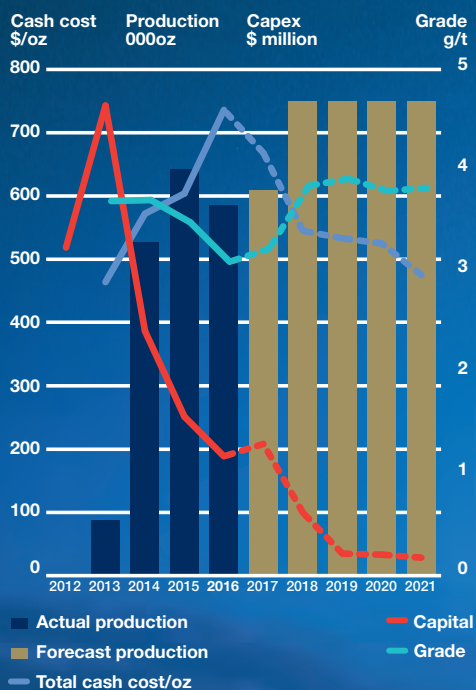
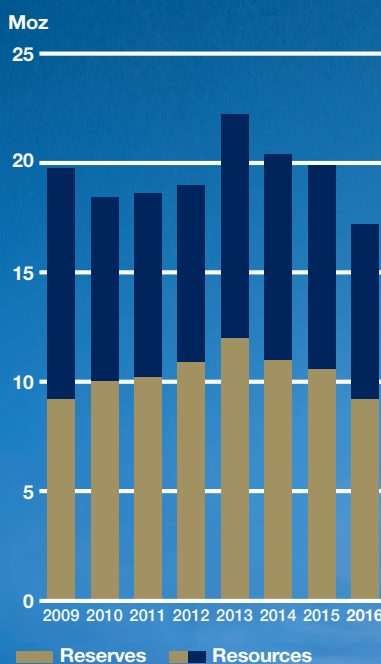


# KIBALI GOLD MINE

KIBALI PRODUCTION AND FIVE YEAR FORECAST



KIBALI TOTAL MINERAL RESOURCES AND ORE RESERVES<sup>1</sup>



<sup>1</sup> Refer to the notes to the annual resources and reserves declaration on page 103 of this annual report.

<sup>2</sup> Refer to explanation of non-GAAP measures provided on page F-40 of this annual report.

The Kibali gold mine is located in the northeast of the Democratic Republic of Congo (DRC), approximately 300 kilometres to the east of Isiro the capital of the Haut-Uele Province, 150 kilometres west of the Ugandan border town of Arua and 1 800 kilometres from the Kenyan port of Mombasa. The Kibali gold mine and its associated mining permits is owned by Kibali Goldmines SA (Kibali) which is a joint venture company between Randgold (45%), AngloGold Ashanti Limited (AngloGold Ashanti) (45%) and Société Minière de Kilo-Moto (SOKIMO) (10%). The mine was developed and is operated by Randgold.

PRODUCED

**585 946** oz

TOTAL CASH COST<sup>2</sup>

**\$736/oz**

PROFIT FROM MINING ACTIVITY<sup>2</sup>

**\$291.1** million

TOTAL RESERVES

**9.2**Moz

**\$2.2** million

DIRECT CONTRIBUTION TO  
COMMUNITY DEVELOPMENT

MALARIA INCIDENCE RATE

**↓ 26%**

**LTIFR ↓ 21%**

# ACHIEVED IN 2016

- Produced 585 946oz at a total cash cost of \$736/oz
- Record mill throughput above nameplate design of 7.3mtpa
- Recovery improved over the year to 84.1% in Q4
- Underground decline development kept on schedule
- Started mining from three additional satellite open pits, Kombokolo, Pakaka and Rhino
- Ramped up underground ore production as planned
- Completed construction of second hydropower station, Ambarau
- Initiated construction of the third hydropower station, Azambi, with all Congolese contractors
- Malaria incidence rate decreased by 26% year on year
- LTIFR reduced by 21%
- Maintained ISO 14001 environmental management system certification
- Progressed ISO 45001 health and safety certification and awaiting finalisation of standard
- Increased local procurement spending
- Advanced community development projects



