IMPLATS
EXCELLENCE IN PGMs

Mineral Resource and Mineral Reserve Statement as at 30 June **2022**

Supplement to the Annual Integrated Report 30 June 2022

Creating a better future

Annual integrated report

- Report explains to providers of financial capital how Implats creates, preserves or erodes value over time.

ESG report

- Detail on material economic, social and environmental performance
- GRI G4 core compliance
- Internal reporting guidelines in line with the UN Global Compacts
- Independent assurance report.

Remuneration report

- Basis of preparation
- Background statement
- Remuneration philosophy and policy
- Implementation report.

Audited annual financial statements

- Financial statement assurance, including the audit and risk committee report and directors' report
- Consolidated financial statements
- Company financial statements.

Notice to shareholders

- Notice and proxy.

How to navigate this report

For easy navigation and cross-referencing, we have included the following icons within this report:

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Information available elsewhere in this report

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- Our website has detailed investor, sustainability and business information.

https://twitter.com/Implats

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Welcome to our Mineral Resource and Mineral Reserve Statement

This report contains the Mineral Resource and Mineral Reserve statement of Impala Platinum Holdings Limited as at 30 June 2022.

The report provides updated estimates and reconciliations of Mineral Resources and Mineral Reserves. It conforms to the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves, SAMREC Code (2016). The report also conforms to Section 12.13 of the JSE Listings Requirements and has been signed off by the appointed Competent Persons. As at 30 June 2022, Implats is pleased to report a stable inventory of Mineral Resources and Mineral Reserves.

Our vision

To be the most valued and responsible metals producer, creating a better future for our stakeholders

Our purpose

To create a better future

Our values

RESPECT	CARE	DELIVER
We believe in ourselves	We set each other up for success	We play our A-game everyday
We work together as a team	We care for the environment	We go the extra mile
We take ownership of our responsibilities	We work safely and smartly	We learn, adapt and grow
We are accountable for our actions	We make a positive contribution to society	We create a better future

We welcome your feedback to ensure we cover all aspects

Go to **www.implats.co.za** or email **investor@implats.co.za** to provide us with your feedback.

Strategic objectives

Sustainable development
Aspire to become an industry leader in ESG, producing metals that sustain livelihoods beyond mining and create a better future

Operational excellence
Generate superior value for all stakeholders through modern, safe, responsible, competitive and consistent operational delivery

Organisational effectiveness
Place people at the centre of our organisation, and engender a shared culture founded on our values to respect, care and deliver

Optimal capital structure
Pursue value creation by sustaining and leveraging a strong and flexible balance sheet within a prudent capital allocation framework

Competitive asset portfolio
Seek to leverage, strengthen and grow our diverse asset base through operational exposure to shallow, mechanisable orebodies

Future focus
Sustain and grow value by supporting present and future demand drivers, creating strong customer relationships and aligning our production to evolving demand

Key take-away 2022

Attributable Mineral Resources

-3.1%

2022
268.6Moz 6E
2021
277.3Moz 6E

Attributable Mineral Reserves

4.3%

2022
55.7Moz 6E
2021
53.4Moz 6E

The report

Forward-looking statements

This report contains certain forward-looking statements and forecasts, which involve risk and uncertainty as they relate to events and rely on, or may be influenced by, future events. Several factors beyond our control could cause actual results or developments to differ materially from those expressed or implied by these forward-looking statements.

Impala Platinum Holdings Limited (Implats) is one of the world's foremost platinum group metals (PGMs) producers. Implats is currently structured around six main operations with a total of 22 underground shafts and one open pit.

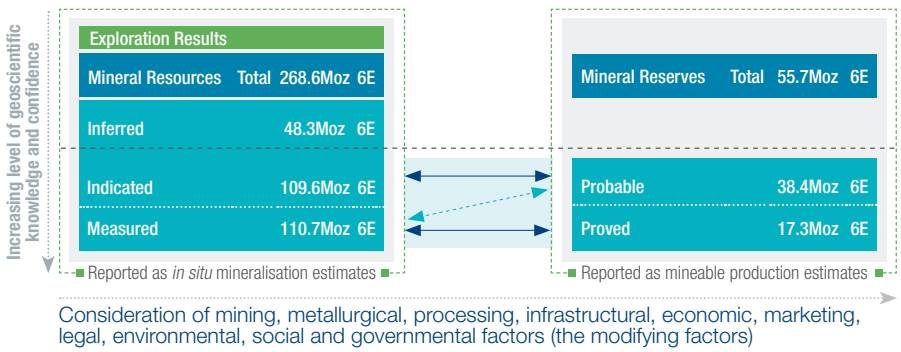
Our operations are located within the Bushveld Complex in South Africa, the Great Dyke in Zimbabwe and the Lac des Iles Intrusive Complex in Ontario, Canada.

Implats has its primary listing on the JSE Limited (JSE) in South Africa and a secondary listing on the A2X Markets (A2X), also in South Arica. Our headquarters are based in Johannesburg. The six primary operations are Impala Rustenburg, Marula and Two Rivers in South Africa, Mimosa and Zimplats in Zimbabwe, and Lac des Iles in Canada. The Mimosa and Two Rivers Platinum operations are joint venture operations with Sibanye Stillwater and African Rainbow Minerals (ARM), respectively, with Mimosa being managed by an on-site mine team and overseen by a joint venture board, and Two Rivers by ARM.

The structure of our operating framework allows for each of our operations to establish and maintain close relationships with its stakeholders, while operating within a Group-wide framework to managing the economic, social and environmental aspects of sustainability.

The report relates to the Mineral Resource and Mineral Reserve Statement, compiled for Implats and its subsidiaries and provides the status of estimates as at 30 June 2022. An abridged version is included in the Implats integrated annual report for 2022, published annually and available at **(www.implats.co.za)**. The report seeks to provide transparent and compliant details relating to the Mineral Resources and Mineral Reserves considered material to stakeholders.

Relationship between Exploration Results, Mineral Resources and Mineral Reserves showing Implats' attributable Mineral Resources and Mineral Reserves as at 30 June 2022 (Moz 6E)



Headline summary

Mineral Resource and Mineral Reserve Statement

The Mineral Resource and Mineral Reserve Statement as at 30 June 2022 reflects the benefit of the positive long-term pricing outlook for the significant PGMs and capital investments in material projects in the period under review. In addition to the Two Rivers Merensky project which was approved in 2021, two additional mining projects were approved during FY2022 – the Marula Phase II UG2 project and the North Hill project at Mimosa. These projects result in a significant increase in the Mineral Reserve position at both operations and have a significant positive impact at a Group portfolio level. Given that the Royal Bafokeng Platinum (RBPlat) transaction had not been concluded by year-end, Implats has elected not to account for the secured proportion of RBPlat in this declaration and this shall be included in the CY2023 declaration.

The Group Mineral Resource estimate decreased by 8.7Moz 6E on an attributable basis to 268.6Moz 6E, while the Group Mineral Reserve estimate increased by 2.3Moz 6E on an attributable basis to 55.7Moz 6E.

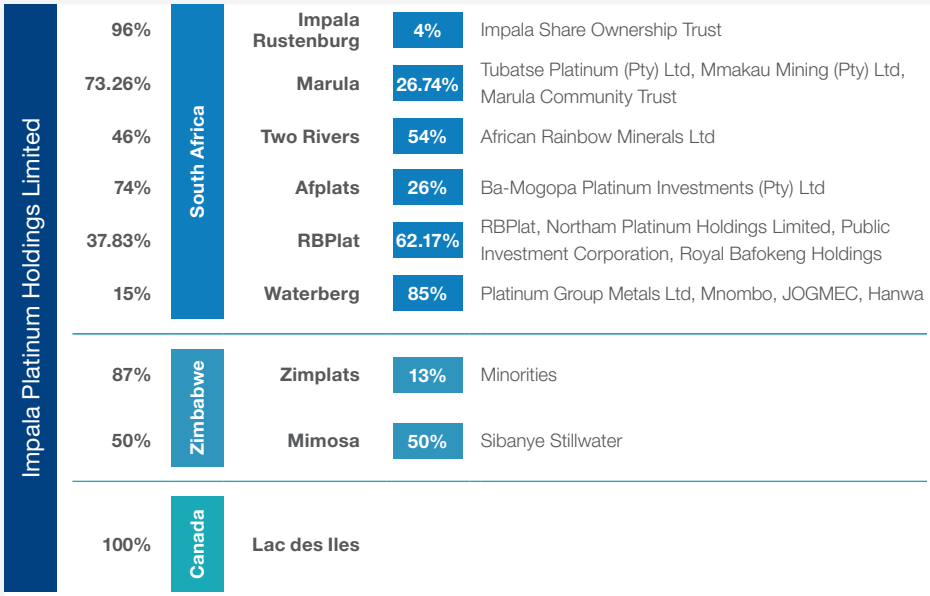
Greenfields exploration activities remain dormant at the South African and Zimbabwean operations, with some activity undertaken by Impala Canada in the Ontario province. Shaft sinking activities at Impala Rustenburg's 17 and Afplats' Leeuwkop Shafts remain suspended.

Group operations

Implats is structured around six mining and processing operations and Impala Refining Services (IRS), a toll-refining business. Group operations are located on the Bushveld Complex in South Africa, the Great Dyke in Zimbabwe – the two most significant PGM orebodies in the world – as well as the Canadian Shield, a prominent igneous complex domain for PGMs in Canada. In South Africa our operations at Impala Rustenburg and the Afplats project are located in the Bojanala Platinum district of the North West province. RBPlat, which will be included in the year-end FY2023 declaration, is located contiguous to Impala Rustenburg. The Marula and Two Rivers operations, together with the Waterberg Joint Venture project, are located in the Limpopo province.

Group structure

as at 30 June 2022



Implats announced in November 2021 the acquisition of 24.5% of the RBPlat shares and has increased this to 37.83% as at 30 June 2022. A shareholder offer to purchase all RBPlat shares was issued on 7 January 2022. Northam Platinum Holdings Limited applied to the Competition Tribunal to intervene in the approval process, which is under review. The date for finalising the Implats transaction is 19 September 2022. However, the date may be extended. Implats intends incorporating its final consolidated equity-based interest in the year-end FY2023 Mineral Resource and Mineral Reserve declaration.

Given the uncompleted transaction, Implats has elected not to report attributable Mineral Resources and Mineral Reserves related to the RBPlat transaction. Details regarding the RBPlat mineral assets can be viewed at **(https://www.bafokengplatinum.co.za)**.

Headline numbers

The headline summary for the Group is shown below. Combined estimates as at 30 June 2022 show a stable inventory with a 3.1% reduction in the Mineral Resource estimates and a substantial increase in the Mineral Reserve estimates. The estimates are reported in the following section and the various chapters per operation and project, where the changes are discussed in more detail.

Attributable estimates*		2022	2021	2020	2019	2018
Mineral Resources	Moz Pt	**128.2**	132.3	132.4	131.6	133.8
	Moz Pd	**87.7**	90.2	89.9	81.5	83.0
	Moz 3E	**227.7**	234.4	233.9	228.0	228.0
	Moz 4E	**242.4**	249.7	249.1	239.5	243.9
	Moz 6E	**268.6**	277.3	277.1	268.3	273.2
	Mt	**1 834.6**	1 885.9	1 818.8	1 710.1	1 740.7
Mineral Reserves	Moz Pt	**25.5**	24.6	21.8	21.2	21.2
	Moz Pd	**19.7**	18.8	17.3	14.7	14.4
	Moz 3E	**47.8**	46.0	41.2	38.0	37.5
	Moz 4E	**50.7**	48.7	43.6	40.3	40.0
	Moz 6E	**55.7**	53.4	47.8	44.3	44.2
	Mt	**528.2**	512.4	419.7	370.7	365.5

* *Mineral Resource estimates are inclusive of Mineral Reserves.*

Attributable Mineral Resources and Mineral Reserves

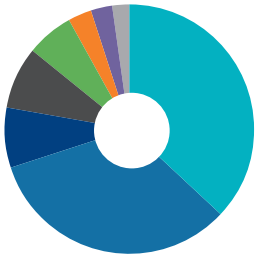
Summary Mineral Resources

Overall, the Group Mineral Resource estimate decreased by 8.7Moz 6E on an attributable basis to 268.6Moz 6E. Zimplats accounts for 37% of the Group's Mineral Resource base, while Impala Rustenburg accounts for 33% and the balance of 30% comprises Marula, Mimosa, Two Rivers, Lac des Iles, Waterberg and Afplats. RBPlat is excluded from this declaration, pending conclusion of the transaction.

For more detail see page 5.

Attributable Mineral Resource estimate of 268.6Moz 6E

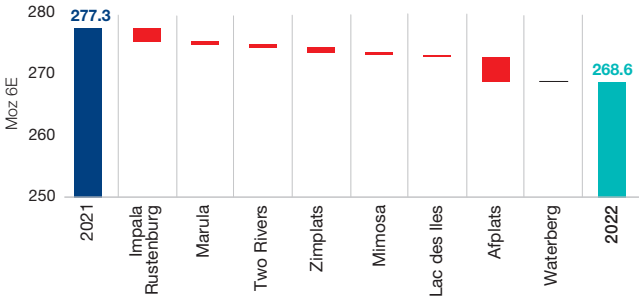
as at 30 June 2022 (%)



	2022	2021
Zimplats	37%	37%
Impala Rustenburg	33%	32%
Afplats	8%	9%
Two Rivers	8%	8%
Marula	6%	6%
Mimosa	3%	3%
Lac des Iles	3%	3%
Waterberg	2%	2%

Attributable Mineral Resource estimate

as at 30 June 2022 (variance Moz 6E)



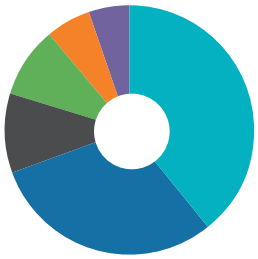
Summary Mineral Reserves

Overall, the Group Mineral Reserve estimate increased by 2.3Moz 6E on an attributable basis to 55.7Moz 6E. Zimplats accounts for 39% of the attributable 6E Mineral Reserve estimate base, while Impala Rustenburg accounts for 30%. RBPlat is excluded from this declaration, pending conclusion of the transaction.

For more detail see page 7.

Attributable Mineral Reserve estimate of 55.7Moz 6E

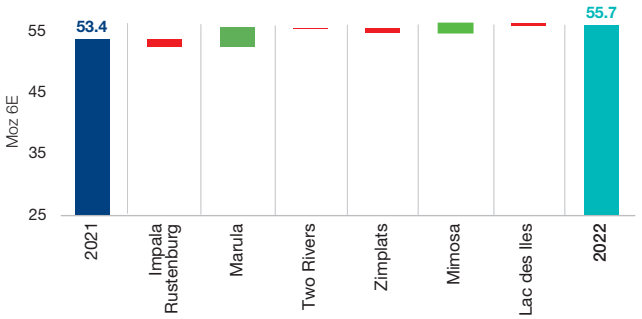
as at 30 June 2022 (%)



	2022	2021
Zimplats	39%	42%
Impala Rustenburg	30%	33%
Two Rivers	10%	11%
Marula	9%	4%
Mimosa	6%	4%
Lac des Iles	5%	6%

Attributable Mineral Reserve estimate

as at 30 June 2022 (variance Moz 6E)



Attributable Mineral Resources and Mineral Reserves (continued)

Implats adopted the inclusive reporting style for Mineral Resources where Mineral Reserves are included in the estimates. All Mineral Resource estimates are reported inclusive of Mineral Reserves unless otherwise stated. A summary table with the estimated Mineral Resources exclusive of Mineral Reserves is provided on page 9.

Attributable Mineral Resource estimates inclusive of Mineral Reserves as at 30 June 2022

Based on Implats' equity interest

		Attributable Mineral Resources inclusive of Mineral Reserves						Attributable ounces								
								Moz								
Operations and projects	Implats' share-holding %	Orebody	Category	Tonnes Mt	3E grade g/t	4E grade g/t	6E grade g/t	Pt	Pd	Rh	Ru	Ir	Au	3E	4E	6E
Impala Rustenburg	96	Merensky	Measured	106.2	5.88	6.21	6.90	13.49	5.83	1.13	1.84	0.54	0.76	20.1	21.2	23.6
			Indicated	62.8	6.04	6.38	7.09	8.19	3.54	0.68	1.11	0.33	0.46	12.2	12.9	14.3
South Africa			Inferred	11.0	6.61	6.98	7.76	1.57	0.68	0.13	0.21	0.06	0.09	2.3	2.5	2.7
		UG2	Measured	143.1	5.05	5.62	6.64	14.88	8.08	2.60	3.55	1.17	0.29	23.2	25.8	30.6
			Indicated	61.0	5.01	5.57	6.59	6.29	3.42	1.10	1.50	0.50	0.12	9.8	10.9	12.9
			Inferred	11.9	4.92	5.47	6.47	1.21	0.66	0.21	0.29	0.10	0.02	1.9	2.1	2.5
		Total		**396.1**	**5.46**	**5.92**	**6.80**	**45.62**	**22.21**	**5.86**	**8.50**	**2.69**	**1.73**	**69.6**	**75.4**	**86.6**
Marula	73.26	Merensky	Measured	25.1	4.14	4.26	4.56	1.99	1.09	0.10	0.20	0.03	0.26	3.3	3.4	3.7
			Indicated	5.6	4.08	4.20	4.50	0.44	0.24	0.02	0.04	0.01	0.06	0.7	0.8	0.8
South Africa			Inferred	3.8	3.71	3.82	4.10	0.27	0.15	0.01	0.03	0.00	0.04	0.5	0.5	0.5
		UG2	Measured	31.3	5.80	6.37	7.40	2.71	3.03	0.58	0.84	0.19	0.09	5.8	6.4	7.4
			Indicated	16.4	5.67	6.24	7.28	1.42	1.51	0.30	0.44	0.10	0.05	3.0	3.3	3.8
			Inferred	4.7	5.74	6.32	7.37	0.41	0.45	0.09	0.13	0.03	0.01	0.9	1.0	1.1
		Total		**86.8**	**5.09**	**5.48**	**6.22**	**7.25**	**6.47**	**1.10**	**1.69**	**0.37**	**0.50**	**14.2**	**15.3**	**17.4**
Two Rivers	46	Merensky	Indicated	34.8	3.03	3.13	3.42	2.09	1.07	0.12	0.27	0.05	0.23	3.4	3.5	3.8
			Inferred	28.2	3.84	3.98	4.32	2.07	1.19	0.12	0.26	0.05	0.23	3.5	3.6	3.9
South Africa		UG2	Measured	8.2	4.06	4.53	5.52	0.67	0.39	0.12	0.21	0.05	0.01	1.1	1.2	1.5
			Indicated	35.5	4.28	4.76	5.74	2.96	1.87	0.55	0.91	0.22	0.05	4.9	5.4	6.6
			Inferred	37.1	4.06	4.51	5.38	2.83	1.96	0.53	0.84	0.21	0.06	4.8	5.4	6.4
		Total		**143.9**	**3.82**	**4.13**	**4.80**	**10.63**	**6.47**	**1.45**	**2.48**	**0.58**	**0.58**	**17.7**	**19.1**	**22.2**
Zimplats	87	MSZ	Measured	212.0	3.31	3.46	3.65	11.67	9.20	0.97	0.89	0.44	1.72	22.6	23.6	24.9
			Indicated	465.7	3.34	3.49	3.68	26.46	19.61	2.12	1.95	0.98	3.99	50.1	52.2	55.1
Zimbabwe			Inferred	178.4	3.26	3.40	3.58	10.13	7.00	0.77	0.68	0.35	1.59	18.7	19.5	20.5
		Total		**856.1**	**3.32**	**3.46**	**3.65**	**48.25**	**35.81**	**3.86**	**3.53**	**1.77**	**7.30**	**91.4**	**95.2**	**100.5**
Mimosa	50	MSZ	Measured	34.7	3.37	3.53	3.75	1.92	1.52	0.17	0.17	0.08	0.33	3.8	3.9	4.2
			Indicated	13.2	3.35	3.50	3.72	0.73	0.57	0.06	0.06	0.03	0.13	1.4	1.5	1.6
Zimbabwe			Inferred	15.5	3.24	3.39	3.61	0.84	0.64	0.07	0.07	0.04	0.14	1.6	1.7	1.8
		Total		**63.5**	**3.34**	**3.49**	**3.71**	**3.49**	**2.72**	**0.31**	**0.30**	**0.15**	**0.59**	**6.8**	**7.1**	**7.6**
Lac des Iles	100	LDI Intrusive Complex	Measured	17.8	2.64	2.64	2.64	0.12	1.29	–	–	–	0.10	1.5	1.5	1.5
			Indicated	65.7	2.39	2.39	2.39	0.42	4.32	–	–	–	0.31	5.1	5.1	5.1
Canada			Inferred	7.6	2.16	2.16	2.16	0.04	0.46	–	–	–	0.02	0.5	0.5	0.5
		Total		**91.2**	**2.42**	**2.42**	**2.42**	**0.59**	**6.07**	**–**	**–**	**–**	**0.43**	**7.1**	**7.1**	**7.1**
Afplats	74	UG2	Measured	58.9	4.68	5.29	6.58	6.09	2.72	1.15	1.98	0.46	0.05	8.9	10.0	12.4
			Indicated	6.8	4.61	5.22	6.48	0.70	0.31	0.13	0.23	0.05	0.01	1.0	1.1	1.4
South Africa			Inferred	35.3	4.52	5.15	6.35	3.53	1.58	0.66	1.15	0.27	0.03	5.1	5.8	7.2
		Total		**101.0**	**4.62**	**5.24**	**6.49**	**10.31**	**4.61**	**1.94**	**3.36**	**0.78**	**0.08**	**15.0**	**17.0**	**21.1**
Waterberg	15	T-Zone	Measured	0.7	4.16	4.20	4.20	0.03	0.05	0.00	–	–	0.02	0.1	0.1	0.1
			Indicated	2.6	4.58	4.61	4.61	0.11	0.19	0.00	–	–	0.07	0.4	0.4	0.4
South Africa			Inferred	3.3	3.83	3.86	3.86	0.12	0.20	0.00	–	–	0.08	0.4	0.4	0.4
		F-Zone	Measured	8.1	3.31	3.36	3.36	0.25	0.57	0.01	–	–	0.04	0.9	0.9	0.9
			Indicated	25.0	3.19	3.24	3.24	0.77	1.68	0.04	–	–	0.12	2.6	2.6	2.6
			Inferred	6.7	2.94	2.98	2.98	0.19	0.41	0.01	–	–	0.03	0.6	0.6	0.6
		Total		**46.4**	**3.31**	**3.36**	**3.36**	**1.46**	**3.11**	**0.07**	**–**	**–**	**0.37**	**4.9**	**5.0**	**5.0**
Implats	**Total underground**			**1 784.9**	**3.95**	**4.20**	**4.66**	**127.6**	**87.5**	**14.6**	**19.9**	**6.3**	**11.6**	**226.6**	**241.3**	**267.4**
Impala Rustenburg	96	TSF1 and 2	Indicated	49.7	0.64	0.67	0.75	0.64	0.25	0.04	0.11	0.03	0.13	1.0	1.1	1.2
South Africa	**Total surface**			**49.7**	**0.64**	**0.67**	**0.75**	**0.64**	**0.25**	**0.04**	**0.11**	**0.03**	**0.13**	**1.0**	**1.1**	**1.2**
Implats	**Grand total**			**1 834.6**	**3.86**	**4.11**	**4.55**	**128.2**	**87.7**	**14.6**	**20.0**	**6.4**	**11.7**	**227.7**	**242.4**	**268.6**

Estimated values that are less than 0.01 are reported as 0.00.

Implats reports a summary of total attributable ounces as sourced from all categories of Mineral Resources for the Implats Group of companies and its other strategic interests on a percentage equity-interest basis. The tabulation above reflects estimates for 3E, 4E and 6E ounces, based on the percentage equity interest. For clarity, both attributable Mineral Resources, inclusive of Mineral Reserves, and attributable Mineral Resources, exclusive of Mineral Reserves, are shown separately in different sections of this report. Note that these are not additive to each other. This tabulation excludes RBPlat, which will be accounted for in the year-end FY2023 Mineral Resources and Mineral Reserves declaration.

Summary of attributable Mineral Resource estimate

Operations and projects	Attributable Moz 6E				
	2018	2019	2020	2021	2022
Impala Rustenburg	94.2	93.5	90.2	89.9	**87.8**
Marula	18.3	18.2	18.0	17.9	**17.4**
Two Rivers*	24.2	22.3	22.4	22.7	**22.2**
Zimplats	104.2	102.3	102.8	101.4	**100.5**
Mimosa*	7.2	6.9	6.8	7.9	**7.6**
Lac des Iles	–	–	6.8	7.4	**7.1**
Afplats	25.1	25.1	25.1	25.1	**21.1**
Waterberg*	–	–	5.0	5.0	**5.0**
Total	**273.2**	**268.3**	**277.1**	**277.3**	**268.6**

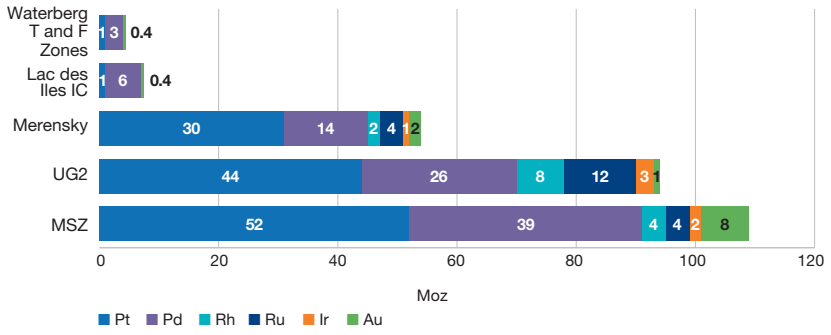
* *Non-managed.*

The accompanying graphs illustrate the following:

- The five-year statistics for the estimated attributable platinum, palladium, rhodium, ruthenium, gold and iridium Mineral Resources indicate no material change since 2018 with a minor decrease in the platinum and palladium estimates as at 30 June 2022
- The comparison based on 6E ounces shows that the Impala Rustenburg and Zimplats Mineral Resources comprise the bulk of the Group's Mineral Resources (70% of the total Implats inventory) (see page 4)
- The 6E ounces per reef grouping show that the MSZ hosts 40% of the attributable Implats Mineral Resources.

