



## OPERATIONAL PROFILE 2016



### SADIOLA MALI

Sadiola is a joint venture between AngloGold Ashanti (41%) and IAMGOLD (41%). The government of Mali owns the remaining 18%. The Sadiola mine is situated in south-western Mali, some 77km south-southwest of the regional capital Kayes. On-site surface infrastructure includes a 4.9Mt per annum CIL gold plant where the ore is eluted and smelted. The mine, which began operating in 1996, has multiple open pits.

# HIGHLIGHTS

## PRODUCTION STEADY

year-on-year

## COST MANAGEMENT

yields productivity and efficiency improvements

## ALL-IN SUSTAINING COSTS

of \$1,066/oz

## SULPHIDE PROJECT

to extend life of mine progresses

As at 31 December 2016:

- **MINERAL RESOURCE** of 3.3Moz (inclusive)
- **ORE RESERVE** of 1.8Moz

## OPERATIONAL PERFORMANCE

### PRODUCTION

Production levels at Sadiola remained consistent with the previous year despite limited mining flexibility as remaining oxide ore mining sources are depleted.

The mine delivered the planned 5% increase in recovered grade, partly offset by a 3% decrease in tonnage throughput as a result of an increase in the treatment of transitional material. Tonnage throughput was a combination of the limited newly mined ore, marginal ore stockpile sources at lower grades and periodic drawdowns from the higher, full-grade ore stockpiles. Plant operations were efficient and consistent, which provided the flexibility to maintain a steady quarterly production and revenue profile.

### COSTS

During the year, AngloGold Ashanti consolidated its continuous improvement and operational review processes at its Continental Africa operations, together with the various cost management initiatives under the umbrella of the 'Operational Excellence' programme, focused on delivering systemic and sustainable operational improvements and aimed at each operation rapidly progressing towards targeted all-in sustaining unit costs that reflect the inherent opportunity and value set within the operation. Operational Excellence principles will leverage the learnings and system opportunities derived through the P500 cost saving initiative with standardised and consistent measurement of operating metrics. The initial diagnostic assessments have been completed, with opportunities identified either in the stage of implementation or budgeted and planned for implementation in 2017.

### GROWTH AND IMPROVEMENT

The updated feasibility study for the mining and treatment of sulphide ores at Sadiola, expected to increase processing plant throughput, lower costs and extend mine life, has been completed with our joint venture partner IAMGOLD. Further work on the project is subject to the requisite government approvals, agreements and permits. Discussions are currently underway with ministries of the government of the Republic of Mali with a view to expeditiously achieving these approvals.

### CAPITAL EXPENDITURE

Capital expenditure at Sadiola is expected to increase as a result of work related to the sulphide project. Capital expenditure for this project, which as at 22 March 2017 had not yet received final approval, is now expected to total \$410m at 100%.



## SUSTAINABILITY PERFORMANCE

For information on our sustainable development activities, refer to:

- the Continental Africa regional review in the Integrated Report 2016, available at [www.aga-reports.com/16/ir/](http://www.aga-reports.com/16/ir/)
- the Sustainable Development Report 2016, available at [www.aga-reports.com/16/sdr/home](http://www.aga-reports.com/16/sdr/home)

## SADIOLA – KEY STATISTICS

	Units	2016	2015	2014
<b>Operational performance</b>				
Cut-off grade <sup>(1)</sup>	oz/t	<b>0.019</b>	0.025	0.025
	g/t	<b>0.65</b>	0.85	0.85
Recovered grade	oz/t	<b>0.032</b>	0.030	0.041
	g/t	<b>1.09</b>	1.04	1.28
Attributable tonnes treated/milled	Mt	<b>2.0</b>	2.1	2.1
Attributable gold production	000oz	<b>70</b>	69	85
Total cash costs	\$/oz produced	<b>991</b>	818	1,028
All-in sustaining costs	\$/oz sold	<b>1,066</b>	886	1,133
Attributable capital expenditure	\$m	<b>7</b>	2	6
Productivity	oz/TEC	<b>13.97</b>	13.46	14.23
<b>Safety</b>				
No. of fatalities		<b>0</b>	0	0
All injury frequency rate (AIFR)	per million hours worked	<b>1.56</b>	0.51	0.50
<b>People</b>				
Total average no. of employees		<b>588</b>	585	654
– Permanent		<b>392</b>	387	393
– Contractors		<b>196</b>	198	261
<b>Environment</b>				
Water use	ML	<b>3,940</b>	4,625	4,051
Water use efficiency	kL/t	<b>0.80</b>	0.91	0.81
Energy consumption	PJ	<b>1.40</b>	1.40	1.59
Energy intensity	GJ/t	<b>0.28</b>	0.28	0.32
Greenhouse gas (GHG) emissions	000t	<b>104</b>	104	118
GHG emissions intensity	t CO <sub>2</sub> e/t	<b>21</b>	21	24
Cyanide use	t	<b>1,926</b>	1,731	1,826
No. of reportable environmental incidents		<b>0</b>	0	0
Total rehabilitation liabilities	\$m	<b>27</b>	27	26

<sup>(1)</sup> Based on the Ore Reserve.