# TARGETED FOR 2017

- Produce 610 000oz of gold
- Complete vertical shaft development
- Commission ore handling (haulage, crushing, hoisting) through the shaft
- Continue to ramp up underground ore production
- Complete Gorumbwa RAP and commence mining of open pit
- Commission additional UFG and associated circuit expansion
- Integrate Ambarau into full power grid and reduce cost of power
- Advance construction of Azambi hydropower station
- Obtain ISO 45001 health and safety certification
- Maintain ISO 14001 environmental certification
- Continue to focus on best safety and environment practices
- Initiate macro agribusiness projects
- Support economic development of surrounding community

## KIBALI KEY RESULTS

12 months ended 31 December	2016	2015
<b>Mining</b>		
Tonnes mined (000)	31 879	31 170
Ore tonnes mined (000)	6 218	6 862
<b>Milling</b>		
Tonnes processed (000)	7 296	6 833
Head grade milled (g/t)	3.1	3.5
Recovery (%)	80.0	83.8
Ounces produced	585 946	642 720
Ounces sold	568 375	643 976
Average price received (\$/oz)	1 248	1 160
Cash operating costs <sup>1</sup> (\$/oz)	678	557
Total cash costs <sup>1</sup> (\$/oz)	736	604
Profit from mining activity <sup>1</sup> (\$000)	291 101	358 184
Attributable (45%)		
Gold sales <sup>1</sup> (\$000)	319 217	336 272
Ounces produced	263 676	289 224
Ounces sold	255 769	289 789
Gold on hand at period end <sup>2</sup> (\$000)	13 840	4 006
Profit from mining activity <sup>1</sup> (\$000)	130 995	161 183

Randgold owns 45% of Kibali with the DRC State and joint venture partner owning 10% and 45% respectively. The group equity accounts for its 45% joint venture holding in Kibali.

<sup>1</sup> Refer to explanation of non-GAAP measures provided on page F-40 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.

## MINERAL RESOURCES AND ORE RESERVES

The KCD, Mengu Hill, Pakaka, Kombokolo, Gorumbwa and Rhino resource models were updated during the year with additional data, principally from grade control drilling and updated geological modelling. Resource definition drilling identified significant down plunge extensions to the high grade shoots in Kombokolo and Mengu Hill and resource additions at Gorumbwa.

Total mineral resources decreased on the back of depletion, model changes and a change to the reporting method used for the KCD underground mineral resource. The geological changes are the result of extensive underground grade control drilling and mapping which have been integrated into a revised model. This new model has been confirmed with continued infill drilling. This modelling has also highlighted the underground potential of both up and down plunge projections of the 3000 lode, which has not historically formed a significant portion of the underground resource base.

## KIBALI MINERAL RESOURCES AND ORE RESERVES

at 31 December	Category	Tonnes (Mt)		Grade (g/t)		Gold (Moz)		Attributable gold <sup>3</sup> (Moz)	
		2016	2015	2016	2015	2016	2015	2016	2015
<b>MINERAL RESOURCES<sup>1</sup></b>									
Stockpiles	Measured	2.9	3.8	1.4	1.7	0.1	0.2	0.06	0.1
Open pits	Measured	6.9	6.5	2.4	2.4	0.5	0.5	0.2	0.2
	Indicated	49	56	2.1	2.1	3.3	3.8	1.5	1.7
	Inferred	21	18	1.9	1.8	1.3	1.0	0.6	0.5
Underground	Measured	7.6	-	3.4	-	0.8	-	0.4	-
	Indicated	68	68	4.1	5.2	9.0	11	4.0	5.1
	Inferred	25	29	2.7	3.0	2.2	2.8	1.0	1.3
<b>TOTAL MINERAL RESOURCES</b>	Measured and indicated	135	134	3.2	3.7	14	16	6.2	7.2
	Inferred	46	47	2.3	2.5	3.4	3.9	1.5	1.7
<b>ORE RESERVES<sup>2</sup></b>									
Stockpiles	Proved	2.9	3.8	1.4	1.7	0.1	0.2	0.06	0.1
Open pits	Proved	1.4	0.2	2.9	3.7	0.1	0.03	0.06	0.01
	Probable	25	30	2.1	2.2	1.7	2.2	0.8	1.0
Underground	Probable	42	45	5.4	5.6	7.2	8.2	3.2	3.7
<b>TOTAL ORE RESERVES</b>	Proved and probable	71	80	4.0	4.1	9.2	11	4.1	4.8