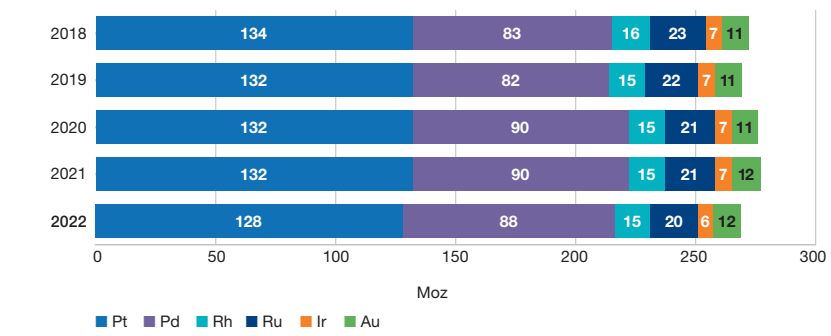
Attributable Mineral Resource estimate per reef inclusive of Mineral Reserves

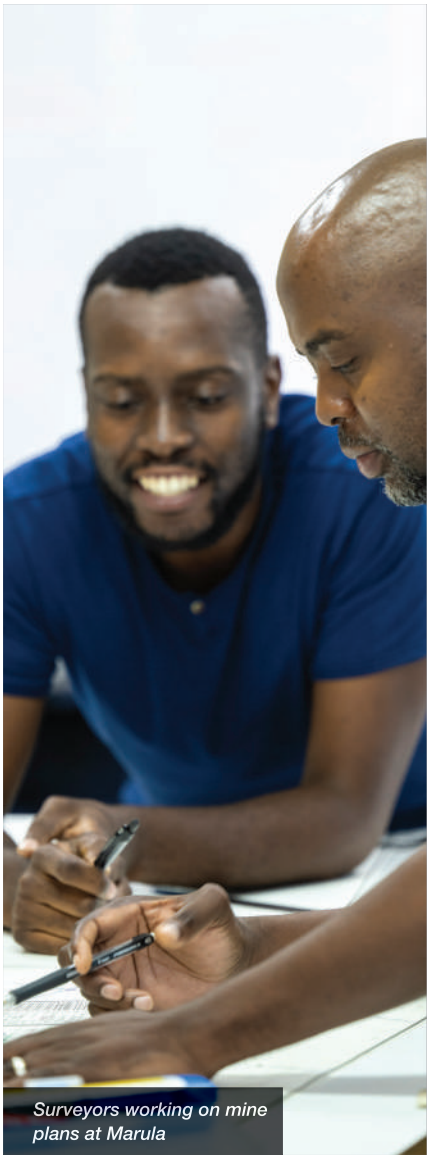
as at 30 June 2022 (Moz)



Attributable Mineral Resource estimate inclusive of Mineral Reserves

as at 30 June 2022 (Moz per annum)





Surveyors working on mine plans at Marula

Attributable Mineral Resources and Mineral Reserves (continued)

Attributable Mineral Reserve estimates as at 30 June 2022

Based on Implats' equity interest

		Attributable Mineral Reserves estimate						Attributable ounces								
								Moz								
Operations	Implats' share-holding %	Orebody	Category	Tonnes Mt	3E grade g/t	4E grade g/t	6E grade g/t	Pt	Pd	Rh	Ru	Ir	Au	3E	4E	6E
Impala Rustenburg	**96**	**Merensky**	Proved	10.8	3.48	3.67	4.08	0.81	0.35	0.07	0.11	0.03	0.05	1.2	1.3	1.4
			Probable	38.7	3.58	3.78	4.20	2.99	1.29	0.25	0.41	0.12	0.17	4.4	4.7	5.2
South Africa		**UG2**	Proved	12.3	3.31	3.68	4.36	0.84	0.46	0.15	0.20	0.07	0.02	1.3	1.5	1.7
			Probable	51.0	3.21	3.57	4.22	3.37	1.83	0.59	0.80	0.27	0.06	5.3	5.9	6.9
		Total		**112.8**	**3.37**	**3.66**	**4.22**	**8.01**	**3.93**	**1.05**	**1.52**	**0.48**	**0.29**	**12.2**	**13.3**	**15.3**
Marula	**73.26**	**UG2**	Proved	2.7	4.00	4.40	5.08	0.16	0.18	0.03	0.05	0.01	0.01	0.3	0.4	0.4
South Africa			Probable	33.6	3.44	3.79	4.41	1.74	1.91	0.38	0.54	0.13	0.06	3.7	4.1	4.8
		Total		**36.3**	**3.48**	**3.84**	**4.46**	**1.90**	**2.09**	**0.42**	**0.59**	**0.14**	**0.06**	**4.1**	**4.5**	**5.2**
Two Rivers	**46**	**Merensky**	Proved	–	–	–	–	–	–	–	–	–	–	–	–	–
			Probable	23.2	2.56	2.65	2.89	1.18	0.60	0.07	0.03	0.15	0.13	1.9	2.0	2.2
South Africa		**UG2**	Proved	5.6	2.34	2.61	3.18	0.26	0.15	0.05	0.08	0.02	0.00	0.4	0.5	0.6
			Probable	26.9	2.46	2.74	3.33	1.32	0.78	0.25	0.41	0.10	0.03	2.1	2.4	2.9
		Total		**55.7**	**2.49**	**2.69**	**3.13**	**2.77**	**1.53**	**0.36**	**0.52**	**0.27**	**0.16**	**4.5**	**4.8**	**5.6**
Zimplats	**87**	**MSZ**	Proved	95.1	3.06	3.19	3.37	4.83	3.81	0.40	0.36	0.19	0.71	9.3	9.7	10.3
Zimbabwe			Probable	107.7	3.05	3.17	3.35	5.44	4.31	0.45	0.41	0.21	0.80	10.5	11.0	11.6
		Total		**202.9**	**3.05**	**3.18**	**3.36**	**10.27**	**8.12**	**0.85**	**0.77**	**0.40**	**1.51**	**19.9**	**20.7**	**21.9**
Mimosa	**50**	**MSZ**	Proved	21.2	3.34	3.48	3.70	1.17	0.91	0.09	0.20	0.05	0.10	2.2	2.3	2.5
Zimbabwe			Probable	9.3	3.30	3.44	3.66	0.51	0.39	0.04	0.09	0.02	0.04	0.9	1.0	1.1
		Total		**30.4**	**3.33**	**3.47**	**3.69**	**1.67**	**1.30**	**0.14**	**0.29**	**0.07**	**0.14**	**3.1**	**3.2**	**3.6**
Lac des Iles	**100**		Proved	4.9	2.27	2.27	2.27	0.03	0.31	–	–	–	0.02	0.4	0.4	0.4
Canada			Probable	35.4	2.22	2.22	2.22	0.20	2.17	–	–	–	0.16	2.5	2.5	2.5
		Total		**40.4**	**2.22**	**2.22**	**2.22**	**0.23**	**2.48**	–	–	–	**0.18**	**2.9**	**2.9**	**2.9**
Implats	**Total underground**			**478.4**	**3.04**	**3.22**	**3.54**	**24.8**	**19.4**	**2.8**	**3.7**	**1.4**	**2.3**	**46.6**	**49.5**	**54.5**
Impala Rustenburg	**96**		Proved	–	–	–	–	–	–	–	–	–	–	–	–	–
			Probable	49.7	0.64	0.67	0.75	0.64	0.25	0.04	0.11	0.03	0.13	1.0	1.1	1.2
South Africa	**Total surface**			**49.7**	**0.64**	**0.67**	**0.75**	**0.64**	**0.25**	**0.04**	**0.11**	**0.03**	**0.13**	**1.0**	**1.1**	**1.2**
Implats	**Grand total**			**528.2**	**2.82**	**2.98**	**3.28**	**25.5**	**19.7**	**2.9**	**3.8**	**1.4**	**2.5**	**47.7**	**50.5**	**55.7**

This tabulation excludes RBPlat, which will be accounted for in the year-end FY2023 Mineral Resources and Mineral Reserves declaration.

Summary of attributable Mineral Reserve estimates

	Attributable Moz 6E				
Operations	2018	2019	2020	2021	2022
Impala Rustenburg	14.6	12.8	15.1	17.7	**16.5**
Marula	2.6	2.3	2.2	2.0	**5.2**
Two Rivers*	3.7	3.4	3.3	5.8	**5.6**
Zimplats	21.3	23.9	22.4	22.6	**21.9**
Mimosa*	2.1	1.9	1.6	2.0	**3.6**
Lac des Iles	–	–	3.2	3.3	**2.9**
Total	44.2	44.3	47.8	53.4	**55.7**

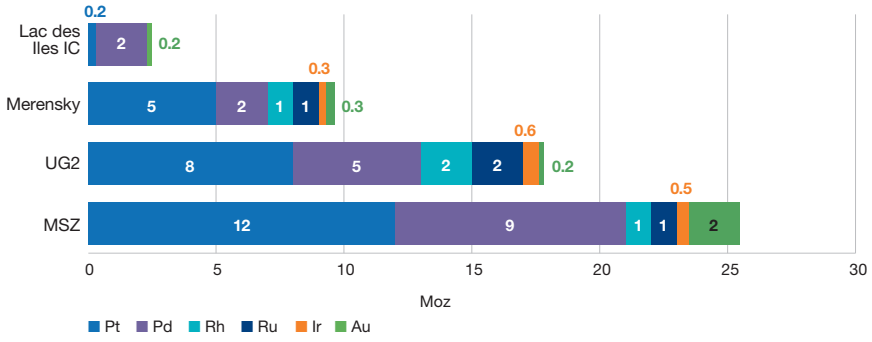
* *Non-managed.*

The attendant graphs compare the last few reporting periods and indicate an overall increase in attributable Mineral Reserves in line with depletion and the changes mentioned above:

- The five-year statistics for the estimated attributable 6E Mineral Reserves indicate an increase as at 30 June 2022 compared with the previous reporting period
- Comparison based on 6E ounces shows that the Zimplats Mineral Reserves comprise 39% of the Implats Mineral Reserves (see page 4)
- The estimates per reef show that the MSZ hosts some 46% of the attributable 6E Implats Mineral Reserves at the Zimplats and Mimosa mines
- The updated allocation of Implats' 6E Mineral Reserves per operation is shown on the next page. The advantage at Zimplats regarding the operating depth and size is clearly illustrated.

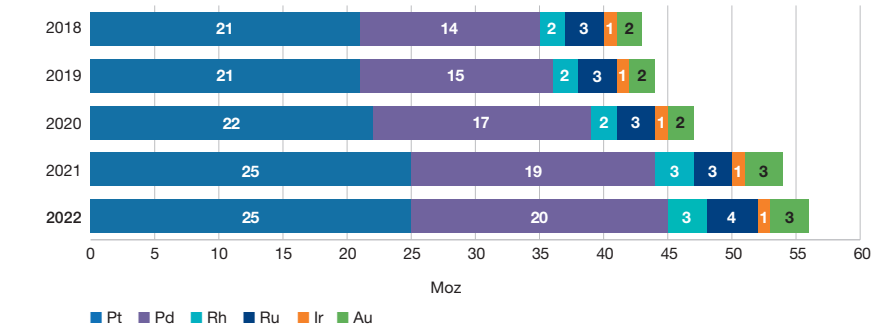
Attributable Mineral Reserve estimate per reef

as at 30 June 2022 (Moz)



Attributable Mineral Reserve estimate

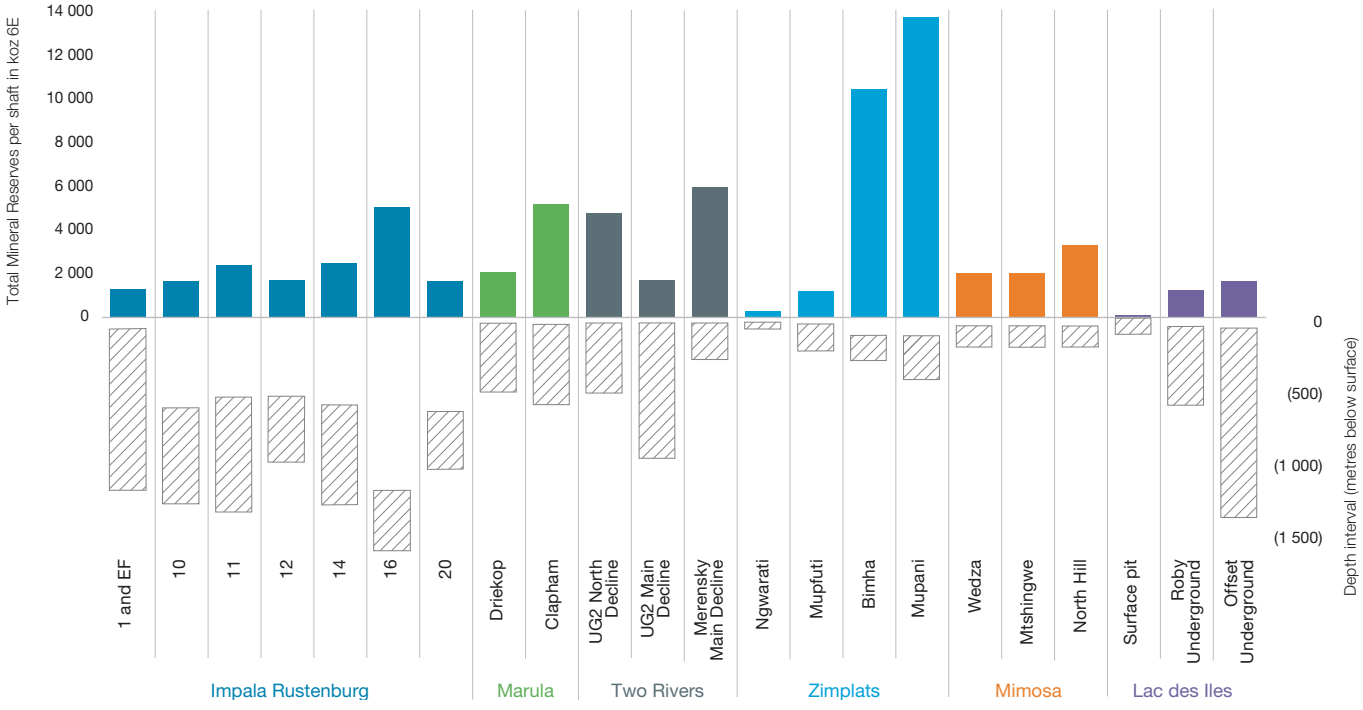
as at 30 June 2022 (Moz per annum)



Underground development mapping of the UG2 Reef at Marula

6E Mineral Reserve estimate and depth range for individual Implats operations

as at 30 June 2022



Attributable Mineral Resources and Mineral Reserves (continued)

Attributable Mineral Resource summary, exclusive of Mineral Reserves

Various international reporting codes permit both inclusive and exclusive methods of reporting Mineral Resources. Implats has adopted inclusive reporting for consistency and alignment with its strategic partners. A collation of the Mineral Resource estimates exclusive of Mineral Reserves is presented below, allowing for additional transparency.

Summary of Mineral Resource estimates, exclusive of Mineral Reserves as at 30 June 2022

Based on Implats' equity interest				Total estimate				Attributable estimate									
															Moz		
Operations and projects	Implats' share-holding %	Orebody	Category	Tonnage Mt	3E grade g/t	4E grade g/t	6E grade g/t	Tonnage Mt	Pt	Pd	Rh	Ru	Ir	Au	3E	4E	6E
Impala Rustenburg South Africa	**96**	**Merensky**	Measured	60.3	5.97	6.31	7.01	57.9	7.47	3.23	0.62	1.02	0.30	0.42	11.1	11.7	13.1
			Indicated	65.4	6.04	6.38	7.09	62.8	8.19	3.54	0.68	1.11	0.33	0.46	12.2	12.9	14.3
			Inferred	11.5	6.61	6.98	7.76	11.0	1.57	0.68	0.13	0.21	0.06	0.09	2.3	2.5	2.7
		UG2	Measured	90.3	4.94	5.49	6.50	86.7	8.82	4.79	1.54	2.10	0.69	0.17	13.8	15.3	18.1
			Indicated	63.6	5.01	5.57	6.59	61.1	6.29	3.42	1.10	1.50	0.50	0.12	9.8	10.9	12.9
			Inferred	12.4	4.92	5.47	6.47	11.9	1.21	0.66	0.21	0.29	0.10	0.02	1.9	2.1	2.5
		Total		**303.5**	**5.46**	**5.92**	**6.79**	**291.4**	**33.54**	**16.31**	**4.30**	**6.24**	**1.98**	**1.28**	**51.1**	**55.4**	**63.7**
Marula South Africa	**73.26**	**Merensky**	Measured	34.3	4.14	4.26	4.56	25.1	1.99	1.09	0.10	0.20	0.03	0.26	3.3	3.4	3.7
			Indicated	7.6	4.08	4.20	4.50	5.6	0.44	0.24	0.02	0.04	0.01	0.06	0.7	0.8	0.8
			Inferred	5.2	3.71	3.82	4.10	3.8	0.27	0.15	0.01	0.03	0.00	0.04	0.5	0.5	0.5
		UG2	Measured	4.7	5.59	6.16	7.20	3.4	0.30	0.31	0.06	0.09	0.02	0.01	0.6	0.7	0.8
			Indicated	15.5	5.66	6.23	7.27	11.4	0.99	1.05	0.21	0.31	0.07	0.03	2.1	2.3	2.7
			Inferred	6.4	5.74	6.32	7.37	4.7	0.41	0.45	0.09	0.13	0.03	0.01	0.9	1.0	1.1
		Total		**73.6**	**4.66**	**4.94**	**5.50**	**53.9**	**4.40**	**3.27**	**0.49**	**0.80**	**0.17**	**0.41**	**8.1**	**8.6**	**9.5**
Two Rivers South Africa	**46**	**Merensky**	Indicated	29.9	2.62	2.72	2.97	13.7	0.72	0.36	0.04	0.09	0.02	0.08	1.2	1.2	1.3
			Inferred	61.4	3.84	3.98	4.32	28.2	2.07	1.19	0.12	0.26	0.05	0.23	3.5	3.6	3.9
		UG2	Measured	4.4	4.29	4.80	5.82	2.0	0.18	0.09	0.03	0.05	0.01	0.00	0.3	0.3	0.4
			Indicated	20.7	4.49	4.98	5.98	9.5	0.81	0.55	0.15	0.24	0.06	0.02	1.4	1.5	1.8
			Inferred	80.7	4.06	4.51	5.38	37.1	2.83	1.96	0.53	0.84	0.21	0.06	4.8	5.4	6.4
		Total		**197.1**	**3.83**	**4.13**	**4.76**	**90.6**	**6.61**	**4.15**	**0.88**	**1.49**	**0.34**	**0.38**	**11.1**	**12.0**	**13.9**
Zimplats Zimbabwe	**87**	**MSZ**	Measured	69.7	3.53	3.68	3.89	60.7	3.58	2.76	0.30	0.28	0.14	0.54	6.9	7.2	7.6
			Indicated	310.3	3.45	3.60	3.80	269.9	16.13	11.37	1.26	1.17	0.58	2.47	30.0	31.2	33.0
			Inferred	205.0	3.26	3.40	3.58	178.4	10.13	7.00	0.77	0.68	0.35	1.59	18.7	19.5	20.5
		Total		**585.0**	**3.40**	**3.54**	**3.73**	**509.0**	**29.84**	**21.13**	**2.32**	**2.13**	**1.07**	**4.61**	**55.6**	**57.9**	**61.1**
Mimosa Zimbabwe	**50**	**MSZ**	Measured	6.4	3.27	3.42	3.63	3.2	0.17	0.13	0.02	0.01	0.01	0.03	0.3	0.4	0.4
			Indicated	3.5	3.45	3.60	3.82	1.8	0.10	0.08	0.01	0.01	0.00	0.02	0.2	0.2	0.2
			Inferred	31.0	3.24	3.39	3.61	15.5	0.84	0.64	0.07	0.07	0.04	0.14	1.6	1.7	1.8
		Total		**41.0**	**3.26**	**3.41**	**3.63**	**20.5**	**1.11**	**0.85**	**0.10**	**0.10**	**0.05**	**0.19**	**2.2**	**2.2**	**2.4**
Lac des Iles Canada	**100**	**LDI Intrusive Complex**	Measured	9.6	2.67	2.67	2.67	9.6	0.07	0.71	–	–	–	0.05	0.8	0.8	0.8
			Indicated	29.6	2.29	2.29	2.29	29.6	0.19	1.86	–	–	–	0.13	2.2	2.2	2.2
			Inferred	5.1	2.33	2.33	2.33	5.1	0.03	0.33	–	–	–	0.02	0.4	0.4	0.4
		Total		**44.2**	**2.38**	**2.38**	**2.38**	**44.2**	**0.30**	**2.89**	–	–	–	**0.20**	**3.4**	**3.4**	**3.4**
Afplats South Africa	**74**	**UG2**	Measured	79.5	4.68	5.29	6.58	58.9	6.09	2.72	1.15	1.98	0.46	0.05	8.9	10.0	12.4
			Indicated	9.2	4.61	5.22	6.48	6.8	0.70	0.31	0.13	0.23	0.05	0.01	1.0	1.1	1.4
			Inferred	47.7	4.52	5.15	6.35	35.3	3.53	1.58	0.66	1.15	0.27	0.03	5.1	5.8	7.2
		Total		**136.5**	**4.62**	**5.24**	**6.49**	**101.0**	**10.31**	**4.61**	**1.94**	**3.36**	**0.78**	**0.08**	**15.0**	**17.0**	**21.1**
Waterberg South Africa	**15**	**T-Zone**	Measured	4.4	4.16	4.20	4.20	0.7	0.03	0.05	0.00	–	–	0.02	0.1	0.1	0.1
			Indicated	17.0	4.58	4.61	4.61	2.6	0.11	0.19	0.00	–	–	0.07	0.4	0.4	0.4
			Inferred	21.8	3.83	3.86	3.86	3.3	0.12	0.20	0.00	–	–	0.08	0.4	0.4	0.4
		F-Zone	Measured	54.1	3.31	3.36	3.36	8.1	0.25	0.57	0.01	–	–	0.04	0.9	0.9	0.9
			Indicated	166.9	3.19	3.24	3.24	25.0	0.77	1.68	0.04	–	–	0.12	2.6	2.6	2.6
			Inferred	44.8	2.94	2.98	2.98	6.7	0.19	0.41	0.01	–	–	0.03	0.6	0.6	0.6
		Total		**309.1**	**3.31**	**3.36**	**3.36**	**46.4**	**1.46**	**3.11**	**0.07**	**–**	**–**	**0.37**	**4.9**	**5.0**	**5.0**
All Mineral Resources exclusive of Mineral Reserves			Measured	417.8	4.44	4.78	5.43	316.3	28.9	16.4	3.8	5.7	1.7	1.6	47.0	50.8	58.2
			Indicated	739.2	3.80	3.99	4.30	499.7	35.4	24.6	3.6	4.7	1.6	3.6	63.7	67.3	73.6
			Inferred	533.1	3.69	3.93	4.34	341.1	23.2	15.2	2.6	3.7	1.1	2.3	40.8	43.4	48.1
Implats	**Grand total**			**1 690.1**	**3.92**	**4.17**	**4.60**	**1 157.1**	**87.6**	**56.3**	**10.1**	**14.1**	**4.4**	**7.5**	**151.4**	**161.6**	**180.0**

Estimated values that are less than 0.01 are reported as 0.00.

This tabulation excludes RBPlat, which will be accounted for in the year-end FY2023 Mineral Resources and Mineral Reserves declaration.

Summary of attributable Mineral Resource estimates exclusive of Mineral Reserves

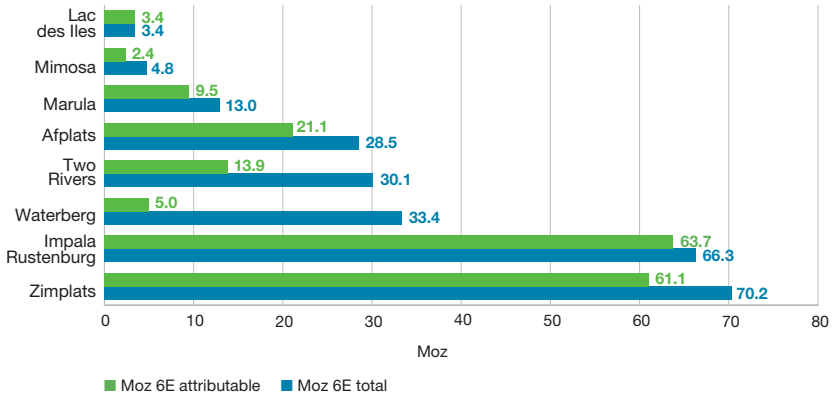
Operations and projects	Attributable Moz 6E				
	2018	2019	2020	2021	2022
Impala Rustenburg	73.4	75.9	67.0	63.4	**63.7**
Marula	15.1	15.1	15.1	15.2	**9.5**
Two Rivers*	18.4	16.1	15.9	14.0	**13.9**
Zimplats	68.8	62.4	64.3	61.1	**61.1**
Mimosa*	4.1	4.1	4.2	4.9	**2.4**
Lac des Iles	–	–	3.0	3.5	**3.4**
Afplats	25.1	25.1	25.1	25.1	**21.1**
Waterberg*	–	–	5.0	5.0	**5.0**
Total	**204.9**	**198.7**	**199.6**	**192.2**	**180.0**

* *Non-managed.*

Notes

- The figures in the accompanying table reflect those Mineral Resources that have not been converted to Mineral Reserves, ie these are the Mineral Resources exclusive of Mineral Reserves
- The tabulation should be read in conjunction with the Mineral Reserve statement in the preceding sections
- A direct comparison of tonnes and grade is not possible between inclusive and exclusive reporting, owing to the mixing of Mineral Resource figures with production estimates
- The year-on-year decrease can be attributed to the conversion of Mineral Resources at Mimosa and Marula and the exclusion of the expired Afplats prospecting rights.

Exclusive Mineral Resource estimate
as at 30 June 2022 (total and attributable) (Moz 6E)



Geologists inspecting drill core at Marula

Reconciliation of estimates

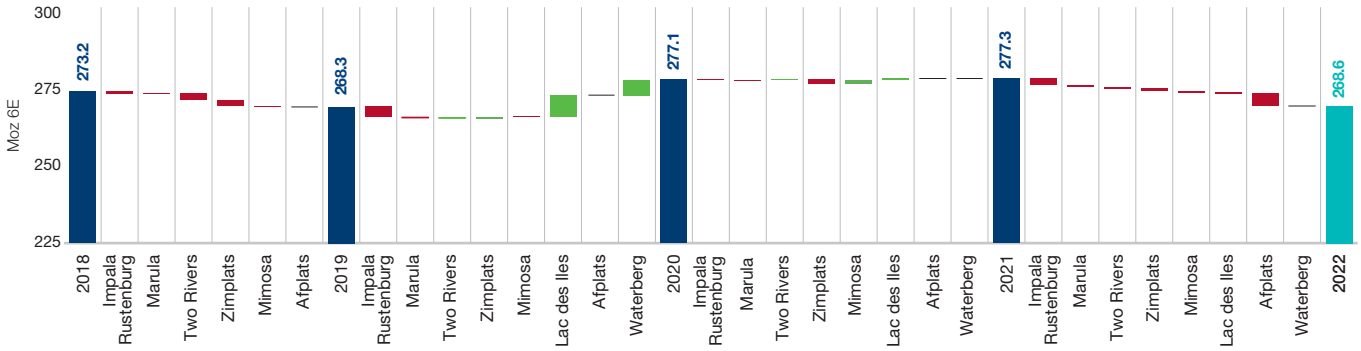
The consolidated high-level reconciliations of the attributable Mineral Resources and Mineral Reserves for both managed and non-managed operations are shown below. These high-level variances are relatively small. In addition to depletions, particulars of these variances are illustrated in more detail in the sections by operation. The rounding of numbers may result in computational discrepancies, specifically in these high-level comparisons.

Mineral Resource reconciliation

The significant variances in the estimated attributable Group Mineral Resources during the past five years are:

- 2018 to 2019: The significant decrease in Mineral Resources applied to Two Rivers with the exclusion of a portion of the Buffelshoek Merensky Reef Mineral Resources due to an update in the Mineral Resource classification based on consideration for reasonable prospects for eventual economic extraction (RPEEE)
- 2019 to 2020: Effective year-on-year increase due to the inclusion of the Lac des Iles operations and Waterberg project Mineral Resource estimates
- 2020 to 2021: Minor increase year-on-year, mainly due to an increase at Two Rivers, Mimosa and Lac des Iles
- 2021 to 2022: Minor variances mostly due to depletion at the mining operations and a decrease in the Afplats Mineral Resources due to the exclusion of the expired prospecting rights.

Attributable Mineral Resource estimate
as at 30 June 2022 (variance Moz 6E)

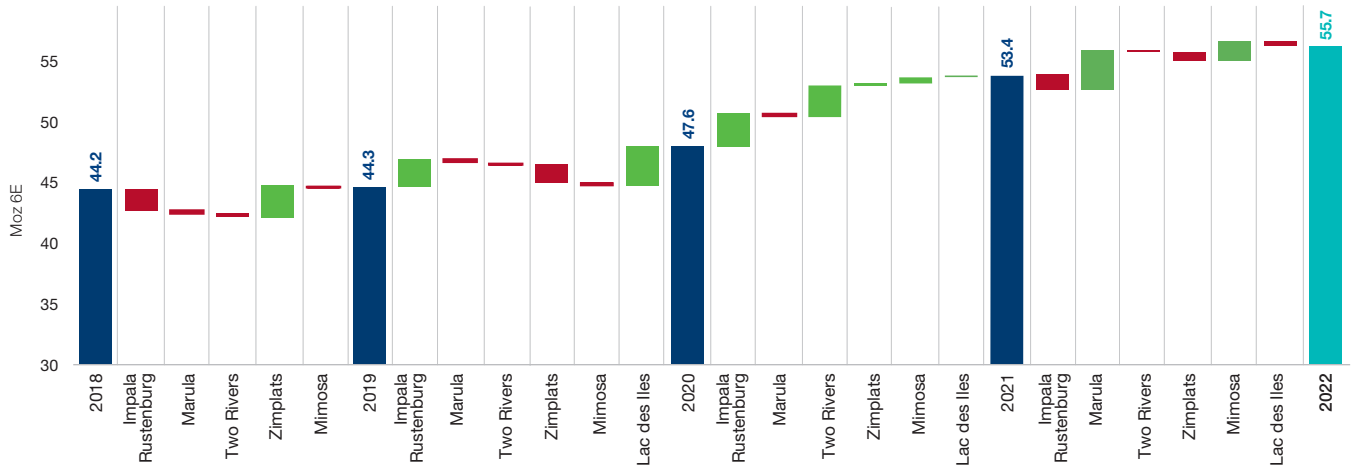


Mineral Reserve reconciliation

The significant variances in the estimated Group Mineral Reserves during the past five years are:

- 2018 to 2019: Mining depletions were offset by the addition of Mineral Reserves at Mupani Mine (Portal 6) after the conversion of a portion of Portal 8 Mineral Resources to Mineral Reserves; this follows from a footprint reallocation of Portal 8 ground to Mupani and Portal 10 either side of the Muzvezve Fault
- 2019 to 2020: Effective increase in Mineral Reserve estimates due to the inclusion of Lac des Iles Mineral Reserves and the extensions to the LoM I at Impala Rustenburg
- 2020 to 2021: Increase due to the growth of LoM I at Impala Rustenburg, the addition of Merensky Reef Mineral Reserves at Two Rivers and the acquisition of Wedza West (the Anglo American Platinum claims at Mimosa)
- 2021 to 2022: Increase due to the approval of the Marula Phase II project and the North Hill project at Mimosa. The year-on-year comparison is impacted by the depletion of Mineral Reserves.

Attributable Mineral Reserve estimate
as at 30 June 2022 (variance Moz 6E)



Governance and compliance

The reporting of Mineral Resources and Mineral Reserves for Implats' South African, Zimbabwean and Canadian operations is undertaken in accordance with the principles and guidelines of the SAMREC Code (2016), including Appendices and Table 1, and Section 12.13 of the JSE Listings Requirements.

