



**HARMONY™**

Operational  
report  
**2021**



**MPONENG  
MINE**



**WORLD'S  
DEEPEST**

**MINING WITH  
PURPOSE**

## CONTENT

<b>Introduction</b>	<b>1</b>
Safety and operational risk management	2
Improving the quality of our portfolio	2
Our performance FY21	2
FY22 outlook	4
<b>Performance by operation</b>	<b>6</b>
<b>SOUTH AFRICA</b>	
<b>Underground operations</b>	
Tshepong Operations	8
Moab Khotsoeng	10
Mponeng	12
Bambanani	14
Doornkop	16
Joel	18
Target 1	20
Kusasaletu	22
Masimong	24
Unisel	26
<b>Surface operations</b>	
Mine Waste Solutions (tailings retreatment)	28
Kalgold	30
Phoenix (tailings retreatment)	32
Central Plant Reclamation (tailings retreatment)	34
Waste-rock dumps	36
<b>PAPUA NEW GUINEA</b>	
Hidden Valley	38
<b>Ancillary information</b>	<b>40</b>
Forward-looking statements	40
Competent person's statement	40
Administrative and contact details	41

### REFERENCE



Indicates a page or note reference of information which can be found elsewhere in the report.



Indicates a reference for information available online at [www.harmony.co.za](http://www.harmony.co.za).

### Our 2021 suite of reports:



Integrated annual  
report  
2021



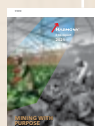
Mineral Resources  
and Mineral  
Reserves  
2021



Financial report  
2021



Operational report  
2021



Environment, social  
and governance  
report  
2021  
(ESG report)



Report to  
shareholders  
2021



Climate-related  
financial  
disclosures 2021  
(Referred to in  
our reporting  
suite as  
TCFD report)

### Other reports:

Form 20-F  
Annual report filed with the  
United States Securities and  
Exchange Commission, in  
compliance with the listing  
requirements of the New York  
Stock Exchange

## Mining with purpose

We are a global, sustainable gold producer, creating shared value for all stakeholders while leaving a lasting positive legacy by:

- Creating a profitable, sustainability company
- Committing to safe, ethical, social and ecologically responsible mining
- Positioning our business to contribute to a low-carbon future.

Creating shared value is the golden thread that links our purpose to our business model and to our strategy. It drives our pursuit of operational excellence, and ensures an inclusive approach to stakeholders. This guides the way we manage our capitals – ensuring that at all times we create and preserve value, creating infinite opportunities from a finite resource.



## Operational excellence is one of four strategic pillars on which Harmony has built its business and 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.

### 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 to achieve our operational plans, reduce unit costs and improve productivity to maximise the generation of free cash flow. Operational excellence is central to generating cash flow.

### Key focus areas of our operational excellence programme

#### Safety and health

- Journey to proactive safety
- Agile response to Covid-19 pandemic
- Risk management and focus on critical controls.

#### Grade management and mining flexibility

- Limit mining below cut-off grade
- Incorporate flexibility into our mining plans.

#### Capital allocation

- Prioritised and focused capital allocation for growth and to sustain the business.

#### Infrastructure maintenance

- Fewer unplanned stoppages.

#### Cost management




- Focused cost management and project delivery
- Improved productivity.

#### Environmental and social management




- Sustainable and responsible environmental stewardship
- Community engagement and social upliftment.

### Capital affected

#### Directly:

-  Manufactured capital
-  Human capital
-  Intellectual capital





#### Indirectly:

-  Financial capital
-  Social and relationship capital
-  Natural capital

### Stakeholder(s) affected

- |           |   |             |
|-----------|---|-------------|
| Employees | Investors,<br>various levels<br>of government<br>and regulators | Communities |
|-----------|---|-------------|

### Strategic pillars

-  Responsible stewardship
-  Operational excellence
-  Cash certainty
-  Effective capital allocation

### Responsible committees

- |           |                   |
|-----------|-------------------|
| Technical | Social and ethics |
|-----------|-------------------|

### Related risks

- Failure to eliminate fatalities and improve safety performance
- Covid-19 pandemic – spread of infection and potential impact on business sustainability
- Depleting Ore Reserve base
- Divergent gold price and foreign exchange fluctuations (from planned levels)
- Supply insecurity, rising cost and continued use of fossil fuel-generated electricity in South Africa
- Ore Reserve/mining inflexibility
- Labour and community unrest during wage negotiations
- Failure to achieve our operational objectives

**Note:** All photographs in this report were taken under strict Covid-19 safety protocols, including social distancing and the use of facial masks to ensure the safety and wellbeing of our employees.

## Safety and operational risk management

**Managing safety risks:** Safety is a material risk for Harmony. As such, it is imperative to ensure safe production, prevent loss-of-life incidents and embed a proactive safety culture across all our operations. We have adopted global best practice safety standards, a four-layered approach based on risk management and implemented modernised safety systems. We have also 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** in our **ESG report** for 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 productively. 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:

- Failure to eliminate loss-of-life incidents and improve safety performance
- The spread of Covid-19 and its potential impact on business sustainability
- Depleting Ore Reserve base.

## Scope

This document has been prepared as part of Harmony's integrated annual reporting suite. For additional information on areas disclosed in this report, refer to the following individual reports:

- Mineral Resources and Mineral Reserves report 2021
- ESG report 2021
- Financial report 2021.

These reports are on the Harmony website:

<https://www.harmony.co.za/invest/annual-reports>

## Improving the quality of our portfolio

A key event in FY21 was the successful acquisition and integration of Mponeng Mine and related assets. This transaction, along with the acquisition of Moab Khotso in 2018, was strategically important and set Harmony on a new growth trajectory. Given the quality of Mponeng, its inclusion into our asset portfolio from 1 October 2020 had an immediate impact on our FY21 results.

Mponeng delivered an excellent performance for the nine months since we assumed ownership, exceeding expectations across production metrics while the surface dumps also performed well.

## Our performance FY21

The successful acquisition and integration of Mponeng and related assets are reflected in our results and demonstrate how we continue to transform our earnings profile by acquiring high-grade assets, while delivering on our strategy of safe, profitable ounces and increasing margins.

The safety and health of our employees and their families remains our top priority. In FY21, we continued our safety journey to embed a proactive safety culture throughout the company. The ongoing Covid-19 pandemic is unprecedented, yet we adapted to a changed environment. We also initiated a successful Covid-19 vaccination

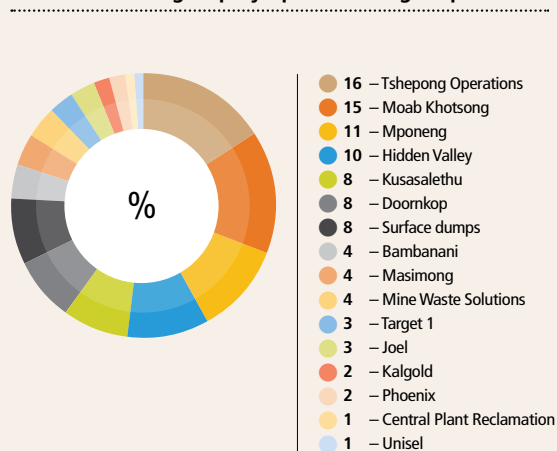
programme in South Africa and Papua New Guinea. In South Africa, four of our facilities have been registered and authorised to store and administer vaccines to our employees and communities, with another six sites awaiting accreditation. We continue to encourage our employees and their families to get vaccinated at one of our sites. At 30 September 2021, the numbers are encouraging with around 63% of our employees partially vaccinated and 40% fully vaccinated. We expect to reach our goal of 80% at least partially vaccinated by October 2021.

Group production for FY21 increased by 26% to 1.54Moz of gold and gold equivalents (FY20: 1.22Moz). This was in line with guidance mainly due to the inclusion of Mponeng and related assets into our portfolio, which contributed 8 948kg (287 683oz) in FY21. Of this, 5 446kg or 175 092oz was from Mponeng underground, 862kg or 27 714oz from Mponeng surface, 583kg or 18 744oz from Kopanang surface and 2 057kg or 66 133oz from Mine Waste Solutions. Combined, this accounted for 19% of group production. The average underground recovered grade increased by 1% to 5.51g/t from 5.45g/t due to higher grades achieved at Kusasalethu and Mponeng.

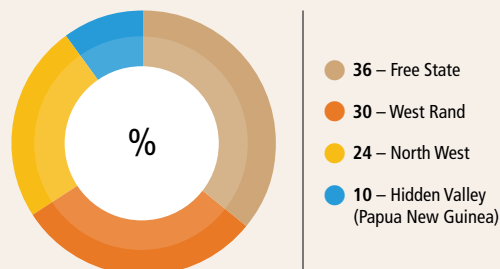
A further 16% rise in the average gold price received to R851 045/kg (FY20: R735 569/kg), complemented by a substantial increase in gold production as a result of operational excellence in FY21 led to revenue increasing 43% to R41 733 million. All-in sustaining costs rose 11% to R723 054/kg from R651 356/kg mainly due to operational expansion after acquiring Mponeng and related assets, as well as lower-than-expected gold production at Target 1, Joel, Kalgold and Hidden Valley. This resulted in a production profit of R11 959 million, 66% higher compared to R7 197 million in FY20.

Group capital expenditure for FY21 rose 44% to R5 103 million from R3 553 million in FY20. This reflects the inclusion of Mponeng and related assets as well as normalised capital expenditure in South Africa and Papua New Guinea after capital spend on development and growth projects was halted in FY20 by the pandemic. It also includes the resumption of growth projects and ongoing development planned in FY20 and FY21.

Contribution to group by operations – gold produced

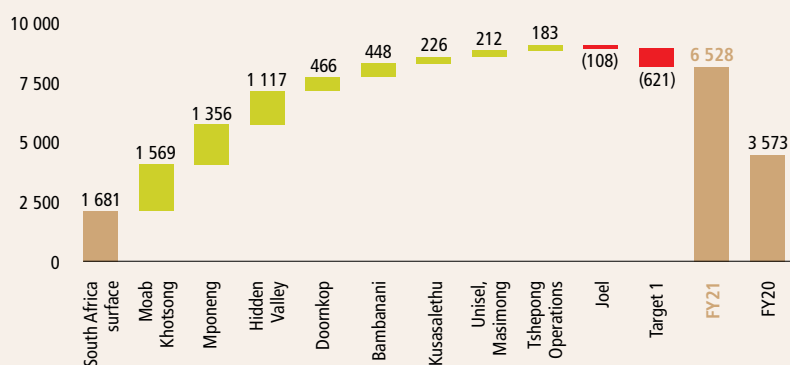


### Contribution to group production – gold produced



### Operating free cash flow

Operating free cash flow for FY21 increased 83% to R6 528 million from R3 573 million in FY20, mainly due to a 26% increase in gold produced and a 16% increase in the average gold price received. Similarly, the operating free cash flow margin increased to 16% (FY20: 13%). The inclusion of Mponeng had an immediate positive impact for the nine months since we assumed ownership, becoming the second-largest contributor to operating free cash flow in FY21.



### FY21 operating free cash flow\*

(R million)

\* Operating free cash flow = Revenue – Franco Nevada non-cash consideration – cash operating cost – capital expenditure +/- impact of run-of-mine costs as per operating results.