<sup>1</sup> Open pit mineral resources are the insitu mineral resources falling within the \$1 500/oz pit shell reported at an average cut-off of 0.59g/t. Underground mineral resources in the KCD deposit for 2016 are insitu mineral resources, that meet a cut-off of 1.6g/t within a minimum mineable stope shape, reported at a gold price of \$1 500/oz. Underground mineral resources were generated by Ernest Doh and Simon Bottoms, both officers of the company and competent persons. Mineral resources for Kombokolo were generated by Abdoulaye Ngom, an officer of the company, under the supervision of Ernest Doh and Simon Bottoms, both officers of the company and competent persons. All other open pit mineral resources were generated by Ernest Doh an officer of the company and competent person.

<sup>2</sup> Open pit ore reserves are reported at a gold price of \$1 000/oz and an average cut-off of 0.88g/t and include dilution and ore loss factors. Open pit ore reserves were calculated by Nicholas Coomson, an officer of the company and a competent person. Underground ore reserves are reported at a gold price of \$1 000/oz and a cut-off of 2.5g/t and include dilution and ore loss factors. Underground ore reserves were calculated by Tim Peters, an external consultant and a competent person.

<sup>3</sup> Attributable gold (Moz) refers to the quantity attributable to Randgold based on its 45% interest in the Kibali gold mine. Mineral resource and ore reserves are quoted as per JORC 2012 guidelines and thus 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 103 of this annual report.

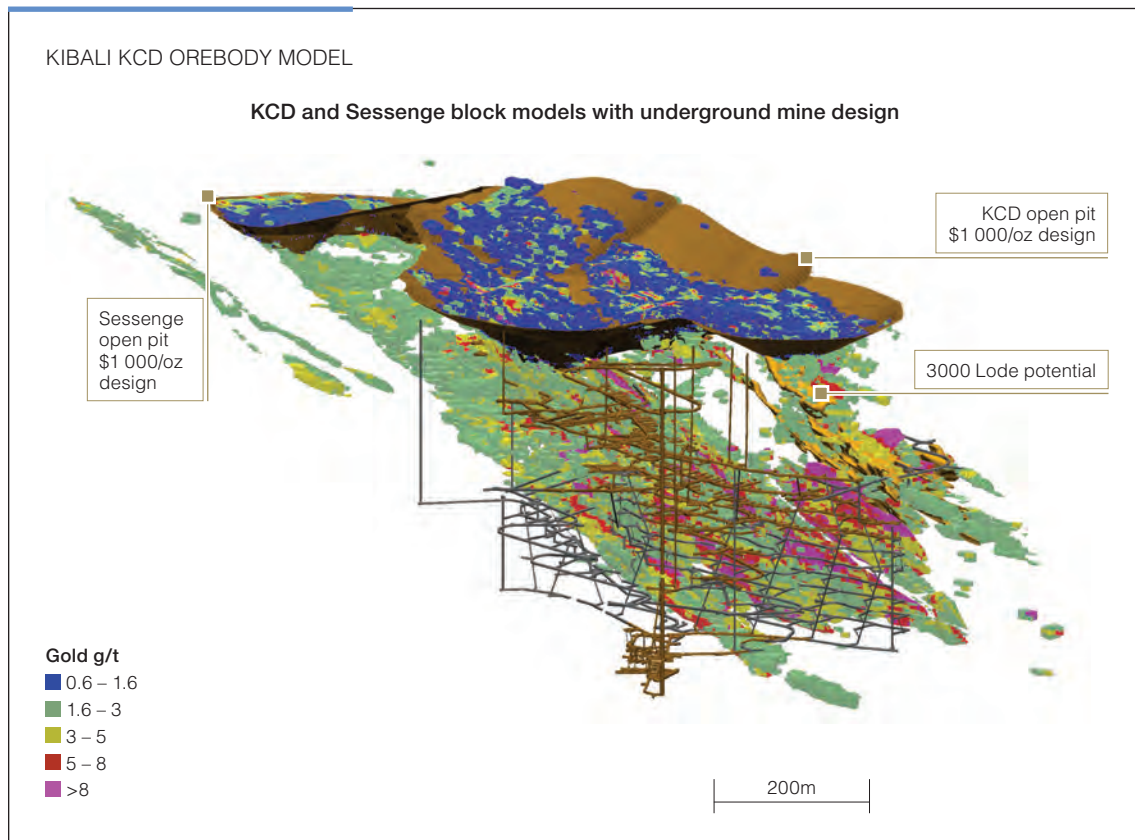
The reporting change, from a resource cut-off method to one that includes the in situ total ore body resource within optimum mineable resource shapes, has had the effect of removing isolated areas of mineralisation and lowering the grade of the reported underground resources. It is anticipated that some of these isolated areas will be brought back into the model as underground definition drilling is undertaken and as the model continues to evolve.

