

# MORILA GOLD MINE

PRODUCED

**70 019<sub>oz</sub>**

**↑30%**

PROFIT FROM MINING ACTIVITY<sup>1</sup>

**\$19.1 million**

**↑32%**

TOTAL CASH COST<sup>1</sup>

**\$988/oz ↓11%**

TOTAL RESERVES

**0.19Moz**

**LTIFR 0.0**

MALARIA INCIDENCE RATE

**↓ TO 11%**

DIRECT CONTRIBUTION  
TO COMMUNITY

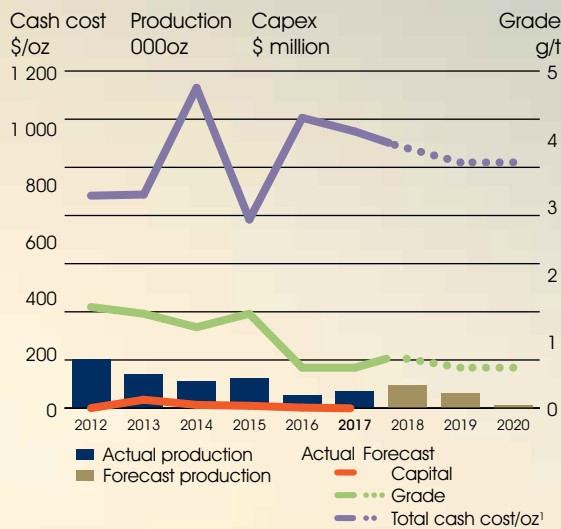
**\$1.14 million**

The Morila gold mine is situated some 280 kilometres southeast of Bamako, the capital of Mali, and 900 kilometres to the north of the port of Abidjan in Côte d'Ivoire. The mine and associated mining lease is owned by Société des Mines de Morila SA (Morila), a joint venture company held by Randgold (40%), AngloGold Ashanti (40%) and the State of Mali (20%). The mine is operated by Randgold.

Mine closure was originally scheduled for 2013 but retreatment of the TSF material, mining of the Domba satellite pit and an agreement to acquire Birimian Limited's Ntiola and Viper targets, have extended the life of mine to 2020.

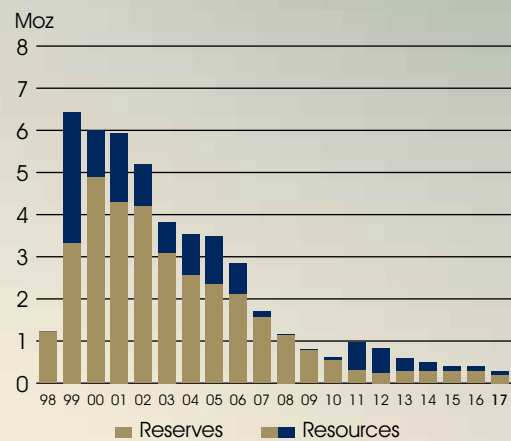
Work continues on the development of commercial agribusiness to provide sustainable economic activity in the area once the mine closes.

### MORILA PRODUCTION AND FIVE YEAR FORECAST



<sup>1</sup> Refer to explanation of non-GAAP measures provided on page F-41 of this annual report.

### MORILA TOTAL MINERAL RESOURCES AND ORE RESERVES<sup>2</sup>



<sup>2</sup> Refer to the notes to the annual resources and reserves declaration on page 107 of this annual report.



MORILA KEY RESULTS

12 months ended 31 December	2017	2016
<b>Mining</b>		
Tonnes mined (000)	2 291	-
Ore tonnes mined (000)	502	-
TSF material processed (000)	4 940	1 760
<b>Milling</b>		
Tonnes processed (000)	5 453	3 774
Head grade milled (g/t)	0.6	0.6
Recovery (%)	67.2	79.4
Ounces produced	70 019	54 022
Ounces sold	67 812	52 296
Average price received (\$/oz)	1 269	1 245
Cash operating costs <sup>1</sup> (\$/oz)	911	1 039
Total cash costs <sup>1</sup> (\$/oz)	988	1 113
Profit from mining activity <sup>1</sup> (\$000)	19 108	6 867
<b>Attributable (40%)</b>		
Gold sales <sup>1</sup> (\$000)	34 429	26 034
Ounces produced	28 008	21 609
Ounces sold	27 125	20 918
Gold on hand at period end <sup>2</sup> (\$000)	2 040	800
Profit from mining activity <sup>1</sup> (\$000)	7 643	2 747

Randgold owns 40% of Morila with the State of Mali and joint venture partner AngloGold Ashanti owning 20% and 40% respectively. The group equity accounts for its 40% joint venture holding in Morila.