FY21 focus areas and actions	How we performed
Continue embedding a proactive safety culture	Achieved our third-ever fatality-free quarter. South African lost-time injury frequency rate improved by 3% to 6.46 per million shifts from 6.69 in FY20.
Ensure we meet our operational plans and generate free cash flow	The group achieved its operational plans and regained mining flexibility at the majority of our mines after the impact of Covid-19. Operating free cash of R6 528 million for the reporting period used to reduce debt.
Integrate Mponeng and Mine Waste Solutions and create synergies in the West Witwatersrand (West Wits) region that will unlock value	Acquired assets and operations have contributed 8 948kg (287 683oz) in production, or 19% of the group's total production. They added revenue of R4 750 million and generated free cash flows of R1 356 million.
Pursue organic brownfields growth strategy	Brownfield exploration at Hidden Valley and Kalgold to optimise existing open-pit operations and extend mine life, with brownfield exploration at our underground operations in South Africa.
Continue to drive down unit costs by improving our safety performance, delivering on our production plans, and increasing the productivity of our mining teams	Successful integration of Mponeng and related assets are reflected in our results. This demonstrates how we continue to transform our earnings profile by acquiring high-grade assets, while delivering on our strategy of safe, profitable ounces and increasing margins.

## Key operational metrics FY21 – year-on-year (YoY) comparison

	Unit	YoY move	YoY %	FY21	FY20	Comments
Gold price	R/kg	↑	15.7	<b>851 045</b>	735 569	The average gold price received increased YoY, boosting our revenue
Underground yield	g/t	↑	1.1	<b>5.51</b>	5.45	The average underground recovered grade increased as a result of higher grades in Kusasalethu and Mponeng
Margin	%	↑	23.1	<b>16</b>	13	Mponeng was our most profitable underground operation for the reporting period, followed by Bambanani and Moab Khotsoeng, delivering operating free cash at margins of 29%, 27% and 26% respectively
Gold produced	kg	↑	26.1	<b>47 755</b>	37 863	Higher gold production was in line with guidance and mainly due to including Mponeng and related assets into our portfolio
– South Africa	kg	↑	30.5	<b>43 066</b>	32 991	
– Papua New Guinea	kg	↓	-3.8	<b>4 689</b>	4 872	
All-in sustaining cost	R/kg	↓	-11	<b>723 054</b>	651 356	The increase in all-in sustaining cost was mainly due to operational expansion after acquiring Mponeng and related assets, as well as lower-than-expected gold production at Target 1, Joel, Kalgold and Hidden Valley

### FY22 outlook

In the next financial year, gold production is estimated to be between 1.54Moz and 1.63Moz at an all-in sustaining cost of between R765 000/kg and R800 000/kg. Underground recovered grade is planned to be about 5.40g/t to 5.57g/t.

The acquisition of Mponeng and Mine Waste Solutions, finalised at the end of September 2020, will continue to contribute to production and revenue in FY22. Mponeng is close to our Kusasalethu Mine in the West Wits region. While each of these operations has its own treatment plant, there are possible synergies for surface retreatment that will be explored and executed in FY22. The mine dumps at Deelkraal, Savuka and Kusasalethu are all in the same region and will provide extra ounces for the group, given the increased processing capacity. Harmony also acquired Kopanang plant but due to the operation being financially unviable the plant will be placed on care and maintenance during the first quarter of FY22.

The acquisition of these 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 obtained a life-of-mine extension of two years at Hidden Valley, continued mining the Great Nologwa shaft pillar and completed

the Zaaiploats project feasibility study, which was approved by the technical committee. This is now in execution phase and will be the main focus in FY22.

Joel operation completed its twin-decline project at the end of July 2021, including the installation of a chairlift which enables employees to access 137 level quicker and improve productivity and production at the operation.

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

Key focus areas and actions in FY22:

- Continue to embed a proactive safety culture
- Ensure we meet our operational plans and generate free cash flow
- 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 FY24 and capital expenditure by operation for FY22.

## FY22 production and capital guidance

Operation	Production (oz)	Capital expenditure <sup>1</sup> (Rm)	Life-of-mine (years)
Tshepong Operations	238 000 – 250 000	1 450	20
Moab Khotsong <sup>2</sup>	227 000 – 239 000	1 339	24
Mponeng	209 000 – 220 000	742	8
Bambanani	60 000 – 63 000	87	3
Doornkop	119 000 – 125 000	738	14
Joel	54 000 – 60 000	242	9
Target 1	59 000 – 68 000	398	7
Kusasaletu	126 000 – 133 000	270	3
Masimong	62 000 – 65 000	59	1.5
<b>Underground operations – total<sup>3</sup></b>	<b>1 154 000 – 1 223 000</b>	<b>5 325</b>	
South African surface operations (tailings and waste rock dumps)	~115 000	316	14+
Mine Waste Solutions	85 000 – 89 000	863	17
Kalgold	40 000 – 42 000	65	12
Hidden Valley <sup>4</sup>	153 000 – 161 000	1 460	6
<b>Total</b>	<b>~1.540 – 1.630Moz</b>	<b>8 029</b>	

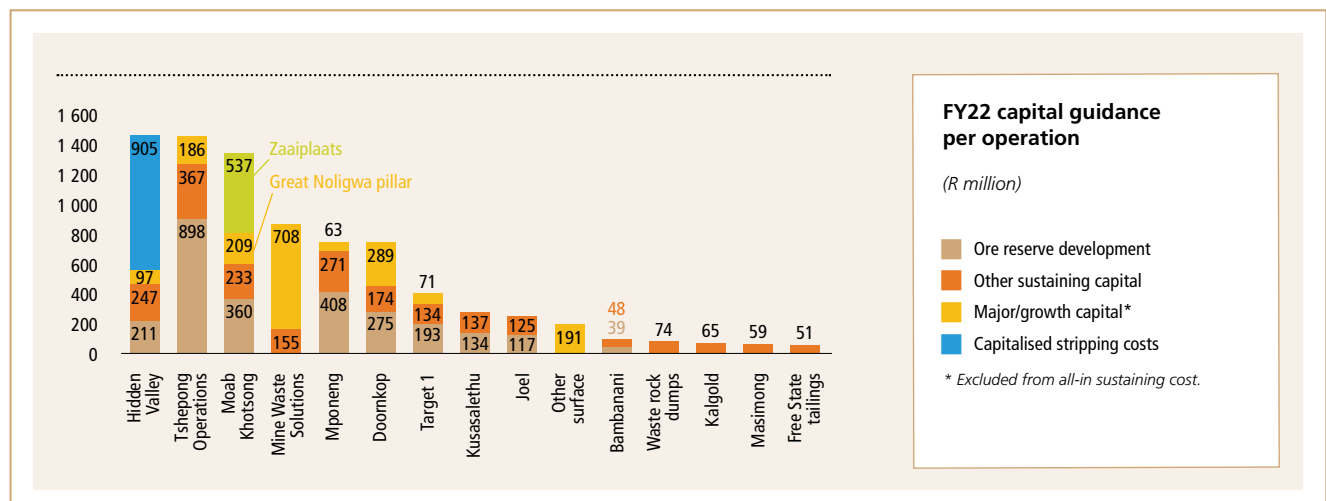
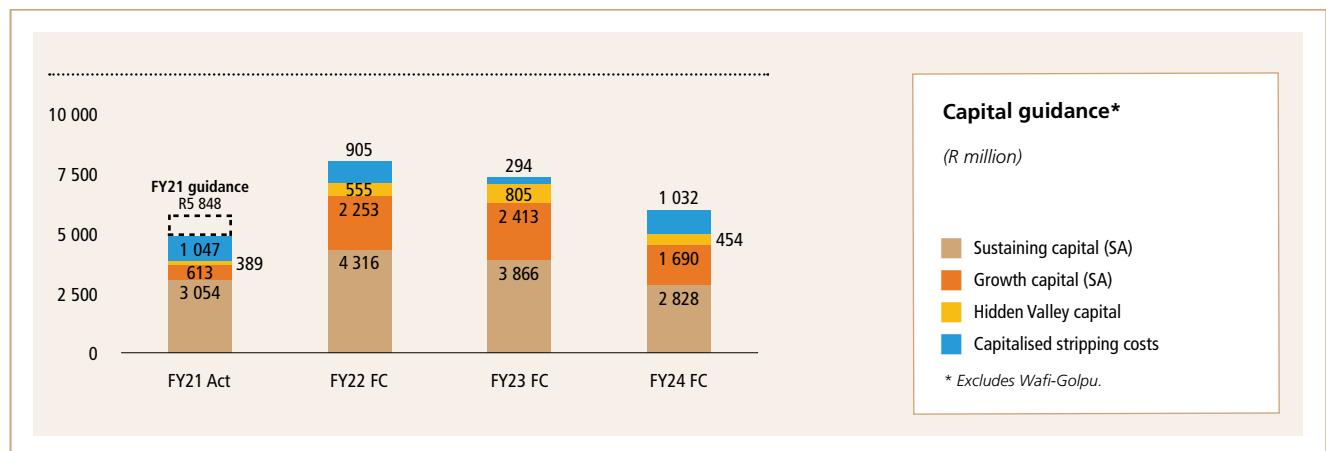
<sup>1</sup> Excludes Wafi-Golpu.

<sup>2</sup> Includes Zaaipplaats life-of-mine and capital expenditure of R537 million.

<sup>3</sup> At an underground recovered grade of ~5.40g/t to 5.57g/t.

<sup>4</sup> Includes capitalised stripping costs.

## Forecast capital expenditure to FY24 and capital expenditure by operation for FY22





## PERFORMANCE BY OPERATION

### South Africa – underground operations

We are pleased to report our operations have regained most of their flexibility and expect to see improved production at most of our underground operations. While Target 1 remains a challenge after dual pillar failures and backfill dilution, we are continuing our capitalisation project to bring infrastructure closer to the mining areas. Improved production results are expected once these projects are complete and we start mining the higher-grade ore again.

### South Africa – surface operations

Harmony has one of the largest surface-source operations in the world, with close to 300 000oz of low-risk, low-cost gold ore to mine. With a planned combined life-of-mine of over 17 years, our surface operations include Kalgold, Phoenix, Central Plant Reclamation and the waste-rock dumps as well as the acquired Mine Waste Solutions and Kopanang plant in the review period. Kalgold is regaining flexibility after prioritising the mining of high-grade ore during the Covid-19 lockdowns.



*Mponeng ice plant.*



## Papua New Guinea – opencast operations

Hidden Valley's FY21 gold production declined 4% to 4 689kg (150 755oz) from 4 872kg (156 639oz) in FY20, and silver production decreased 32% to 63 482kg or 2 040 994oz from 93 858kg (3 017 620oz). Gold and silver production were impacted by the Covid-19 outbreak and related international travel restrictions and operational constraints, in addition to mechanical repairs required for some major infrastructure. Despite these events, production profit was 10% higher, driven by a 10% improvement in recovered gold grade to 1.37g/t from 1.25g/t in FY20 and a 12% higher gold price received of R847 027/kg (US\$1 711/oz) compared to R757 348/kg (US\$1 504/oz) in FY20.

Operating free cash flow rose 28% to R1 117 million compared to R871 million in FY20. Hidden Valley's mining lease extension was granted by the Papua New Guinea government for a further five years from March 2025 to March 2030. This extension affirms Harmony's established relationship with government. The Hidden Valley extension project will result in an extended mine life to 2027 with expected production of 975 000oz of gold and 13Moz of silver over the life-of-mine. The project will be cash flow positive for its duration.



Service truck, Hidden Valley.