All operations' Mineral Resources and Mineral Reserves report to the SAMREC Code (2016), except Zimplats which uses the JORC Code (2012) as required by the Australian Securities Exchange (ASX). This code either is identical to SAMREC (2016) or not materially different. Implats reviews the Zimplats' processes, procedures and estimates to ensure that Mineral Resource and Mineral Reserve estimates fully comply with the SAMREC Code (2016). Mimosa, a Mauritius-based company has no regulatory reporting code and adopted the SAMREC Code (2016).

The SAMREC Code was last updated in 2016, which superseded the previous editions of the code; this was launched on 19 May 2016 at the JSE. Section 12 of the JSE Listings Requirements has been updated, and the revised SAMREC and SAMVAL Codes were enacted on 1 January 2017.

The latest edition of the SAMREC Code (2016 Edition) includes an updated Table 1 template, which provides an extended list of the main criteria that must be considered and reported when reporting on Exploration Results, Mineral Resources and Mineral Reserves.

Various Competent Persons (CPs), as defined by the SAMREC Code (2016) and JORC Code (2012), have contributed to the estimation of the Mineral Resource and Mineral Reserve figures quoted in this report. Implats has written confirmation from the Competent Persons that the information disclosed in this document complies with the SAMREC Code (2016) and, where applicable, the relevant SAMREC Table 1, Appendices and JSE Section 12 Listings Requirements (Section 12.13) and that it may be published in the form, format and context in which it was intended. A list with the details of the appointed CPs per operation and project is reported in the appendices at the back of this document (see page 105).

Gerhard Potgieter, Group Chief Operating Officer, PrEng, ECSA Registration No 20030236, a full-time employee of Implats with 37 years' relevant mining experience, takes full responsibility for the Mineral Reserve estimates for the Group.

Theodore Pegram, Executive – Mineral Resources, PrSciNat, SACNASP Registration No 400032/03, a full-time employee of Implats with 33 years' relevant experience, assumes responsibility for the Mineral Resource estimates for the Implats Group. He also assumes responsibility for collating the combined Mineral Resource and Mineral Reserve Statement for the Group.

Nico Strydom, BCompt (Hons), CA(SA), ACMA, Group Manager – Project Finance, a full-time employee of Implats, with 28 years' relevant experience, takes full responsibility for the Mineral Resources and Mineral Reserves' valuation.

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Engineering Council of South Africa (ECSA)
Private Bag X691, Bruma, 2026, Gauteng, South Africa.

The address for SACNASP is:
South African Council for Natural Scientific Professions (SACNASP) Private Bag X540, Silverton, 0127
Gauteng, South Africa.

The address for SAICA is:
The South African Institute of Chartered Accountants (SAICA)
Private Bag X32, Northlands, 2116
Gauteng, South Africa.

The contact details of the Lead Competent Persons are as follows:

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ECSA 20030236, MSAIMM
Lead Competent Person – Mineral Reserves
Group Chief Operating Officer
Impala Platinum Holdings Limited
2 Fricker Road
Illovo, 2196
Private Bag X18
Northlands, 2116

1 September 2022

Theodore Pegram
SACNASP 400032/03, FGSSA, FSAIMM
Lead Competent Person – Mineral Resources
Executive – Mineral Resources
Impala Platinum Holdings Limited
2 Fricker Road
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1 September 2022

Nico Strydom
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Lead Competent Valuator
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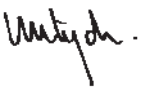


1 September 2022

Governance and compliance (continued)

IMPLATS
EXCELLENCE IN PGMs

2022 INDEPENDENT AUDITS OF THE MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

Implats has exhausted all reasonable means of oversight towards ensuring the integrity of the 2022 Mineral Resources and Mineral Reserves Statement.

Several consultancy firms (auditors) were engaged towards undertaking independent external audits of the Mineral Resource and Mineral Reserve estimates and supporting Life of Mine Plans (LoM I) which underpin the 2022 declaration. The 2022 external audits were undertaken at both managed as well as non-managed operations, either based on an anticipated change to the Mineral Reserves after the approval of new capital projects, or for consideration of the Group's intent to support and expand local economic development in our various operating jurisdictions.

On a geological domain basis, Caracle Creek International Min-Res (CCIC Min-Res) and Fraser McGill – Mining and Minerals Advisory were assigned the audit of Marula Mine located in the Bushveld Complex in South Africa, with Virimai Projects assigned the audit of Mimosa Mine located on the Great Dyke in Zimbabwe, while SRK Consulting (Canada) Inc undertook the audit of Impala Canada's Lac des Iles Mine in Ontario, Canada.

Zimplats, Impala Rustenburg and Two Rivers Platinum (TRP) were subjected to an Internal Compliance Review this year. In the case of TRP, this year's review was undertaken jointly with the African Rainbow Minerals (ARM) Technical Team, while the Mimosa Audit was undertaken with the full support of Sibanye Stillwater.

These audits endorse the integrity of the Mineral Resource and Mineral Reserve estimates as at 30 June 2022 as contained in this report, confirming No Fatal Flaws, No Material Findings and based on compliance to the SAMREC Code (2016) and JSE Listing Requirements, deriving No impediments for inclusion towards public domain year-end reporting.

The individual Operations' audit findings have been shared with the respective mines' Chief Executives and will be progressed with each mine's technical staff via the Implats Resources and Reserves Committee (IRRC) during FY2023. Individual Audit Certificates under letterhead of each of the respective external auditors, are included in the Appendices of this report.

…….....

GS Potgieter (ECSA 20030236)

Lead CP – Mineral Reserves, Implats

…….....

THC Pegram (SACNASP 400032/03)

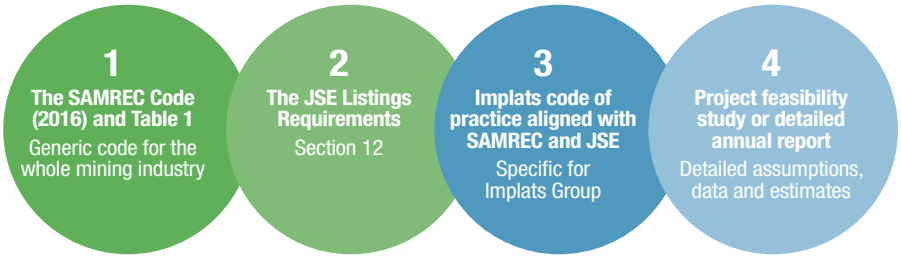
Lead CP – Mineral Resources, Implats

Reporting principles and framework

The following key assumptions and parameters, unless otherwise stated, were used in the compilation of the 2022 estimates:

- A Group-wide committee, the Implats Resource and Reserve Committee (IRRC), was constituted in 2009 to promote standardisation, compliant and transparent reporting, continuous improvement and internal peer reviews. As a result, Implats developed a Group-wide protocol for estimating, classifying, and reporting Mineral Resources and Mineral Reserves in 2010 to enhance standardisation and facilitate consistency in auditing. This protocol is updated annually to improve and specifically guide the classification of Mineral Resources and ensure compliance with the SAMREC Code (2016).

Structural hierarchy of principles, requirements, standards, assumptions and estimates



- A vital aspect of the Group-wide protocol determines the standards for the classification of Mineral Resources. The classification standard is a matrix process that measures geological and grade continuity between observation points. This is a detailed decision-tree structure that includes consideration of legal, ESG, economic and RPEEE aspects as precursor to the technical evaluation. Quality, distribution and quantity of available data and the confidence thereof form the basis of the Mineral Resource classification
- Mineral Resource and Mineral Reserve evaluation is based on a systematic process of collecting and validating geological data as per the Group-wide protocol. Updating of geological and geostatistical models with data from exploration and underground drilling, mapping and sampling forms the basis of the Mineral Resource and Mineral Reserve Statements
- Geostatistical estimation is performed using different geostatistical software packages within the Implats Group. Various interpolation methods and geostatistical parameters are used depending on the orebody and sampling density. Ordinary kriging and inverse distance weighting are the primary interpolation methods used within the Implats Group
- The Mineral Resources for the Merensky Reef are estimated at a minimum mining width and may include mineralisation below the selected cut-off grade. Mineral Resource estimates for the UG2 Reef reflect the minimum mineable width and may include dilution
- Mineral Resource estimates for the Main Sulphide Zone are based on optimal mining widths. Such mining widths are reviewed from time to time given varying economic and operational considerations
- Mineral Resource estimates at Lac des Iles and the Waterberg project consider the suitable mining method, and an economic grade cut-off is applied
- Mineral Resource estimates are reported inclusive of Mineral Reserves unless otherwise stated. A summary table with the estimated attributable Mineral Resources exclusive of Mineral Reserves is provided on page 9
- Mineral Resource estimates allow for estimated geological losses but not for anticipated pillar losses during eventual mining, except where these pillars will never be extracted, such as legal, boundary and shaft pillars
- Rounding-off of figures in the accompanying summary estimates may result in minor computational discrepancies. Where this occurs, it is not deemed significant
- Mineral Resource Statements, in principle, remain imprecise and estimates cannot be referred to as calculations. All Inferred Mineral Resources should be read as 'approximations'
- The nickel sulphide fire assay collection method is used at southern African operations to assay for all PGEs and gold by using an inductively coupled plasma mass spectrometer (ICP-MS). Lac des Iles analysed for platinum, palladium and gold by using an inductively coupled plasma-atomic emission spectrometry (ICP-AES). Base metal content is determined by atomic absorption (AA) spectrometer using partial digestion to state metal in sulphide that is amenable to recovery by flotation processes. Base metal assays at Lac des Iles and the Waterberg project are based on four acid digestions which result in the near-total dissolution
- Southern African operations report Mineral Resource and Mineral Reserve PGE estimates for four metals (4E) and six metals (6E). Reporting on a 4E basis reflects the total of platinum, palladium, rhodium and gold. In the case of 6E, this reflects the total of platinum, palladium, rhodium, gold, ruthenium and iridium. In the case of the South African Waterberg project, only 4Es are reported given the available compliant data and the inherent negligible ruthenium and iridium concentration levels
- The Impala Canada Lac des Iles Mineral Resource and Mineral Reserve PGE estimates are reported on a 3E basis; this reflects the summation of platinum, palladium and gold. The other PGE metals such as rhodium, iridium and ruthenium occur in inherently negligible and low concentrations and are not considered material

Reporting principles and framework (continued)

- All references to tonnage are to the metric unit
- All references to ounces (oz) are troy, with the factor used being 31.10348 metric grams per ounce
- The Mineral Resources and Mineral Reserves reported for the individual operations and projects are reflected as the total estimate (100%). The corresponding estimates relating to attributable Mineral Resources and Mineral Reserves are only given as combined summary tabulations (see pages 5 and 7)
- Mineral Reserves constitute that portion of the Mineral Resource for which techno-economic studies have confirmed economic viability at the time of disclosure, has secured board approval and for which funding has been provided
- Accordingly, no Mineral Reserve estimates are included in this report for the Afplats and Waterberg projects in the absence of board approval and funding.

Modifying factors considered for the conversion of Mineral Resources to Mineral Reserves include the full spectrum as defined by the SAMREC Code (2016) This includes metallurgical, processing, infrastructural, economic, marketing, legal, environmental, social and governmental consideration in addition to mining considerations. These factors also inform the reasonable prospects for eventual economic extraction as illustrated below:

- Mining parameters and modifying factors used to convert a Mineral Resource to a Mineral Reserve are derived from historical performance while taking future anticipated conditions into account
- Mineral Reserve estimates include allowances for mining dilution and are reported as tonnage and grade delivered to the mill
- Mineral Reserve estimates take cognisance of all mine stability pillars and the content associated with pillars is excluded
- Effective mining losses captured in the Mineral Reserve estimates combine geological losses, pillar losses, dilution parameters and the mine call factor as key considerations
- Implats' long-term price assumptions in today's money are considered as modifying factors supporting Mineral Reserve estimates. These are shown on page 31
- The declaration of Mineral Reserves is predicated on the completion of a bankable feasibility study, and subsequent board approval and release of funding to execute the project in line with the study
- Allowances for estimated rehabilitation and mine closure costs and obligations are incorporated in the economic models
- The work processes and flow are fully integrated with the planning cycle, and a structured approach has been adopted with activities aligned in a continuous sequence
- No Inferred Mineral Resources, other than insignificant incidental dilution at Lac des Iles, included at zero grade, have been converted into Mineral Reserves at any of the Implats operations reported. No Inferred Mineral Resources were considered in feasibility studies. According to the SAMREC Code (2016), Inferred Mineral Resources may be included in mine design, mine planning and economic studies only if a mine plan exists. SAMREC requires that a comparison of the results with and without the Inferred Mineral Resources must be shown, and the rationale behind including it must be explained
- In summary, Mineral Reserve estimates effectively result from the planning process applied against the Measured and Indicated Mineral Resources only, through the application of detailed modifying factors; importantly, this process is subjected to rigorous economic viability testing at given market conditions.

Reasonable prospects for eventual economic extraction (RPEEE)

Rigorous RPEEE testing is based on the Group standard which, among others, considers (a) security of tenure, (b) exclusion due to ESG considerations, (c) infrastructure, (d) technical constraints (eg virgin rock temperature (VRT)), (e) data quality and distribution, (f) confidence in estimation and (g) economic testing for reasonable prospects for eventual economic extraction. All the Mineral Resources reported for the Group are considered for RPEEE. Various Mineral Resource blocks are considered on a case-by-case basis, and this has resulted in areas where the RPEEE is in doubt; the following examples impact the Mineral Resource estimates:

- Impala Rustenburg applies a depth cut-off of 2 000m below surface for all Mineral Resources considering RPEEE. These excluded Mineral Resources will be evaluated from time to time on an economical basis to test the validity of the applied depth cut-off. Complex geological structures, among others, derived from 3D vibroseis geophysical surveys, have been excluded due to the lack of RPEEE
- The Waterberg project Mineral Resource estimates applied a depth cut-off of 1 250m given the limit of the orebody defined by current exploration
- At Marula, the shallow weathered areas have been excluded due to the impact of surface infrastructure, environmental considerations and economic testing. Also at Marula, certain geologically complex areas are not included in the Mineral Resource estimates
- At Two Rivers, a substantial area on the farm Buffelshoek was excluded from the Merensky Reef Mineral Resource due to reducing the economic channel width and doubt of its RPEEE. The Merensky and UG2 Mineral Resources to the west of the Kalkfontein Fault are currently excluded due to the depth of the reef intersections
- At Zimplats, a sizeable area between the Mupfuti and Bimha portals is excluded from Mineral Resource and Mineral Reserve estimates, given the inherent disruption of the normal mineralisation profile in that area
- Similarly, the Mimosa estimates are impacted due to the lack of RPEEE in selected areas of inherent low grades at South Hill and North Hill
- At Afplats, the UG2 Reef has also been subjected to the 2 000m below surface depth cut-off and are excluded from the Mineral Resources and will be evaluated from time to time on an economic basis to test the validity of the applied depth cut-off. The Merensky Reef has been excluded, given the RPEEE consideration of the underlying modest to low *in situ* grade
- At the Lac des Iles operation and the Waterberg project, mineralised material is excluded based on the prevailing cut-off grade.

Mineral rights and legal tenure

As at 30 June 2022, Implats has legal entitlement to the minerals being reported upon without any known impediments. There are no legal proceedings or other material matters that may impact the ability of Implats and its subsidiaries to continue with exploration and mining activities.

South Africa

The Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA), governing mineral extraction in South Africa, came into effect on 1 May 2004. The MPRDA, with its associated broad-based socio-economic empowerment charter for the mining industry and its attendant scorecard, as revised and amended from time to time, has played a significant role in the transformation of the South African mining industry. Implats continues to embrace the principles of transformation as a moral and strategic imperative to reinforce its position as a leading southern African mining company.

On 21 September 2021, judgment in the judicial review of the Broad-Based Socio-Economic Empowerment Charter for the Mining and Minerals Industry, 2018 (Mining Charter, 2018) was handed down in favour of the Minerals Council SA with significant sections thereof reviewed and set aside with costs. The judgment concluded the charter contemplated in terms of Section 100(2) of the MPRDA is not binding subordinate legislation, but rather an instrument of policy. Taking into consideration the judicial review and notwithstanding the setting aside of certain clauses of the Mining Charter 2018, to the extent possible, Implats will continue to strive to achieve the transformation objectives of the MPRDA using the residual clauses as well as the clauses that have been set aside, as guiding principles. The Minister of Mineral Resources and Energy has decided not to appeal the full bench judgment.

The Implats' South African operating companies (Impala Rustenburg Mine, Afplats and Marula) submitted their annual Mining Charter reports to the Department of Mineral Resources and Energy (DMRE) for the 2021 calendar year. Impala Rustenburg Mine, Marula and Afplats submitted self-assessment scores above the achievement level as guided by the Mining Charter, 2018.

The DMRE conducts regular compliance audits concerning the Implats Group's mining and prospecting rights. The Implats Group is attending to the required closure obligations relating to former prospecting rights now cancelled, abandoned or expired. Impala submitted a letter of abandonment of its Assegai prospecting right in the Mpumalanga province on 20 May 2022.

Fully permitted mining rights are not specified by the SAMREC Code (2016) as a prerequisite for converting Mineral Resources to Mineral Reserves. However, Implats is cognisant that a reasonable expectation must exist that such mining rights will be obtained.

Impala Rustenburg

The mining rights at Impala Rustenburg were converted into new-order rights in 2008 and awarded for 30 years. The MPRDA allows for an extension of mining rights. Impala Rustenburg holds contiguous mining rights over 29 773ha across 16 farms or portions of farms.

On 9 November 2021, a revised Mining Work Programme was submitted in support of the renewal application of Converted Mining Right 132 MR, which was submitted on 18 September 2018 and is still pending approval.

In 2011, Impala Rustenburg Mine reached an agreement with the Royal Bafokeng Resources (Pty) Ltd (RBR) and Rustenburg Platinum Mines Limited (RPM) unincorporated joint venture to access certain of its mining areas at Bafokeng Rasimone Platinum Mine (BRPM) from 6, 8 and 20 Shafts. This is essentially a royalty agreement that provides mining flexibility to these shafts. During FY2018, the parties have concluded two notarial mining right leases, subject to the Section 11 approval of the DMRE, which applications were submitted in early FY2019. Once approved, these notarial mining right leases will replace the current interim contractorship agreements between the parties. During FY2020, the dates to obtain the above-mentioned Section 11 approvals as conditions precedent in the two notarial mining right leases were extended. The RPM's interest in the agreements was ceded in line with the transfer of the 33% interest of RPM in the BRPM mining right to RBR. A further extension of the dates to obtain the Section 11 approvals was concluded with RBR in FY2021. Impala Rustenburg Mine and RBR continue to engage with the DMRE.

Marula

Marula holds two contiguous converted mining rights covering 5 494ha across Winnaarshoek 250 KT and Clapham 118 KT farms and portions of Driekop 253 KT and Forest Hill 117 KT. The new-order mining right was awarded for 30 years in 2008. In terms of the MPRDA, mining rights can be renewed on expiry. Implats manages the operation and has a 73.26% interest in Marula, with the three empowerment groupings (Mmakau Mining, the Marula Community Trust and Tubatse Platinum) holding a 8.91% interest each. The Black Economic Empowerment (BEE) transaction was refinanced in 2020. It decreased the BEE ownership to 26.74%.

Marula obtained closure certificates for two prospecting rights during FY2022:

- Closure Certificate 11/2021 was issued on 17 November 2021 for the Hackney Prospecting Right (MTP No 420/2006 PR)
- Closure Certificate 09/2021 was issued on 25 August 2021 for the Driekop Prospecting Right (MTP No 101/2009 PR).

Afplats

Afplats is currently the holder of the Leeuwkop mining right, under Mining Right number MR 40/2008 (DMRE Ref: No NW 30/5/1/2/2/256MR), in respect of the farm Leeuwkop 402 JQ.

The prospecting right for the farms Kareepoort 407 JQ and Wolvekraal 408 JQ was awarded for five years and renewed for three years. The prospecting right expired on 7 February 2020, and a closure application was submitted. An application was lodged on 6 June 2013, under Section 102 of the MPRDA, to amend the Leeuwkop mining right by incorporating the Kareepoort/Wolvekraal prospecting area into the existing mining right. This application is pending approval by the DMRE. Pursuant to a third-party communication on 22 June 2022, Implats learnt that the Wolvekraal 408 JQ and Kareepoort 407 JQ prospecting rights had been granted to them. Based on this insight, Implats has decided to adjust the inclusive Afplats Mineral Resource statement by provisionally excluding the contribution from Kareepoort 407 JQ and Wolvekraal 408 JQ while engagement continues with the DMRE. There will be no underlying right remaining if the Section 102 application is not approved to secure the rights further.

Appropriate locality, Mineral Resource and Mineral Reserve maps illustrating the context and extent of the mineral rights, are included in the relevant operations and projects sections of this report.

Mineral rights and legal tenure (continued)

Non-managed South African project and operation:

- Details about the Waterberg mineral rights can be found on the PTM website **(www.platinumgroupmetals.net)**.
- Details about the Two Rivers mineral rights can be found in the ARM 2022 Mineral Resource and Mineral Reserve Statement **(www.arm.co.za)**.

South Africa	Implats' interest (%)	Mining right (ha)	Prospecting right (ha)
Impala Rustenburg	96	29 773	
Marula	73.26	5 494	
Two Rivers*	46	11 349	
Afplats	74	4 602	
Waterberg*	15	20 532	4 207

** Non-managed.*

Zimbabwe

Zimplats

Zimplats now holds two mining leases, ML 36 and ML 37, covering two areas of land measuring a total of 24 632ha, which are valid for the life-of-mine (LoM) after previously releasing 23 903ha to the Zimbabwean government. These mining leases replaced the special mining lease that Zimplats previously held, and there are no material issues arising on either of the two that could affect the exploitation of the total mineral rights by Zimplats.

Mimosa

The Mimosa mining rights are covered by a contiguous mining lease, individual mining claims, and a special grant amounting to 7 653ha. The mining lease, namely Lease No 24, was granted to Mimosa on 5 September 1996. In 2021 Mimosa acquired mining claims adjacent to the Mimosa mining lease from Anglo American Platinum (Southridge (Pvt) Ltd).

Zimbabwe	Implats' interest (%)	Mining leases (ha)	Mining claims (ha)	Special grant (ha)
Zimplats	87	24 632		
Mimosa*	50	6 594	854	30

** Non-managed.*

Canada

Mining rights in Canada fall into two broad categories, namely 'claims' or exploration licences and mining leases. A claim or exploration licence grants its holder the exclusive right to carry out exploration work for a limited period within a designated area. Exploration work may include overburden removal, exploratory drilling and test-ore extraction and milling. A mining lease allows its holder to carry out extractive and processing activities on a commercial scale.

The Mining Act is the provincial legislation that governs and regulates prospecting, mineral exploration, mine development and rehabilitation in the province of Ontario. The purpose of the Act is to encourage prospecting, online mining claim registration and exploration for the development of Mineral Resources, in a manner consistent with the recognition and affirmation of existing indigenous and treaty rights in Section 35 of the Constitution Act, 1982. This includes the duty to consult and to minimise the impact on public health and safety and the environment. In 2009, Bill 173 – An Act to amend the Mining legislation, was passed into law. The modernisation process promoted mineral exploration and development to recognise indigenous and treaty rights, introduced processes that are more respectful of private landowners, and minimised the impact of mineral exploration and development on the environment. While some changes came into effect upon Royal Assent, most of the changes were brought into effect over time.

Impala Canada's leases have a renewal date in 2027, with the exception of a newly converted claim to lease CLM 568, encompassing 2 557ha with a renewal date of 2041. The Company has the exclusive right to apply for renewal at these dates. The mining leases are currently subject to a 5% net smelter return (NSR) royalty.

Impala Canada holds 100% interest in mining leases encompassing 6 070ha and active mining claims totalling 60 441ha in the Thunder Bay district. Impala Canada also holds a 50% interest in the past-producing Shebandowan Mine property comprising 8 046ha and located approximately 75km northwest of Thunder Bay, Ontario. The mine ceased production in 1998 and is currently under care and maintenance. Finally, Impala Canada holds a 64.99% interest in 174 mining claims (3 677ha) of the Sunday Lake Joint Venture Exploration Project and holds 64.99% in options to purchase both surface and mining rights for two private land parcels (totalling 82ha) within this same joint venture.

Summary of Impala Canada mineral rights

Operations and projects	Type	Ownership	Hectares
Impala Canada Limited (Lac des Iles)	Mining leases	100%	6 070
Impala Canada Limited (Thunder Bay district)	Mining claims	100%	60 441
Shebandowan	Mining leases	50%	8 046
Sunday Lake Joint Venture	Mining claims	64.99%	3 677
Total			**78 234**

ESG in Mineral Resource and Mineral Reserve reporting

ESG management

Effective management of environmental, social and governance (ESG) risks remains a strategic pillar of the Implats Group. Implats has a comprehensive ESG framework guiding our sustainability programmes, from exploration, through projects and operations. Implats aspires to deliver an industry-leading sustainability performance, producing metals that sustain livelihoods beyond mining and create a cleaner and better future. This section should be read in conjunction with the Implats 2022 ESG report for more detail **(www.implats.co.za)**.

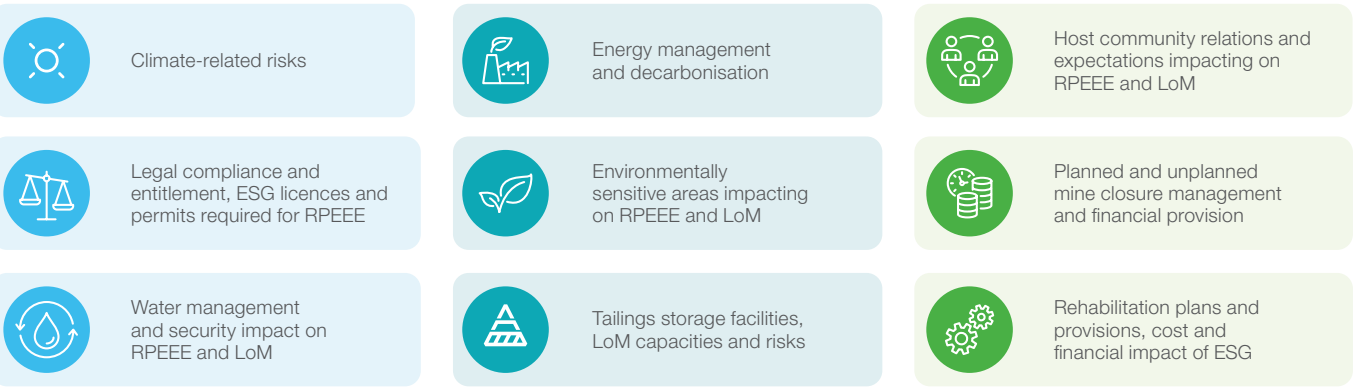
ESG modifying factors for Mineral Resources and Mineral Reserves

The South African guideline for the reporting of environmental, social and governance parameters within the solid minerals and oil and gas industries (the SAMESG guideline 2017) lists extensive guidelines for disclosing ESG parameters when reporting Exploration Results, Mineral Resources and Mineral Reserves. Both the SAMREC Code (2016) and the JSE Sustainability Disclosure Guidelines (2022) cover some of the ESG parameters. The SAMESG guideline is being redrafted to align with converging global disclosure frameworks while the industry seeks clarity on responsible and compliant disclosure requirements of ESG aspects when reporting on Exploration Results, Mineral Resources and Mineral Reserves.

Implats has mature risk and corporate governance structures that promote and safeguard the long-term success of the business, while considering the interests of its various stakeholders.

Implats adheres to the highest ethics standards as per King IV, the Companies Act, the JSE listings requirements as well as the strong environmental, human rights, labour and social laws and regulations in the operating jurisdictions. These not only guide the Implats policies and enterprise risk management framework (ERM), but also the approach to exploration.

As such, Implats has adopted a risk-based approach when evaluating the impact of ESG components on the RPEEE of Mineral Resources, Mineral Reserves and LoM. ESG modifying factors considered by Implats as potential risks in the estimation of Mineral Resources and Mineral Reserves are illustrated in the diagram below. Subject matter technical experts take responsibility of managing these aspects and the mitigation of related risks.



The current rehabilitation cost estimates and financial provisions are tabulated as follows:

	Current cost estimates*		Financial provisions**	
Operations	2022 Rm	2021 Rm	2022 Rm	2021 Rm
Impala mining operation – Rustenburg	**1 719**	1 553	**931**	960
Impala Refineries – Springs	**934**	564	**429**	533
Marula	**431**	397	**87**	181
Zimplats	**754**	552	**423**	290
Impala Canada	**411**	278	**379**	285
Afplats	**25**	23	**25**	23
	4 274	3 367	**2 274**	2 272

* *The current expected cost to restore the environmental disturbances as estimated by third-party experts for regulatory compliance purposes is R4 274 million for the Group. The amounts in the table above for accounting purposes exclude VAT.*

** *Future value of the current cost estimates discounted to current balance sheet date as provided in the annual financial statements of the Group.*

Financial guarantees are submitted to the DMRE for the South African operations and project to satisfy the requirements of the National Environmental Management Act concerning environmental rehabilitation. The third-party expert that conducts these assessments is E-Tek Consulting. **(www.implats.co.za)**.

In compliance with the DMRE mine closure requirements, the South African liabilities are secured through insurance policies and bank guarantees. Only bank and insurance guarantees are currently used as financial provisions. Similar arrangements are in place for the other regions.