Total ore reserves decreased this year as a function of mining depletion and the geological model changes reported above. Underground drilling continues and is showing a significantly improved correlation with the new geological model. Drilling is also being conducted on the 3000 lode to confirm the underground potential. Depending on the dimensions of the lodes and the subsequent production capacity for this area, the appropriate mine design will be undertaken. Further drilling is also underway on the immediate up plunge extension of the current 9000 lode reserve that has the potential to add some mining flexibility and replenish reserves.

## OPERATIONS

The Kibali mine is being developed in two phases. Phase 1, which includes the KCD open pit operation and processing plant, the mine infrastructure (including a 36 unit high speed thermal power station) and the first of three hydropower stations, was completed in December 2014. Phase 2 comprises the underground mine development, including the vertical shaft, which is scheduled for commissioning in 2017, and two additional hydropower stations, one of which was commissioned at the start of 2017 and the other scheduled for 2018, along with further satellite pits. The mine is expected to produce an average of 600koz of gold per annum over the first 12 years of its life, which currently extends to 2029. Open pit mining started in July 2012 and commissioning of the oxide processing circuit began in Q3 2013. Kibali poured its first gold in September 2013, ahead of plan, and started commercial production in Q4 2013. Commissioning of the sulphide circuit began at the end of Q1 2014 and production has steadily ramped up since then with the mine now being able to process at its nameplate capacity.

In 2016, Kibali produced 585 946oz of gold at a total cash cost of \$736/oz. Gold sales amounted to \$709.4 million (100% basis) resulting in a profit from mining activity (before interest, tax and depreciation) of \$291.1 million.





During 2016, capital expenditure totalled \$198.1 million. The main capital projects were the underground decline and shaft development, Ambarau hydropower station, including remedial work following the flooding in 2015, and other surface infrastructure. The construction of the Azambi hydropower station and the ultra-fine grind (UFG) project expansion in the metallurgical plant were also started during the year.

In 2016, Kibali repaid \$52.0 million of shareholder loans to Randgold and AngloGold Ashanti who provided the funding for the development of the mine and associated infrastructure.

## MINING AND PRODUCTION

### Open pit mining

A total volume of 14.8 million BCMs was mined from the open pits, exceeding the 12.4 million BCMs mined in 2015, including 4.65Mt of ore (2015: 6.1Mt). The KCD Pushback 2 South was mined out as scheduled in Q1 2016 and Pushback 3 (Durba Hill) is planned for later in the life of the mine, although a trade-off study to test the optimum scheduling of the various satellite resources is being done. Mining of the Pakaka open pit was initiated on schedule in Q1 2016, and from two additional pits, Kombokolo in Q3 and Rhino in Q4. Mining of Gorumbwa, the seventh open pit at Kibali, is planned to begin in Q3 2017.

### Underground mining

Underground ore production was almost doubled at 1.57Mt of ore mined in 2016 compared to the 804kt in 2015 and it is planned to continue to ramp-up during 2017. The vertical shaft is scheduled to be completed in Q3 2017 to allow commissioning of ore handling (hauling, crushing, hoisting) through the shaft. The underground mine is scheduled to produce approximately 2.2Mt of ore in 2017.

## PROCESSING, PLANT AND ENGINEERING

### Processing

The mine faced a number of challenges in the first half of the year, largely due to management and operational issues, compounded by a decision to trial 100% sulphide feed, followed by having to deal with multiple ore types. The stable ore feed from KCD dropped off substantially at the end of Q1 to be replaced by multiple ore sources from underground and satellite pits, and the stability issues were further aggravated by a mill journal failure at the end of Q1.