## PERFORMANCE BY OPERATION continued

### South Africa – underground operation Tshepong Operations

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		8 292	8 224	8 091
– Contractors		872	792	724
<b>Total</b>		<b>9 164</b>	<b>9 016</b>	<b>8 815</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	1 558	1417	1 612
	(000t) (imperial)	1 718	1 562	1 777
Gold produced	(kg)	7 419	7 293	7 967
	(oz)	238 526	234 475	256 146
Gold sold	(kg)	7 353	7 399	7 922
	(oz)	236 404	237 882	254 698
Grade	(g/t)	4.76	5.15	4.94
	(oz/t)	0.139	0.150	0.144
Productivity	(g/TEC)	74.59	73.24	84.62
Development results				
– Total metres		20 813	17 551	23 259
– Reef metres		2 385	3 131	3 323
– Capital metres		1 000	140	809
<b>Financial</b>				
Revenue	(Rm)	6 214	5 452	4 685
	(US\$m)	403	348	330
Average gold price received	(R/kg)	845 031	736 863	591 331
	(US\$/oz)	1 707	1 463	1 297
Cash operating cost	(Rm)	4 919	4 252	4 008
	(US\$m)	319	271	283
Production profit	(Rm)	1 349	1 154	712
	(US\$m)	87	74	50
Capital expenditure	(Rm)	1 112	930	1 130
	(US\$m)	72	59	80
Operating free cash flow <sup>1</sup>	(Rm)	183	270	(453)
	(US\$m)	12	17	(32)
Cash operating cost	(R/kg)	663 030	583 018	503 033
	(US\$/oz)	1 339	1 158	1 103
All-in sustaining cost	(R/kg)	815 333	713 202	636 281
	(US\$/oz)	1 647	1 416	1 396
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		2	2	4
Lost-time injury frequency rate	per million hours worked	5.44	5.05	7.75
<b>Environment</b>				
Electricity consumption	(GWh)	566	549	466
Water consumption – primary activities	(MI)	2 940	2 813	2 778
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	590	581	535
Intensity data per tonne treated				
– Energy		0.36	0.39	0.29
– Water		1.89	1.98	1.72
– Greenhouse gas emissions		0.38	0.41	0.33
Number of reportable environmental incidents		–	–	–
<b>Community</b>				
Local economic development	(Rm)	19	32	18
Training and development	(Rm)	86	94	86

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## 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"> <li>• New order mining right – December 2007</li> <li>• ISO 14001</li> <li>• ISO 9001.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

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)
	20	5.77	116	4.7	4.46	21	24.7	5.53	137
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	22.1	0.168	3 722	5.2	0.130	672	27.3	0.161	4 394

## Overview of operations

Tshepong Operations is a deep-level underground mining operation in the Free State, near the town of Welkom, some 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 proximity of these two mines has allowed for the integration of operations, in turn facilitating the use of excess hoisting capacity and underused infrastructure at Tshepong section and debottlenecking Phakisa's restrained infrastructure. Given that Tshepong Operations 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 newer Phakisa section uses the conventional undercut and opencut mining method. Rock from Phakisa is transported via a railveyor system to 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 mined as a high-grade secondary reef. Mining is conducted at depths of 1 500m to 2 300m. Ore mined is processed at the Harmony One plant, with gold recovered using the gold cyanide leaching process.

## Operating performance FY21

Regrettably, there were three fatalities at the Tshepong Operations in FY21, two in the second quarter and one in the third quarter. We focused on fall-of-ground golden controls, installing additional permanent steel netting and finding a solution to secure these nets close to the face using blast on support to eliminate further fall-of-ground injuries. The lost-time injury frequency rate deteriorated 8% to 5.44 per million hours worked (FY20: 5.05). The management team remains committed to improving the safety performance of the operation. Refer to **Safety and health** in the **ESG report** for more information on the causes of injury and management's safety approach.

In FY21, Tshepong Operations was the group's largest contributor of gold production (16%) and the fourth-largest in production profit (11%). Higher productivity and improved mining efficiencies were achieved as there were no interruptions as a result of lockdowns in FY21. Gold production and volume of ore milled increased 2% to 7 419kg (238 526oz) (FY20: 7 293kg, 234 475oz) and 10% to 1 558 tonnes (FY20: 1 417 tonnes) respectively, mainly due to improved mining efficiencies, as there was an 8% decrease in underground recovered grade to 4.76g/t (FY20: 5.15g/t).

Revenue rose 14% to R6 214 million (FY20: R5 452 million) mainly due to the 15% increase in average gold price to R845 031/kg (FY20: R736 863/kg). Cash operating costs were up 16% to R4 919 million (FY20: R4 252 million) mainly due to annual wages and electricity tariff increases as well as additional crews to improve production. Capital expenditure increased 20% to R1 112 million (FY20: R930 million) mainly for ongoing development and plant optimisation. Operating free cash flow of R183 million was recorded in FY21 compared to R270 million in FY20, reflecting high cash operating costs and capital expenditure relative to a moderate revenue increase.

## Outlook for FY22

The key focus for FY22 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. The safety of employees will remain a top priority.





## PERFORMANCE BY OPERATION continued

### South Africa – underground operation **Moab Khotsoeng**

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		5 369	5 343	5 421
– Contractors		840	1 086	1 036
<b>Total</b>		<b>6 209</b>	<b>6 551</b>	<b>6 457</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	903	746	970
	(000t) (imperial)	995	822	1 069
Gold produced	(kg)	7 166	6 592	7 928
	(oz)	230 391	211 938	254 891
Gold sold	(kg)	7 095	6 799	7 794
	(oz)	228 109	218 592	250 583
Grade	(g/t)	7.94	8.84	8.17
	(oz/t)	0.232	0.258	0.238
Productivity	(g/TEC)	109.73	102.76	120.67
Development results				
– Total metres		6981	8 815	10 472
– Reef metres		1 144	1 173	1 202
– Capital metres		2 070	1 363	1 432
<b>Financial</b>				
Revenue	(Rm)	6 048	5 008	4 470
	(US\$m)	393	320	315
Average gold price received	(R/kg)	852 392	736 533	573 522
	(US\$/oz)	1 722	1 463	1 258
Cash operating cost	(Rm)	3 846	3 283	3 167
	(US\$m)	250	210	223
Production profit	(Rm)	2 206	1 664	1 369
	(US\$m)	144	106	96
Capital expenditure	(Rm)	633	498	559
	(US\$m)	41	32	39
Operating free cash flow <sup>1</sup>	(Rm)	1 569	1 228	745
	(US\$m)	102	78	53
Cash operating cost	(R/kg)	536 710	497 953	399 414
	(US\$/oz)	1 084	989	876
All-in sustaining cost	(R/kg)	626 795	566 942	477 581
	(US\$/oz)	1 266	1 126	1 048
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		1	1	1
Lost-time injury frequency rate	per million hours worked	7.92	7.95	9.75
<b>Environment<sup>2</sup></b>				
Electricity consumption	(GWh)	757	738	766
Water consumption – primary activities	(MI)	6 191	5 975	6 898
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	903	784	700
Intensity data per tonne treated				
– Energy		0.84	0.99	0.79
– Water		6.86	8.01	7.11
– Greenhouse gas emissions		0.87	0.81	0.72
Number of reportable environmental incidents <sup>3</sup>		1	–	–
<b>Community</b>				
Local economic development	(Rm)	10	22	19
Training and development	(Rm)	58	56	48

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

<sup>2</sup> Note: figures include Nufcor.

<sup>3</sup> Figures include reportable incidents in Zaaiplaats.

## Moab Khotsonq continued

Other salient features	
Status of operation	Steady-state operation with a growth project
Life-of-mine	24 years (including Zaaiplaats)
Nameplate hoisting capacity (per month)	160 000 tonnes (176 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right</li> <li>• ISO 14001.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

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)
	2.9	7.77	23	12.3	8.89	109	15.2	8.67	132
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	0.227	727	13.6	0.259	3 518	16.8	0.253	4 245

## Overview of operations

Moab Khotsonq is a deep-level mine near the towns of Orkney and Klerksdorp, some 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 Khotsonq 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 execution 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 FY21

We deeply regret to report that one employee lost his life in a mining-related incident in FY21. 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 Khotsonq. Refer to **Safety and health** in the **ESG report** for more on causes of injury and management's safety approach.

The volume of ore milled increased 21% to 903 000 tonnes (FY20: 746 000 tonnes), mainly due to re-accessing the operation's highest-grade section for the full year after it was affected by seismic activity in FY20 and had to be rehabilitated. Gold production rose 9% to 7 166kg (230 391oz) (FY20: 6 592kg, 211 938oz) despite a 10% decrease in underground grade recovered to 7.94g/t (FY20: 8.84g/t), offset by higher productivity and improved mining efficiencies given no interruptions due to national lockdowns.

The mine is the group's second-largest gold operation (contributing 15% of total production) and the largest contributor to operating free cash flow. Revenue increased 21% to R6 048 million (FY20: R5 008 million), mainly due to the average gold price received rising 16% to R852 392/kg (FY20: R736 533/kg). Cash operating costs were 17% higher at R3 846 million (FY20: R3 283 million), mainly due to wages and electricity tariff increases. Capital expenditure rose 27% to R633 million (FY20: R498 million), mainly for ongoing development that includes infrastructure to extract and mine the pillar in Great Nologwa. Operating cash free flows of R1 569 million were recorded in FY21 compared to R1 228 million in FY20, reflecting a higher increase in revenue versus a marginal increase in capital and operating costs.

A notable outcome of FY21 was the completion of the Great Nologwa pillar extraction feasibility study. This went onto project-implementation stage, with construction of the second 73-76 level rock-transfer system completed and commissioned in the third quarter and handed over to production. Harmony has extensive pillar-mining expertise which is being used to develop the infrastructure for extracting and mining the pillar.

## Outlook for FY22

With 24 years' (including Zaaiplaats) life-of-mine left, the focus in FY22 will be to improve our safety performance; increase mining face lengths and achieve the reserve grade. Planned capital expenditure for FY22 related to the Zaaiplaats project will be R537 million. The project is expected produce 7 000kg (225 000oz) per annum at a grade of 9g/t and should reach full production by FY32.

# PERFORMANCE BY OPERATION continued

## South Africa – underground operation Mponeng

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		4 650		
– Contractors		658		
<b>Total</b>		<b>5 308</b>		
<b>Operational</b>				
Volumes milled	(000t) (metric)	683		
	(000t) (imperial)	753		
Gold produced	(kg)	5 446		
	(oz)	175 092		
Gold sold	(kg)	5 299		
	(oz)	170 367		
Grade	(g/t)	7.97		
	(oz/t)	0.233		
Productivity	(g/TEC)	124.95		
Development results				
– Total metres		6 299		
– Reef metres		815		
– Capital metres		–		
<b>Financial</b>				
Revenue	(Rm)	4 750		
	(US\$m)	308		
Average gold price received	(R/kg)	896 474		
	(US\$/oz)	1 811		
Cash operating cost	(Rm)	2 902		
	(US\$m)	188		
Production profit	(Rm)	1 812		
	(US\$m)	117		
Capital expenditure	(Rm)	493		
	(US\$m)	32		
Operating free cash flow <sup>1</sup>	(Rm)	1 356		
	(US\$m)	88		
Cash operating cost	(R/kg)	532 812		
	(US\$/oz)	1 076		
All-in sustaining cost	(R/kg)	659 760		
	(US\$/oz)	1 333		
Average exchange rate	(R/US\$)	15.40		
<b>Safety</b>				
Number of fatalities		–		
Lost-time injury frequency rate	per million hours worked	8.09		
<b>Environment</b>				
Electricity consumption	(GWh)	680		
Water consumption – primary activities	(MI)	2 250		
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	708		
Intensity data per tonne treated				
– Energy		1		
– Water		3.29		
– Greenhouse gas emissions		1.04		
Number of reportable environmental incidents		–		
<b>Community</b>				
Local economic development	(Rm)	1		
Training and development	(Rm)	11		

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

The results and figures in the table above are for the nine months from 1 October 2020 to 30 June 2021.



## Mponeng continued

Other salient features	
Status of operation	Steady-state operation: development continues
Life-of-mine	Eight years
Nameplate hoisting capacity (per month)	165 000 tonnes (182 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right</li> <li>• ISO 14001.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

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)
	1.9	8.72	17	5.8	8.47	49	7.7	8.53	65
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	2.1	0.254	535	6.3	0.247	1 569	8.5	0.249	2 104

## Overview of operations

Mponeng is a deep-level mine near the town of Carletonville, some 90km south-west of Johannesburg. The mine, which began producing in 1986, was acquired from AngloGold Ashanti Limited in October 2020.