<sup>1</sup> Refer to explanation of non-GAAP measures provided on page F-41 of this annual report.

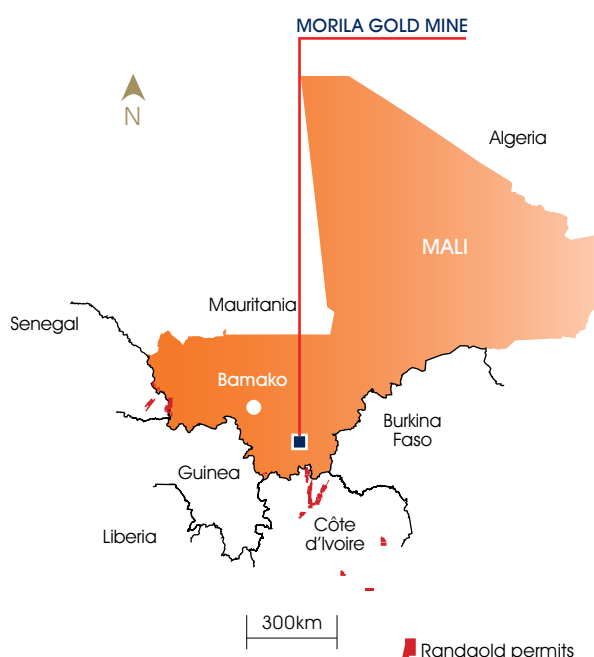
<sup>2</sup> Gold on hand represents gold in doré at the mine multiplied by the prevailing spot gold price at the end of the period.

# ACHIEVED IN 2017

- Produced 70 019oz from ongoing TSF retreatment and Domba satellite pit
- Completed Domba permitting and commenced mining in September
- Ntiola and Viper feasibility projects completed and included in 2018 mine plan
- Started development of agribusiness initiative as part of mine closure plan
- Maintained OHSAS 18001 and ISO 14001 certification
- Achieved zero lost time injuries compared to LTIFR of 0.56 in 2016
- Decreased malaria incidence rate by 15%
- Completed feasibility studies for the agribusiness legacy initiative and applied for formal endorsement of the project by the government

# TARGETED FOR 2018

- Produce 95 000oz from open pit material and TSF retreatment
- Complete the mining of the Domba pit and its rehabilitation programme
- Complete permitting process for Ntiola and Viper deposits and ensure operational readiness to start mining
- Receive formal endorsement by the government for the agribusiness legacy initiative as part of the closure plan
- Advance agribusiness initiative and ensure operational readiness at closure
- Maintain OHSAS 18001 and ISO 14001 certification



## Mineral resources and ore reserves

Morila reserves currently comprise TSF material of 10.3Mt at 0.54g/t for 179koz and the remaining ore from the Domba satellite pit of 270kt at 1.47g/t for 13koz, which is currently scheduled to be depleted in Q1 2018. The TSF retreatment is forecast to continue until Q1 2020.

After agreement was reached with Birimian Limited, a full feasibility study and environmental impact assessment was completed on the near mine deposits of Ntiola and Viper. The geological studies returned a total reserve of 655kt at a grade of 1.96g/t for 41koz at Ntiola and 589kt at a grade of 1.49g/t for 30koz at Viper. Exploitation of these two deposits is still subject to the transfer of the relevant portions of the permits to Morila. The related documentation has been filed with the authorities.

During the year, the mine focused on the TSF activities as well as the mining and feeding of the Domba satellite orebody.

## Operations

Morila has produced more than 6Moz since mining started from the open pit in 2000. After the first conversion of the mine to a stockpile treatment operation in 2009 and the completion of the pit pushback programme initiated in 2013, the mine was again resized to treat its mineralised waste stockpiles from mid 2015 and then converted to a TSF reclamation operation in the second half of 2016. The Domba project is located 8.5km from the plant within the permit area. Mining of the oxide portion of the deposit started in September 2017. The Ntiola and Viper targets are located 24km from the plant outside the current Morila permit area and mining of these deposits is planned for 2018 pending receipt of the necessary permits.