Increased management focus, including changes within the metallurgical, engineering and mineral resource management teams, coupled with increased ore feed flexibility resulted in a steady improvement in both throughput and recoveries through the second half of the year. Throughput increased steadily, culminating in 7.3Mt of ore treated in 2016, a 7% increase over the previous year.

### Engineering and power supply

Following the issues in the first half of the year and after some changes to management, the team focused on increasing mill availability and run-time in the second half, with 94.4% and 93.7% achieved respectively during the last quarter.

The Nzoro II hydropower station was optimised during 2015 and reached its design power supply (22M) by the start of 2016. The increased power required to maximise mill throughput and supply the expanding underground development resulted in a 60:40 hydropower/thermal power blend. Commissioning of a second new hydropower station, Ambarau, at the start of 2017 and a new third, Azambi, in 2018, is expected to deliver hydropower in line with the original feasibility study, along with a consequent drop in power costs. Nonetheless, with the steadier supply of hydropower and increased grid stability, combined with slightly lower fuel prices, power costs dropped from \$0.15/kWh in 2015 to \$0.13kWh in 2016. Total power consumption was 284GWh in 2016 compared with 253GWh in 2015.

## CONSTRUCTION

Following the damage caused by flooding of the Ambarau hydropower project at the end of 2015, remedial work on the diversion dam and Carpi membrane had to be undertaken before work on the final section of hardfill wall could resume. This was completed during the year and the station was successfully commissioned in January 2017 during the lowest river flow and therefore lowest risk period.

Work has started on the third hydropower station, Azambi, which is expected to be completed and commissioned in 2018.