The orebody is extracted mostly by breast-mining methods with associated waste mining in addition to the reef being extracted. The dilution from these waste sources is captured and incorporated in the tonnage calculation, with historical performance being the benchmark. The mine exploits the Ventersdorp Contact Reef as its primary orebody. The economic reef horizons are mined between 3 160m and 3 740m below surface. Ore mined is processed at the Mponeng gold plant. The plant uses the conventional gold leach method, with gold recovered through carbon-in-pulp technology.

## Operating performance FY21

The acquisition of Mponeng in October 2020 met Harmony's strategic objective of enhancing the quality of its asset portfolio and increasing margins. Its inclusion for nine months of the financial year boosted group production and free cash flow.

Mponeng is the group's second-largest contributor to operating free cash flows. In FY21, Mponeng processed 683 000 tonnes, producing 5 446kg (175 092oz) of gold at an underground recovered grade of 7.97g/t, making it the third-largest contributor to the group's gold production in the nine months from October 2020 to June 2021.

As a result of an exceptional average gold price received of R896 474/kg and high gold production, Mponeng recorded revenue of R4 750 million. It incurred cash operating costs of R2 902 million and capital expenditure of R493 million, mainly due to integration costs and ongoing development for plant optimisation.

The integration of Mponeng included the transfer of Harmony's existing accounting and payroll systems. This was successfully completed by year end.

## Outlook for FY22

Management is focused on optimising costs and efficiencies to further enhance the performance of Mponeng, while safety remains a priority.

## PERFORMANCE BY OPERATION continued

### South Africa – underground operation **Bambanani**

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		1 508	1 561	1 513
– Contractors		131	129	157
<b>Total</b>		<b>1 639</b>	<b>1 690</b>	<b>1 661</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	227	200	230
	(000t) (imperial)	250	221	254
Gold produced	(kg)	1 992	2 132	2 515
	(oz)	64 044	68 545	80 860
Gold sold	(kg)	1 975	2 162	2 495
	(oz)	63 498	69 510	80 216
Grade	(g/t)	8.78	10.66	10.93
	(oz/t)	0.256	0.310	0.318
Productivity	(g/TEC)	107.37	112.43	135.22
Development results				
– Total metres		1 414	1 184	1 173
– Reef metres		–	–	–
– Capital metres		–	–	–
<b>Financial</b>				
Revenue	(Rm)	1 687	1 591	1 477
	(US\$m)	110	102	104
Average gold price received	(R/kg)	854 392	735 972	591 962
	(US\$/oz)	1 726	1 461	1 299
Cash operating cost	(Rm)	1 168	1 025	985
	(US\$m)	76	65	69
Production profit	(Rm)	531	551	483
	(US\$m)	35	36	34
Capital expenditure	(Rm)	71	50	61
	(US\$m)	5	3	4
Operating free cash flow <sup>1</sup>	(Rm)	448	517	431
	(US\$m)	29	33	30
Cash operating cost	(R/kg)	586 588	480 620	391 550
	(US\$/oz)	1 185	954	859
All-in sustaining cost	(R/kg)	641 426	522 990	441 226
	(US\$/oz)	1 295	1 039	968
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		2	–	1
Lost-time injury frequency rate	per million hours worked	2.7	2.71	2.65
<b>Environment</b>				
Electricity consumption	(GWh)	133	132	146
Water consumption – primary activities	(MI)	1 024	1 120	1 470
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	138	140	133
Intensity data per tonne treated				
– Energy		0.58	0.66	0.63
– Water		4.51	5.6	6.39
– Greenhouse gas emissions		0.61	0.7	0.57
Number of reportable environmental incidents		–	1	–
<b>Community</b>				
Local economic development	(Rm)	4	8	4
Training and development	(Rm)	22	23	26

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Bambanani continued

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

## Mineral Reserve estimates at 30 June 2021

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	8.48	5	–	–	–	0.6	8.48	5
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	0.247	152	–	–	–	0.6	0.247	152

## Overview of operations

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

Bambanani is in the final stages of its life-of-mine (three years remaining) and mining is limited to extraction of the high-grade shaft pillar. Mining is conducted to a depth of 2 219m, exploiting predominantly the Basal Reef. 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 rehabilitating areas with challenging ground conditions.

## Operating performance FY21

Regrettably there were two fatalities in FY21, one in the first quarter and one in the third quarter. The management team remains committed to improving safety performance as a priority. Refer to **Safety and health** in the **ESG report** for more on the causes of injury and management's safety approach.

Gold production decreased 7% to 1 992kg (64 044oz) (FY20: 2 132kg, 68 545oz), mainly due to an 18% decrease in the underground recovered grade to 8.78g/t (FY20: 10.66g/t) affected by challenging mining conditions in higher grade areas. An extensive drilling programme has been scheduled to investigate the extent of these conditions. Ore milled increased by 14% to 227 000 tonnes (FY20: 200 000 tonnes). The lower gold production was offset by an increase in the average gold price received to R854 392/kg (FY20 R735 972/kg), resulting in a 6% increase in revenue to R1 687 million (FY20: R1 591 million).

Cash operating costs increased 14% to R1 168 million (FY20: R1 025 million), mainly due to annual wage increases and electricity tariff increases. Capital expenditure rose 42% to R71 million (FY20: R50 million), mainly due to ongoing development and deferred capital expenditure from the national lockdown in FY20 which interrupted operations. Operating free cash flows of R448 million in FY21, compared to R517 million in FY20, reflect the high increase in capital expenditure as well as cash operating costs.

## Outlook for FY22

Given that the operation is nearing the end of its life-of-mine, the key focus in FY22 will be to continue mining the remaining shaft pillar in a safe and productive manner.



## PERFORMANCE BY OPERATION continued

### South Africa – underground operation **Doornkop**

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		3 374	3 249	3 133
– Contractors		772	585	751
<b>Total</b>		<b>4 146</b>	<b>3 924</b>	<b>3 884</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	851	681	730
	(000t) (imperial)	938	750	805
Gold produced	(kg)	3 670	2 994	3 273
	(oz)	117 993	96 259	105 229
Gold sold	(kg)	3 603	3 038	3 255
	(oz)	115 839	97 673	104 650
Grade	(g/t)	4.31	4.40	4.48
	(oz/t)	0.126	0.128	0.131
Productivity	(g/TEC)	89.14	74.83	85.07
Development results				
– Total metres		6 271	6 042	8 834
– Reef metres		1 713	1 474	1 621
– Capital metres		1 149	315	497
<b>Financial</b>				
Revenue	(Rm)	3 077	2 270	1 931
	(US\$m)	200	145	136
Average gold price received	(R/kg)	853 957	747 282	593 301
	(US\$/oz)	1 725	1 484	1 302
Cash operating cost	(Rm)	2 186	1 699	1 593
	(US\$m)	142	109	112
Production profit	(Rm)	937	540	367
	(US\$m)	61	35	26
Capital expenditure	(Rm)	425	281	308
	(US\$m)	28	18	22
Operating free cash flow <sup>1</sup>	(Rm)	466	290	30
	(US\$m)	30	19	2
Cash operating cost	(R/kg)	595 550	567 632	486 795
	(US\$/oz)	1 203	1 127	1 068
All-in sustaining cost	(R/kg)	680 524	649 041	572 132
	(US\$/oz)	1 374	1 289	1 255
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		1	1	2
Lost-time injury frequency rate	per million hours worked	6.89	6.1	5.22
<b>Environment</b>				
Electricity consumption	(GWh)	212	204	212
Water consumption – primary activities	(MI)	787	665 <sup>2</sup>	266
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	222	217	193
Intensity data per tonne treated				
– Energy		0.25	0.3	0.29
– Water		0.92	0.98	0.36
– Greenhouse gas emissions		0.26	0.32	0.26
Number of reportable environmental incidents		–	–	–
<b>Community</b>				
Local economic development	(Rm)	6	9	8
Training and development	(Rm)	53	41	46

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Doornkop continued

Other salient features	
Status of operation	Mining takes place on the South Reef at this single-shaft operation
Life-of-mine	14 years
Nameplate hoisting capacity (per month)	103 000 tonnes (113 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right – October 2008</li> <li>• ISO 14001</li> <li>• ISO 9001</li> <li>• OHSAS 18001</li> <li>• Cyanide code certified.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

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)
	6.0	4.73	29	4.4	4.17	19	10.5	4.49	47
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	6.7	0.138	918	4.9	0.122	596	11.5	0.131	1 513

## Overview of operations

Doornkop is a deep-level single-shaft operation in Gauteng, some 30km west of Johannesburg, on the northern rim of the Witwatersrand Basin. While a mature operation, it still has 14 years life-of-mine remaining.

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

## Operating performance FY21

Regrettably, there was one fatality at the Doornkop plant in the first quarter of FY21. The lost-time injury frequency rate deteriorated 13% to 6.89 per million hours worked in FY21 (FY20: 6.1), and the management team remains committed to improving safety performance. Refer to **Safety and health** in the **ESG report** for more on causes of injury and management's safety approach.

There was a 25% increase in volumes milled to 851 000 tonnes (FY20: 681 000 tonnes) despite a slight decrease in underground recovered grade of 2% to 4.31g/t. The operation achieved a 23% increase in gold production to 3 670kg (117 993oz) (FY20: 2 994kg,

96 259oz) in FY21, the highest in more than ten years, on improved operating efficiencies. Higher production is a direct benefit of capital expenditure, which increased 51% to R425 million (FY20: R281 million), mainly for plant optimisation and ongoing development as lockdown regulations did not interrupt operations in the review period.

Revenue rose 36% to R3 077 million (FY20: R 2 270 million), reflecting the substantial increase in production and 14% rise in the gold price to R853 957/kg (FY20: R747 282/kg). Cash operating costs were 29% higher at R2 186 million (FY20: R1 699 million) mainly due to annual wages, electricity tariff increases and additional crews to improve production.

## Outlook for FY22

Achieving planned development targets to enable the life-of-mine production build-up and enhance mining flexibility will remain the priority for FY22. A focus on safety, development and disciplined mining will ensure we achieve our production targets at this mine.



## PERFORMANCE BY OPERATION continued

### South Africa – underground operation Joel

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		1 823	1 883	1 867
– Contractors		209	131	115
<b>Total</b>		<b>2 032</b>	<b>2 014</b>	<b>1 982</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	359	349	429
	(000t) (imperial)	396	384	473
Gold produced	(kg)	1 424	1 391	1 567
	(oz)	45 783	44 722	50 379
Gold sold	(kg)	1 414	1 412	1 612
	(oz)	45 461	45 397	51 827
Grade	(g/t)	3.97	3.99	3.65
	(oz/t)	0.116	0.116	0.107
Productivity	(g/TEC)	63.97	64.01	78.1
Development results				
– Total metres		3 397	2 734	3 378
– Reef metres		1 806	832	1 288
– Capital metres		–	–	–
<b>Financial</b>				
Revenue	(Rm)	1 199	1 037	957
	(US\$m)	78	66	67
Average gold price received	(R/kg)	848 131	734 620	593 531
	(US\$/oz)	1 713	1 459	1 302
Cash operating cost	(Rm)	1 135	999	967
	(US\$m)	74	64	68
Production profit	(Rm)	75	27	(14)
	(US\$m)	5	2	(2)
Capital expenditure	(Rm)	172	151	187
	(US\$m)	11	10	13
Operating free cash flow <sup>1</sup>	(Rm)	(108)	(113)	(197)
	(US\$m)	(7)	(8)	(14)
Cash operating cost	(R/kg)	796 982	718 024	617 116
	(US\$/oz)	1 610	1 426	1 354
All-in sustaining cost	(R/kg)	936 296	826 970	701 644
	(US\$/oz)	1 891	1 642	1 539
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	3.42	2.03	3.16
<b>Environment</b>				
Electricity consumption	(GWh)	88	85	87
Water consumption – primary activities	(MI)	907	853	838
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	92	90	80
Intensity data per tonne treated				
– Energy		0.25	0.24	0.2
– Water		0.92	2.44	1.95
– Greenhouse gas emissions		0.26	0.26	0.19
Number of reportable environmental incidents		–	–	–
<b>Community</b>				
Local economic development <sup>2</sup>	(Rm)	4	6	4
Training and development	(Rm)	19	18	19

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.



