



# OPERATIONAL PROFILE 2017



**GEITA**  
TANZANIA

Geita, one of our flagship mines, is located in north-western Tanzania, in the Lake Victoria goldfields of Mwanza region, about 120km from Mwanza and 4km west of Geita town. The Geita gold deposit is mined as a multiple open-pit and underground operation, with the underground operation having begun in 2016. The mine will continue to operate as a mixed open-pit and underground operation until the entire economic open-pit Mineral Resource is exhausted. The mine is currently serviced by a CIL processing plant with an annual capacity of 5.1Mt.

# HIGHLIGHTS

## PRODUCTION 10% UP

on improved grades

## CONTINUED RAMP UP OF

underground mining

## FOCUS ON COST

and efficiency improvements continues

## ALL-IN SUSTAINING COSTS

of \$941/oz

As at 31 December 2017:

- **MINERAL RESOURCE**

of 6.42Moz (inclusive)  
(2.85Moz below infrastructure)

- **ORE RESERVE** of 1.25Moz



## Operational performance

### Production

Geita's production increased by 10% compared to 2016, driven by a 14% increase in recovered grade, a result of the higher-grade ore mined at Nyankanga Cut 7 and Cut 8. Underground ore sources were in line with the mine plan while maiden underground operations were ramping up toward commercial volumes. Plant throughput achieved was above plan owing to the increase in the oxide feed and finer fragmentation resulting from the increased running time of the secondary and tertiary crusher circuits. The transition to underground operations continued with four areas being mined during the year, resulting in a 248% increase year-on-year to 493,000t in underground volumes treated.

### Costs

Total cash costs increased year-on-year, due to the negative impact of higher initial costs from underground mining at Geita. This was partially offset by higher production and recovered grades.

During the year, the Continental Africa region continued to drive continuous improvement through the Operational Excellence programme, a system that is now well entrenched across all sites and disciplines. The focus remains on delivering systemic and sustainable operational improvements, aimed at each operation rapidly progressing towards targeted lower all-in sustaining costs that reflect the inherent opportunity that exists within each operation.

## Growth and improvement

Geita made good progress with the construction of the new 40MW power plant, which is expected to be commissioned in the first half of 2018. The plant will provide the required levels of reliable power to the mine and reduce the overall cost of power. The mine successfully transitioned to and expanded underground mining at Star & Comet, while developing two new underground mines in the Nyankanga mining area. Open-pit mining is anticipated to continue at Nyankanga Cut 8 until the second half of 2019 while Geita Hill East Cut 1 is expected to finish in the first half of 2018. Exploration work is being conducted at Selous, 2.4km from Star & Comet, for a satellite pit to supplement underground operations.

## Capital expenditure

Capital expenditure increased in line with company plans to increase sustaining capital investment so as to realise future benefits from Ore Reserve development work in the underground operation at Geita, which is ramping up.

## Sustainability performance

For further information on sustainable development activities related to Geita, including safety and health, employee relations, the environment, communities, and security and human rights, refer to:

- *Regional reviews – Continental Africa* in the <IR>, available at [www.aga-reports.com](http://www.aga-reports.com)
- <SDR>, also available at [www.aga-reports.com/home](http://www.aga-reports.com/home)

# GEITA – KEY STATISTICS

	Units	2017	2016	2015
<b>Operational performance</b>				
Cut-off grade <sup>(1)</sup>	oz/t	<b>0.041</b>	0.041	0.042
	g/t	<b>1.40</b>	1.40	1.45
Recovered grade	oz/t	<b>0.089</b>	0.080	0.093
	g/t	<b>3.13</b>	2.74	3.18
Tonnes treated/milled	Mt	<b>5.4</b>	5.4	5.2
Gold production	000oz	<b>539</b>	489	527
Total cash cost	\$/oz	<b>608</b>	530	480
All-in sustaining cost	\$/oz	<b>941</b>	844	717
Capital expenditure	\$m	<b>157</b>	119	116
Productivity	oz/TEC	<b>22.65</b>	20.94	27.78
<b>Safety</b>				
No. of fatalities		<b>0</b>	0	0
All injury frequency rate (AIFR)	per million hours worked	<b>0.43</b>	0.39	0.47
<b>People</b>				
Total average no. of employees		<b>4,251</b>	3,748	3,041
– Permanent		<b>1,768</b>	1,682	1,612
– Contractors		<b>2,483</b>	2,066	1,429
<b>Environment</b>				
Water use	ML	<b>4,689</b>	3,637	3,249
Water use efficiency	kL/t	<b>0.88</b>	0.66	0.63
Energy consumption	PJ	<b>3.49</b>	3.07	2.93
Energy intensity	GJ/t	<b>0.65</b>	0.56	0.57
Greenhouse gas (GHG) emissions	000t	<b>259</b>	228	218
GHG emissions intensity	t CO <sub>2</sub> e/t	<b>44</b>	41	42
Cyanide use	t	<b>1,323</b>	1,197	1,105
No. of reportable environmental incidents		<b>0</b>	0	0
Total rehabilitation liabilities	\$m	<b>57</b>	55	56

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