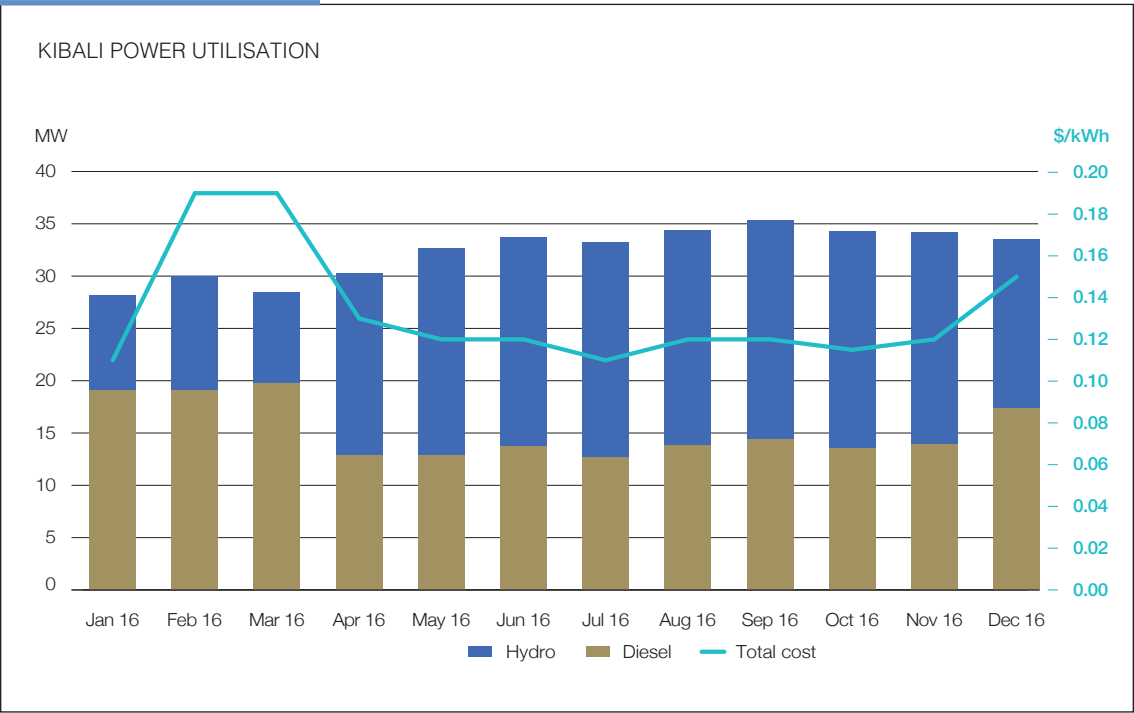
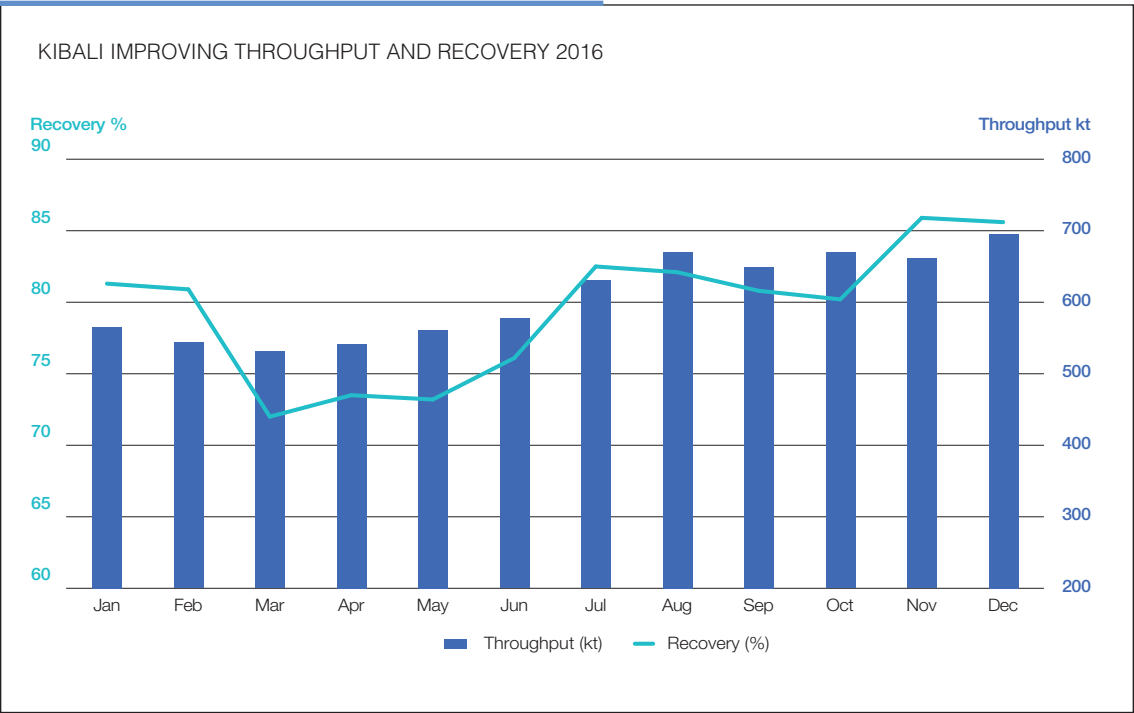
An expansion of the process plant's UFG capacity was approved during the year and is expected to be completed by the end of Q1 2017. This should enable Kibali to maintain recovery with the current throughput capacity when operating on a 100% sulphide feed, which will be required as the ore feed from underground is increased. The introduction of a secondary crushing circuit on Line 2 in the metallurgical facility was also completed during Q4 and successfully commissioned in January 2017. This addition will add to the capability of the metallurgical facility to process a 100% sulphide feed, including the flexibility to feed free-milling ore, at the nameplate throughput rate.

## DECLINE DEVELOPMENT

The mine continued to increase the rate of underground decline development with 13.2km of development achieved in 2016 compared to 10.6km in 2015. This takes the total development for the project to 35.9km. The C-decline is on schedule to hole with the shaft bottom in Q2 2017.

## VERTICAL SHAFT SYSTEM

Construction of the underground infrastructure for the vertical shaft is still in progress and the system is planned for commissioning in Q3 2017. The remaining off-shaft development was slightly ahead of plan for the year.