Mineral Resource management risk

The Group's reported Mineral Resources and Mineral Reserves represent its estimate of quantities of PGMs that have the potential to be economically mined and refined under anticipated geological, environmental, social, governance and economic conditions. Numerous uncertainties and risks are inherent in estimating quantities of Mineral Resources and Mineral Reserves and projecting potential future rates of metal production, coupled with many factors beyond the Group's control. The 2022 Mineral Resources and Mineral Reserves Statement strives to capture more specific Mineral Resource Management (MRM) related risks instead of historically referencing the Group risks.

The MRM function subscribes to a formal risk management process that systematically treats all Mineral Resources and Mineral Reserves. Implats recognises that Mineral Resource and Mineral Reserve estimations are based on projections, which may vary as new information becomes available or if assumptions, modifying factors and market conditions change materially. This approach is consistent with our Group definitions of risk which have been revised in line with the updates published in the International Risk Management Standard, ISO 31000:2018, which defines risk as 'the effect of uncertainty on objectives'.

The Group has developed a generic matrix to measure the relative severity of risks related to Mineral Resources and Mineral Reserves. This risk rating tool is applied to highlight and implement key management interventions toward mitigating perceived risks. The primary Mineral Resource and Mineral Reserve risk elements considered per operation and project are tabulated below. The risk approach is integral to all the components of Mineral Resource and Mineral Reserve estimation, classification, modifying factors such as ESG risks and reporting.

Risk elements – Mineral Resources	
Tenure	Mining right/prospecting right in place
Data support	Geophysics, drilling data and type, surface and or underground mapping
QAQC	Compliance to QAQC principles, related to the data informing the Mineral Resource estimation
Geology	Orebody knowledge, model confidence, continuity, structure, geotech, geological losses
Classification	Only Measured and Indicated Mineral Resources are considered for conversion to Mineral Reserves
Grade estimate	Assay method, database, accredited laboratories, estimation methodology
RPEEE	Reasonable prospects of eventual economic extraction, depth, temperature, economics, orebody size, processing
Estimates	Confidence in data support, QAQC, geology and grade
ESG	Consideration of specific ESG aspects impacting exploration and feasibility studies, such as potential environmental and host community impacts

Risk elements – Mineral Reserves (modifying factors)	
Mining	Design, scheduling, mining method, geotech, equipment, execution of mine plans
Metallurgical	Recoveries, mineralogy, beneficiation
Processing	Tailings, concentrating, smelting, refinery facilities
Infrastructure	Key mining infrastructure
Utilities	Energy supply, water supply
RPEE	Reasonable prospect of economic extraction, metal prices, exchange rates, direct and indirect costs, inflation
Market	Supply and demand, beneficiation, stability
Legal	Mining right, MPRDA, DMRE, contracts
ESG	Consideration of specific ESG aspects impacting LoM, such as TSF and mine closure plan

All risks which could affect the Mineral Resources and Mineral Reserves are within acceptable tolerance levels. Details about the Group's risks are published in the 2022 Implats Annual Integrated Report (**www.implats.co.za**). Where risks are identified, management interventions are put in place to mitigate such risks.

The Mineral Resource risks are all considered to be low to moderate. The following are examples of such risks:

- Impact of economic outlook on the RPEEE, specifically for the Mineral Resources exclusive of Mineral Reserves at Impala Rustenburg
- Data support due to challenges to planned surface drillhole sites at Marula and Two Rivers
- Ability to grow the Mineral Resource base through timeous exploration at Lac des Iles
- Availability and retention of technical skills, specifically at Lac des Iles and Marula operations.

Similarly, most Mineral Reserve risks are considered to have a potentially low impact. The following are examples of risks with potential moderate to high impacts:

- Sustained mining production, productivity and grade control at Impala Rustenburg
- The ability to arrest the declining LoM production profile and associated overhead costs at Impala Rustenburg
- Timeous project delivery within scope and budget at the operations such as the Marula UG2 Reef Phase II, Mimosa North Hill and Two Rivers Merensky projects
- Processing: potential variable concentrator recoveries, for example, at Mimosa and Two Rivers
- Security and costs related to electricity and water supply security to all southern African operations and projects
- ESG considerations such as community relations could, in future, impact LoM execution at the Marula operation
- Orepass deterioration, production ramp-up and geotechnical cave propagation at Lac des Iles
- The potential inability to timeously grow the depleting Mineral Reserve estimate at Lac des Iles operations
- Regulatory uncertainty in Zimbabwe
- Impact of growing mining inflation on medium to long-term RPEE at all operations
- Reasonable prospects for economic extraction can potentially be impacted by fluctuating commodity prices and exchange rates, as well as currency instability at all Group operations and projects.

Managing Mineral Resources

Implats embraces an integrated Mineral Resource management (MRM) function. To this end, systems, procedures and practices are aligned and continuously improved to achieve this objective.

MRM includes exploration, geology, geostatistical modelling and evaluation, mine surveying, sampling, mine planning, ore accounting and reconciliation, and the MRM information systems.

The MRM function is the custodian of the mineral assets and strives explicitly to optimise these assets through a constant search for optimal extraction plans that yield returns in line with the corporate and business objectives.

The main objective of the MRM function is to support strategic intent and add value to the organisation through:

- Safe production, which is the first principle underpinning all Mineral Reserve estimates
- The appropriate investigation, interpretation and understanding of the orebodies
- Integrated short, medium and long-term plans
- Technically appropriate and proven management information systems
- Accurate and reconcilable Mineral Resource and Mineral Reserve estimates
- Compliant and transparent reporting of Mineral Resource and Mineral Reserve estimates
- Seeking optimal solutions to ensure sustainable and profitable operations.

Continuous improvement has been embedded in the MRM function. Specific focus is given to new learnings, standardisation and protocols, and collaboration with the industry.

Present focus areas include:

- Embed a standardised risk analysis framework specific to Mineral Resource and Mineral Reserve estimates across all projects and operations
- Timeous exploration drilling to support sustainable operations and LoM planning
- Improved Mineral Reserve flexibility, measured as mineable face length in conventional mining sections
- Improvement in the quality of mining
- Revisiting optionality of long-term planning
- Scenario planning for LoM II and III Mineral Resources to ensure a sustainable business model (see page 21)
- Transitioning from a 2D to an appropriate 3D platform as part of the optimisation of our spatial mine planning, based on 3D spatial geological models at Impala Rustenburg and Marula
- Workstreams to ensure optionality to sustain operations.

Strategic objectives

Sustainable development

Operational excellence

Organisational effectiveness

Optimal capital structure

Competitive asset portfolio

Future focus

MRM focus areas

Geological information	Quality mining	Mining flexibility	Systems	Optionality
• Structural geology model updates • Grade block model updates • Timeous brownfields exploration • Cost-effective infill surface drilling • Optimal underground drilling • Mapping and observation tools • Optimal underground sampling for geological risk mitigation	• Grade reviews, action plans • Face observations, issue stop notes • Grade control by geology observers • Improved dashboards • Cross-functional oversight	• Detailed development scheduling • Development tracking • Redevelopment and panel establishment • Face length management at Impala Rustenburg • Matched capital allocation to fund the LoM II pipeline	• Utilise appropriate systems to suit orebody • Strive for full implementation of 3D geological and mine planning tools	• Optimal utilisation of current infrastructure • Expanding the footprint of current shafts and infrastructure • Scenarios for future sustainability • M&A opportunities • Sequential upgrade of LoM II and LoM III pipeline projects • Compliance with LoM classification

Managing Mineral Reserves and life-of-mine

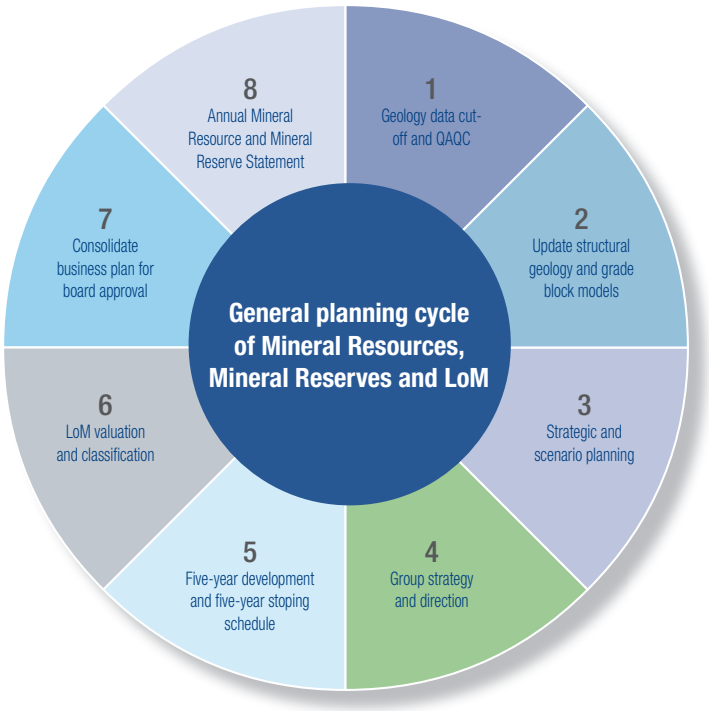
The integrated Implats planning cycle, spanning the whole financial year, has the primary objective of integrating the different planning levels providing continuity of plans and cycles, and populating the cycle with appropriate review processes linked to associated business reporting periods. Emphasis is placed on risk mitigation, optimisation of plans and compliance with standards and consolidation as a platform for tracking delivery against plans. The planning process is iterative, with top-down goals flowing through to operational planning and vice versa, with the ability to adjust the plan as conditions change.

The embedded planning cycle gives due consideration to the planning sequence, the duration of the business planning period and the entrenching of long-term strategic planning, spanning the entire calendar year. The generalised planning cycle is shown below. It commences with data consolidation, geological model and spatial Mineral Resource estimate updates in August until November, followed by a detailed business planning phase in January until May, with a five-year focus. The LoM profiles are then derived as a continuation of the business plan for the remainder of the respective mining leases, cognisant of metal price forecasts and operating costs.

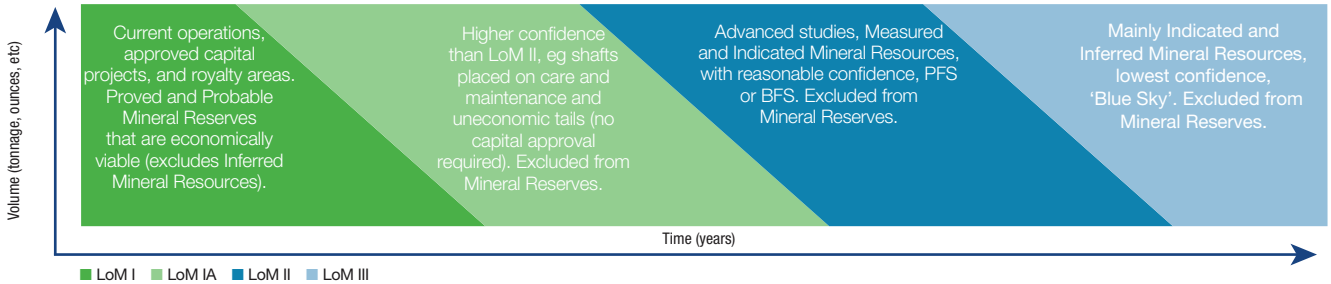
The planning process is completely integrated with costing, outlook on commodity prices and financial valuation. The Mineral Reserve estimates are therefore the product of the planning process, applied against the Measured and Indicated Mineral Resource estimates only. The Mineral Reserve estimates are classified as Proved and Probable Mineral Reserves, based on the confidence and risk considerations.

Implats has defined four life-of-mine (LoM) planning levels, classified as levels III, II, IA and I. The four levels are linked to increased confidence levels from III to I, and the conversion of Mineral Resources to Mineral Reserves. LoM level III includes 'Blue Sky' and scoping studies, focusing mainly on Inferred Mineral Resources and Exploration Results. It may also include contiguous areas and opportunities outside existing lease boundaries and ownership. LoM III is excluded from the Mineral Reserve estimate. LoM level II includes planned and unapproved projects, with a reasonable chance of future board approval. LoM level IA can be defined as those Mineral Reserves that fail the economic valuation of LoM level I. These uneconomic volumes are removed from LoM I, but are retained as Mineral Resources. Likewise, operations deemed uneconomic under the current LoM considerations also fall in the LoM IA category. No capital approval is required for these operations. LoM II and IA areas will be excluded from the Mineral Reserve estimate.

LoM level I includes operational shafts and approved capital projects where a portion of Mineral Resources is converted to Mineral Reserves, and sufficient confidence exists for the declaration of Mineral Reserves in a public report. No Inferred Mineral Resources are included in LoM I, other than incidental dilution, which is included at zero grade.



LoM levels and definitions



Regional geological settings

Implats exploits platiniferous horizons within the Bushveld Complex (BC) in South Africa and the Great Dyke in Zimbabwe, and the palladium-dominant orebody located in the Lac des Iles Intrusive Complex in Canada.

The Bushveld Complex and Great Dyke layered intrusions are unique in size and geological continuity. Mining mostly takes place as underground operations, with specific mining methods adapted to suit the local geology and morphology of the mineralised orebodies.

The Bushveld Complex

The Bushveld Complex is an extremely large (65 000km^2), two billion-year-old layered igneous intrusion occurring in the northern part of South Africa. Rock types range in composition from ultramafic to felsic. The complex is unique in size and economic significance of its contained mineral wealth. In addition to the PGMs and associated base metals, vast quantities of chromium, vanadium, tin, fluorine and dimension stone are also produced.

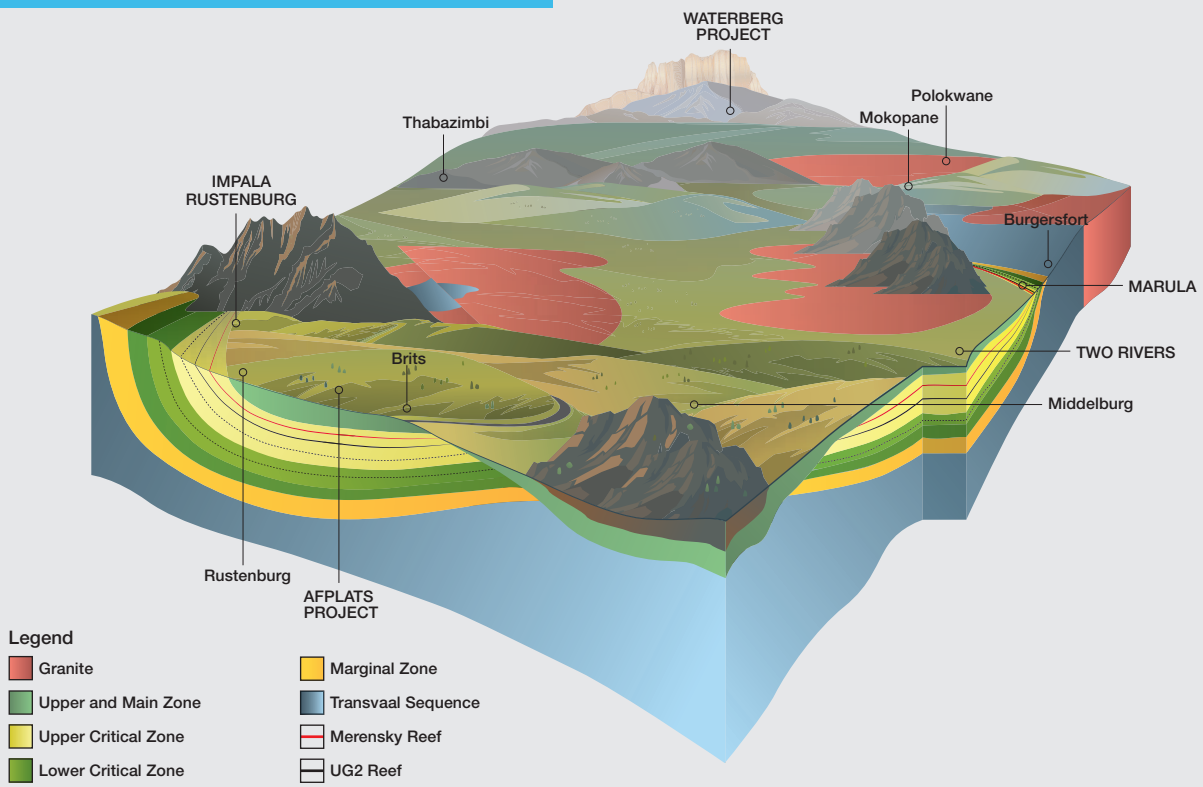
The accompanying map (page 23) and schematic diagram below show the extent of the Bushveld Complex. The layered sequence, the Rustenburg Layered Suite, comprises five significant sub-divisions. These are from the bottom upwards, the Marginal, Lower, Critical, Main and Upper Zones as indicated in the generalised stratigraphic column on page 23.

Three horizons within the Critical Zone, namely the Merensky Reef, the Upper Group 2 (UG2) Reef and the Platreef, host extensive economically exploitable quantities of PGMs. Two of these horizons are the focus of the current Implats' operations. The PGMs – platinum, palladium, rhodium, ruthenium, iridium and osmium – and the associated gold, copper, nickel, cobalt, chromium and other minor metals and compounds are mined concurrently but recovered by different processes.

Chromitite layers present below the UG2 Reef contain little to no PGM mineralisation and are mined by other operators for their chromium content. Some PGEs are recovered as a by-product from these chromite layers. The economic potential of the Waterberg PGM deposit at the northern extremity of the Northern Limb is the focus of optimisation studies as part of the upfront work before the potential commencement of mining. There are two PGE Cu-Ni-Au mineralised intervals in the Waterberg deposit, a lower F-Zone and an upper T-Zone. Both these contain palladium-dominant PGE mineralisation.

Implats' operations on the Bushveld Complex comprise Impala Rustenburg Mine north of Rustenburg, Marula Mine northwest of Burgersfort, and the Two Rivers Mine, a joint venture between Implats and ARM situated southwest of Steelpoort. The Afplats Leeuwkop project is located in the western limb of the Bushveld Complex, west of Brits. Implats acquired a 15% interest in the Waterberg Joint Venture project in 2017, which is located in the northern limb. The relevant operational sections provide geological descriptions of the various reef types and facies. The grade distribution varies materially from area to area.

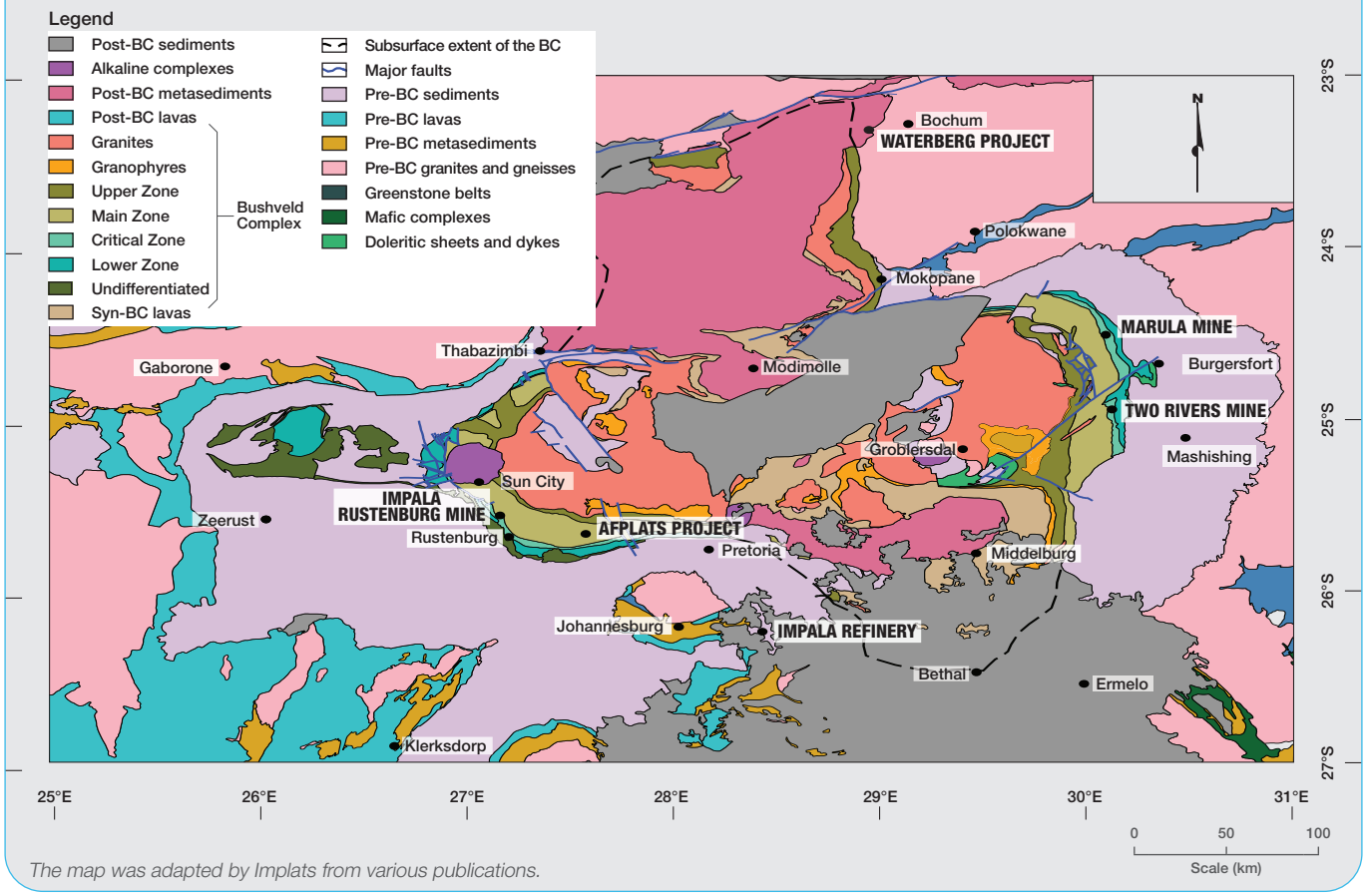
Schematic diagram of the Bushveld Complex



Schematic drawing, not to scale, compiled by Implats.

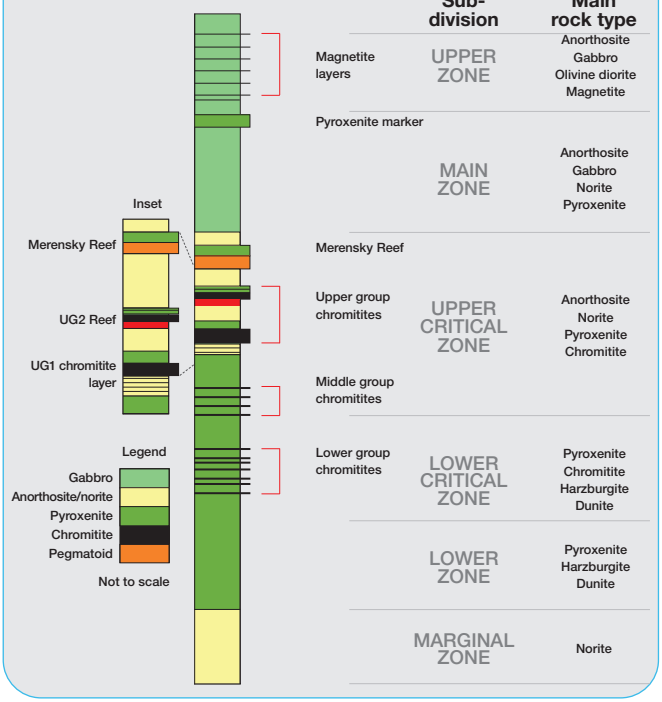
Regional geological settings (continued)

Simplified map of the Bushveld Complex and surrounding geology

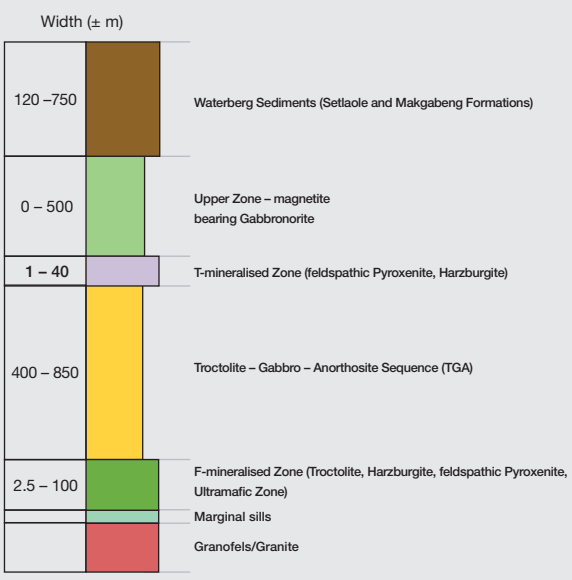


The map was adapted by Implats from various publications.

Generalised stratigraphic column of the Bushveld Complex



Generalised geological succession of the Bushveld Complex at the Waterberg project



The Great Dyke

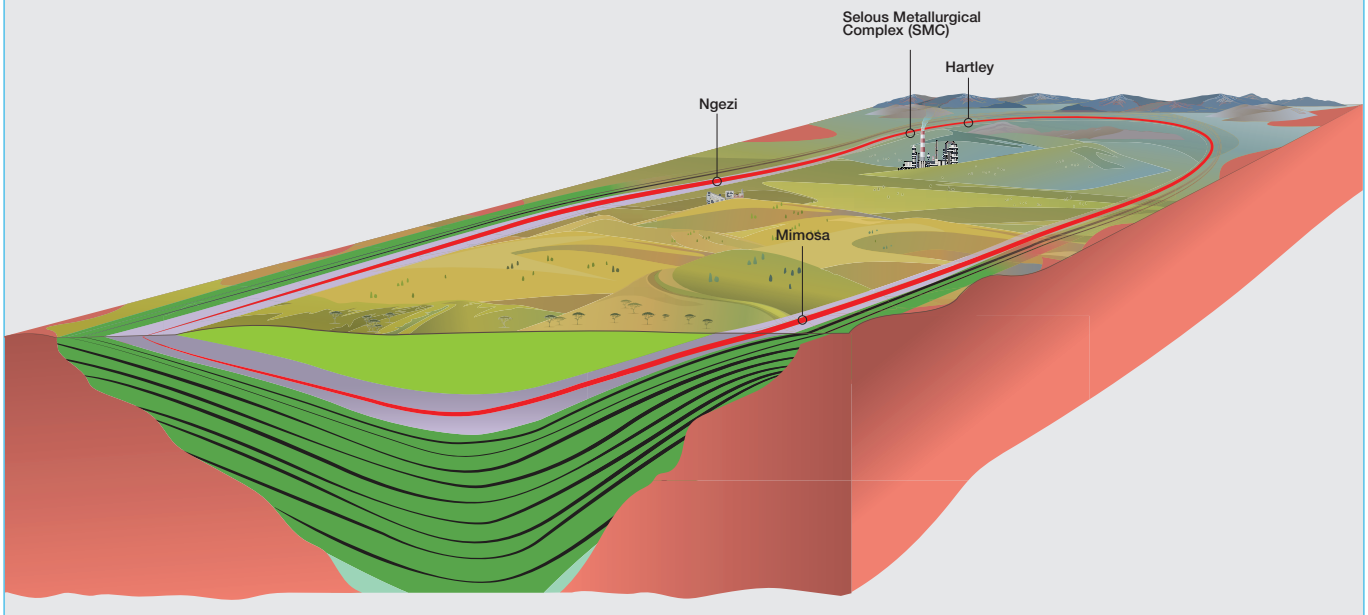
The Great Dyke is a 2.5 billion-year-old layered mafic-ultramafic body that intruded into Zimbabwe's Archaean granites and greenstone belts. It is highly elongated, slightly sinuous, 550km long, north-northeast trending with a maximum width of 12km. It bisects Zimbabwe in a north-north easterly direction. It is divided vertically into a lower ultramafic sequence, comprising cyclic repetitions of pyroxenite, harzburgite, dunite and chromitite, and an upper mafic sequence consisting mainly of norite, gabbronorite and olivine gabbro. It is U-shaped in section with layers dipping and flattening towards the axis of the intrusion. Much of the mafic sequence has been removed by erosion, and at the present plane of erosion the Dyke is exposed as a series of narrow, contiguous layered complexes or chambers. From north to south, these are Musengezi, Hartley (comprising the Darwendale and Sebakwe sub-chambers) and a southern chamber (comprising the Selukwe and Wedza sub-chambers) (page 25).

The Main Sulphide Zone (MSZ), host to economically exploitable PGMs and associated base metal mineralisation, is located 10m to 50m below the ultramafic/mafic contact in the P1 pyroxenite. The PGMs, gold, copper and nickel, occur in the MSZ. The relevant operations sections provide descriptions of the MSZ and the value distributions. The grade profiles vary between areas and the platinum and palladium peaks are somewhat offset. Typically, the MSZ consists of a 2m to 10m-thick zone containing 2% to 8% iron-nickel-copper sulphides disseminated in pyroxenite. This nickel copper-rich layer base is straddled by a 1m to 5m-thick zone of elevated precious metals (Pt, Pd, Rh and Au). The base metal zone contains up to 5% sulphides, while the sulphide content of the PGM Zone is less than 0.5%. This change in sulphide content is consistently related to the metal distribution and is used as a mining marker. It can usually be located visually in the drillhole core, and with careful observation, it can also be visually identified underground. Therefore careful monitoring supported by channel sampling and XRF scanning is required to guide mining.

