culture of zero harm, safety coaching and leadership, as well as the use of critical control management that has been embedded operationally to drive safety.

Gold production declined by 22% to 4 872kg (156 639oz) and generated operating free cash flow of R871 million, making it the group's second largest contributor to operating free cash flow in FY20. Hidden Valley achieved an all-in sustaining unit cost of R562 648/kg (US\$1 120/oz), due to:

- Lower gold production in FY20 as a result of lower mined grade as the mine transitioned between various stages of the open pit
- Higher inventory adjustments and additional costs due to Covid-19 controls, offset by reduced operating and sustaining capital expenditure year on year

Despite the challenges associated with the Covid-19 pandemic and the 14-day mill stoppage in January 2020, caused by a fault in the mill's electronic management system, Hidden Valley was able to increase the volume milled by 0.5% to 3.9Mt, although the recovered grade declined to 1.25g/t, resulting in lower gold production.

In addition to a planned mine life of 4 years, a prefeasibility study for the life-of-mine extension has been completed which considers a two- to three-year mine life extension and annual gold production of approximately 190 000oz. This study has now progressed to feasibility stage, with study work expected to be completed during FY21.

Outlook for FY21

The key focus in FY21 will be to safely mine the current cutback to produce between 172 300 to 177 700 ounces, while commencing the next planned pushback of the main Hidden Valley pit. Our aim is to also obtain a renewal of the mining lease to support a proposed mine life extension beyond the current plan.

FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the safe harbor provided by Section 21E of the Exchange Act and Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), with respect to our financial condition, results of operations, business strategies, operating efficiencies, competitive positions, growth opportunities for existing services, plans and objectives of management, markets for stock and other matters.

These forward-looking statements, including, among others, those relating to our future business prospects, revenues, and the potential benefit of acquisitions (including statements regarding growth and cost savings) wherever they may occur in this report and the exhibits to this report, are necessarily estimates reflecting the best judgment of our senior management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in this report. Important factors that could cause actual results to differ materially from estimates or projections contained in the forward-looking statements include, without limitation:

- Overall economic and business conditions in South Africa, Papua New Guinea, Australia and elsewhere (including as a result of the coronavirus disease ("Covid-19") pandemic)
- Estimates of future earnings, and the sensitivity of earnings to gold and other metals prices
- Estimates of future gold and other metals production and sales
- Estimates of future cash costs
- Estimates of future cash flows, and the sensitivity of cash flows to gold and other metals prices
- Estimates of provision for silicosis settlement and the spread of other contagious diseases, such as Covid-19
- Estimates of future tax liabilities under the Carbon Tax Act (South Africa)
- Statements regarding future debt repayments
- Estimates of future capital expenditures
- The success of our business strategy, exploration and development activities and other initiatives
- Future financial position, plans, strategies, objectives, capital expenditures, projected costs and anticipated cost savings and financing plans
- Estimates of reserves statements regarding future exploration results and the replacement of reserves
- The ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, as well as at existing operations
- Fluctuations in the market price of gold
- The occurrence of hazards associated with underground and surface gold mining
- The occurrence of labour disruptions related to industrial action or health and safety incidents
- Power cost increases as well as power stoppages, fluctuations and usage constraints
- Supply chain shortages and increases in the prices of production imports and the availability, terms and deployment of capital
- Our ability to hire and retain senior management, sufficiently technically-skilled employees, as well as our ability to achieve sufficient representation of historically disadvantaged persons in management positions
- Our ability to comply with requirements that we operate in a sustainable manner and provide benefits to affected communities
- Potential liabilities related to occupational health diseases
- Changes in government regulation and the political environment, particularly tax and royalties, mining rights, health, safety, environmental regulation and business ownership including any interpretation thereof; court decisions affecting the mining industry, including, without limitation, regarding the interpretation of mining rights
- Our ability to protect our information technology and communication systems and the personal data we retain
- Risks related to the failure of internal controls
- The outcome of pending or future litigation or regulatory proceedings
- Fluctuations in exchange rates and currency devaluations and other macroeconomic monetary policies
- The adequacy of the Group's insurance coverage
- Any further downgrade of South Africa's credit rating
- Socio-economic or political instability in South Africa, Papua New Guinea and other countries in which we operate

For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the Company's latest Integrated Report and Form 20-F which is on file with the Securities and Exchange Commission, as well as the Company's other Securities and Exchange Commission filings. The Company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events, except as required by law. The foregoing factors and others described under "Risk Factors" should not be construed as exhaustive. The forward-looking financial information has not been reviewed and reported on by the Company's auditors.

COMPETENT PERSON'S STATEMENT

The information in this presentation that relates to Mineral Resources or Ore Reserves has been extracted from our Reserves and Resources statement published on 15 September 2020. Harmony confirms that it is not aware of any new information or data that materially affects the information included in the statement, in the case of Mineral Resources or Mineral Reserves, that all material assumptions and technical parameters underpinning the estimates in the original release continue to apply and have not materially changed. Harmony confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original release.

CONTACT DETAILS

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Harmony Gold Mining Company Limited was incorporated and registered as a public company in South Africa on 25 August 1950

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