**KIBALI VERTICAL SHAFT RESULTS**

12 months ended 31 December	2016	2015
Vertical metres	-	45
Off shaft development	3 116	735

**KIBALI UNDERGROUND DECLINE RESULTS**

12 months ended 31 December	2016	2015
Ore tonnes mined	1 578 386	803 879
Development metres	13 182	10 599

**EXPLORATION**

Exploration focused mainly on the near mine targets with upside potential to give flexibility to the mining operations. Work was also undertaken on updating the KCD model from the relogging of the underground core from the 9000 and 3000 lodes which resulted in a motivation to drill the new model. Drilling started at the end of 2016 and will continue in 2017.

A secondary focus during the year was on generating and elevating regional targets with potential. Kalimva-Ikamva was one of the targets where conclusion of the surface and sub-surface work resulted in a motivation for a drilling programme. Drilling started at the end of the year and will continue during the course of 2017. A zone of potential mineralisation was identified at Sessenge SW at the contact between the BIF and meta-conglomerate. Similarly, trenching also identified three lenses of mineralisation at Agbarabo East, hosted in the meta-sediments plunging northeast, with this mineralisation supported down plunge by RC drillhole results.

A detailed summary of the exploration work completed during 2016 can be found in the exploration section of this annual report.

**HEALTH AND SAFETY**

Kibali had five LTIs during the year, a decrease from the six LTIs reported in 2015, resulting in a 21% decrease in LTIFR to 0.44 compared to the previous year (2015: 0.56). The total injury frequency rate (TIFR) also decreased from 6.11 in 2015 to 3.19 in 2016. A concerted effort was made during the year to address the high levels of malaria through awareness and educational campaigns, achieving a further 26% reduction in the malaria incidence rate to 26.4% following the 46% decrease in 2015.



There was an encouraging increase in voluntary HIV testing in 2016, with 1 330 VCTs conducted during the year and a HIV positivity rate of 3.4% compared to 7.3% in 2015.

The mine's health and safety management system was successfully assessed by an independent third party to be compliant with the requirements of the draft ISO 45001 standard, and the mine is awaiting the finalisation of this standard which is yet to be published by ISO.

## ENVIRONMENT

Environmental management was well controlled with no major incidents recorded during the year. The biodiversity off-set programme, in partnership with the Garamba National Park, completed its third year with Kibali contributing towards infrastructure development to facilitate vehicle access into the park, and further elephant collaring.

Rehabilitation continues as areas become available, with the Mofu waste dumps now completely vegetated.

The DRC mining authority in charge of environment has approved the updated environmental and social impact assessment report.

The mine successfully underwent its first ISO 14001 surveillance audit in December and retained its certification.

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

## HUMAN RESOURCES AND INDUSTRIAL RELATIONS

Constructive labour relations were maintained with the unions and workforce during the year and there were no disruptions to operations resulting from industrial action. An excellence bonus was implemented following the agreement reached at the end of 2015.

Following the demobilisation and reduction of the workforce during 2015, the start of construction on the Azambi hydropower station, an expanded geological drilling campaign and the addition of three more satellite pits resulted in an increase in operational labour complement to 5 048 during the year.

The mine has continued to focus on employing locally, increasing training and transferring skilled jobs to host country nationals, and of the total manpower, 90% are now nationals compared to 87% in the prior year.

## COMMUNITY

2016 was a difficult year for the DRC due to heightened political uncertainty. However, Kibali maintained a cooperative relationship with the surrounding communities. In addition to the investment in community infrastructure such as schools, clinics, potable water sources and sporting facilities, the mine also continued to focus on sustainable local economic development, including the establishment of several small businesses, poultry and livestock projects, as well as micro-finance facilities. A 500ha community maize farm and the start of an industrial scale palm oil farm and processing unit are also planned for 2017.

A 'pride of school' competition has been launched successfully. This involves active participation by parents in the business of the schools. In addition, construction and equipping of the community clinic was completed during the year which will supplement sustainable primary health care in the area.

Further details of Kibali's sustainability initiatives are provided in the sustainability section of this annual report.

## KIBALI MANPOWER

at 31 December	2016			2015		
	Expats	Nationals	Total	Expats	Nationals	Total
Employees	105	664	769	96	609	705
Contractors	409	3 870	4 279	448	3 008	3 456
<b>TOTAL</b>	<b>514</b>	<b>4 534</b>	<b>5 048</b>	544	3 617	4 161

## KIBALI SAFETY (LTIFR)