## Joel continued

Other salient features	
Status of operation	Twin-shaft operation – technically challenging, decline project completed
Life-of-mine	Nine years
Nameplate hoisting capacity (per month)	60 000 tonnes (83 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right – December 2007</li> <li>• ISO 14001</li> <li>• ISO 9001</li> <li>• SAS 18001.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

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)
	2.6	5.00	13	1.5	4.50	7	4.1	4.82	20
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	2.9	0.146	423	1.6	0.131	215	4.5	0.141	639

## Overview of operations

Joel is a twin-shaft mining operation in the Free State, some 290km south-west of Johannesburg, on the southern edge of the Witwatersrand Basin.

A pre-developed scattered mining system is used. This enables unpay and geologically complex areas to be left unmined, while considering 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 mined is the narrow tabular Beatrix Reef deposit, 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 FY21

In FY21, gold production increased by 2% to 1 424kg (45 783oz) (FY20: 1 391kg, 44 722oz) while volume of ore milled rose 3% to 359 000 tonnes (FY20: 349 000 tonnes), despite a 1% decrease in the recovered grade to 3.97g/t (FY20: 3.99g/t). This was offset by higher productivity and improved mining efficiencies as the national lockdown did not interrupt operations in FY21.

The exceptional rise in the gold price by 15% to R848 131/kg (FY20: R734 620/kg) increased revenue to R1 199 million, which is also a 16% increase on R1 037 million in FY20. Cash operating costs rose 14% to R1 135 million (FY20: R999 million), mainly due to annual wage and electricity tariff increases. Capital expenditure was 14% higher at R172 million (FY20: R151 million), reflecting expenditure that was interrupted during the national lockdown in April 2020 and subsequent phased start-up of operations.

Joel had a fatality-free year, continuing its good safety record.

Another notable achievement during the year was completion of the 137 decline project in July 2021, which is expected to improve productivity in the 137 level from FY22. The decline project was initiated to extend the life of Joel by eight to nine years and is included in the current life-of-mine plan of nine years.

## Outlook for FY22

The key focus areas in FY22 will be our development plan to open reserves, as well as ongoing exploration drilling to identify new reserves below 137 level and in the Klippan area. This is expected to increase volumes and grade output, resulting in a safe and profitable FY22.

## PERFORMANCE BY OPERATION continued

### South Africa – underground operation

#### Target 1

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		1 550	1 682	1 604
– Contractors		315	380	335
<b>Total</b>		<b>1865</b>	<b>2 062</b>	<b>1 939</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	488	543	588
	(000t) (imperial)	537	598	650
Gold produced	(kg)	1 603	2 244	2 653
	(oz)	51 536	72 146	85 296
Gold sold	(kg)	1 619	2 237	2 685
	(oz)	52 052	71 921	86 324
Grade	(g/t)	3.28	4.13	4.51
	(oz/t)	0.096	0.121	0.131
Productivity	(g/TEC)	76.55	108.58	132.94
Development results				
– Total metres		2211	2 152	3 378
– Reef metres		368	96	118
– Capital metres		96	191	179
<b>Financial</b>				
Revenue	(Rm)	1 410	1 524	1 585
	(US\$m)	92	97	112
Average gold price received	(R/kg)	870 640	681 388	590 298
	(US\$/oz)	1 758	1 353	1 295
Cash operating cost	(Rm)	1 662	1 505	1 478
	(US\$m)	108	96	104
Production profit	(Rm)	(257)	25	94
	(US\$m)	(16)	1	7
Capital expenditure	(Rm)	368	347	297
	(US\$m)	24	22	21
Operating free cash flow <sup>1</sup>	(Rm)	(621)	(327)	(190)
	(US\$m)	(40)	(21)	(13)
Cash operating cost	(R/kg)	1 037 115	670 647	557 264
	(US\$/oz)	2 095	1 332	1 222
All-in sustaining cost	(R/kg)	1 232 098	817 066	662 816
	(US\$/oz)	2 488	1 623	1 454
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		1	–	–
Lost-time injury frequency rate	per million hours worked	9.99	9.62	6.35
<b>Environment</b>				
Electricity consumption	(GWh)	219	212	173
Water consumption – primary activities	(MI)	597	471	474
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	232	229	162
Intensity data per tonne treated				
– Energy		0.45	0.39	0.29
– Water		1.22	0.87	0.81
– Greenhouse gas emissions		0.48	0.42	0.28
Number of reportable environmental incidents		–	–	–
<b>Community</b>				
Local economic development	(Rm)	4	8	6
Training and development	(Rm)	40	38	45

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Target 1 continued

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

## Mineral Reserve estimates at 30 June 2021

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)
	2.9	4.46	13	1.8	3.89	7	4.7	4.24	20
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	0.130	416	2.0	0.113	231	5.2	0.124	647

## Overview of operations

Target 1 is an advanced, single-shaft, deep-level mine in the Free State, some 270km south-west 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 destress areas ahead of mechanised mining. The gold mineralisation currently exploited is contained in a succession of Elsburg and Dreyerskuil quartz pebble conglomerate reefs. These reefs are mined to a depth of around 2 300m below surface. Ore mined is milled and processed at the Target plant, with gold recovered by means of gold cyanide leaching.

## Operating performance FY21

Regrettably, there was one fatality at Target 1 in the third quarter of FY21. The management team remains committed to improving safety performance. Refer to **Safety and health** in the **ESG report** for more on causes of injury and management's safety approach.

Gold production and volume of ore milled respectively decreased by 29% to 1 603kg (51 536oz) (FY20: 2 244kg, 72 146oz) and 10% to 488 000 tonnes (FY20: 543 000 tonnes). This was mainly due to flexibility constraints as a result of pillar failures and backfill dilution in two of the massive stopes. This also affected recovered grade, which deteriorated 21% to 3.28g/t (FY20: 4.13g/t).

The substantial decline in production resulted in an 7% decrease in revenue to R1 410 million (FY20: R1 524 million), despite the 28% increase in average gold price received to R870 640/kg (FY20: R681 388/kg). Cash operating costs rose 10% to R1 662 million (FY20: R1 505 million), mainly due to annual wage and electricity tariff increases.

Capital expenditure increased 6% to R368 million (FY20: R347 million), mainly due to higher capital expenditure on the decline project, ventilation project as well as ongoing development.

## Outlook for FY22

Target 1 is set to achieve higher volumes and grades in FY22, 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 FY22. The project involves moving the rock crusher and related infrastructure and services closer to mining working areas.

## PERFORMANCE BY OPERATION continued

### South Africa – underground operation Kusasaletu

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		3 764	4 237	4 011
– Contractors		496	603	930
<b>Total</b>		<b>4 260</b>	<b>4 840</b>	<b>4 941</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	708	615	742
	(000t) (imperial)	780	678	817
Gold produced	(kg)	3 999	3 015	4 989
	(oz)	128 570	96 934	160 400
Gold sold	(kg)	3 980	3 085	5 028
	(oz)	127 959	99 185	161 653
Grade	(g/t)	5.65	4.90	6.72
	(oz/t)	0.165	0.143	0.196
Productivity	(g/TEC)	81.32	57.08	98.94
Development results				
– Total metres		2 202	3 039	5 437
– Reef metres		282	1 019	1 217
– Capital metres		–	–	–
<b>Financial</b>				
Revenue	(Rm)	3 400	2 293	2 975
	(US\$m)	221	146	210
Average gold price received	(R/kg)	854 201	743 153	591 742
	(US\$/oz)	1 725	1 476	1 298
Cash operating cost	(Rm)	2 969	2 562	2 377
	(US\$m)	193	164	168
Production profit	(Rm)	445	(284)	580
	(US\$m)	29	(19)	41
Capital expenditure	(Rm)	205	188	316
	(US\$m)	13	12	22
Operating free cash flow <sup>1</sup>	(Rm)	226	(458)	282
	(US\$m)	15	(29)	20
Cash operating cost	(R/kg)	742 452	849 782	476 417
	(US\$/oz)	1 500	1 687	1 045
All-in sustaining cost	(R/kg)	814 048	923 054	556 621
	(US\$/oz)	1 644	1 833	1 221
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		2	2	3
Lost-time injury frequency rate	per million hours worked	9.83	10.72	9.05
<b>Environment</b>				
Electricity consumption	(GWh)	636	599	624
Water consumption – primary activities	(MI)	2 832	2 720	3 205
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	661	635	569
Intensity data per tonne treated				
– Energy		0.9	0.97	0.84
– Water		4	4.42	4.32
– Greenhouse gas emissions		0.93	1.03	0.77
Number of reportable environmental incidents		2	–	–
<b>Community</b>				
Local economic development	(Rm)	8	9	9
Training and development	(Rm)	14	38	52

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Kusasaletu continued

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

## Mineral Reserve estimates at 30 June 2021

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)
	1.9	7.51	14	0.3	4.76	1	2.2	7.15	15
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	2.1	0.219	455	0.3	0.139	43	2.4	0.209	498

## Overview of operations

Kusasaletu is a mature, deep-level mine 90km west of Johannesburg, near the border of Gauteng and North West provinces. Mining at a depth of 3 388m with three years' life-of-mine.

The mine comprises twin vertical and twin sub-vertical shaft systems and uses conventional mining methods in a sequential grid layout. It exploits the Ventersdorp Contact Reef as its primary orebody. Ore mined is treated at the Kusasaletu plant.

We believe there are various surface and service synergies in the West Wits area that could unlock value by driving down units costs.

## Operating performance FY21

Tragically, there were two fatalities at Kusasaletu in FY21, in the first and second quarters. The management team remains committed to improving safety performance. Refer to

 **Safety and health** in the **ESG report** for more on causes of injury and management's safety approach.

A 15% increase in underground recovered grade to 5.65g/t (FY20: 4.90g/t) and improved mining efficiencies saw gold production increase substantially by 33% to 3 999kg (128 570oz) (FY20: 3 015kg, 96 934oz), together with a 15% increase in volume of ore milled to 708 000 tonnes (FY20: 615 000 tonnes).

Revenue rose 48% to R3 400 million (FY20: R2 293 million), reflecting high productivity and a 15% increase in average gold price received to R854 201/kg (FY20: R743 153/kg).

Cash operating costs were 16% higher at R2 969 million (FY20: R2 562 million), mainly due to annual wage and electricity tariff increases. Capital expenditure rose 9% to R205 million (FY20: R188 million) for ongoing development. Operating free cash flow of R226 million compares to a negative operating cash flow of R458 million in FY20, mainly due to the 48% increase in revenue versus gradual increase in cash operating cost and capital expenditure.

## Outlook for FY22

The key focus for FY22 will be to improve the mine's operational flexibility, especially on development. Management will also concentrate on achieving high outputs per crew to drive up volume and mine at the reserve grade. The safety of employees remains a priority.



