



OPERATIONAL PROFILE 2017



WEST WITS
SOUTH AFRICA

The West Wits mining district's operations are situated south-west of Johannesburg, around 80km from Johannesburg, on the border between Gauteng and North West Province.

HIGHLIGHTS

OPERATIONS RESTRUCTURED

– TauTona placed into orderly closure

MPONENG PHASE 1

extension project continues

NO ENVIRONMENTAL

incidents reported

ENERGY USAGE CONTINUED TO DECLINE

As at 31 December 2017:

- **MINERAL RESOURCE** of 49.97Moz (inclusive) (32.56Moz below infrastructure)
- **ORE RESERVE** of 12.16Moz (8.50Moz below infrastructure)



As of 31 December 2017, the West Wits mining operations comprised:

- **Mponeng**, the world's deepest gold mine and our flagship South African operation, exploits the Ventersdorp Contact Reef (VCR) via a twin-shaft system at depths of between 2,800m and 3,400m below surface. Ore is treated and smelted at the mine's gold plant.
- **TauTona**, with a three-shaft system, exploits the Carbon Leader Reef (CLR) predominantly and the VCR on a small scale through technology, with secondary and tertiary shafts sinking to depths of between 2,700m and 3,300m below

surface. Following the full integration of Savuka into TauTona's infrastructure in 2015 and to further improve efficiencies and benefit from economies of scale, ore mined at TauTona was processed at Mponeng's gold plant. TauTona's final blast took place on 15 September 2017, and the mine has since been placed into orderly closure.

Corporate developments

On 28 June 2017, AngloGold Ashanti announced that it would restructure its South African Operations to safely return the business to profitability, while mitigating job losses. This included placing TauTona and its Savuka section into care and maintenance,

which was subsequently followed by their being placed into orderly closure later in the year.

From 1 March 2018, AngloGold Ashanti only has the long-life Mponeng underground mine in the West Wits region. This will form AngloGold Ashanti's operating base in South Africa, together with Mine Waste Solutions as well as the surface rock dump reclamation operations, and will contribute an estimated 13% to group production on a proforma basis. See page 77 of the <IR> for full details on the sale transaction.



Operational performance

Production

At West Wits, production was lower than in the previous year at 315,000oz, mainly due to the slow start-up to the year following safety-related stoppages late the previous year. Production at Mponeng decreased year-on-year, mainly as a result of the planned mining of lower-grade areas, face-time constraints with mining occurring further away from shaft stations, as well as three separate seismicity-induced fatal accidents in the second half of the year. The mine's performance improved towards the end of the second quarter through to the third quarter, due to improved efficiencies. Production highlights were a 4% increase in the mineable face length which allowed for more face-length flexibility. During the year,

the average monthly face advance increased from less than 4.9m to more than 5.0m in June, which was maintained for the rest of the year. Mponeng's yield improved in the last quarter of the year, to an average of 8.54g/t. Unfortunately, safety-related work stoppages following the fatal accidents in late October and early November contributed to a disappointing decline in production in the last quarter.

At TauTona, severe production challenges, in addition to a depleted Ore Reserve and limited mining flexibility, compounded operational inefficiencies and low productivity, and led to the decision to place the mine into orderly closure. As mining areas moved further away from the main infrastructure towards the lower-grade eastern boundary of the mining lease,

and areas with more complex geological structures and greater seismic risks, this resulted in greater inefficiencies and the natural decline in grades.

The decision to stop loss-making operations in the third quarter further impacted full-year production. The final blast at TauTona took place on 15 September 2017 and the Section 189 consultation process with employees and their organised labour representatives, continued. At Kopanang, the Section 189 process happened in parallel with the pending disposal of the mine as was announced in October 2017.

Costs

In line with the company's continued focus on improving efficiencies, a cost savings plan was adopted towards the end of 2016 to

realise synergies from shared services among business units. This entailed, among others, the review of all commodity and service contracts to optimise agreements where possible and align related costs. Work in this regard continues.

Growth and improvement

Mponeng Phases 1 and 2 Project

Mponeng's mine life extension is initially executed through the Below 120 Level, Phase 1 project. Phase 1 aims to access deeper, higher-grade ore with the development of a decline access below the current secondary shaft. Phase 2, the next stage of the mine life extension, currently under evaluation, involves deepening the secondary shaft to further extend the life of mine.

Completion and full commissioning of Phase 1 is expected during 2018. An additional ventilation hole is being created from decline 3 to 116 level to create more ventilation capacity, along with an ore pass down to 126 level to ease ore handling logistics on 123 level. Completion of the water management infrastructure on 127 level was delayed during the last quarter of the year following flooding of the emergency pump station and pump station panels. The emergency pump station is still under construction at the bottom of the decline system, with full commissioning expected in the second half of 2018. Construction and commissioning of the ore handling infrastructure to 126 level is expected to be completed by the end of the first half of 2018. The ramp-up to steady state Ore Reserve development is continuing. The revised geological resource model associated with the Ventersdorp Contact Reef is currently under review.

WEST WITS – KEY STATISTICS

The Phase 2 feasibility study for the Mponeng LOM project has resumed, having been interrupted at the end of May 2017 to allow the geotechnical study to be completed to determine the most appropriate location of the infrastructure relative to tolerable levels of rock stress.

Capital expenditure

While sustaining capital expenditure continued during the year, growth capital investment focused mainly on the Mponeng Phase 1 project, as construction and commissioning of the ore handling infrastructure to 126 level continued as the start of the Mponeng Phase 2 LOM extension project was delayed. Certain capital costs at TauTona were expensed during the year.

Sustainability performance

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

- *Regional reviews – South Africa* in the <IR>, available at www.aga-reports.com
- the <SDR>, available at www.aga-reports.com

	Units	2017	2016	2015
Operational performance				
Cut-off grade ⁽¹⁾	oz/t	0.145	0.146	0.146
	g/t	4.98	4.99	4.99
Recovered grade	oz/t	0.207	0.227	0.25
	g/t	7.09	7.78	8.45
Tonnes treated/milled	Mt	1.4	1.7	1.6
Gold production	000oz	315	400	428
Total cash cost	\$/oz	1,311	914	879
All-in sustaining cost	\$/oz	1,544	1,133	1,108
Capital expenditure	\$m	85	101	113
Productivity	oz/TEC	2.90	3.28	3.6
Safety and health				
No. of fatalities		4	5	4
All injury frequency rate (AIFR)	per million hours worked	16.20	15.40	12.75
No. of employees on ART		1,501	1,790	1,609
People				
Total average no. of employees		9,784	10,828	10,905
– Permanent		8,920	9,964	9,930
– Contractors		864	864	975
Environment				
Total water usage	ML	3,688	4,411	3,949
Total water usage per tonne treated	kL/t	0.80	1.00	1.21
Total energy usage	PJ	4.61	4.93	5.03
Total energy usage per tonne treated	GJ/t	1.00	1.11	1.55
Total greenhouse gas (GHG) emissions (CO ₂ e)	000t	1,290	1,375	1,331
Total GHG emissions per tonne treated	t CO ₂ e/t	280	311	409
Cyanide usage	t	1,717	1,460	1,084
No. of reportable environmental incidents		0	0	0
Total rehabilitation liabilities	\$m	30	24	20

⁽¹⁾Based on the Ore Reserve.