Chromitite layers present below the MSZ contain little to no PGM mineralisation and are mined by other operators for their chromium content only.

Implats' operations on the Great Dyke comprise Zimplats' Ngezi Mine southwest of Harare and the Mimosa Mine, a joint venture between Implats and Sibanye Stillwater situated east of Bulawayo.

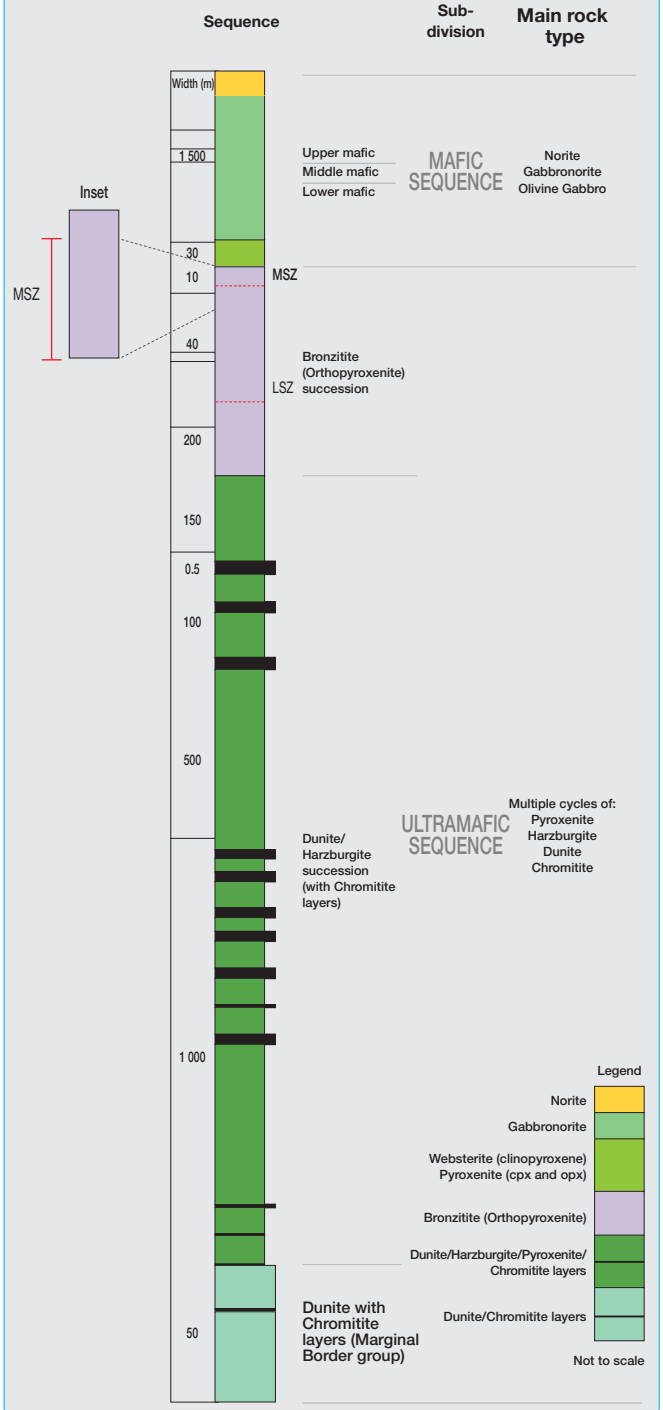
Schematic diagram of the Great Dyke



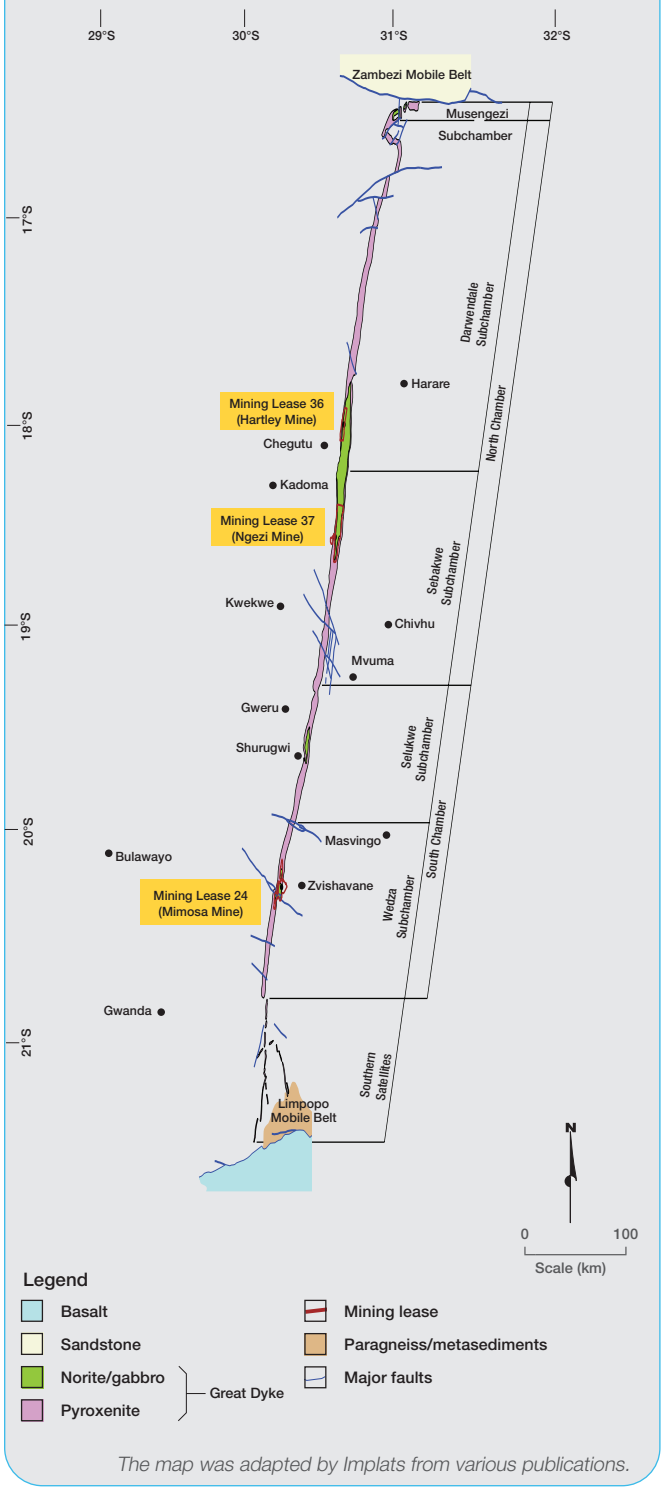
Schematic drawing, not to scale, compiled by Implats.

Regional geological settings (continued)

Generalised stratigraphic column of the Great Dyke



Simplified map of the Great Dyke



The map was adapted by Implats from various publications.

The Lac des Iles Intrusive Complex

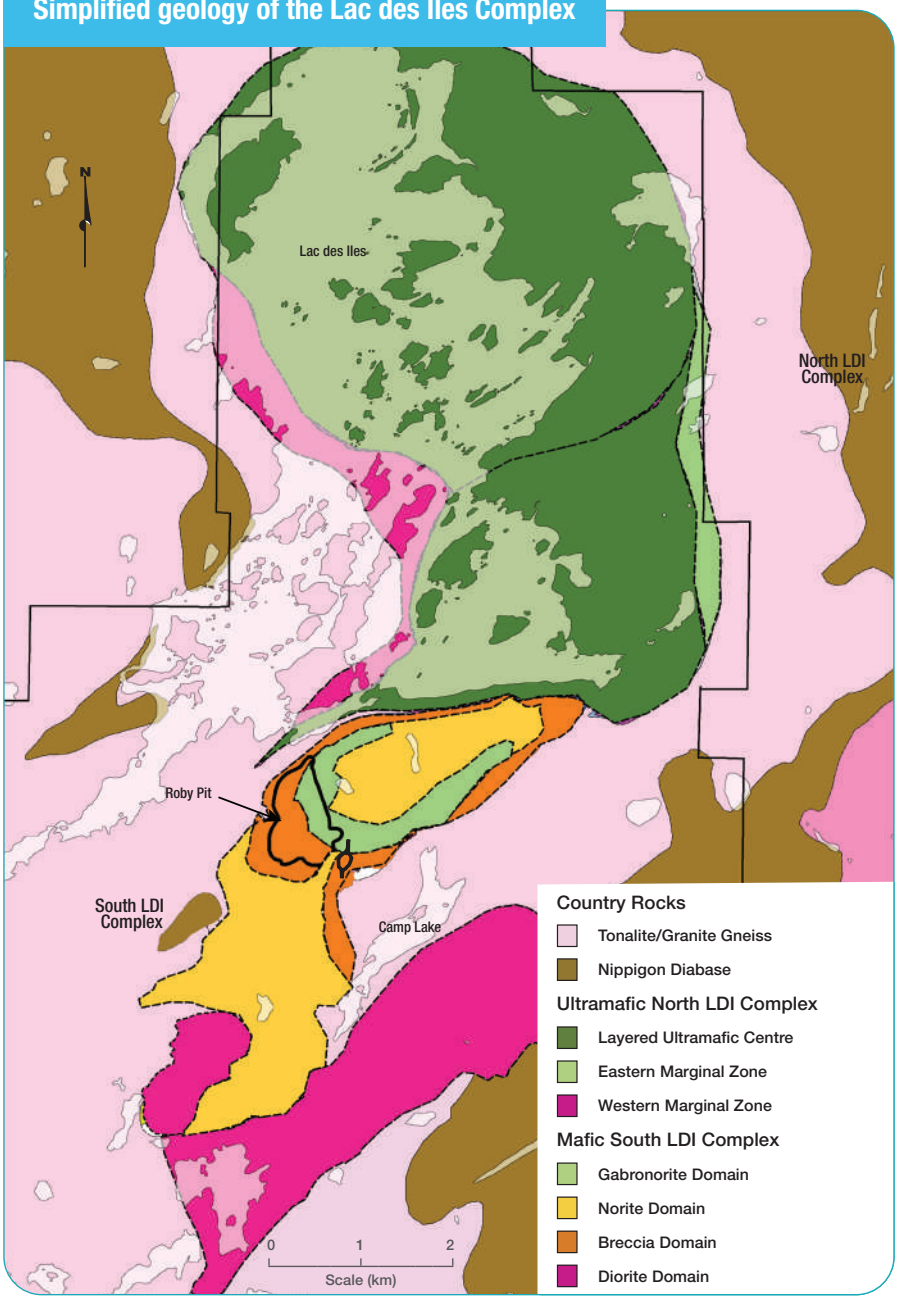
The Lac des Iles property is underlain by mafic to ultramafic rocks of the Archean Lac des Iles Intrusive Complex (LDI-IC). The LDI-IC is the best documented of a suite of mafic to ultramafic intrusive bodies occurring within 30km of the Lac des Iles Mine. The intrusions are hosted by the Central Wabigoon Subprovince of the Wabigoon Terrane in the northwestern Superior Province of the Canadian Shield. Impala Canada holds title to active mineral claims covering most of the known Lac des Iles suite intrusions.

The easternmost bodies of the Lac des Iles suite of intrusions are the LDI-IC and the Legris Lake Complex. The LDI-IC and the Legris Lake Complex appear to have been emplaced along with northeast-trending splay structures (eg, Shelby Lake Fault) emanating from the Quetico Fault Zone. The Quetico Fault Zone is a collisional structural boundary between the Quetico Subprovince and the Wabigoon Terrane. The Lac des Iles suite intrusions were emplaced into the 3.01 to 2.89 billion-year-old granite-greenstone basement rocks designated as the Marmion Terrane, representing an older slice of magmatic arc-related crustal rocks.

The Lac des Iles Mine property hosts the North Lac des Iles Complex which mainly comprises ultramafic rocks, and the South Lac des Iles Complex which is dominated by mafic rocks.

The South Lac des Iles Complex, which hosts the Lac des Iles Mine, was emplaced into predominantly intermediate composition orthogneiss basement rocks. The emplacement age of the main block intrusion has been established as 2.689 to 2.693 billion years. Four major intrusive sequences (series) are now recognised in the complex. The oldest series is referred to as the gabbronorite series. This was succeeded by a significant period of noritic magmatism that produced both the norite and breccia series. The altered norite is strongly foliated with aligned chlorite grains in highly strained areas, defining a pervasive schistosity. The youngest magmatism in the South Lac des Iles Complex produced the diorite series comprising more evolved hornblende-bearing mafic to intermediate intrusive rocks with a wide range in textures and grain sizes.

Simplified geology of the Lac des Iles Complex



The map was adapted by Implats from various publications.

Exploration synopsis

Implats' exploration focus is limited to current operations. The Group exploration strategy remains unchanged insofar as the main focus being brownfields activities supporting ongoing mining at existing operations. For the Bushveld Complex Operations, infill drilling at a targeted 250m to 400m drillhole collar spacing is routinely provided for as part of the annual budget process, in order to better define geological structures, specific local complexities, ground conditions and grade variations to inform mine planning and direct medium-term layouts. The target remains to gather information timeously towards allowing, directing and supporting the five-year Mineral Reserve development plans and minimising the impact of geological risk on operations. Accordingly, Marula and Impala Rustenburg are tightening their surface drillhole spacing. Several brownfields feasibility opportunities require additional supporting geological information. As such, brownfields exploration plans are annually revisited and subjected to scrutiny at various management levels to ensure optimised spend in mitigating operational risks.

Underground geotechnical core-recovering drilling activities are routinely being undertaken at the different operations to detect potential hazardous geological features.

Annual Group exploration expenditure from the surface and underground operations for the past year amounted to some R370.2 million. This reflects a significant increase of 32.8% compared to the 2021 total of R278.8 million. The higher expenditure is related to the need for detailed geological information to support the Lac des Iles LoM and the brownfields projects in southern Africa. It is projected that exploration expenditure for the forthcoming year will increase to R479.4 million. This equates to a R100 million year-on-year increase in exploration expenditure and signifies Implats' commitment to bolstering its confidence in both LoM I and pipeline LoM II and LoM III projects towards ensuring operational sustainability.

Exploration expenditure incurred during the past year

Operations and projects	Surface drilling			Underground drilling			Geotechnical drilling		
	Total number	Length (m)	Amount (R'000)	Total number	Length (m)	Amount (R'000)	Total number	Length (m)	Amount (R'000)
Impala Rustenburg	31	32 954	61 794	716	43 531	58 356	–	–	–
Marula	11	7 600	11 000	22	2 400	2 500	1	800	1 000
Two Rivers	2	688	2 450	218	15 365	10 014	–	–	–
Zimplats[1]	90	29 078	44 916	68	6 820	7 796	–	–	–
Mimosa[1]	24	4 232	8 326	53	6 850	4 810	5	704	1 479
Lac des Iles[2]	–	–	–	86	45 021	158 625	–	–	–
Total	**158**	**74 552**	**128 486**	**1 163**	**119 987**	**242 101**	**1**	**1 504**	**2 479**

[1] *R16.33 per US dollar /US$ as at 30 June 2022.*
[2] *R12.69 per Canadian dollar/C$ as at 30 June 2022.*

The ongoing brownfields exploration activities are described in more detail in the individual operations' sections.

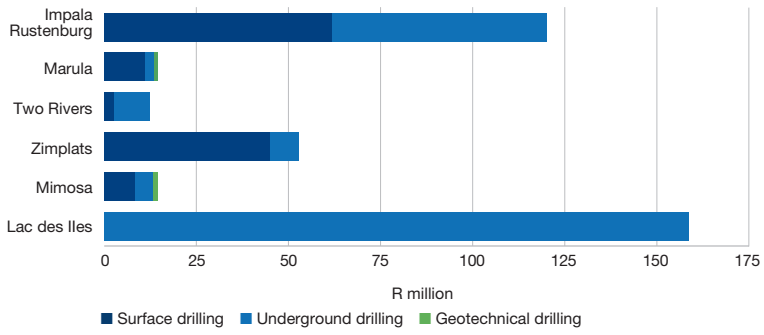
The Waterberg project has seen no active exploration programme during the last year, mainly because the initially planned drilling has been completed to schedule. Re-validation of the 2019 DFS study is intended for FY2023.

Offshore projects

Financial provision is secured towards limited surface exploration activities at the Titan project, some 50km north of the Lac des Iles operation. Geophysical surveys will be undertaken, along with physical prospecting and in-loco mapping and sampling, as well as surface drilling. Geophysical surveys are earmarked for North Lac des Iles, where these exploration activities are typically seasonally constrained. No additional surface exploration activities are envisaged for Sunday Lake at this stage and Impala Canada as the operator will ensure that all leases are maintained in good standing.

Implats continues to monitor PGM exploration worldwide to maintain intelligence concerning Mineral Resource developments and exploration opportunities.

Annual exploration expenditure
as at 30 June 2022 (R million)

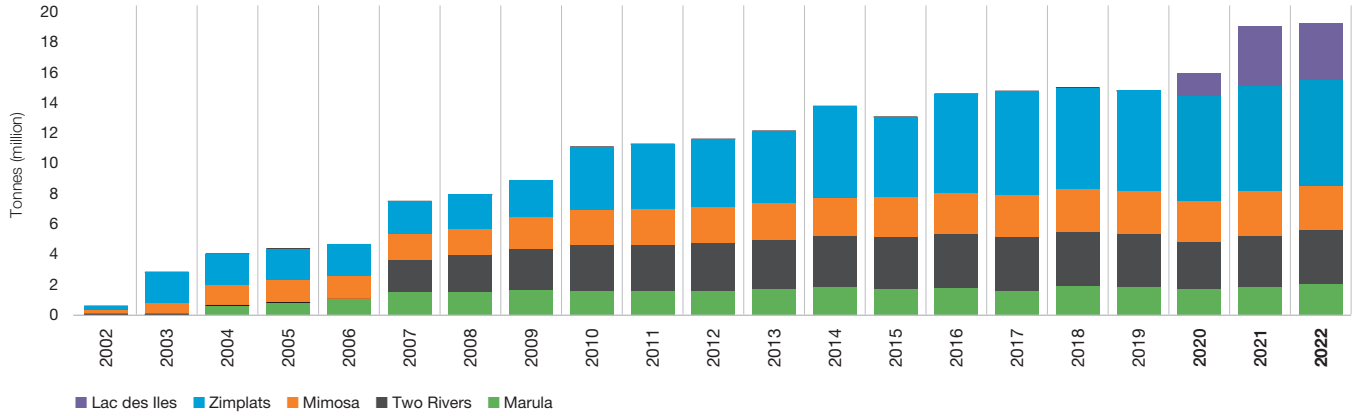


Historic Group production trends

Summary statistics relating to the historical production of the Group is indicated in the accompanying graphs and table. Overall the gross refined ounces for the Group decreased from 3 271koz 6E to 3 087koz 6E in the past year compared with the previous financial year.

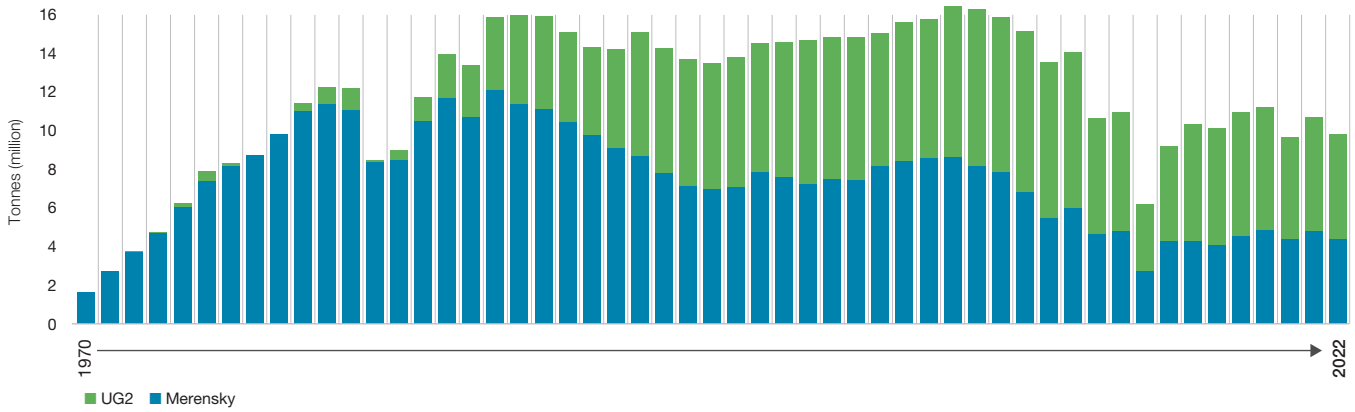
Historic annual production at the Marula, Two Rivers, Mimosa, Zimplats and Lac des Iles operations

as at 30 June 2022 (million tonnes)



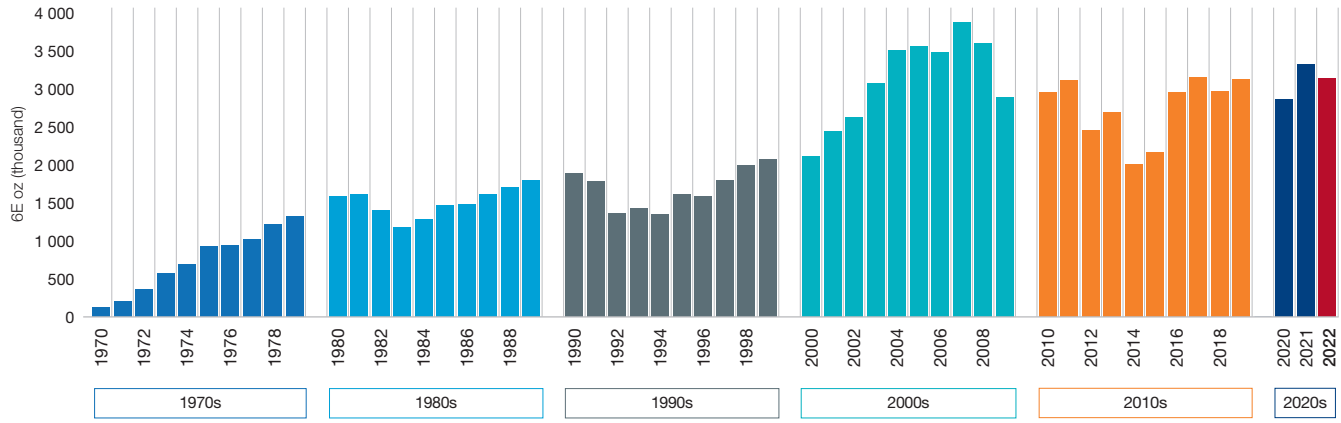
Historic annual production at Impala Rustenburg operation

as at 30 June 2022 (million tonnes)



Gross Implats 6E production

as at 30 June 2022 (thousand ounces)



Historic Group production trends (continued)

	units	FY2022	FY2021	FY2020	FY2019	FY2018
Tonnes milled						
Impala Rustenburg	kt	**9 801**	10 686	9 635	11 211	10 947
Marula	kt	**1 995**	1 802	1 636	1 772	1 838
Two Rivers	kt	**3 458**	3 283	3 016	3 405	3 455
Zimplats	kt	**6 882**	6 821	6 751	6 486	6 570
Mimosa	kt	**2 816**	2 861	2 701	2 814	2 802
Lac des Iles	kt	**3 685**	3 901	1 553	–	–
Mill head grade						
Impala Rustenburg	g/t 6E	**3.86**	4.05	3.91	3.99	4.09
Marula	g/t 6E	**4.53**	4.37	4.70	4.40	4.33
Two Rivers	g/t 6E	**3.22**	3.43	3.45	3.52	3.63
Zimplats	g/t 6E	**3.42**	3.44	3.48	3.48	3.48
Mimosa	g/t 6E	**3.82**	3.87	3.85	3.83	3.84
Lac des Iles	g/t 3E	**2.68**	2.59	2.45	–	–
Production ex Impala Rustenburg Mine						
Platinum refined	koz	**608.4**	696.4	638.3	753.8	580.8
Palladium refined	koz	**291.1**	344.3	343.2	332.0	300.4
Rhodium refined	koz	**78.1**	96.4	100.0	86.9	88.5
Nickel refined	t	**3 372**	3 945	4 720	3 439	3 895
6E refined production	koz	**1 137.5**	1 334.4	1 270.1	1 390.8	1 126.8
Production ex Marula Mine*						
Platinum in concentrate	koz	**99.2**	88.3	80.5	83.0	85.1
Palladium in concentrate	koz	**101.5**	90.5	82.6	84.7	87.5
Rhodium in concentrate	koz	**20.3**	18.2	16.6	17.3	17.8
Nickel in concentrate	t	**310**	297	270	270	252
6E in concentrate	koz	**259.4**	231.3	210.5	216.9	223.5
Production ex Two Rivers Mine*						
Platinum in concentrate	koz	**140.3**	139.2	122.4	147.2	162.5
Palladium in concentrate	koz	**84.8**	84.5	73.2	86.0	96.6
Rhodium in concentrate	koz	**24.5**	24.0	21.2	25.6	28.6
Nickel in concentrate	t	**609**	609	481	552	606
6E in concentrate	koz	**301.9**	300.2	261.0	313.4	348.4
Production ex Zimplats Mine*						
Platinum in matte	koz	**266.6**	266.0	266.9	269.9	270.8
Palladium in matte	koz	**227.9**	226.5	228.0	223.0	223.2
Rhodium in matte	koz	**23.8**	23.7	23.4	23.9	23.9
Nickel in matte	t	**5 338**	4 925	4 991	5 295	4 931
6E in matte	koz	**583.5**	579.0	580.2	579.6	578.3
Production ex Mimosa Mine*						
Platinum in concentrate	koz	**116.3**	122.8	116.6	122.1	125.0
Palladium in concentrate	koz	**90.5**	96.2	91.7	96.7	98.7
Rhodium in concentrate	koz	**9.5**	10.2	9.8	10.5	10.8
Nickel in concentrate	t	**3 610**	3 680	3 421	3 567	3 651
6E in concentrate	koz	**246.4**	261.1	247.8	260.6	265.6
Production ex Lac des Iles Mine*, ***						
Platinum in concentrate	koz	**18.7**	16.5	6.4	–	–
Palladium in concentrate	koz	**212.9**	227.5	84.7	–	–
6E in concentrate	koz	**248.7**	260.5	97.4	–	–
Gross margin						
Impala Rustenburg	%	**35.8**	49.0	29.5	6.9	(22.2)
Marula	%	**51.8**	63.0	45.7	10.1	(0.4)
Two Rivers	%	**51.7**	62.9	45.5	23.9	23.3
Zimplats	%	**52.6**	58.0	48.7	29.7	25.5
Mimosa	%	**46.1**	58.1	34.8	17.4	16.5
Lac des Iles	%	**24.9**	45.7	27.0	–	–
Gross Implats refined production**						
6E	koz	**3 087**	3 271	2 813	3 074	2 925
Platinum	koz	**1 426**	1 517	1 349	1 526	1 468
Palladium	koz	**1 071**	1 121	892	910	849
Rhodium	koz	**181**	193	181	206	199
Nickel	kt	**16.5**	15.4	15.4	16.0	16.2

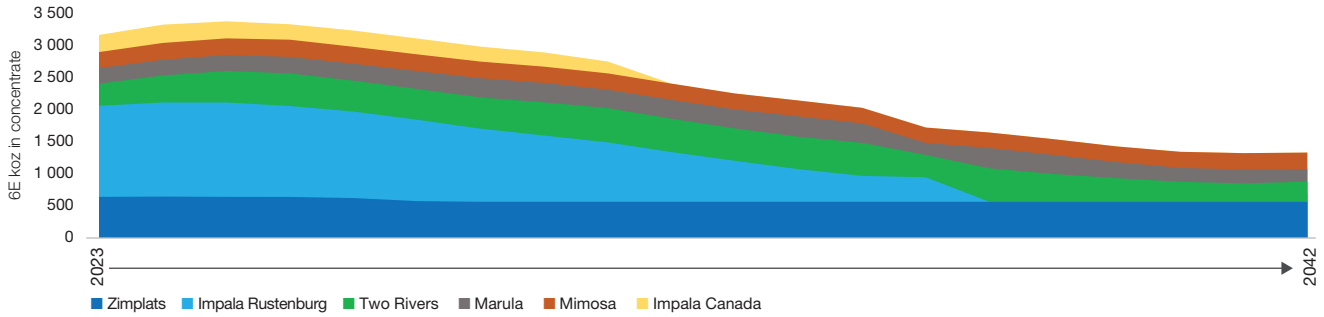
* *Numbers reflect 100% of production, not the portion attributable to Implats.*
** *Includes IRS production from other sources.*
*** *Nickel is forfeited at Lac des Iles as part of the off-take agreement with Glencore.*

Group life-of-mine outlook

The high-level LoM (20-year) plan is depicted in the detailed sections per operation in planning levels I, IA, II and III. These graphs reflect 100% of the annual production forecasts and not the portion attributable to Implats and also include the two RBPlat Royalty areas at Impala Rustenburg. These do not include all the 'Blue Sky' opportunities – some of this potential is explicitly excluded at this early stage. Caution should be exercised when considering the LoM plans as these may vary if assumptions, modifying factors, exchange rates or metal prices change materially. These LoM profiles should be read in conjunction with Mineral Resource estimates to determine the long-term potential.

