



OPERATIONAL PROFILE 2018

SURFACE OPERATIONS

SOUTH AFRICA

SURFACE OPERATIONS



MAP LEGEND

- 1 West Wits / Mponeng
- ➔ 2 **Surface Operations** / Mine Waste Solutions and other surface treatment facilities in the West Wits and Vaal River areas
- 3 Vaal River / Kopanang and Moab Khotsong were sold on 28 February 2018

Surface Operations encompasses those surface processing facilities in the West Wits and the former Vaal River areas that process and extract gold from marginal ore dumps and tailings storage facilities. Surface Operations also includes Mine Waste Solutions (MWS), which operates independently, processing slurry material reclaimed hydraulically from various tailings storage facilities. Backfill is produced as a by-product, for use as mining support in mined out areas underground.

Surface Operations is one of two operating entities in AngloGold Ashanti's South Africa region.

PERFORMANCE 2018

HIGHLIGHTS

Remained cash positive despite decline in production

MWS to focus solely on gold recovery

New technology commissioned to enhance recoveries

Mineral Resource* of 5.61Moz (inclusive)

Ore Reserve* of 5.15Moz

* At 31 December 2018

For further information on AngloGold Ashanti and its work and performance, as a group and in the South Africa region, see the <IR> and <SDR> which are available online at www.aga-reports.com

Operating performance

Production

Surface Operations produced 171,000oz in all in 2018, a decline of 11% on 2017, while MWS's production totalled 103,000oz. Given current market conditions and the decision in the first half of 2018 to change its processing strategy, MWS will focus solely on gold recovery in future. The uranium plant has thus ceased operating. A strategic decision was also made to treat reduced higher-grade volumes from the sulphur paydam to ensure responsible reclamation and to facilitate future rehabilitation.

Consequently, MWS remained cash positive despite the 5% year-on-year decline in production. Production was mainly impacted by lower recoveries as a result of carbon management challenges experienced during the third quarter of 2018, which improved toward the end of 2018.

Tonnages were impacted by unplanned stoppages owing to inclement weather and associated power outages. Approximately 167 hours of power failures were experienced in December alone. We engaged with Eskom management, the public power utility, and a protocol was agreed to create flexibility during inclement weather.

Following the sale of the Mispah and West Gold plants in February 2018, production from the hard-rock dumps was lower

compared to 2017. The yield contribution from the West Wits surface sources was also down year-on-year, due to the higher proportion of reclamation from the Savuka marginal ore dumps and tailings storage facilities (TSFs). Accordingly, mining strategies were changed during the third quarter of 2018 and feed grades are beginning to improve.

Costs and capital expenditure

Surface Operations costs rose in 2018 with all-in sustaining costs up 5% on the year and total cash costs 6% higher.

Cost management efforts continue in earnest with focus on reducing legacy costs, and the streamlining of systems and work processes and drive further operational efficiencies through improved productivity.

Growth and improvement

At MWS, the Aachen™ high-shear reactor technology for the refractory portion of the feedstock was commissioned in October 2018 and is expected to assist in improving recoveries.

The planned Kareerand TSF expansion project is undergoing a feasibility study. The technical review is scheduled for the first half of 2019. This project is aimed at facilitating the continued operation of MWS and the associated retreatment of the Vaal River TSFs beyond 2040.

Sustainability performance

Employees and labour relations

The South Africa region embarked on the "Setting the South African region up for a Sustainable Future" initiative as a strategic decision to secure a sustainable future for the South African operations. The initiative was aimed at:

- optimising operational life of mine
- increasing focus on responsible mine closure
- reducing Surface Operations' footprint
- continuing environmental restoration and rehabilitation post mining activities

In support of this, the Employee Transition Framework (ETF) was adopted. This framework integrates policies, procedures and practices to guide the optimal application of human resource management in a rapidly evolving business and social environment.

On 17 September 2018, AngloGold Ashanti signed a three-year wage agreement with all unions – the Association of Mineworkers and Construction Union (AMCU), which represents 48.9% of AngloGold Ashanti's workforce in South Africa; Solidarity, which represents 3.7%; UASA, which represents 9.4%; and the National Union of Mineworkers (NUM), which represents 32.8%.

For further detail on sustainability performance, see the Regional review – South Africa in the <IR>.

PERFORMANCE 2018 continued

Key statistics

SURFACE OPERATIONS	Units	2018	2017	2016
Operating performance				
Cut-off grade ⁽¹⁾	oz/t	0.007	0.006	0.007
	g/t	0.23	0.20	0.24
Recovered grade	oz/t	0.006	0.005	0.005
	g/t	0.16	0.17	0.16
Tonnes treated/milled	Mt	33.5	35.8	36.4
Gold production	000oz	171	192	186
Total cash costs	\$/oz	1,030	969	899
All-in sustaining costs	\$/oz	1,094	1,045	1,004
Capital expenditure	\$m	12	12	17
Productivity	oz/TEC	7.83	7.60	7.82
Safety performance				
No. of fatalities		0	0	0
All injury frequency rate (AIFR)	per million hours worked	4.63	4.21	5.63
People				
Total average no. of employees		2,290	3,161	3,140
– Permanent		1,754	2,500	2,702
– Contractors		536	661	438
Environmental performance				
Water use	ML	7,007	6,002	6,475
Water use efficiency	kL/t	0.27	0.23	0.25
Energy consumption	PJ	0.87	0.83	0.74
Energy intensity	GJ/t	0.03	0.03	0.03
Greenhouse gas (GHG) emissions	000t	210	201	207
GHG emissions intensity	t CO ₂ e/t	8	8	8
Cyanide use	t	8,873	6,430	6,349
No. of reportable environmental incidents		1	1	0
Total rehabilitation liabilities	\$m	20	25	20
Social performance				
Community investment ⁽²⁾	\$m	5	6	5
Payments to government ⁽²⁾	\$m	91	118	106

⁽¹⁾ Based on the Ore Reserve.

⁽²⁾ For the South Africa region as a whole.