## PERFORMANCE BY OPERATION continued

### South Africa – underground operation **Masimong**

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		1 943	2 083	2 247
– Contractors		121	135	120
<b>Total</b>		<b>2 064</b>	<b>2 218</b>	<b>2 367</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	510	489	602
	(000t) (imperial)	563	539	664
Gold produced	(kg)	2 012	1 999	2 309
	(oz)	64 687	64 269	74 237
Gold sold	(kg)	1 993	2 027	2 291
	(oz)	64 076	65 169	73 657
Grade	(g/t)	3.95	4.09	3.84
	(oz/t)	0.115	0.119	0.112
Productivity	(g/TEC)	81.23	79.22	82.48
Development results				
– Total metres		2 833	2 246	3 167
– Reef metres		1 044	759	765
<b>Financial</b>				
Revenue	(Rm)	1 636	1 401	1 359
	(US\$m)	106	89	96
Average gold price received	(R/kg)	820 780	691 282	593 003
	(US\$/oz)	1 658	1 373	1 301
Cash operating cost	(Rm)	1 440	1 241	1 214
	(US\$m)	94	79	86
Production profit	(Rm)	209	143	154
	(US\$m)	13	9	11
Capital expenditure	(Rm)	29	24	109
	(US\$m)	2	2	8
Operating free cash flow <sup>1</sup>	(Rm)	166	136	36
	(US\$m)	11	8	2
Cash operating cost	(R/kg)	715 835	620 804	525 703
	(US\$/oz)	1 446	1 233	1 153
All-in sustaining cost	(R/kg)	764 577	655 888	593 408
	(US\$/oz)	1 544	1 302	1 302
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	2.86	7.51	5.88
<b>Environment</b>				
Electricity consumption	(GWh)	133	138	161
Water consumption – primary activities	(Ml)	383	510	721
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	139	146	147
Intensity data per tonne treated				
– Energy		0.26	0.28	0.27
– Water		0.75	1.04	1.2
– Greenhouse gas emissions		0.27	0.3	0.24
Number of reportable environmental incidents		1	–	–
<b>Community</b>				
Local economic development	(Rm)	5	11	6
Training and development	(Rm)	23	23	26

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Masimong continued

Other salient features	
Status of operation	Mature, single-shaft operation nearing the end of its life
Life-of-mine	18 months
Nameplate hoisting capacity (per month)	112 000 tonnes (124 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right – December 2007</li> <li>• ISO 14001</li> <li>• ISO 9001</li> <li>• OHSAS 18001.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
Reserves (metric)	0.7	4.37	3	0.03	3.08	0.1	0.8	4.32	3
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	0.8	0.127	105	0.03	0.090	3	0.9	0.126	108

## Overview of operations

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

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

## Operating performance FY21

Gold production increased 1% to 2 012kg (64 687oz) (FY20: 1 999kg, 64 269oz), due to a 4% increase in tonnes milled to 510 000 tonnes (FY20: 489 000 tonnes), countered by a deteriorating underground grade recovered of 3% to 3.95g/t (FY20: 4.09g/t).

The 19% increase in gold price received to R820 780/kg (FY20: R691 282/kg) and slight increase in production contributed to the 17% increase in revenue to R1 636 million (FY20: R1 401 million), despite a marginal decrease in gold sold. This performance was underpinned by a good safety record with no loss-of-life incidents recorded in FY21 as the operations achieved 2 million fatality-free shifts.

Cash operating costs rose 16% to R1 440 million (FY20: R1 241 million) mainly due to annual wage increases and electricity tariff increases. Capital expenditure increased 21% to R29 million (FY20: 24 million), mainly for ongoing development.

## Outlook for FY22

The Masimong management team will focus on maintaining the safety and production performance as life-of-mine was extended by another year.

## PERFORMANCE BY OPERATION continued

### South Africa – underground operation Unisel

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		–	750	880
– Contractors		–	77	52
<b>Total</b>		–	827	932
<b>Operational</b>				
Volumes milled	(000t) (metric)	<b>57</b>	219	256
	(000t) (imperial)	<b>63</b>	242	283
Gold produced	(kg)	<b>247</b>	982	1 212
	(oz)	<b>7 941</b>	31 573	38 966
Gold sold	(kg)	<b>242</b>	994	1 207
	(oz)	<b>7 780</b>	31 958	38 807
Grade	(g/t)	<b>4.33</b>	4.48	4.73
	(oz/t)	<b>0.126</b>	0.130	0.138
Productivity	(g/TEC)	<b>80.40</b>	98.59	110.5
Development results				
– Total metres		–	1 048	2 035
– Reef metres		–	299	1 177
– Capital metres		–	–	–
<b>Financial</b>				
Revenue	(Rm)	<b>224</b>	681	713
	(US\$m)	<b>15</b>	43	50
Average gold price received	(R/kg)	<b>925 979</b>	684 727	590 468
	(US\$/oz)	<b>1 870</b>	1 360	1 295
Cash operating cost	(Rm)	<b>178</b>	573	569
	(US\$m)	<b>12</b>	37	40
Production profit	(Rm)	<b>42</b>	101	149
	(US\$m)	<b>3</b>	6	10
Capital expenditure	(Rm)	–	7	45
	(US\$m)	–	–	3
Operating free cash flow <sup>1</sup>	(Rm)	<b>46</b>	100	99
	(US\$m)	<b>3</b>	6	7
Cash operating cost	(R/kg)	<b>721 271</b>	583 274	469 108
	(US\$/oz)	<b>1 457</b>	1 158	1 029
All-in sustaining cost	(R/kg)	<b>782 126</b>	613 382	523 823
	(US\$/oz)	<b>1 580</b>	1 218	1 149
Average exchange rate	(R/US\$)	<b>15.40</b>	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	<b>1.88</b>	1.66	4.02
<b>Environment</b>				
Electricity consumption	(GWh)	<b>18</b>	51	62
Water consumption – primary activities	(MI)	<b>269</b>	414	367
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	<b>18.45</b>	54	57
Intensity data per tonne treated				
– Energy		<b>0.31</b>	0.23	0.03
– Water		<b>4.72</b>	1.89	0.36
– Greenhouse gas emissions		<b>0.32</b>	0.25	0.04
Number of reportable environmental incidents		–	–	1
<b>Community</b>				
Local economic development	(Rm)	–	4	3
Training and development	(Rm)	<b>3</b>	8	11

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

The FY21 results and figures in the table above are for the four months until 31 October 2020.

## Unisel continued

Other salient features	
Status of operation	Mature operation closed in FY21
Life-of-mine	Closed
Nameplate hoisting capacity (per month)	63 000 tonnes (69 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right – December 2007</li> <li>• ISO 9001.</li> </ul>

### Overview of operations

Unisel is a single-shaft, intermediate-depth mine in the Free State, near Virginia, some 270km south-west of Johannesburg. Having been in production since 1979, Unisel has reached the end of its life, and was closed in the first half of FY21. This mine has served myriad stakeholders in the province well over the past 40 years.

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.

### Operating performance FY21

In FY21, Unisel recorded its sixth consecutive year without a fatality.

Due to the closure of the mine, volume of ore milled decreased 74% to 57 000 tonnes (FY20: 219 000 tonnes) with underground recovered grade deteriorating 3% to 4.33g/t (FY20: 4.48g/t). This resulted in gold production being 75% lower at 247kg (7 941oz) (FY20: 982kg, 31 573oz).

Despite an exceptional 35% rise in the gold price received to R925 979/kg (FY20: R684 727/kg) in the review period, revenue declined 67% to R224 million (FY20: R681 million) after the mine was closed in the second quarter. Operating free cash flow of R46 million was recorded when the shaft was closed, with a 69% decrease in cash operating costs to R178 million. There was no capital expenditure in FY21.

### Outlook for FY22

The mine has reached the end of its life and was closed in the second quarter of FY21.

## PERFORMANCE BY OPERATION continued

### South Africa – surface operation Mine Waste Solutions (tailings retreatment)

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		479		
– Contractors		797		
<b>Total</b>		<b>1 276</b>		
<b>Operational</b>				
Volumes milled	(000t) (metric)	17 665		
	(000t) (imperial)	19 479		
Gold produced	(kg)	2 057		
	(oz)	66 133		
Gold sold	(kg)	2 043		
	(oz)	65 684		
Grade	(g/t)	0.116		
	(oz/t)	0.003		
Productivity	(g/TEC)	302.38		
<b>Financial</b>				
Revenue	(Rm)	1 889		
	(US\$m)	123		
Average gold price received	(R/kg)	729 882		
	(US\$/oz)	1 474		
Cash operating cost	(Rm)	1 036		
	(US\$m)	67		
Production profit	(Rm)	751		
	(US\$m)	49		
Capital expenditure	(Rm)	70		
	(US\$m)	5		
Operating free cash flow <sup>1</sup>	(Rm)	385		
	(US\$m)	25		
Cash operating cost	(R/kg)	503 635		
	(US\$/oz)	1 017		
All-in sustaining cost	(R/kg)	601 978		
	(US\$/oz)	1 216		
Average exchange rate	(R/US\$)	15.40		
<b>Safety</b>				
Number of fatalities		–		
Lost-time injury frequency rate	per million hours worked	4.04		
<b>Environment</b>				
Electricity consumption	(GWh)	142		
Water consumption – primary activities	(Ml)	6 222		
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	154		
Intensity data per tonne treated				
– Energy		0.01		
– Water		0.35		
– Greenhouse gas emissions		0.01		
Number of reportable environmental incidents		1		
<b>Community</b>				
Local economic development	(Rm)	–		
Training and development	(Rm)	1		

<sup>1</sup> Operating free cash flow = revenue – Franco-Nevada non-cash consideration – cash operating cost – capital expenditure as per operating results.

The results and figures in the table above are for the nine months from 1 October 2020 to 30 June 2021.



## Mine Waste Solutions (tailings retreatment) continued

Other salient features	
Status of operation	Tailings retreatment
Life-of-mine	17 years

## Mineral Reserve estimates at 30 June 2021

	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
Reserves (metric)	50.0	0.24	12	164.9	0.26	42	214.9	0.25	54
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	55.1	0.007	390	181.8	0.007	1 358	236.9	0.007	1 749

## Overview of operations

Mine Waste Solutions is a tailings retreatment operation near Klerksdorp in North West province. It reprocesses low-grade material from tailing storage facilities scattered across the Vaal River and Stilfontein area to reduce the tailings footprint.

The operation was acquired from AngloGold Ashanti Limited in October 2020.

Harmony's subsidiary, Chemwes, the owner of Mine Waste Solutions has a contract with Franco-Nevada Barbados (Franco-Nevada) where Franco-Nevada is entitled to receive 25% of all the gold produced through Mine Waste Solutions.

As at 1 October 2020, the balance of gold ounces to be delivered to Franco-Nevada amounted to 100 686oz. Subsequent to 1 October 2020, 16 257oz had been delivered to Franco-Nevada bringing the balance of gold ounces to be delivered as at 30 June 2021 to 84 429oz.

## Operating performance FY21

The acquisition of Mine Waste Solutions in FY21 met Harmony's strategic objective of improving the quality of its asset portfolio and increasing margins. Its integration boosted group production and operating free cash flow in FY21.

Mine Waste Solutions processed 17.7 million tonnes at an underground grade of 0.116g/t, producing 2 057kg (66 133oz) of gold in the nine months to June 2021.

Revenue of R1 889 million reflects high productivity and a healthy average gold price received of R729 882/kg. The operation incurred all-in sustaining costs of R601 978/kg and capital expenditure of R70 million, mainly due to emergency generators, Kareerand East stormwater drain and the Kareerand expansion project.

The integration of Mine Waste Solutions included the transfer of Harmony's existing accounting and payroll systems, successfully completed by year end.

## Outlook for FY22

Management is focused on optimising costs and efficiencies to further enhance performance.