The graph below shows the consolidated high-level LoM I plans collated from the individual profiles per operation. The profiles represent the Mineral Reserve estimates as at 30 June 2022 and only reflect current infrastructure. The LoM I profiles have all been subjected to economic testing and unprofitable production has been excluded and classified as LoM IA. This is referred to as tail-cutting. No Inferred Mineral Resources are included in the LoM I and Mineral Reserve estimates, other than minor incidental dilution in isolated cases, which is included at zero grade. At the same time, going forward, Implats is committed to an increased strategic thrust to evaluate LoM scenarios and options to optimise current infrastructure and Mineral Resources. This refers to brownfields opportunities but does not exclude mergers or new acquisitions.

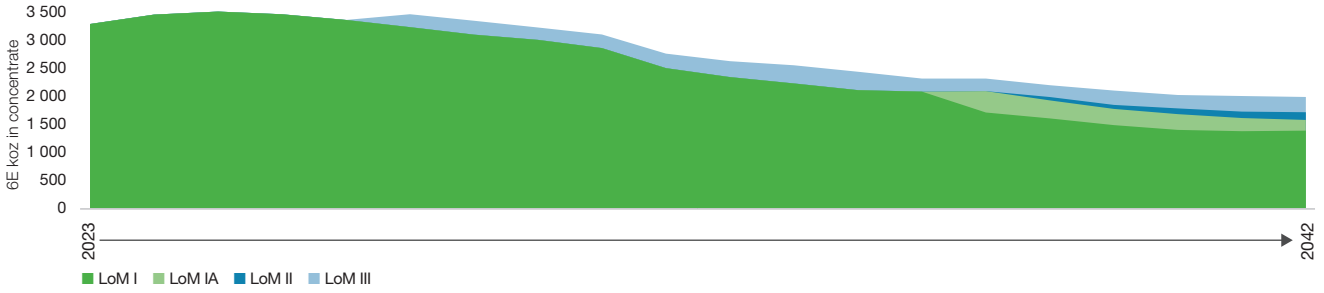
Implats estimated 20-year 6E LoM I ounce profile
as at 30 June 2022



The pictorial 20-year profile in this chapter is shown below as a combination of level I with selected level IA, II and III profiles. Only LoM I is based on Mineral Reserves, while LoM II and III have not been converted to Mineral Reserves. Therefore, this combined graph shows a similar low profile from 2036 onwards compared to the profile published on 30 June 2021.

It is clear from a combined Group perspective that a proportion of the 20-year plan is still at levels II and III and would require an improved financial outlook, further studies, funding and capital approval by the board. Feasibility studies are continuing at Impala Rustenburg, Two Rivers, Zimplats, Marula and Lac des Iles, Mimosa and the Waterberg project to evaluate future opportunities. During the past year, the LoM I profiles for Marula and Mimosa were extended based on concluded feasibility studies and board approval. The Mimosa Mineral Reserves were expanded with the decision to proceed with the North Hill project while at Marula the Phase II UG2 project was approved. This includes levels 6 to 11 at Clapham and levels 10 to 15 at Driekop.

Implats estimated 20-year 6E LoM ounce profile
as at 30 June 2022



The above LoM graphs exclude RBPlat, which will be accounted for in the year-end FY2023 declaration.

Valuation and sensitivities

Implats uses a discounted cash flow model that embodies economic, financial and production estimates in the valuation of mineral assets. Forecasts of key inputs are:

- Relative rates of inflation in South Africa, Zimbabwe, Canada and the United States
- Rand exchange rates – Rand/C$ and Rand/US$
- Metal prices
- Capital expenditure
- Operating expenditure
- Production profile
- Metal recoveries.

The outputs are a net present value, an internal rate of return, annual free cash flow, project payback period and funding requirements. The marketing department of Implats regularly updates metal price and exchange rate forecasts. As at 30 June 2022, a real long-term forecast for 6E basket revenue per 6E ounce sold of R23 350 (US$1 579) was used by the Group. Specific real long-term forecasts in today's money include:

		2022	2021
Platinum	US$/oz	**1 159**	1 087
Palladium	US$/oz	**1 281**	1 194
Rhodium	US$/oz	**6 292**	8 624
Ruthenium	US$/oz	**298**	294
Iridium	US$/oz	**3 138**	3 012
Gold	US$/oz	**1 479**	1 468
Nickel	US$/t	**17 442**	16 318
Copper	US$/t	**7 551**	6 952
Exchange rate	R/US$	**14.79**	14.51

The spot basket price calculated for Implats at a Group level as at 30 June 2022 was R36 549 (US$2 224), and the equivalent real long-term market consensus basket price is R25 885 (US$1 761) per 6E ounce. The long-term market consensus metal price estimates are the mean of between 11 and 17 broker companies' real term metal price estimates over the next three to five years. Long-term basket price forecasts per operation vary per the metal ratios. Rigorous profitability tests are conducted to test the viability of the Mineral Reserves. References to this are listed in the sections per operation and highlight the spot price scenarios. A summary graph showing the price sensitivity of the total Group Mineral Reserves is depicted below.

It is important to note that the basket price is materially impacted by the characteristics of the orebody, specifically the individual 6E metal proportions. These ratios vary significantly from area to area and from orebody to orebody as illustrated in the operational sections of this report.

An economic profitability test was conducted at each operation. This process entails the determination of when an operation is no longer profitable and no longer contributes to fixed overheads.

Each operation's processing, services and other costs are split between their relevant fixed and variable portions by virtue of a declining production profile. Once an operation is no longer profitable (or contributing to fixed overheads), it is removed from the LoM I profile (and Mineral Reserves). The fixed costs apportioned to the operation are then reallocated to the remaining operations.

A Mineral Resource, as defined by SAMREC (2016), is 'a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade, quality and quantity that there are RPEEE'. The interpretation of such 'eventual economics' varies significantly. However, it implies some form of high-level view regarding either 'yard-stick comparisons' or high-level scenario models.

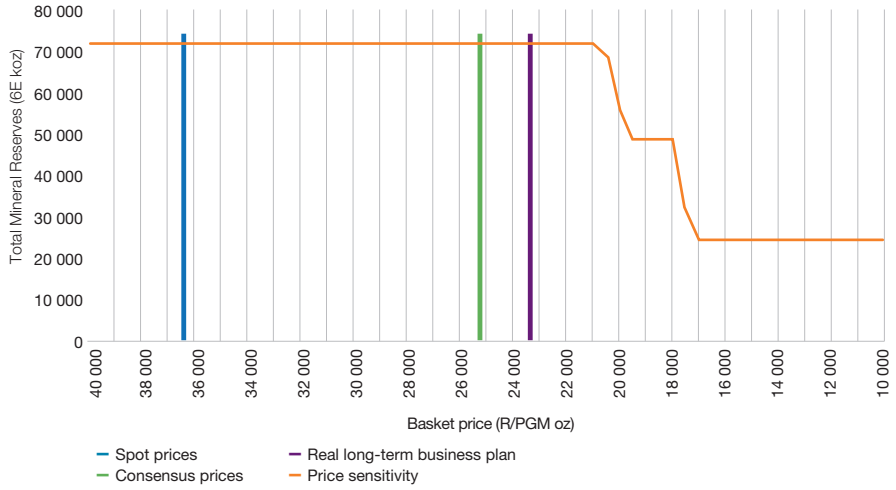
On this basis, Implats has excluded significant mineralisation due to depth below surface at Impala Rustenburg and Afplats UG2 (2 000m) and Two Rivers (1 000m) on geology and potential infrastructure. The Afplats Merensky Mineral Resources are excluded on the basis of no RPEEE. In total, some 100.0Moz 6E has been excluded from current statements compared to the 116.6Moz 6E in the previous report as at 30 June 2021. This reduction relates to the exclusion of the expired Wolvekraal 408 JQ and Kareepoort 407 JQ prospecting rights.

Beyond current infrastructure investment, the deeper Impala Rustenburg Mineral Resources require a real basket price of between R27 660 to R32 450 per 6E ounce (US$1 907). This suggests that future investments at Impala Rustenburg might at best be marginal under the current long-term price assumptions. The Zimbabwean Mineral Resources are reasonably robust in terms of RPEEE. Mineral Resources beyond current infrastructure investment will require a real long-term basket price in the order of R26 000 per 6E ounce (US$1 793).

It should be acknowledged that the commodity market remains fluid.

Further details can be seen in the Marketing section of the Implats 2022 integrated annual report at **(www.implats.co.za)**.

Implats Mineral Reserves versus real basket price
as at 30 June 2022



Impala Rustenburg

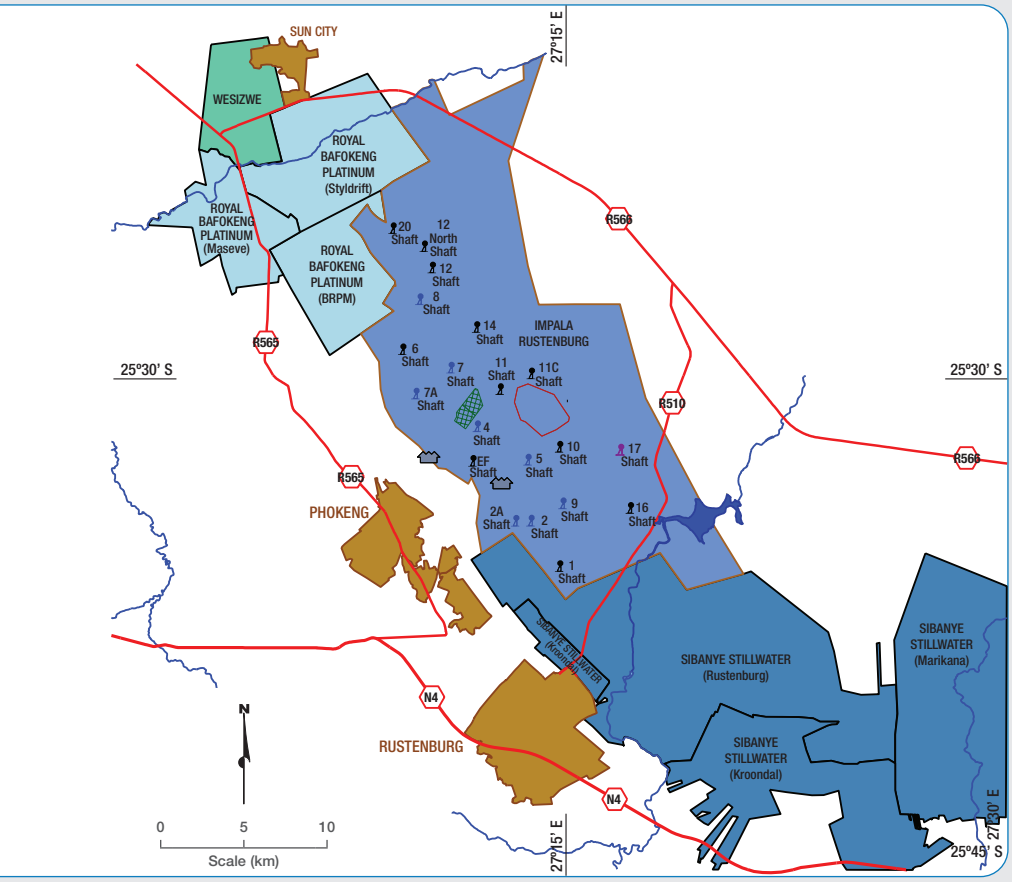
South Africa

Impala Rustenburg was created on 29 April 1968 as a subsidiary of Union Corporation. Mining production commenced on 22 July 1969.

Mining right
29 773ha

Implats' interest
96%
managed

Impala Rustenburg regional locality map



Legend

- Town
- Mining right boundary
- Public road
- River
- Dormant tailings storage facility – TSF1 and TSF2
- Current tailings storage facility – TSF3 and TSF4
- Dam
- Operational shafts
- Care and maintenance shaft
- Mined-out shafts
- Processing plant

Location

Impala Rustenburg is located 25km northwest of the town, Rustenburg in the North West province and 140km west of Pretoria, which is situated in the Gauteng province. The Rustenburg region is known as the so-called platinum belt, with vast proportions of worldwide platinum production traditionally produced. The mining operations of Sibanye Stillwater are situated to the immediate south of the Impala Rustenburg operation, and Royal Bafokeng Platinum (RBPlat) is located adjacent to the northern boundary of the Impala Rustenburg operation.

Brief history

In 1965 Union Corporation purchased a company called Impala Prospecting Company. The first vertical shaft (62m) was developed in 1967 to obtain a bulk Merensky Reef sample. Impala Platinum Limited was created on 26 April 1968 as a subsidiary of Union Corporation. Production commenced on 22 July 1969. Initially, only the Merensky Reef was mined at Impala Rustenburg. The UG2 Reef mining only started in the early 1980s when the technology to smelt ore containing chromitite at a higher temperature was developed. By the early 1990s, 13 vertical shafts were in operation,

Impala Rustenburg (continued)

and Impala Rustenburg produced some one million platinum ounces per annum. Shaft sinking at the new generation shafts (16 and 20) commenced in the mid-2000s. Sinking operations at 17 Shaft started in 2008 but operations here have been placed on care and maintenance.

Geological setting

The Merensky and UG2 Reefs are separated by a sequence of primarily anorthositic and noritic layered units from 45m in the northern part of the lease area and thickening to 125m in the southern lease area. Both the Merensky and UG2 Reefs are exploited at Impala Rustenburg.

The Merensky Reef is generally composed of an upper feldspathic pyroxenite, overlying a thin basal chromitite stringer, followed by an anorthosite to norite footwall. Locally this is termed a 'pyroxenite reef'. Occasionally a pegmatoidal pyroxenite and a second chromitite stringer may be developed between the feldspathic pyroxenite and the footwall units. Locally this pegmatoidal pyroxenite can exceed 2m in thickness. This is termed a 'pegmatoid reef'.

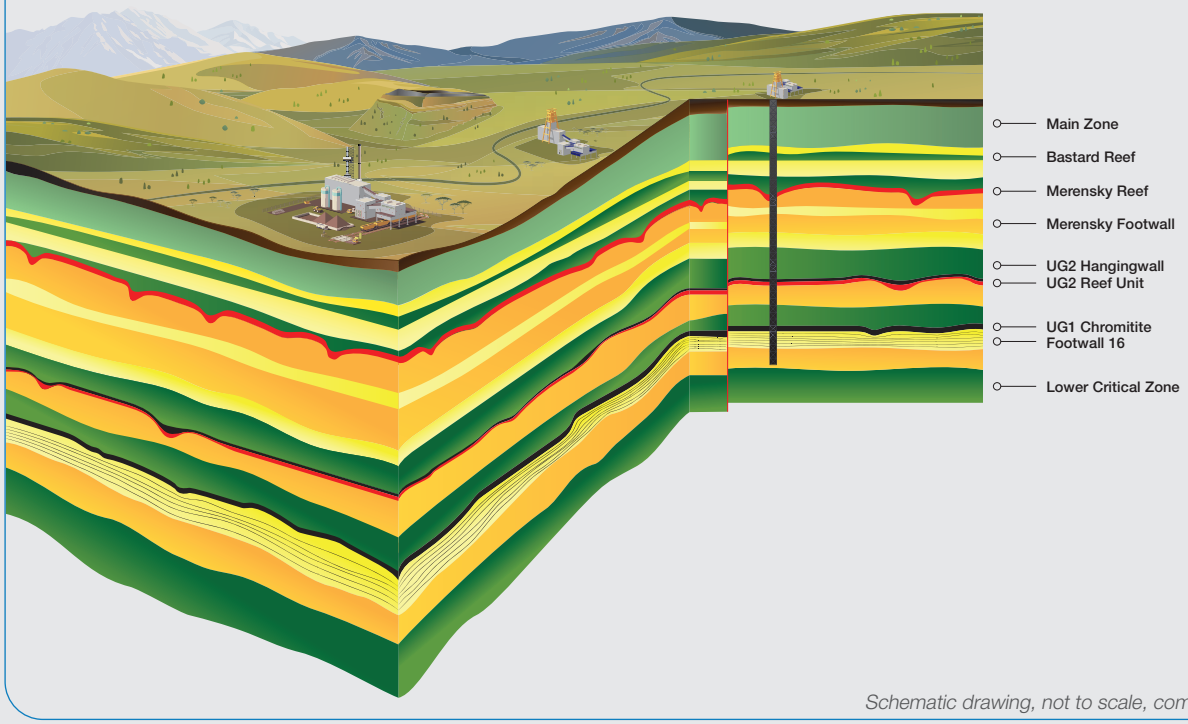
The UG2 Reef is defined as the main chromitite layer, with most PGM and base metal mineralisation confined to this unit, with a poorly mineralised pegmatoidal pyroxenite footwall. The main chromitite layer's hangingwall is a feldspathic pyroxenite containing up to four thin, poorly mineralised chromitite layers. The vertical grade distribution is depicted in the accompanying graphs, showing peak values at reef contacts associated with chromitite. Examples of typical vertical grade profiles at Impala Rustenburg are illustrated on page 35. The average 6E metal ratios show the differences between the Merensky and UG2 Reefs, particularly the higher Pt:Pd ratio related to the Merensky Reef and the relatively high proportion of rhodium in the UG2 Reef.

Both mineralised horizons dip gently away from the sub-outcrop in a north-easterly direction at 10° to 12°. The reefs may be disrupted by minor and major faults, lamprophyre, syenite and dolerite dykes, late-stage ultramafic replacement pegmatoid bodies and potholes. The potholes are generally circular and represent 'erosion' of or slumping into the footwall units. They vary in size from a few metres to tens of metres across and up to tens of metres in depth. These features are accounted for in the Mineral Resource and Mineral Reserve estimates as geological losses, contributing to dilution or absence of the mineralised horizons.

Exploration and studies

Exploration activities at Impala Rustenburg have typically comprised geological mapping (surface and underground), geophysical surveys (aeromagnetics, 3D vibroseis) and core-recovering drilling (surface and underground).

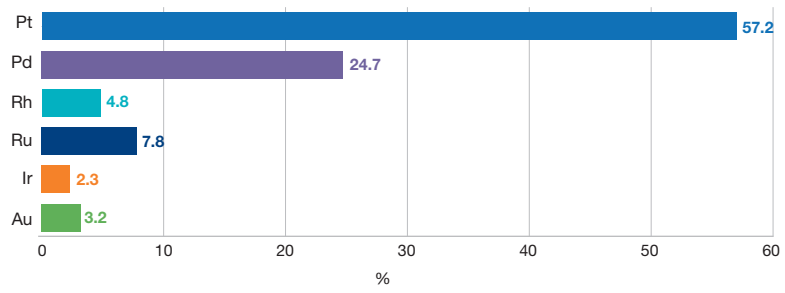
Generalised schematic section of the stratigraphic sequence at Impala Rustenburg



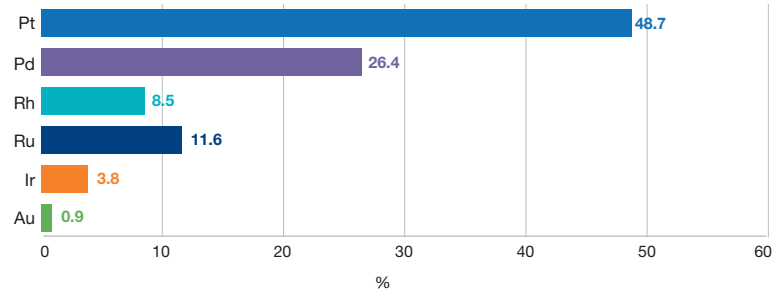
Schematic drawing, not to scale, compiled by Implats.

Impala Rustenburg (continued)

Impala Rustenburg Merensky Reef 6E ratio
as at 30 June 2022 (%)



Impala Rustenburg UG2 Reef 6E ratio
as at 30 June 2022 (%)



Merensky and UG2 Reef 6E ratios derived from the estimated five-year historic mill feed control samples.

Surface drilling is a combination of infill work to supplement a broader grid completed during original feasibility studies and work to support ongoing life-of-mine (LoM) extension studies. Such work is mainly targeted to assist with detailed geological structural interpretations. Underground geotechnical core-recovering drilling activities are routinely undertaken at Impala Rustenburg to detect hazardous geological features and guide mining operations. Underground drilling is often employed to keep the footwall drives at the ideal elevation and resolve geological structural complexities. Summary statistics about the work conducted in the past year are reported in the exploration overview section of this report.

During the past year, exploration on the Impala Rustenburg mining area focused on providing information for ongoing brownfields feasibility studies; infill drilling from the surface at 12, 14, 16 and 20 Shafts, where 31 drillholes were completed. In addition, some 716 underground drillholes were completed across the various shafts, primarily aimed at guiding the spatial placement of development at the ideal elevation while also providing geotechnical information.

The results of this work yielded critical geological information required for short- and medium-term planning. In addition, feasibility studies were completed for Merensky at 12 Shaft and UG2 Reef at 11 Shaft. Other studies are in progress to assess the potential to exploit additional Merensky Reef areas at 14 Shaft and additional UG2 Reef Mineral Resources at 12 Shaft and 20 Shaft.

General infrastructure

Impala Rustenburg is an established mine with infrastructure that includes tarred roads, shaft areas, buildings, offices, railway lines, powerlines, pipelines, concentrators, smelter, chromite recovery plant, sewage and rock and tailings storage facilities. The extent of the servitude area that constitutes the infrastructure, roads, rails and dumps is 46.23km^2. A 92km electrified rail network connects shafts to two concentrating complexes.

The Impala Rustenburg operations are supplied electricity by Eskom primarily from its Ararat Main Transmission sub-station (MTS). The total installed capacity at Ararat MTS amounts to 945MVA. There are eight main intake points at Impala Rustenburg, all of which have adequate redundancy. An alternate source of electricity for Impala Rustenburg is the Marang Main Transition substation, connected to the Impala 16 Shaft, to provide electricity during emergencies. Rand Water supplies water to Rustenburg and Impala Rustenburg from the Vaal River system (Vaal Dam) and the Magalies Water system. The total allocation was 42Ml per day, but 2Ml per day is allocated to the Platinum Village. In addition, Impala Rustenburg has a contract to receive 10Ml treated effluent (grey water) per day from the Rustenburg municipal water care works for the two processing plants. Impala Rustenburg's three water care works also supply about 3 to 5Ml of treated effluent per day to the Mineral Processes operations.

Mineral Resource estimation and classification

The Mineral Resources for the Merensky Reef are estimated at a minimum mining width and may include mineralisation below the selected cut-off grade. The UG2 Reef Mineral Resources have been estimated using a minimum mining cut of 95cm. The Mineral Resource estimation method is ordinary kriging. The evaluation is conducted using on-reef development sampling and drillhole samples to establish a Mineral Resource estimate for short- and long-term planning. Grade block models are developed using Isatis™ software.

The Mineral Resource classification is based on the Group's standard practice (see page 14).

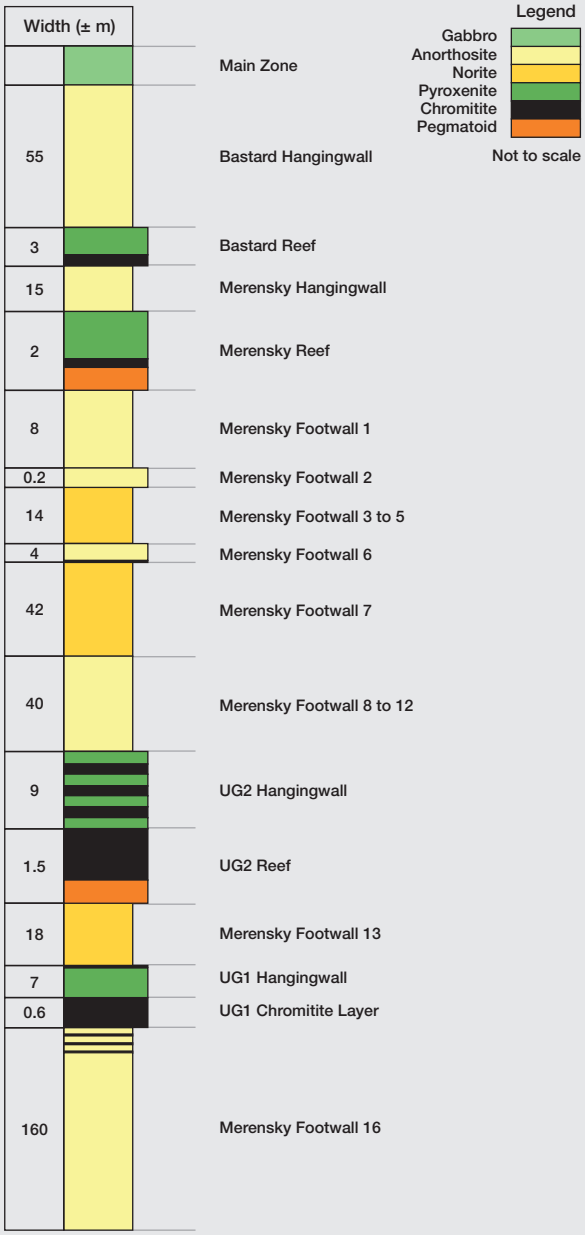
In the case of Impala Rustenburg, the classification is primarily informed by the confidence in the geological continuity and structural interpretation, drillhole and underground reef intersection populations, as well the geostatistical confidence.

The Mineral Resources in the dormant tailings storage facilities (TSF1 and TSF2) are reported separately. Reprocessing of the complex is ongoing.

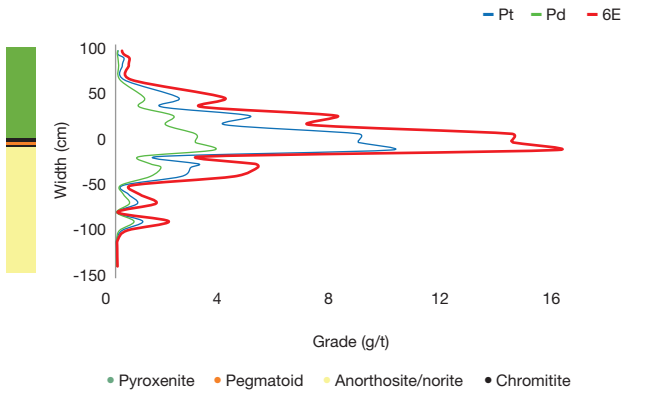
Mineral Resource estimates are based on mining faces at 31 December 2021. The Mineral Resource estimates have been non-spatially depleted per shaft and reef horizon for six months until 30 June 2022.

