





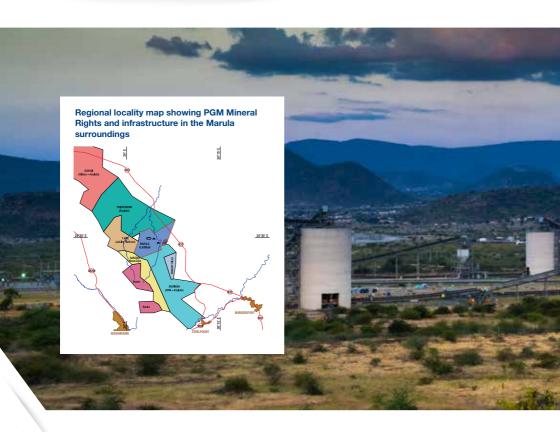
Marula is 73% owned by Implats and is one of the first operations to have been developed on the relatively under-exploited eastern limb of the Bushveld Complex in South Africa. It is located in the Limpopo Province, some 35 kilometres north-west of Burgersfort. The operation comprises two decline shaft systems and a concentrator plant.

73% owned by Implats

IN FY2021, the operation delivered 6E in concentrate production of

231 000

ounces



## **GEOLOGY**

Marula holds two contiguous mining rights and a prospecting right covering 5 494 hectares across the farms Winaarshoek and Clapham, and portions of the farms Driekop, Forest Hill and Hackney. Marula also has a royalty agreement with Modikwa which allows limited mining on an area adjacent to the Driekop shaft.

Both the Merensky and the underlying UG2 reefs are present and sub-outcrop in the Marula mining right area. The reefs dip generally in a west-southwest direction at 12 to 14 degrees with a vertical separation of some 400 metres between them. Potholes represent the majority of the geographical losses encounted underground, while a small dunite pipe also disrupts the reef horizon.

Mineral resources (inclusive reporting) as at 30 June 2021										
	Category	Tonnes (Mt)	Width (cm)	4E Grade (g/t)	6E Grade (g/t)	6E (Moz)				
Merensky	measured	34.3	100	4.26	4.56	5.0				
	indicated	7.6	100	4.20	4.50	1.1				
	probable	5.2	100	3.82	4.10	0.7				
UG2	measured	45.5	96	6.38	7.40	10.8				
	indicated	22.3	103	6.24	7.28	5.2				
	probable	6.4	104	6.32	7.37	1.5				
	Total	121.3		5.51	6.25	24.4				
		Mineral	reserves as at 30	June 2021						
	Category	Tonnes (Mt)	Width (cm)	4E Grade (g/t)	6E Grade (g/t)	6E (Moz)				
UG2	proved	4.1	126	4.36	5.03	0.7				
	probable	14.0	125	4.03	4.65	2.1				
	Total	18.0		4.10	4.74	2.7				
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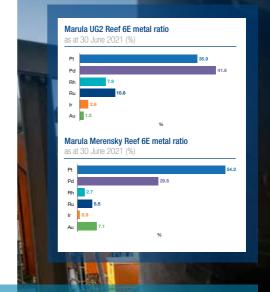
#### **MINING**

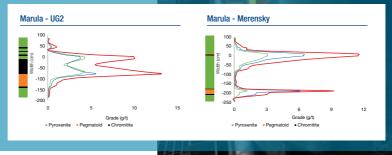
Current mining activities target the UG2 reef only, which is accessed via two decline shaft systems. Driekop Shaft uses a hybrid mining method, while at Clapham Shaft, both hybrid and conventional mining methods are used. In the hybrid sections, all main development is done on reef, and stoping is carried out through conventional single-sided breast mining from a centre gully. Panel face lengths are approximately 16 to 24 metres and the stoping width averages 1.25 metres.

For the conventional operation, the footwall drives are developed on strike approximately 25 metres below the reef horizon with crosscut breakaways about 220 metres apart. Development is undertaken with drill rigs and dump trucks. Stope face drilling is done with hand held pneumatic rock drills with air legs.

#### **METALLURGY**

Marula has a concentrator plant where initial processing is done. Concentrate is transported by road to Impala Platinum's Mineral Processes in Rustenburg in terms of a life-of-mine offtake agreement with Impala Refining Services (IRS).





#### SUSTAINABLE DEVELOPMENT

Marula focuses on addressing those social, economic and environmental issues that are seen as having a material impact on the long-term success of the business, the sustainability of the economy, the environment and the communities in which we operate. The pursuit of sustainable development and zero harm are seen as competitive imperatives.

Marula is determined to maximise the benefits of the mine for its local communities and our social investment strategy focuses on addressing the urgent needs identified in these areas. Preference is given to local contractors and suppliers of goods and services. Makgomo Chrome is a joint venture that assists local communities with the extraction and marketing of chrome from tailings.



### **HISTORY**

Platinum was first discovered in the area by renowned explorer Hans Merensky on the nearby farm Maandagshoek (now Modikwa Platinum) in the 1920s. In June 1998, Implats acquired the Winnaarshoek property from Platexco, a Canadian-based company. The mineral rights to portions of the adjacent farms of Clapham and Forest Hill and a sub-lease to Driekop were subsequently acquired from Anglo Platinum in exchange for Hendriksplaats (part of Modikwa Platinum) so consolidating the Marula mine area. The exploration programme was expanded and some 750 surface boreholes have been drilled to date. The establishment and development of the mine commenced in October 2002.

# BLACK ECONOMIC EMPOWERMENT

Black economic empowerment forms a key component of the Marula operation and our partners together own 27% of the company.

Each of the following parties hold a 9% stake in the business:

- The Marula Community Trust ensuring sustainable benefit flows to the local community over the life of the mine and beyond;
- Tubatse Platinum, a broad-based HDSA empowerment consortium from local business; and
- Mmakau Mining, an established mining entity.

Implats, as the largest stakeholder, brings technical, managerial, financial and operational expertise to the mine.

# KEY STATISTICS

MARULA - KEY STATISTICS		FY2021	FY2020	FY2019				
Production								
Tonnes milled ex mine	(000t)	1 802	1 636	1 772				
Headgrade (6E)	(g/t)	4.37	4.70	4.40				
6E in concentrate production	(000oz)	231	210	217				
Labour efficiency								
Tonnes milled per employee cos annum)	sted* (t/man/	428	386	445				
Cost								
Cost of sales	(Rm)	(3 441)	(2 865)	(2 676)				
On-mine operations	(Rm)	(2 488)	(2 004)	(2 027)				
Processing operations	(Rm)	(324)	(251)	(264)				
Other	(Rm)	(629)	(610)	(385)				
	(Rm)	2 812	2 255	2 291				
Total cost	(US\$m)	183	144	161				
Unit costs								
	(R/t)	1 560	2 255	1 293				
per tonne milled	(US\$/t)	101	144	91				
per 6E ounce	(R/oz)	12 157	2 255	10 562				
in concentrate	(US\$/oz)	789	144	744				
Financial ratios								
Gross margin ex mine	(%)	63.0	2 255	10.1				
EBITDA	(Rm)	4 591	144	469				
Capital expenditure								
	(Rm)	342	340	152				
	(US\$m)	22	22	11				
Safety								
LTIFR	(pmmhw+)	6.07	6.71	13.41				
FIFR	(pmmhw+)	0.098	-	-				
Labour complement								
Own employees	(no)	3 414	3 325	3 312				
Contractors	(no)	1 166	1 035	760				