In 2017, 70 019oz of gold was produced, up 30% on the prior year as a result of the higher throughput achieved by processing TSF material and the oxide ore of Domba. The mine continued its rehabilitation and closure plan and a total of 7.8Mt of low grade waste material from the TSF was hydro-slucied to the pit.

As a result of the higher grade fed from the Domba deposit and the increased tonnage of TSF material processed, total cash costs decreased to \$988/oz compared to \$1 113/oz in the previous year.

## MORILA MINERAL RESOURCES AND ORE RESERVES

at 31 December	Category	Tonnes (Mt)		Grade (g/t)		Gold (Moz)		Attributable gold <sup>3</sup> (Moz)	
		2017	2016	2017	2016	2017	2016	2017	2016
<b>MINERAL RESOURCES<sup>1</sup></b>									
■ Stockpiles	Measured	-	-	-	-	-	-	-	-
■ Open pit	Indicated	0.25	0.52	1.6	3.2	0.013	0.054	0.0052	0.022
	Inferred	-	-	-	-	-	-	-	-
■ TSF	Measured	16	-	0.51	-	0.26	-	0.10	-
	Indicated	-	21	-	0.53	-	0.36	-	0.14
	Inferred	0.94	0.94	0.45	0.45	0.014	0.014	0.0055	0.0055
<b>TOTAL MINERAL RESOURCES</b>	Measured and indicated	16	22	0.53	0.59	0.27	0.41	0.11	0.17
	Inferred	0.94	0.94	0.45	0.45	0.014	0.014	0.0055	0.0055
<b>ORE RESERVES<sup>2</sup></b>									
■ Stockpiles	Proved	-	-	-	-	-	-	-	-
■ Open pit	Probable	0.29	-	1.3	-	0.013	-	0.0051	-
■ TSF	Probable	10	15	0.54	0.55	0.18	0.27	0.071	0.11
<b>TOTAL ORE RESERVES</b>	Proved and probable	11	15	0.56	0.55	0.19	0.27	0.077	0.11

<sup>1</sup> Open pit mineral resources are those located within the \$1 500/oz pit shell reported at \$1 500/oz cut-off of 0.46g/t. TSF mineral resources are reported at a \$1 500/oz reported at a 0.33g/t cut-off. Open pit and TSF mineral resources were generated by Jonathan Kleynhans, an external consultant and competent person.

<sup>2</sup> TSF ore reserves are reported at a \$1 000/oz cut-off grade of 0.49g/t. Ore reserves were calculated by Shaun Gillespie, an officer of the company and competent person.

<sup>3</sup> Attributable gold (Moz) refers to the quantity attributed to Randgold based in its 40% interest in Morila.

Mineral resource and ore reserve numbers are reported as per JORC 2012 and as such reported to the second significant digit. All mineral resource tabulations are reported inclusive of that material which is then modified to form ore reserves. Refer to the notes to the annual resources and reserves declaration on page 107 of this annual report.

Gold sales amounted to \$86.1 million (100% basis), up 32% on the previous year, leading to a significant increase in the profit from mining activity (before interest, tax and depreciation) to \$19.1 million for the year compared to the \$6.9 million in 2016.

Capital expenditure for the year of \$1.9 million was related to the feasibility work on the Ntiola and Viper projects (2016: \$2.1 million).

### Mining and production

Reclamation of the tailings storage facility produced 4.9Mt of slurry material which was reprocessed through the plant in parallel with the hydro-sluicing of waste material to the pit. Production was mainly focused on the higher grade eastern wall until its depletion before moving to the basin material. The coarse wall was reground in the milling section of the processing plant prior to leach recovery while the decapping operation continued to expose the basin material which was directly fed to the leach circuit, allowing the ball mill operation to be stopped to further reduce costs.

The mine reached an agreement with a commission representing the local community to exploit the Domba deposit and a relocation programme was completed to rehouse certain families from the exclusion zone. A local Malian civil works company was used for the mining and construction as part of the mine's commitment to develop and transfer mining skills in the country.

The mining operation started in September and a total of 2 291kt of material was mined including 502kt of ore at an average grade of 1.8g/t. The open pit mine is scheduled for completion in Q1 2018, allowing the rehabilitation programme to start during the course of the year.