# PERFORMANCE BY OPERATION continued

## South Africa – surface operation Kalgold

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		270	253	238
– Contractors		430	361	346
<b>Total</b>		<b>700</b>	<b>614</b>	<b>584</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	1 507	1 541	1 619
	(000t) (imperial)	1 662	1 700	1 785
Gold produced	(kg)	1 109	1 153	1 249
	(oz)	35 655	37 070	40 156
Gold sold	(kg)	1 112	1 151	1 263
	(oz)	35 752	37 006	40 605
Grade	(g/t)	0.74	0.75	0.77
	(oz/t)	0.021	0.022	0.022
Productivity	(g/TEC)	121.92	128.80	150.85
<b>Financial</b>				
Revenue	(Rm)	955	855	750
	(US\$m)	62	55	53
Average gold price received	(R/kg)	859 070	742 533	593 482
	(US\$/oz)	1 735	1 474	1 302
Cash operating cost	(Rm)	776	674	695
	(US\$m)	50	43	49
Production profit	(Rm)	179	183	50
	(US\$m)	12	12	3
Capital expenditure	(Rm)	208	99	61
	(US\$m)	14	6	4
Operating free cash flow <sup>1</sup>	(Rm)	(36)	84	(4)
	(US\$m)	(2)	6	–
Cash operating cost	(R/kg)	699 546	584 218	556 283
	(US\$/oz)	1 413	1 160	1 220
All-in sustaining cost	(R/kg)	905 253	690 239	624 147
	(US\$/oz)	1 828	1 371	1 369
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	3.21	1.65	0.88
<b>Environment</b>				
Electricity consumption	(GWh)	53	54	54
Water consumption – primary activities	(Ml)	267	307	583
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	75	72	66
Intensity data per tonne treated				
– Energy		0.03	0.04	0.03
– Water		0.18	0.2	0.36
– Greenhouse gas emissions		0.05	0.05	0.04
Number of reportable environmental incidents		–	–	1
<b>Community</b>				
Local economic development	(Rm)	1	8	9
Training and development	(Rm)	6	9	5

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run-of-mine costs as per operating results.

## Kalgold continued

Other salient features	
Status of operation	Open-pit mining operation
Life-of-mine	12 years
Nameplate hoisting capacity (per month)	112 000 tonnes (124 000 tons)
Compliance and certification	<ul style="list-style-type: none"> <li>• New order mining right – August 2008</li> <li>• ISO 14001</li> <li>• ISO 9001.</li> </ul>

## Mineral Reserve estimates at 30 June 2021

	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
Reserves (metric)	6.1	0.93	6	12.5	1.12	14	18.5	1.06	20
	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	6.7	0.027	182	13.7	0.033	449	20.4	0.031	631

## Overview of operations

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

Mining takes place from the A-zone pit, where activities are ramping up at the pillar between the A-zone and Watertank pit. Mined ore is processed at the carbon-in-leach Kalgold plant.

## Operating performance FY21

Kalgold maintained its fatality-free record in FY21.

Gold production decreased 4% to 1 109kg (35 655oz) (FY20: 1 153kg, 37 070oz), due to a 2% drop in ore milled to 1 507 000 tonnes (FY20: 1 541 000 tonnes) and a 1% decrease in recovered grade to 0.74g/t (FY20: 0.75g/t).

Despite lower production, the 16% higher average gold price received in FY21 boosted revenue 12% to R955 million (FY20: R855 million). Cash operating costs increased 15% to R776 million (FY20: R674 million) due to increased annual wages and electricity tariffs.

Capital expenditure rose over 100% to R208 million (FY20: R99 million), mainly for capitalised stripping costs in FY21.

## Outlook for FY22

With a 12-year life-of-mine, the key focus areas in FY22 will be to optimise the pit design to produce safe, profitable ounces by mining the A-zone and Watertank pits. Feasibility studies are underway to potentially expand milling capacity – two options are being considered, one to expand milling capacity by 300 000t a month, the other by 450 000t a month. The results from exploration drilling at Kalgold outline an expanded, robust mineralised system that extends beyond current resource limits. Resource development drilling underway has outlined a mineralised zone that now comprises over 2.1km of strike and extends to more than 300m below surface. The intersections show good continuity of geology and mineralisation, making this an exciting organic growth opportunity for Harmony.

## PERFORMANCE BY OPERATION continued

### South Africa – surface operation Phoenix (tailings retreatment)

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		86	83	87
– Contractors		247	261	249
<b>Total</b>		<b>333</b>	<b>344</b>	<b>336</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	6 190	6 227	6 133
	(000t) (imperial)	6 827	6 866	6 762
Gold produced	(kg)	779	818	756
	(oz)	25 046	26 299	24 306
Gold sold	(kg)	777	823	750
	(oz)	24 982	26 459	24 113
Grade	(g/t)	0.126	0.131	0.123
	(oz/t)	0.004	0.004	0.004
Productivity	(g/TEC)	375.24	385.12	185.84
<b>Financial</b>				
Revenue	(Rm)	620	589	433
	(US\$m)	40	38	31
Average gold price received	(R/kg)	798 310	715 787	577 889
	(US\$/oz)	1 612	1 421	1 268
Cash operating cost	(Rm)	396	363	344
	(US\$m)	26	23	24
Production profit	(Rm)	227	223	92
	(US\$m)	15	14	7
Capital expenditure	(Rm)	4	7	6
	(US\$m)	–	–	–
Operating free cash flow <sup>1</sup>	(Rm)	221	219	83
	(US\$m)	14	14	7
Cash operating cost	(R/kg)	508 162	443 972	455 370
	(US\$/oz)	1 026	882	999
All-in sustaining cost	(R/kg)	511 946	453 937	462 579
	(US\$/oz)	1 034	901	1 015
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	–	–	–
<b>Environment</b>				
Electricity consumption	(GWh)	41	40	41
Water consumption – primary activities	(Ml)	305	320	304
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	43	43	37
Intensity data per tonne treated				
– Energy		0.01	0.01	0.007
– Water		0.05	0.05	0.05
– Greenhouse gas emissions		0.01	0.01	0.006
Number of reportable environmental incidents		1	–	1

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Phoenix (tailings retreatment) continued

Other salient features	
Status of operation	Tailings retreatment
Life-of-mine	Seven years

## Mineral Reserve estimates at 30 June 2021

	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
Reserves (metric)	42.6	0.28	12	–	–	–	42.6	0.28	12
	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
Reserves (imperial)	46.9	0.008	385	–	–	–	46.9	0.008	385

## Overview of operations

Phoenix is a tailings retreatment operation in Virginia, Free State.

It retreats tailings from Harmony's tailings storage facilities in the Free State region to extract any residual gold, using the Zaaipplaats plant. It is 100% owned by the black economic empowerment company, Tswelopele Beneficiation Operation Proprietary Limited, of which Harmony is a 76% shareholder.

## Operating performance FY21

With its safety performance intact, Phoenix continued to improve its operating performance by increasing volumes processed and containing costs.

Gold production decreased 5% to 779kg (25 046oz) (FY20: 818kg, 26 299oz), mainly due to a 1% decrease in volumes of ore processed to 6.19 million tonnes and 4% decrease in recovered grade to 0.126g/t (FY20: 0.131g/t). Lower gold production was offset by the 12% rise in average gold price received to R798 310/kg (FY20: R715 787/kg), resulting in a 5% increase in revenue to R620 million (FY20: R589 million).

All-in sustaining unit costs rose 13% to R511 946/kg (FY20: R453 937/kg). Capital expenditure for FY21 decreased 43% to R4 million (FY20: R7 million) after replacing a 2km leach pipe in the prior year to reduce pipe failures and improve plant efficiencies.

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

## Outlook for FY22

The aim is to finish feasibility work on identifying the optimum second-source feed for processing given 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.



## PERFORMANCE BY OPERATION continued

### South Africa – surface operation

#### Central Plant Reclamation (tailings retreatment)

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		96	97	99
– Contractors		153	151	136
<b>Total</b>		<b>249</b>	<b>248</b>	<b>235</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	4 020	4 020	3 872
	(000t) (imperial)	4 434	4 433	4 269
Gold produced	(kg)	563	625	579
	(oz)	18 101	20 094	18 615
Gold sold	(kg)	566	625	577
	(oz)	18 197	20 093	18 551
Grade	(g/t)	0.140	0.155	0.15
	(oz/t)	0.004	0.005	0.004
Productivity	(g/TEC)	291.34	325.83	307.23
<b>Financial</b>				
Revenue	(Rm)	482	468	342
	(US\$m)	31	30	24
Average gold price received	(R/kg)	851 505	749 216	592 359
	(US\$/oz)	1 720	1 488	1 299
Cash operating cost	(Rm)	271	234	212
	(US\$m)	18	15	15
Production profit	(Rm)	211	234	130
	(US\$m)	14	15	9
Capital expenditure	(Rm)	13	12	7
	(US\$m)	1	1	1
Operating free cash flow <sup>1</sup>	(Rm)	198	222	123
	(US\$m)	13	14	8
Cash operating cost	(R/kg)	480 975	373 798	366 364
	(US\$/oz)	971	742	804
All-in sustaining cost	(R/kg)	501 947	389 611	378 038
	(US\$/oz)	1 014	774	829
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	–	–	2.09
<b>Environment</b>				
Electricity consumption	(GWh)	23	24	23
Water consumption – primary activities	(Ml)	203	171	191
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	27	25	21
Intensity data per tonne treated				
– Energy		0.01	0.01	0.01
– Water		0.05	0.04	0.05
– Greenhouse gas emissions		0.01	0.01	0.005
Number of reportable environmental incidents		–	–	–

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Central Plant Reclamation (tailings retreatment) continued

Other salient features	
Status of operation	Tailings retreatment
Life-of-mine	14 years

## Mineral Reserve estimates at 30 June 2021

	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)
	–	–	–	52.0	0.27	14	52.0	0.27	14
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	–	–	–	57.3	0.008	450	57.3	0.008	450

## Overview of operations

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

## Operating performance FY21

The operation maintained processing volumes at 4 million tonnes, but a 10% decline in recovered grade to 0.140g/t (FY20:0.155g/t) resulted in an 10% decrease in gold production to 563kg (18 101oz) (FY20: 625kg, 20 094oz). This was countered by an exceptional rise in average gold price received of 14% to R851 505/kg (FY20: R749 216/kg), increasing revenue 3% to R482 million (FY20: R468 million).

All-in sustaining unit cost increased 29% to R501 947/kg (FY20: R389 611/kg). Capital expenditure for FY21 rose 7% to R13 million (FY20: R12 million) on higher plant maintenance.

## Outlook for FY22

Key focus areas in FY22 will be to continue safe operations and deliver operational excellence by maintaining costs and improving mining efficiencies.

## PERFORMANCE BY OPERATION continued

### South Africa – surface operation Waste-rock dumps

		FY21	FY20	FY19
<b>Operational</b>				
Volumes milled	(000t) (metric)	<b>10 107</b>	4 476	4 307
	(000t) (imperial)	<b>11 145</b>	4 936	4 749
Gold produced	(kg)	<b>3 580</b>	1 753	1 515
	(oz)	<b>115 099</b>	56 630	48 708
Gold sold	(kg)	<b>3 527</b>	1 780	1 497
	(oz)	<b>113 395</b>	57 229	48 129
Grade	(g/t)	<b>0.354</b>	0.392	0.352
	(oz/t)	<b>0.010</b>	0.011	0.01
<b>Financial</b>				
Revenue	(Rm)	<b>3 079</b>	1 388	879
	(US\$m)	<b>200</b>	89	62
Average gold price received	(R/kg)	<b>872 960</b>	779 835	587 483
	(US\$/oz)	<b>1 763</b>	1 549	1 289
Cash operating cost	(Rm)	<b>2 127</b>	853	692
	(US\$m)	<b>138</b>	54	49
Production profit	(Rm)	<b>933</b>	527	195
	(US\$m)	<b>61</b>	34	14
Capital expenditure	(Rm)	<b>39</b>	2	8
	(US\$m)	<b>3</b>	–	1
Operating free cash flow <sup>1</sup>	(Rm)	<b>913</b>	533	179
	(US\$m)	<b>59</b>	34	12
Cash operating cost	(R/kg)	<b>594 033</b>	486 792	456 473
	(US\$/oz)	<b>1 200</b>	967	1 001
All-in sustaining cost	(R/kg)	<b>619 692</b>	484 507	462 178
	(US\$/oz)	<b>1 252</b>	962	1 014
Average exchange rate	(R/US\$)	<b>15.40</b>	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	–	–	–
<b>Environment</b>				
Electricity consumption	(GWh)	<b>*</b>	<b>*</b>	<b>*</b>
Water consumption – primary activities	(ML)	<b>*</b>	<b>*</b>	<b>*</b>
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	<b>*</b>	<b>*</b>	<b>*</b>
Intensity data per tonne treated				
– Energy		<b>*</b>	<b>*</b>	<b>*</b>
– Water		<b>*</b>	<b>*</b>	<b>*</b>
– Greenhouse gas emissions		<b>*</b>	<b>*</b>	<b>*</b>
Number of reportable environmental incidents		–	–	–

\* 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.