Impala Rustenburg (continued)

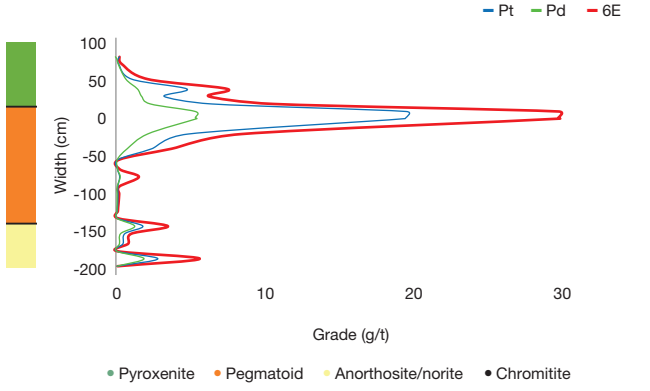
Generalised geological succession of the upper portion of the Critical Zone at Impala Rustenburg



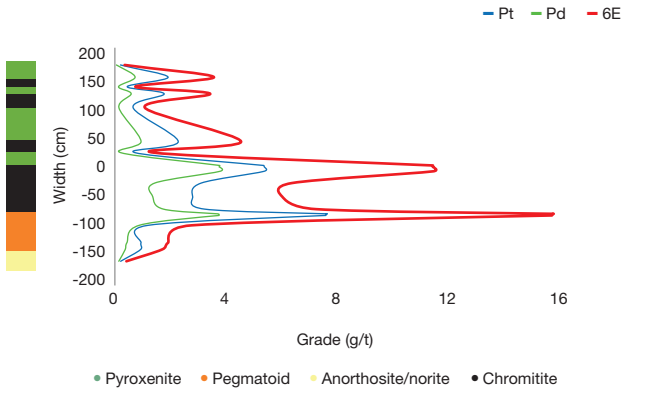
Impala Rustenburg – Merensky Pyroxenite Reef



Impala Rustenburg – Merensky Pegmatoid Reef



Impala Rustenburg – UG2 Reef



Impala Rustenburg (continued)

Impala Rustenburg Mineral Resource estimate (inclusive reporting)

As at 30 June 2022

Orebody		Merensky Reef				UG2 Reef					TSF1 and TSF2				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	110.7	65.4	11.5	**187.5**	149.1	63.6	12.4	**225.1**	**412.6**	–	51.8	–	**51.8**	**464.4**
Width	cm	122	104	103	**–**	95	95	95	**–**	**–**	–	–	–	**–**	**–**
4E grade	g/t	6.21	6.38	6.98	**6.31**	5.62	5.57	5.47	**5.60**	**5.92**	–	0.67	–	**0.67**	**5.34**
6E grade	g/t	6.90	7.09	7.76	**7.02**	6.64	6.59	6.47	**6.62**	**6.80**	–	0.75	–	**0.75**	**6.13**
Ni	%	0.16	0.16	0.16	**0.16**	0.04	0.04	0.04	**0.04**	**0.10**	–	0.02	–	**0.02**	**0.09**
Cu	%	0.09	0.09	0.09	**0.09**	0.01	0.01	0.01	**0.01**	**0.04**	–	0.01	–	**0.01**	**0.04**
4E oz	Moz	22.1	13.4	2.6	**38.1**	26.9	11.4	2.2	**40.5**	**78.6**	–	1.1	–	**1.1**	**79.7**
6E oz	Moz	24.6	14.9	2.9	**42.3**	31.8	13.5	2.6	**47.9**	**90.2**	–	1.3	–	**1.3**	**91.5**
Pt oz	Moz	14.0	8.5	1.6	**24.2**	15.5	6.6	1.3	**23.3**	**47.5**	–	0.7	–	**0.7**	**48.2**
Pd oz	Moz	6.1	3.7	0.7	**10.5**	8.4	3.6	0.7	**12.7**	**23.1**	–	0.3	–	**0.3**	**23.4**

As at 30 June 2021

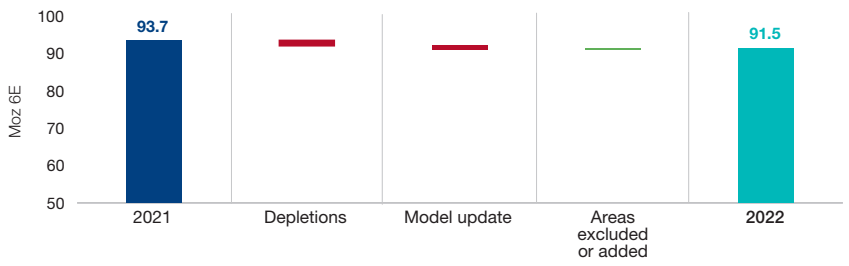
Orebody		Merensky Reef				UG2 Reef					TSF1 and TSF2				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	113.4	65.6	11.4	**190.4**	147.8	70.6	12.4	**230.8**	**421.1**	–	54.4	–	**54.4**	**475.6**
Width	cm	121	104	96	**–**	95	95	95	**–**	**–**	–	–	–	**–**	**–**
4E grade	g/t	6.25	6.46	7.00	**6.37**	5.58	5.55	5.46	**5.56**	**5.93**	–	0.70	–	**0.70**	**5.33**
6E grade	g/t	6.96	7.20	7.79	**7.09**	6.61	6.58	6.47	**6.59**	**6.82**	–	0.78	–	**0.78**	**6.13**
Ni	%	0.14	0.17	0.16	**0.15**	0.04	0.05	0.04	**0.04**	**0.09**	–	0.02	–	**0.02**	**0.09**
Cu	%	0.08	0.09	0.09	**0.08**	0.01	0.01	0.01	**0.01**	**0.04**	–	0.01	–	**0.01**	**0.04**
4E oz	Moz	22.8	13.6	2.6	**39.0**	26.5	12.6	2.2	**41.3**	**80.3**	–	1.2	–	**1.2**	**81.5**
6E oz	Moz	25.4	15.2	2.9	**43.4**	31.4	14.9	2.6	**48.9**	**92.3**	–	1.4	–	**1.4**	**93.7**
Pt oz	Moz	14.5	8.7	1.6	**24.8**	15.3	7.3	1.3	**23.8**	**48.5**	–	0.7	–	**0.7**	**49.3**
Pd oz	Moz	6.3	3.8	0.7	**10.8**	8.3	3.9	0.7	**12.9**	**23.7**	–	0.3	–	**0.3**	**23.9**

Mineral Resource reconciliation

The year-on-year reconciliation of both the Impala Rustenburg Merensky and UG2 6E Mineral Resource estimates reduced marginally, based on depletions, updating of the geological and geostatistical models and the addition of Mineral Resources from approved and funded projects.

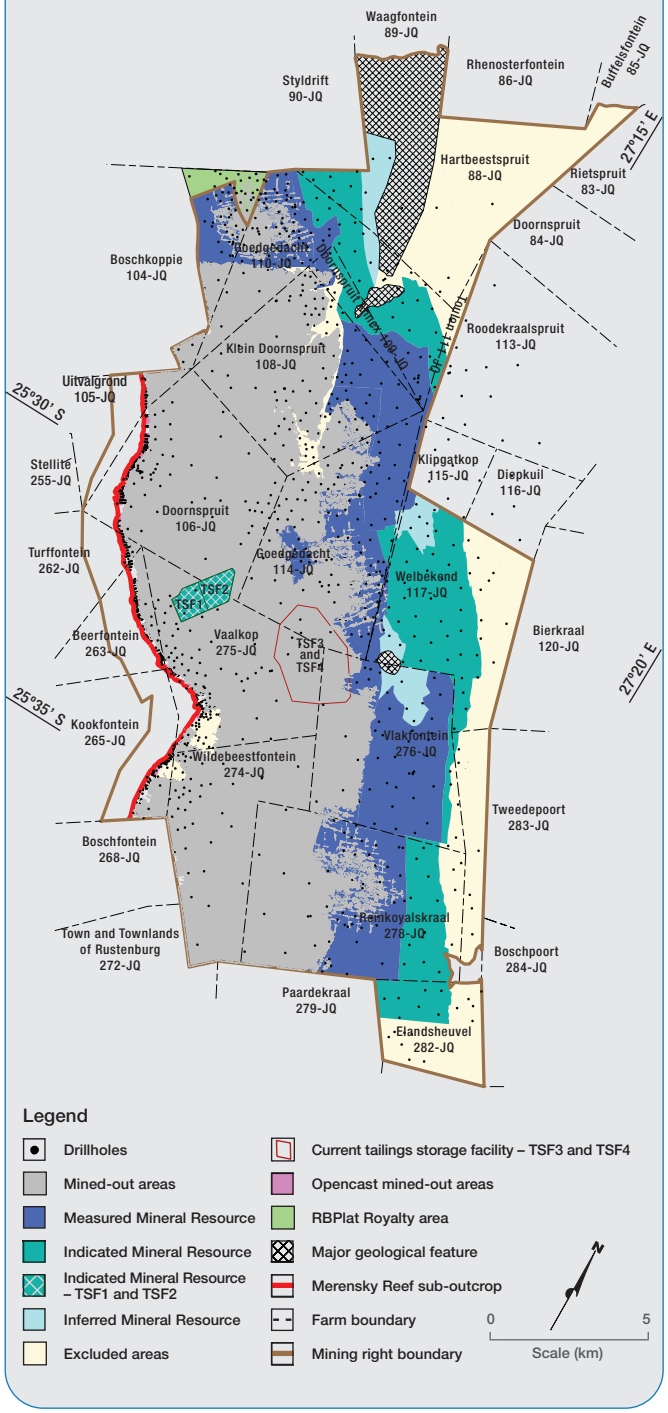
Total Impala Rustenburg 6E Mineral Resources

as at 30 June 2022 (variance Moz 6E)

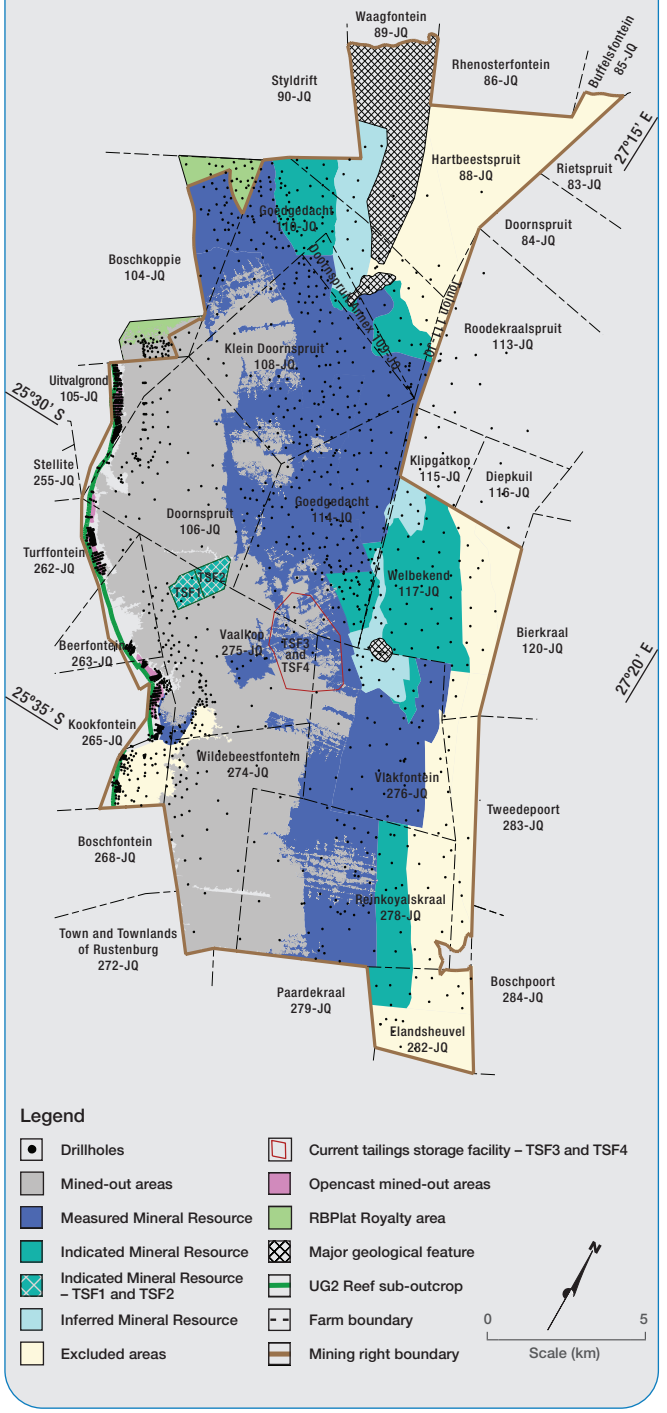


Impala Rustenburg (continued)

Impala Rustenburg Merensky Reef Mineral Resources



Impala Rustenburg UG2 Reef Mineral Resources



Impala Rustenburg (continued)

Mining methods

Both the Merensky and UG2 Reefs are mined across the Impala Rustenburg operations. Stoping at the operations is predominantly carried out through conventional double-sided breast mining following the best practice principles. Access haulages are developed in opposite directions from cross-cuts, following the two reef horizons on strike in the footwall of the reefs and are defined as half levels. Footwall drives are developed approximately 18m to 30m below the reef horizon, with on-reef raise/winze connections between 180m and 250m apart. Panel face lengths vary from 15m to 28m for Merensky and UG2 Reefs, with panels typically separated by 6m x 3m grid pillars with 2m ventilation holes. Stoping widths are approximately 1.3m and 1.1m for conventional Merensky and UG2 Reefs, respectively, depending on the width of the economic reef horizon. In addition, bord and pillar mining (trackless) occurs in selected Merensky Reef areas at 14 Decline and 12 North Decline. The average stoping width of the bord and pillar panels is about 1.9m.

The hydro-mining activities at TSF1 and TSF2 consist of using high-pressure water directed in a concentrated beam, towards the surface of the dam, gradually undercutting high walls within the trench, to ensure proper mixing of loosened solids with the water. This forms a high load of concentrated solids slurry stream, which is then gravity fed via a trench to a collection point.

Mining planning process

Mine design and scheduling of operational shafts are undertaken using CADSmine™ and Studio UG software, while the mine design and scheduling for project shafts are undertaken using Studio UG software only. Geological models/ore blocks are updated and validated using G-Blocks and boundaries in the MRM information system. The mine design for the first two years is monthly per crew. This is extended on an annual basis for the remaining period of the LoM. The planning sequence allows for a cycle that starts with a comprehensive review of the LoM plan followed by the detailed scheduling of a five-year development schedule and a two-year detailed month-by-month stoping schedule.

Mineral Reserve estimation and classification

The conversion and classification of Mineral Reserves at Impala Rustenburg are informed by:

- Feasible mine plan and project studies, board approval and available funding
- Economic testing at given market conditions (price deck)
- Measured Mineral Resources are converted to Proved and Probable Mineral Reserves. In contrast Indicated Mineral Resources are only converted to Probable Mineral Reserves, subject to confidence and economic viability.
- Proved Mineral Reserves are those areas where the main development has been completed
- The 2022 Mine Plan was based on the survey faces of December 2021 with a spatial mine design and schedule forecast of six months until 30 June 2022
- The Mineral Reserves in the dormant tailings storage facilities (TSF1 and TSF2) are reported separately.

The Mineral Resources and Mineral Reserves involved with the royalty agreement with Royal Bafokeng Platinum (RBPlat) are excluded in this report as the ownership vests with RBPlat. This refers to the commercial transaction with RBPlat to access some of its mining areas at BRPM from 6 and 20 Shafts.

Modifying factors

The table below summarises the significant modifying factors impacting on the Mineral Resource and Mineral Reserve estimates (see page 15 for further details).

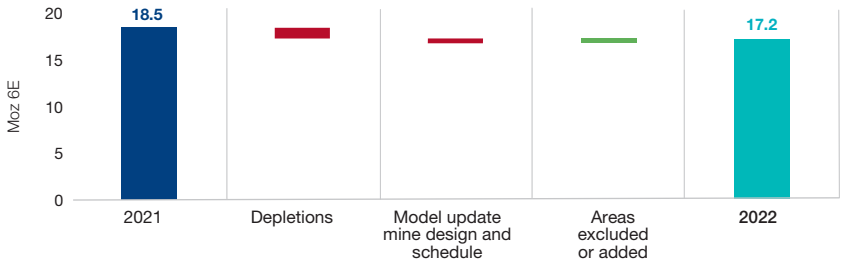
Mineral Resource Key assumptions	Merensky Reef	UG2 Reef
Geological losses	25 – 35%	37 – 47%
Area	55 million ca	64 million ca
Channel width	114cm	95cm

Mineral Reserve Modifying factors	Merensky Reef	UG2 Reef
Dilution	9 – 12%	9 – 12%
Pillars	8 – 10%	8 – 10%
Planning factor	90 – 92%	88 – 90%
Relative density	2.9 – 3.2	3.1 – 4.0
Average stoping width	137cm	114cm
Concentrator recoveries	88 – 89%	79 – 82%

Mineral Reserve reconciliation

Depletions, approved capital projects and model updates impacted the year-on-year reconciliation of the Impala Rustenburg Merensky and UG2 6E Mineral Reserves.

Total Impala Rustenburg 6E Mineral Reserve
as at 30 June 2022 (variance Moz 6E)



Impala Rustenburg (continued)

Impala Rustenburg Mineral Reserve estimate

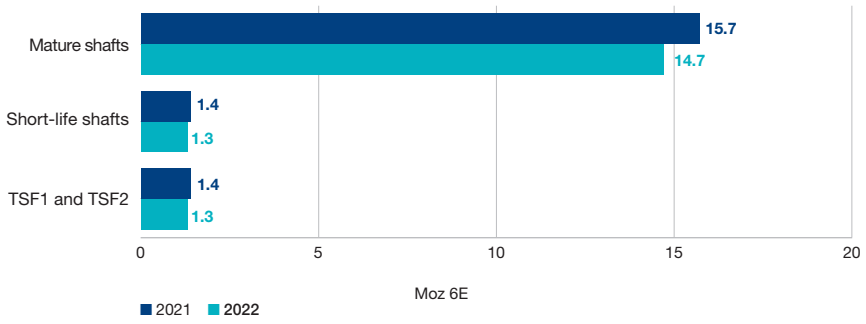
As at 30 June 2022

Orebody		Merensky Reef			UG2 Reef				TSF1 and TSF2			
Category		Proved	Probable	Total	Proved	Probable	Total	Total	Proved	Probable	Total	Total
Tonnes	Mt	11.3	40.3	**51.6**	12.8	53.2	**66.0**	**117.5**	–	51.8	**51.8**	**169.3**
Width	cm	136	137	**–**	115	114	**–**	**–**	–	–	**–**	**–**
4E grade	g/t	3.67	3.78	**3.75**	3.68	3.57	**3.59**	**3.66**	–	0.67	**0.67**	**2.75**
6E grade	g/t	4.08	4.20	**4.17**	4.36	4.22	**4.25**	**4.22**	–	0.75	**0.75**	**3.16**
4E oz	Moz	1.3	4.9	**6.2**	1.5	6.1	**7.6**	**13.8**	–	1.1	**1.1**	**14.9**
6E oz	Moz	1.5	5.4	**6.9**	1.8	7.2	**9.0**	**15.9**	–	1.3	**1.3**	**17.2**
Pt oz	Moz	0.8	3.1	**4.0**	0.9	3.5	**4.4**	**8.3**	–	0.7	**0.7**	**9.0**
Pd oz	Moz	0.4	1.3	**1.7**	0.5	1.9	**2.4**	**4.1**	–	0.3	**0.3**	**4.4**

As at 30 June 2021

Orebody		Merensky Reef			UG2 Reef				TSF1 and TSF2			
Category		Proved	Probable	Total	Proved	Probable	Total	Total	Proved	Probable	Total	Total
Tonnes	Mt	12.1	43.2	**55.3**	14.4	56.3	**70.7**	**126.0**	–	54.4	**54.4**	**180.4**
Width	cm	140	144	**–**	114	113	**–**	**–**	–	–	**–**	**–**
4E grade	g/t	3.60	3.75	**3.72**	3.68	3.59	**3.61**	**3.66**	–	0.70	**0.70**	**2.76**
6E grade	g/t	4.01	4.17	**4.14**	4.36	4.26	**4.28**	**4.22**	–	0.78	**0.78**	**3.18**
4E oz	Moz	1.4	5.2	**6.6**	1.7	6.5	**8.2**	**14.8**	–	1.2	**1.2**	**16.0**
6E oz	Moz	1.6	5.8	**7.4**	2.0	7.7	**9.7**	**17.1**	–	1.4	**1.4**	**18.5**
Pt oz	Moz	0.9	3.3	**4.2**	1.0	3.7	**4.7**	**8.9**	–	0.7	**0.7**	**9.7**
Pd oz	Moz	0.4	1.4	**1.8**	0.5	2.0	**2.6**	**4.4**	–	0.3	**0.3**	**4.7**

Impala Rustenburg Mineral Reserve distribution
as at 30 June 2022 (Moz 6E)



Mature shafts: 10, 11, 12, 14, 16 and 20.
Short-life shafts: 1, EF.

Processing

Mineral Processes receives ore from the shafts allocated to either the UG2 Plant for the higher chromium grade material or the Central Concentrator for Merensky ore. Between 89% and 91% of the PGMs from the Merensky ore are recovered at mass pulls ranging from 5% to 7% utilising 10 primary mills, feeding two, nine-stage, tank cell flotation banks. Approximately 79% to 81% of the PGMs are recovered from the UG2 ore at a mass pull of 2% to 3%. The PGM recovery from UG2 ore is performed utilising a more complex circuit configuration to reduce chromium reporting to the concentrate stream. The MF2 Plant, also situated at the Central Concentrator, operates three primary mills that can

Impala Rustenburg (continued)

accommodate any Merensky ore spillover and, more recently, the old tailings from TSF1 and TSF2. This allows for flexibility in the ore split received from the mining operations without significantly impacting the recovery of valuable material.

Tailings from both concentrators are further processed at the Tailings Scavenging plant to improve overall recovery. In addition, the UG2 Plant tailings are also treated at two chromite recovery plants.

The smelter operation treats the concentrate from both the Central Concentrator and UG2 Plant and third-party material. The concentrate is dried to reduce the moisture content and then treated through one of three electric arc furnaces to produce a copper, nickel, iron sulphide-rich molten matte at a mass pull of 8% to 10%. The remaining 90% produces a low-grade furnace slag. The furnace matte is then treated in the converter operation. Granulated converter matte is transported to the refinery operations in Springs by road. Both furnace and converter slag are retreated at its Slag Plant using a flotation process to enhance the recovery of valuable metals. The refineries comprising a base metal refinery and a precious metal refinery are located in Springs, east of Johannesburg.

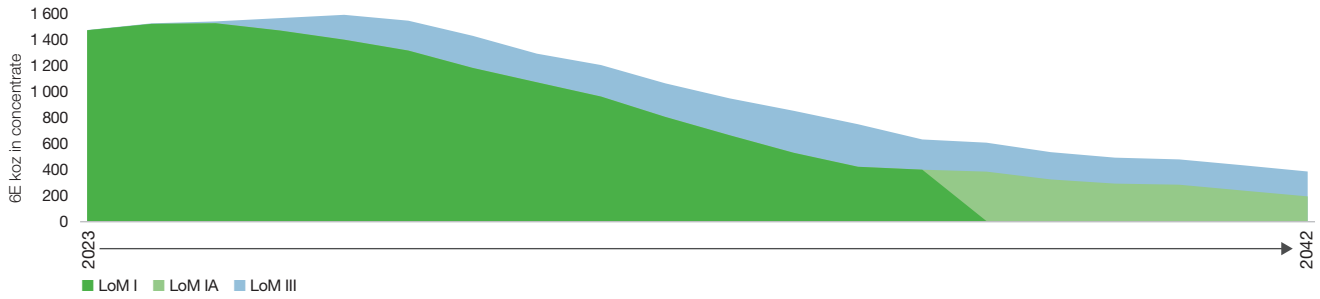
LoM, valuation and sensitivity

The strategic outlook remains under review, given declining LoM production outlook and cost pressures. Several studies are being undertaken to optimise the Mineral Resource and infrastructure assets. Such work is targeted to extend the LoM profile. An economic profitability test was conducted at each shaft, mainly to conduct tail-cutting at the end of a shaft's life, where a shaft cannot contribute to its overhead cost. The impact varies from shaft to shaft; on average 10% of the Mineral Reserves have been excluded based on such economic reviews. The effect of tail-cutting is more pronounced on the UG2 Reef estimates.

The economic viability of the Impala Rustenburg Mineral Reserves is tested using net present value calculations over the LoM of the Mineral Reserve, determining the lowest real rand basket price, which would still render the Mineral Reserve viable. These calculations generate basket prices based on the local PGM metal ratios and differ from the overall Group basket prices. This is then tested against the internal Impala Rustenburg estimate of the real long-term basket price and the spot price as at 30 June 2022. These tests indicate that the Impala Rustenburg operation requires a real long-term basket price of between R16 000 and R18 000 per 6E ounce to be economically viable. The real spot basket price for the Impala Rustenburg operation as at 30 June 2022 was R36 353 (US$2 204), and the Impala Rustenburg internal long-term real basket price per 6E ounce is R22 291 (US$1 613).

Investment in maintaining current production levels well into the future through prudent capex allocation on selected projects from existing infrastructure within the lease area is being considered, in an effort to address the declining LoM outlook and associated overhead cost structures. The commodity market remains fluid. Statistics relating to the historical production are shown on pages 28 and 29.

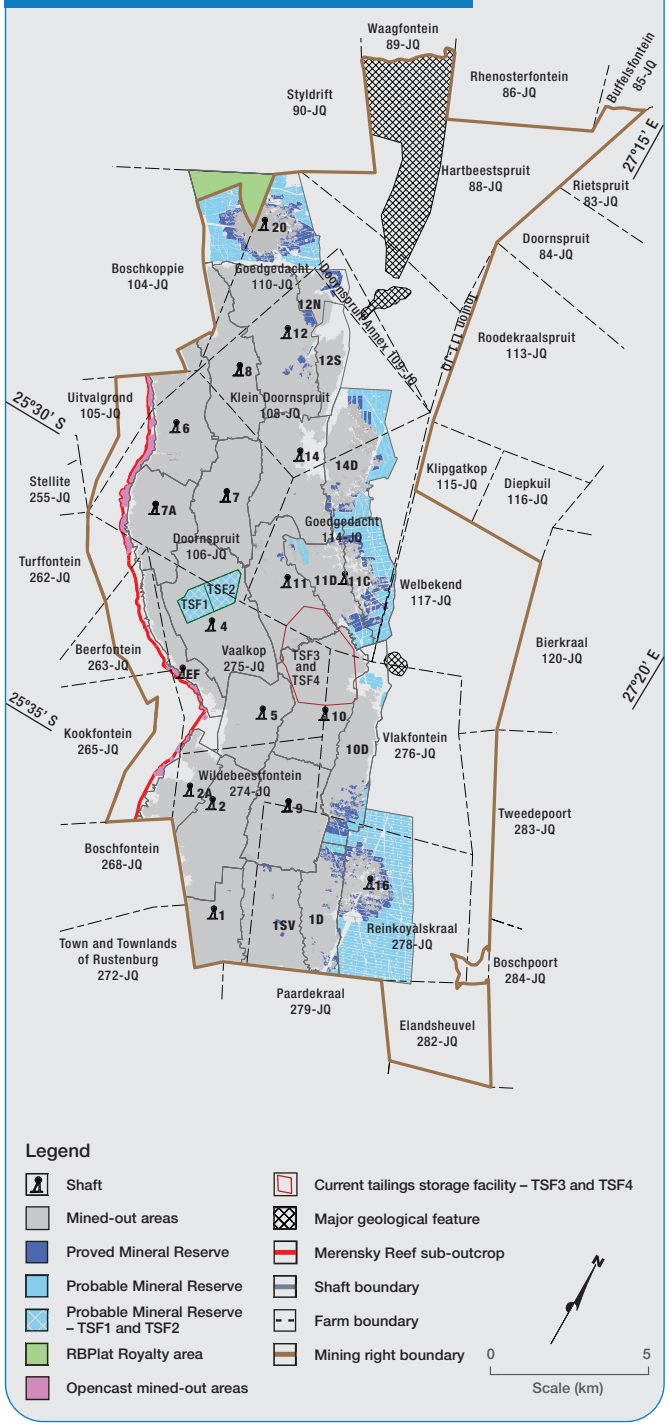
Impala Rustenburg estimated 20-year 6E LoM ounce profile
as at 30 June 2022



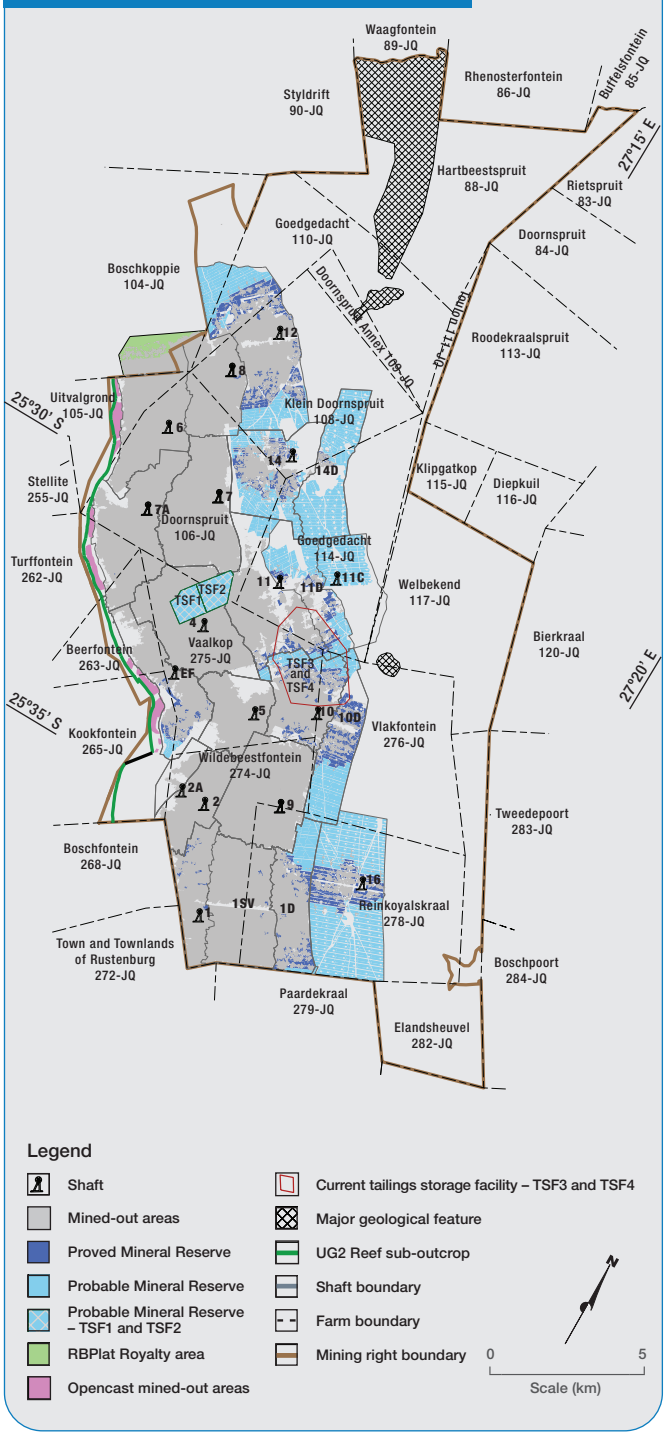
MRM personnel discussing a 3D Geological Model at Impala Rustenburg

Impala Rustenburg (continued)

Impala Rustenburg Merensky Reef Mineral Reserves



Impala Rustenburg UG2 Reef Mineral Reserves



Marula

South Africa

Renowned exploration geologist Hans Merensky first recognised platinum from this area on the nearby farm Maandagshoek in 1924. In June 1998, Implats entered into an arrangement to acquire the Winnaarshoek property from Platexco, a Canadian-based company.