### Processing, plant and engineering

#### Processing

Throughput increased during the year by 44% to 5 453kt (2016: 3 774kt) at a rate of 666tph on the back of the high feeding rate of the TSF material for the first eight months of the year and the processing of Domba oxide ore over the last four months of the year. Changes were made in the plant to enable a rapid switch from open pit material treatment through the mill to TSF material feeding through CIL with higher volumes and to allow for the recycling of the excess water.

Domba material was fed through the oxide crusher while the hard rock crushing circuit was placed under care and maintenance awaiting the Ntiola fresh ore feed expected in the second quarter of 2018.

#### Engineering and power supply

The plant availability improved to 95.2% for the year (2016: 90.2%) after implementing an enhanced maintenance programme, which included replacing the ball mill and CIL gearboxes and overhauling three of the medium speed power generators.







Total power consumption of 98.93GWh decreased by 5% from the previous year (2016: 104GWh) as result of a programme to optimise the generation of power based on production. This was generated at a fuel efficiency of 0.235l/kWh.

#### Health and safety

No LTI was recorded during the year compared to one in the prior year. The LTIFR was zero compared to 0.56 in 2016. The mine retained its OHSAS 18001 certification following an external audit in February.

On the malaria front, the MIR dropped to 11% during the year, a 15% decrease from the previous year. This was achieved by the mass drug administration programme extended to five months compared to three months in the prior year. More than 1 200 people were tested for HIV and the prevalence rate was 0.3%. A study was initiated to assess the impact of recent mining activity on communities and the result is expected in early 2018.

#### Environment

Morila has retained its ISO 14001 certification with no major environmental incidents being experienced. The environmental permit for the Domba project was received during the year.

25ha of land has been rehabilitated as per the rehabilitation and closure plan. Local community members were employed to apply mulching on 71ha of the tailings dam to prevent dust emissions. An additional 4 400 trees were provided to the regional forestry department for planting on 22ha in the surrounding communities of Sanso and Domba. Regular closure workshops were held with the communities and government representatives. A plan for converting the mine into an agri-pole was submitted to the government for approval as a closure strategy and authorisation is expected in 2018.

Further details on the environmental initiatives are provided in the sustainability section of this annual report.

#### Human resources and industrial relations

Total manpower recorded at the end of the year was 372, excluding 444 people employed by contractors, of which 99% are Malian. During the year the industrial relations climate was stable despite SECNAMI's national strike which did not affect the Morila operation. The mine continued with its downsizing exercise in line with cessation of mining activities and the planned closure.

## Community

Although there were social concerns raised around the Domba project, overall the mine maintained a good relationship with the surrounding community throughout the year, and regular meetings were held with the community development committee to disclose project information including the Domba mining project and decide on the community development projects to be sponsored by the mine. Projects implemented include:

- Construction of three boreholes in the Sanso women’s market gardens.
- Introduction of 20 community trainees to the operation.
- Construction of a water supply system at Morila village.

A tripartite protocol between a local NGO, Morila, and the townhalls of Sanso and Domba has been signed to promote the economic empowerment of women through activities such as market gardening. A training session on hygiene and sanitation in collaboration with a local environmental department was conducted in the surrounding villages to improve living conditions.

The Domba Resettlement Action Plan (RAP) was completed and 27 households were relocated to new houses with compensation for all affected farms. Some of the agreed community projects have been completed and others are still in progress. These include:

- Installing 20 solar powered street lights.
- Revamping of the local clinics and an ambulance ordered.
- Completing the classroom in the library and supplying school material to Domba and Sanso.
- Equipping the borehole with a solar system for the market garden.

Development and maintenance of a water supply system in the village is ongoing.

Further details of Morila’s sustainability initiatives are provided in the sustainability section of this annual report.

## Agribusiness

As part of the strategy to facilitate and endorse the Morila agricentre project, the key closure committee members and local authorities visited the Songhai agriproject in Benin. Following the visit, unanimous support was given for the project by authorities with a recommendation that the government approves it. The feasibility study report has been revised to include the observations raised by the closure committee and the report has been adapted after a mass review session extended the workshop to the surrounding municipalities and local partners.

## MORILA MANPOWER

	2017			2016		
	Expats	Nationals	Total	Expats	Nationals	Total
at 31 December						
Employees	0	372	372	0	372	372
Contractors	3	441	444	4	400	404
Total	3	813	816	4	772	776

## MORILA SAFETY (LTIFR)