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure as per operating results.

## Waste-rock dumps continued

Other salient features	
Status of operation	Processing waste-rock dumps depends on the availability of spare plant capacity and plant requirements for grinding material
Life-of-mine	±1 year

## Mineral Reserve estimates at 30 June 2021

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

## Overview of operations

Production from processing surface-rock dumps, situated across Harmony's Free State 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 (near the border of Gauteng and North West provinces) supplement mining volumes to secure sufficient backfill to use as support in stoping areas. Waste-rock dumps near Orkney (acquired with Moab Khotsong operations) are treated at the Great Noligwa and Mispah plants. Milling of waste-rock dumps at the Doornkop plant, in Gauteng, began in FY18. Waste-rock dumps and tailings facilities acquired with Mponeng are treated at Mponeng, Savuka and Kopanang plants.

## Operating performance FY21

An increase of 126% in ore milled to 10 million tonnes (FY20: 4 million tonnes), despite a 10% decline in recovered grade to 0.354g/t (FY20: 0.392g/t), translated to a 104% rise in gold produced to 3 580kg (115 099oz) (FY20: 1 753kg, 56 630oz). These operations recorded an excellent financial performance, with revenue increasing 121% to R3 079 million (FY20: R1 388 million) mainly due to the inclusion of surface sources acquired from AngloGold Ashanti in the Mponeng transaction, coupled with a substantial rise in average gold price received of 12% to R872 960/kg (FY20: R779 835/kg).

The newly acquired waste-rock dumps and tailings operations contributed a total of 5.4 million tonnes and 1 445kg of gold at an average recovered grade of 0.264g/t. These operations recorded revenue of R1 270 million, with cash costs and capital expenditure of R1 148 million resulting in operational free cash of R122 million.

All-in sustaining unit cost rose 28% to R619 692/kg (FY20: R484 507/kg). Capital expenditure for FY21 increased significantly to R39 million (FY20: R2 million) to replace a pipeline and conveyor at the Mispah plant as well as bratticing, refurbishments and replacing equipment related to the newly acquired surface assets.

## Outlook for FY22

The priority for FY22 will be to continue safe, profitable production by maintaining costs and improving mining efficiencies.

## PERFORMANCE BY OPERATION continued

### Papua New Guinea Hidden Valley

		FY21	FY20	FY19
<b>Number of employees</b>				
– Permanent		1 474	1 434	1 391
– Contractors		754	748	709
<b>Total</b>		<b>2 228</b>	<b>2 182</b>	<b>2 100</b>
<b>Operational</b>				
Volumes milled	(000t) (metric)	3 420	3 906	3 886
	(000t) (imperial)	3 772	4 307	4 285
Gold produced	(kg)	4 689	4 872	6 222
	(oz)	150 755	156 639	200 042
Gold sold	(kg)	4 755	4 949	6 192
	(oz)	152 876	159 113	199 077
Grade	(g/t)	1.37	1.25	1.6
	(oz/t)	0.040	0.036	0.047
<b>Financial</b>				
Revenue	(Rm)	4 028	3 748	3 591
	(US\$m)	262	239	253
Average gold price received	(R/kg)	847 027	757 348	579 902
	(US\$/oz)	1 711	1 504	1 272
Cash operating cost	(Rm)	1 670	1 696	1 371
	(US\$m)	108	108	97
Production profit	(Rm)	2 309	2 109	2 229
	(US\$m)	150	134	157
Capital expenditure	(Rm)	1 260	959	1 591
	(US\$m)	82	61	112
Operating free cash flow <sup>1</sup>	(Rm)	1 117	871	573
	(US\$m)	73	56	40
Cash operating cost	(R/kg)	356 233	348 054	220 323
	(US\$/oz)	719	691	483
All-in sustaining cost	(R/kg)	677 659	562 648	497 399
	(US\$/oz)	1 383	1 120	1 090
Average exchange rate	(R/US\$)	15.40	15.66	14.18
<b>Safety</b>				
Number of fatalities		–	–	–
Lost-time injury frequency rate	per million hours worked	–	0.68	0.35
<b>Environment</b>				
Electricity consumption	(GWh)	103	120	117
Water consumption – primary activities	(Ml)	1 983	1 810	1 827
Greenhouse gas emissions	(000tCO <sub>2</sub> e)	158	165	208
Intensity data per tonne treated				
– Energy		0.03	0.04	0.03
– Water		0.58	0.46	0.47
– Greenhouse gas emissions		0.05	0.04	0.05
Number of reportable environmental incidents		–	7	2

<sup>1</sup> Operating free cash flow = revenue – cash operating cost – capital expenditure ± impact of run-of-mine costs as per operating results.



## Hidden Valley continued

Other salient features	
Status of operation	Open-pit mining operation producing gold and silver (by-product).
Life-of-mine	Six years

## Mineral Reserve estimates at 30 June 2021

	Proved			Probable			Total		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
Reserves (metric)	3.4	0.95	3	19.9	1.59	32	23.3	1.50	35
Reserves (imperial)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
	3.7	0.028	103	21.9	0.046	1 016	25.6	0.044	1 119

## Overview of operations

The Hidden Valley Mine is an open-pit gold and silver operation, in Morobe Province, Papua New Guinea, some 210km north-west of Port Moresby. The mine is located at elevations of 2 800m to 1 700m above sea level in steep mountainous and forested terrain that receives around 3m of rainfall per year. The major gold and silver deposits of Hidden Valley are in the Morobe Granodiorite of the Wau Graben.

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

## Operating performance FY21

Hidden Valley's safety performance is among the best in the industry, with a fifth consecutive year of zero fatalities and over three million fatality-free shifts in FY21. 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.

The 14-day mill stoppage in January 2021, caused by a fault in the mill's electronic management system, together with the impact of Covid-19-related travel restrictions and operational constraints, impacted production. Volumes milled decreased 12% to 3.4 million tonnes (FY20: 3.9 million tonnes), although recovered grade

improved 10% to 1.37g/t (FY20: 1.25g/t). Gold production declined 4% to 4 689kg (150 755oz) (FY20: 4 872kg, 156 639oz) and generated operating free cash flow of R1 117 million. This makes it the group's third-largest contributor to operating free cash flow in FY21, just behind the newly acquired Mponeng. The 12% rise in average gold price received to R847 027/kg (FY20: R757 348/kg) increased revenue by 8% to R4 028 million (FY20: R3 748 million). The all-in sustaining unit cost rose 20% to R677 659/kg (US\$1 383/oz) (FY20: R562 648/kg, US\$1 120/oz) due to:

- Lower gold production as a result of lower ore processed as the mine transitioned between various stages of the open-pit
- Higher total capital expenditure for plant maintenance and optimisation.

A prefeasibility study for the life-of-mine extension has been completed, which considered a two-year mine life extension and annual gold production of around 190 000oz. This study progressed to feasibility stage by the end of FY20 and was completed in FY21. A renewal of the mining lease to support a proposed mine life extension by two years was obtained.

## Outlook for FY22

The key focus in FY22 will be to safely mine the current cutback to produce 153 000oz to 161 000oz, while beginning the next planned pushback of the main Hidden Valley pit.

# FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the safe harbour 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 business prospects, revenues, and the potential benefit of acquisitions (including statements on growth and cost savings) wherever they may occur in this report and the exhibits to this report, are necessarily estimates reflecting the best judgement 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, and measures taken to address the Covid-19 pandemic, and other contagious diseases, such as HIV and tuberculosis
- 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
- Estimates of future tax liabilities under the Carbon Tax Act (South Africa)
- Statements on 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 from 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 (both as a result of tariff increases from Eskom as well as possible future costs to introduce more sustainable decarbonised green power options)
- 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 and liabilities associated with safety incidents
- 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 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 macro-economic 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 annual 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 report that relates to Mineral Resources or Ore Reserves has been extracted from our Reserves and Resources statement published on 31 August 2021. 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.

# ADMINISTRATIVE AND CONTACT DETAILS

## HARMONY GOLD MINING COMPANY LIMITED

Harmony was incorporated and registered as a public company in South Africa on 25 August 1950  
Registration number: 1950/038232/06

### Corporate office

Randfontein Office Park  
PO Box 2, Randfontein 1760, South Africa  
Corner Main Reef Road and Ward Avenue,  
Randfontein, 1759, South Africa

Telephone: +27 11 411 2000

Website: [www.harmony.co.za](http://www.harmony.co.za)

### DIRECTORS

Dr PT Motsepe\* (chairman)  
JM Motloba\* (deputy chairperson)  
Dr M Msimang\*^ (lead independent director)  
PW Steenkamp\*\* (chief executive officer)  
BP Lekubo\*\* (financial director)  
HE Mashego\*\* (executive director)  
JA Chissano\*#^  
FFT De Buck\*^  
Dr DS Lushaba\*^  
P Turner \*^  
KT Nondumo\*^  
VP Pillay\*^  
GR Sibiyi\*^  
JL Wetton\*^  
AJ Wilkens\*

\* Non-executive

\*\* Executive

^ Independent

# Mozambican

### INVESTOR RELATIONS

Email: [HarmonyIR@harmony.co.za](mailto:HarmonyIR@harmony.co.za)  
Telephone: +27 11 411 6073 or +27 82 746 4120  
Website: [www.harmony.co.za](http://www.harmony.co.za)

## GROUP COMPANY SECRETARY

**Shela Mohatla**

Email: [companysecretariat@harmony.co.za](mailto:companysecretariat@harmony.co.za)  
Telephone: +27 11 411 2359

## TRANSFER SECRETARIES

**JSE Investor Services (Proprietary) Limited**

(Registration number 2000/007239/07)  
13th Floor, Rennie House, Ameshoff Street, Braamfontein  
Johannesburg, South Africa

PO Box 4844, Johannesburg, 2000, South Africa

Email: [info@jseinvestorservices.co.za](mailto:info@jseinvestorservices.co.za)  
Telephone: +27 861 546 572 (South Africa)  
Fax: +27 86 674 2450

## AMERICAN DEPOSITARY RECEIPTS (ADRS)

**Deutsche Bank Trust Company Americas  
c/o American Stock Transfer and Trust Company**  
Operations Centre, 6201 15th Avenue, Brooklyn,  
NY11219, United States

Email queries: [db@astfinancial.com](mailto:db@astfinancial.com)

Toll free (within US): +1-886-249-2593  
Int: +1-718-921-8137  
Fax: +1-718-921-8334

## SPONSOR

**JP Morgan Equities South Africa (Proprietary) Ltd**

1 Fricker Road, corner Hurlingham Road, Illovo  
Johannesburg, 2196, South Africa  
Private Bag X9936, Sandton, 2146, South Africa

Telephone: +27 11 507 0300  
Fax: +27 11 507 0503

## TRADING SYMBOLS

JSE: HAR  
NYSE: HMY  
ISIN: ZAE 000015228