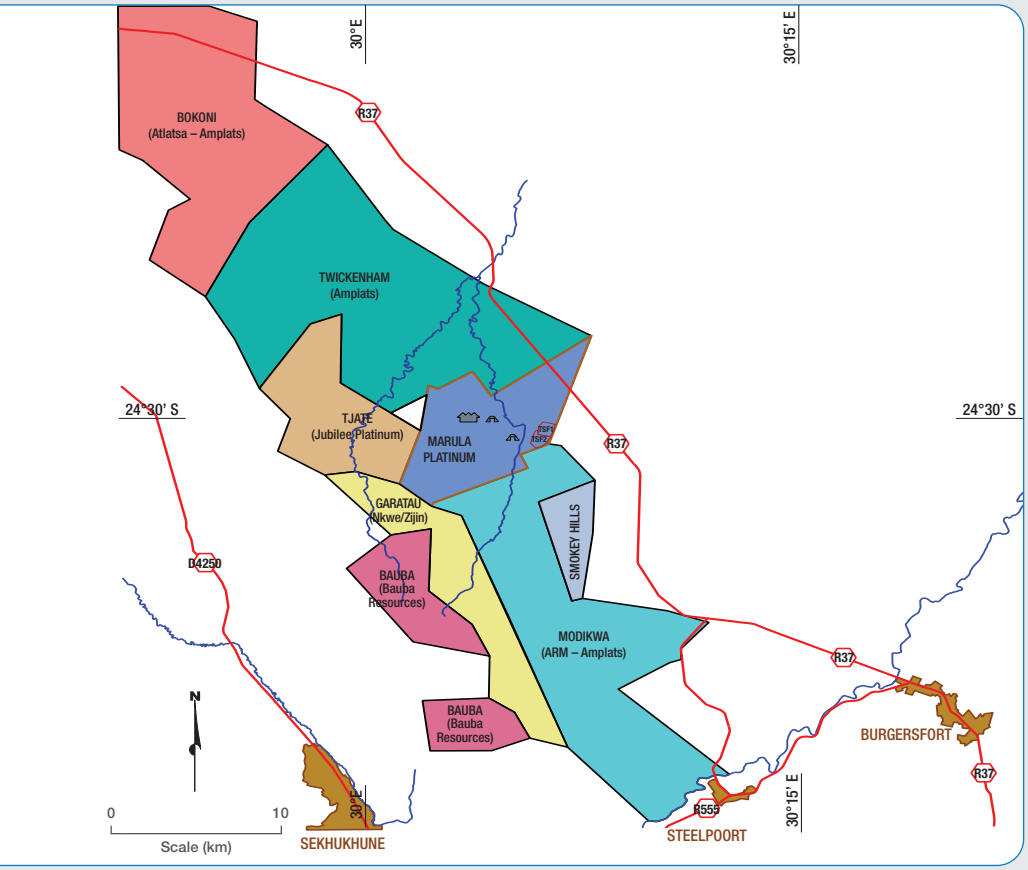
Mining right

5 494ha

Implats' interest

73.26%
managed

Marula regional locality map



Legend

- Town
- Mining right boundary
- Public road
- Current tailings storage facility – TSF1 and TSF2
- River/stream
- Portal
- Processing plant

Location

Marula Mine is located within the Greater Tubatse Local Municipality of the Limpopo province of South Africa, approximately 35km northwest of Burgersfort. Marula Platinum is situated in the Eastern Bushveld Complex, located south of the Anglo American Platinum Twickenham Mine and north of the Anglo American Platinum-ARM Modikwa Mine. Jubilee Platinum and Garatau (Nkwe/Zijin) share the western (down-dip) boundaries.

Brief history

Exploration activities in the region started in the 1920s, following the discovery of PGMs by Hans Merensky on the nearby Maandagshoek 254 KT (now Modikwa Mine). Most of the prospecting activities were prioritised on the Merensky Reef in preference to the UG2 Reef. This early work included trenching, the excavation of adits and sampling of outcrops. In June 1998, Implats entered into an arrangement to acquire the Winnaarshoek 250 KT property from Platexco, a Canadian-based company. The mineral rights to portions of the adjacent farms of Clapham 118 KT and Forest Hill 117 KT

Marula (continued)

and a sub-lease to Driekop 253 KT were subsequently obtained from Anglo American Platinum in exchange for Hendriksplaats 281 KT (now part of Modikwa Platinum Mine). The establishment and development of the mine commenced in October 2002. Marula is a managed operation within the Implats portfolio.

Geological setting

Both the Merensky and UG2 Reefs are present, but only the UG2 is currently exploited. The Merensky and UG2 Reefs are separated by a sequence of primarily anorthositic and noritic layered units of 400m in combined vertical thickness. The UG2 Reef is defined as the main chromitite layer, with most of the mineralisation confined to this unit, followed by a poorly mineralised pegmatoidal footwall. The Merensky Reef comprises the upper portion of a pyroxenite layer, with a chromitite stringer close to the hangingwall contact. Mineralisation peaks over the chromitite stringer and decreases into the hangingwall and footwall. Examples of typical vertical grade profiles at Marula are included on page 44. The average 6E metal ratios show the differences between the Merensky and UG2 Reefs, particularly the high proportions of palladium and rhodium associated with the UG2 Reef at Marula.

Both mineralised horizons sub-outcrop on the Marula mining rights area and dip in a west-southwest direction at 10° to 14°. The reefs are relatively undisturbed by faults and dykes, with one prominent dolerite dyke traversing the mining area. Potholes represent most of the geological losses encountered underground, while a small dunite pipe also disrupts the reef horizons. These geological features are accounted for in the Mineral Resource and Mineral Reserve estimates as geological losses.

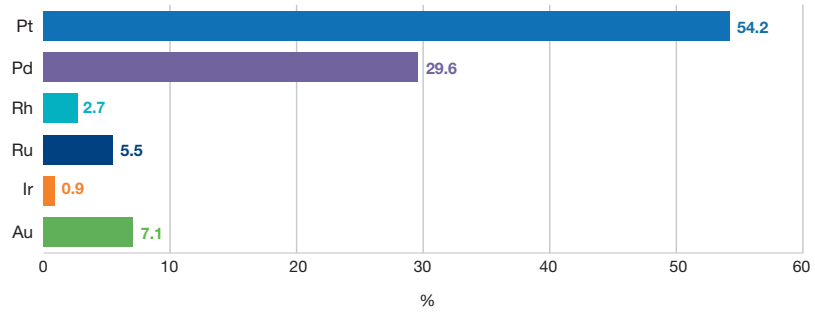
Exploration and studies

Exploration activities that led to the discovery of PGMs at Marula Mine started in the 1920s following the recognition of PGMs by Hans Merensky in the region. Follow-up exploration in the 1960s and 1980s by Anglo American Platinum Limited entailed exploration drilling targeting Merensky and the UG2 Reefs.

Several exploration techniques have been employed at Marula by historical explorers and Implats, with the most notable being surface geological mapping, aeromagnetic surveys and surface exploration drilling. Core drilling is the primary drilling technique employed. Ongoing surface drilling is typically infill work to supplement the grid completed during feasibility stages. Such work is mainly targeted to assist with detailed structural interpretations. In addition, underground geotechnical core-recovering drilling activities are routinely being undertaken. This forms part of a proactive safety strategy to detect flammable gas, gas pockets, water-bearing features, possible geological anomalies and related phenomena ahead of current mining operations. Summary statistics about the work conducted in the past year are reported in the exploration overview section of this report.

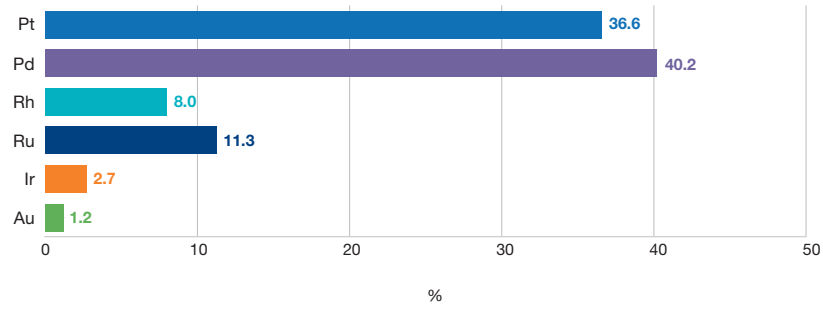
Eleven surface drillholes were completed during the past year to add to the geological confidence in the deeper extensions for the Marula Phase II mining area. A total of 22 underground drillholes – mainly for water cover and geological delineation, were drilled at Clapham and Driekop Declines. An additional 15 surface drillholes are planned for the forthcoming year, aimed at increasing the geological confidence in the deeper Marula Phase II area. Results from the 2022 surface exploration campaign have been integrated with the structural geology model, with density measurements and analytical sampling of those drillholes underway.

Marula Merensky Reef 6E ratio
as at 30 June 2022 (%)



Merensky Reef 6E ratios derived from Mineral Resource estimate.

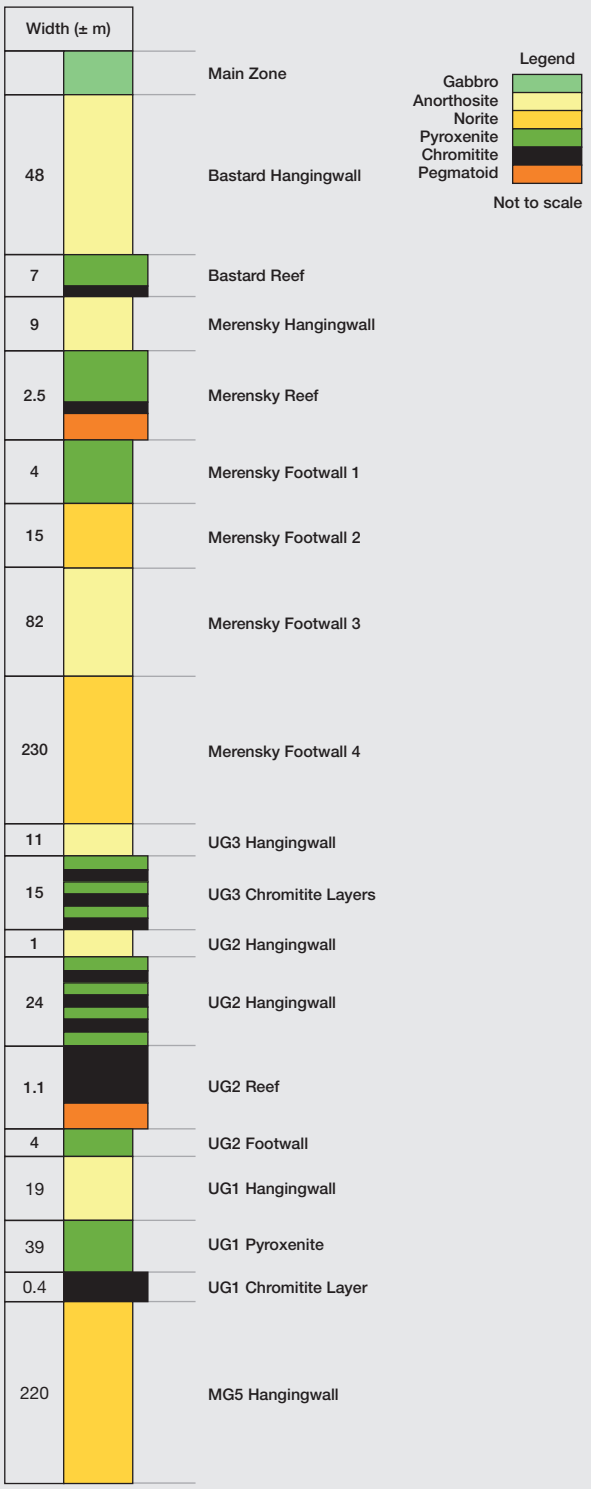
Marula UG2 Reef 6E ratio
as at 30 June 2022 (%)



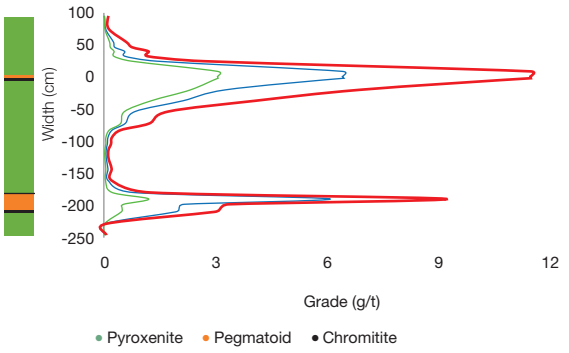
UG2 Reef 6E ratios derived from Mineral Reserve estimate.

Marula (continued)

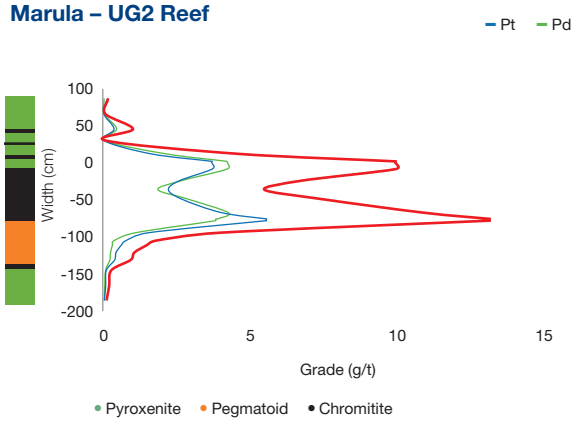
Generalised geological succession of the upper portion of the Critical Zone at Marula



Marula – Merensky Reef



Marula – UG2 Reef

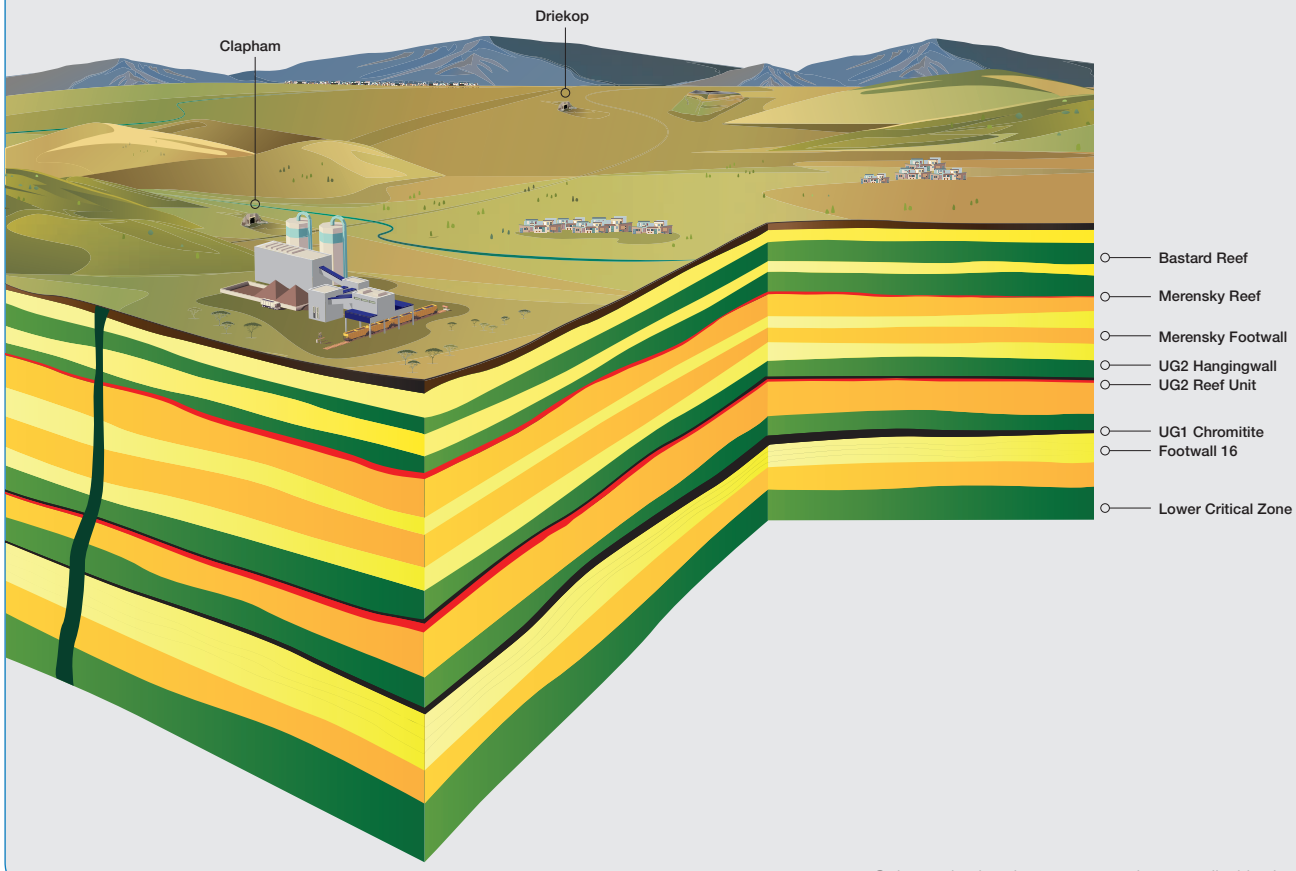


General infrastructure

The region is well developed, partly due to other nearby mining activities. The R37 tarred road from Burgersfort to Polokwane passes through the area, while a secondary tarred road links the R37 to the main office and other infrastructure at Marula. The existing mines and villages are supplied with electricity by Eskom. Marula has an adequate and firm electricity supply and distribution network. Two independent 132kV Eskom power lines provide the site with electricity. Water is supplied through the Lebalelo Water Scheme, from which Marula has an allocation of 13.8Ml per day, which is more than adequate for planned production levels. Mining infrastructure includes two decline shafts, offices, stores, a concentrator plant, a chromite recovery plant, tailings storage facilities and overland ore conveyance.

Marula (continued)

Generalised schematic section of the stratigraphic sequence at Marula



Schematic drawing, not to scale, compiled by Implats.

Marula personnel discussing a mine plan

Marula (continued)

Mineral Resource estimation and classification

The Mineral Resource estimates for the Merensky and UG2 Reefs are shown at a minimum mining width. The estimate has been conducted using the Isatis™ software. A multi-pass search was used for the estimation, and capping of extreme values was applied for UG2 Reef data. Estimated losses have been accounted for in the Mineral Resource estimation varying from 20% to 25%, using the geological model constructed in CADSmine™ software as the basis.

The Mineral Resource classification is based on the Group standard practice (see page 14). In broad terms, confidence is derived from various aspects such as geophysical surveys, mapping, underground exposures and surface drillholes, sampling and QAQC assurance. The spacing of the economic reef intersections and the geostatistical confidence have the largest weighting on the classification of Mineral Resources at Marula.

Mineral Resource estimates are based on mining faces at 31 December 2021 and have been non-spatially depleted per shaft for six months until 30 June 2022.

Marula Mineral Resource estimate (inclusive reporting)

As at 30 June 2022

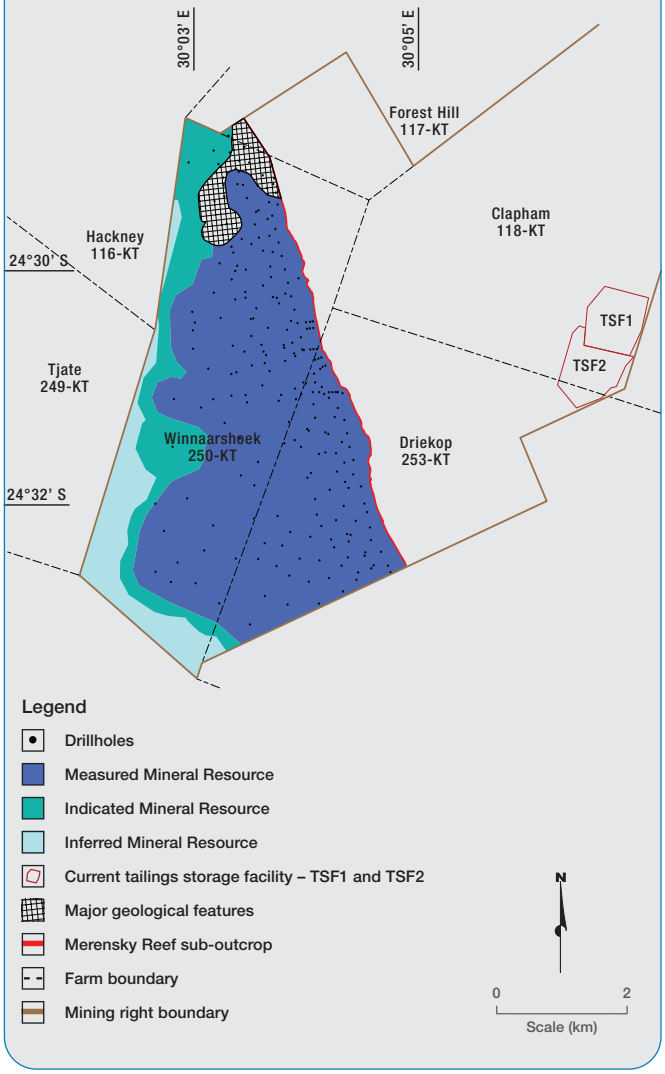
Orebody		Merensky Reef				UG2 Reef				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	34.3	7.6	5.2	**47.0**	42.7	22.3	6.4	**71.5**	**118.5**
Width	cm	100	100	100	**–**	96	103	104	**–**	**–**
4E Grade	g/t	4.26	4.20	3.82	**4.21**	6.37	6.24	6.32	**6.33**	**5.48**
6E grade	g/t	4.56	4.50	4.10	**4.50**	7.40	7.28	7.37	**7.36**	**6.22**
Ni	%	0.20	0.19	0.19	**0.20**	0.05	0.05	0.05	**0.05**	**0.11**
Cu	%	0.11	0.11	0.10	**0.11**	0.02	0.02	0.02	**0.02**	**0.06**
4E oz	Moz	4.7	1.0	0.6	**6.4**	8.7	4.5	1.3	**14.5**	**20.9**
6E oz	Moz	5.0	1.1	0.7	**6.8**	10.2	5.2	1.5	**16.9**	**23.7**
Pt oz	Moz	2.7	0.6	0.4	**3.7**	3.7	1.9	0.6	**6.2**	**9.9**
Pd oz	Moz	1.5	0.3	0.2	**2.0**	4.1	2.1	0.6	**6.8**	**8.8**

As at 30 June 2021

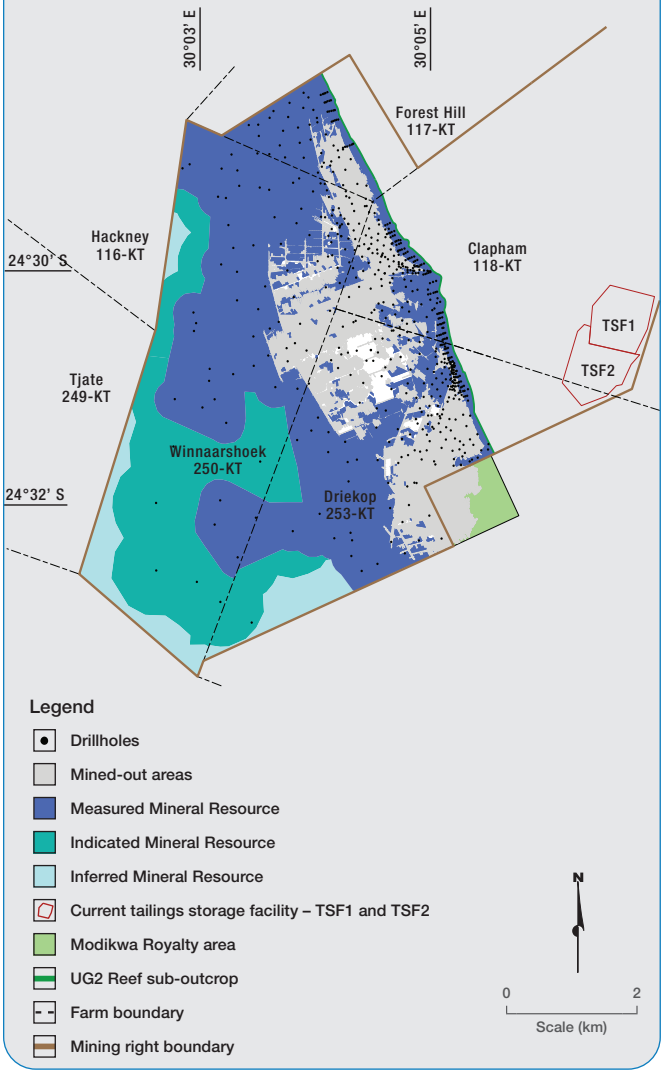
Orebody		Merensky Reef				UG2 Reef				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	34.3	7.6	5.2	**47.0**	45.5	22.3	6.4	**74.2**	**121.3**
Width	cm	100	100	100	**–**	96	103	104	**–**	**–**
4E grade	g/t	4.26	4.20	3.82	**4.21**	6.38	6.24	6.32	**6.33**	**5.51**
6E grade	g/t	4.56	4.50	4.10	**4.50**	7.40	7.28	7.37	**7.36**	**6.25**
Ni	%	0.20	0.19	0.19	**0.20**	0.05	0.05	0.05	**0.05**	**0.11**
Cu	%	0.11	0.11	0.10	**0.11**	0.02	0.02	0.02	**0.02**	**0.06**
4E oz	Moz	4.7	1.0	0.6	**6.4**	9.3	4.5	1.3	**15.1**	**21.5**
6E oz	Moz	5.0	1.1	0.7	**6.8**	10.8	5.2	1.5	**17.6**	**24.4**
Pt oz	Moz	2.7	0.6	0.4	**3.7**	3.9	1.9	0.6	**6.4**	**10.1**
Pd oz	Moz	1.5	0.3	0.2	**2.0**	4.4	2.1	0.6	**7.1**	**9.1**

Marula (continued)

Marula Merensky Reef Mineral Resources



Marula UG2 Reef Mineral Resources



Mining methods

Marula Mine has two decline shaft systems exploiting the UG2 Reef. At Driekop Shaft, a hybrid mining method is used, while at Clapham Shaft, both hybrid and conventional mining methods are used. All main development is undertaken on-reef for the two hybrid sections, and the stoping is carried out through conventional single-sided breast mining from a centre gully. Panel face lengths are approximately 16m to 26m, with panels separated by 6m x 4m grid pillars with 2m ventilation holings. The stoping width averages 125cm. The footwall drives are developed on strike approximately 25m below the reef horizon, with cross-cut breakaways about 220m apart for the conventional operation. This development is undertaken with drill rigs and dump trucks. Stope face drilling takes place with hand-held pneumatic rock drills with airlegs.

Mine planning process

Mine design and scheduling are carried out using CADSmine™ and Studio UG software. Geological models and ore blocks are updated and validated using G-Blocks and boundaries in the MRM information system.

Marula (continued)

Mineral Reserves are converted upon proved economic viability, board approval and secured funding, and not simply on the basis of Measured and Indicated Mineral Resource classification.

Mineral Reserve estimation and classification

The updated Mineral Reserve estimate as at 30 June 2022 is tabulated below. The modifying factors used in the UG2 Mineral Reserve estimate are based on the mine plan, which envisages hybrid and conventional breast mining operations. An economic profitability test was conducted at each shaft, mainly to conduct tail-cutting at the end of a shaft's life.

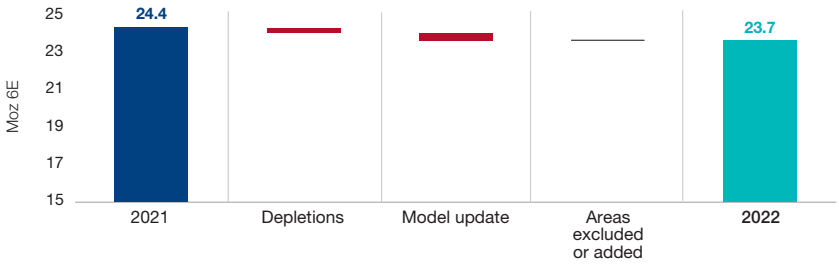
The conversion and classification of Mineral Reserves at Marula are informed by:

- Feasible mine plan and project studies, board approval and available funding
- Economic testing at given market conditions (price deck)
- Measured Mineral Resources are classified as Proved and Probable Mineral Reserves
- Proved Mineral Reserves are those areas where the main development has been completed
- The Mine Plan used for generating the Mineral Reserves was based on the survey faces of December 2021 with a spatial mine design and schedule forecast of six months until 30 June 2022.

Mineral Resource reconciliation

The year-on-year reconciliation of the Mineral Resource estimate of Marula shows marginal variance to the previous year; this is primarily due to depletion, some model updates and minor areas excluded.

Total Marula 6E Mineral Resources
as at 30 June 2022 (variance Moz 6E)



Modifying factors

The table below summarises the significant modifying factors impacting on the Mineral Resource and Mineral Reserve estimates (see page 15 for further details).

Mineral Resource Key assumptions	Merensky Reef	UG2 Reef
Geological losses	20 – 25%	20 – 25%
Area	16 million ca	18.7 million ca
Channel width	100cm	99cm

Mineral Reserve Modifying factors	Merensky Reef	UG2 Reef
Dilution	–	10 – 12%
Pillars	–	10 – 12%
Mine call factor	–	95 – 100%
Relative density	–	3.4 – 3.9
Stoping width	–	125cm
Concentrator recoveries	–	86 – 88%

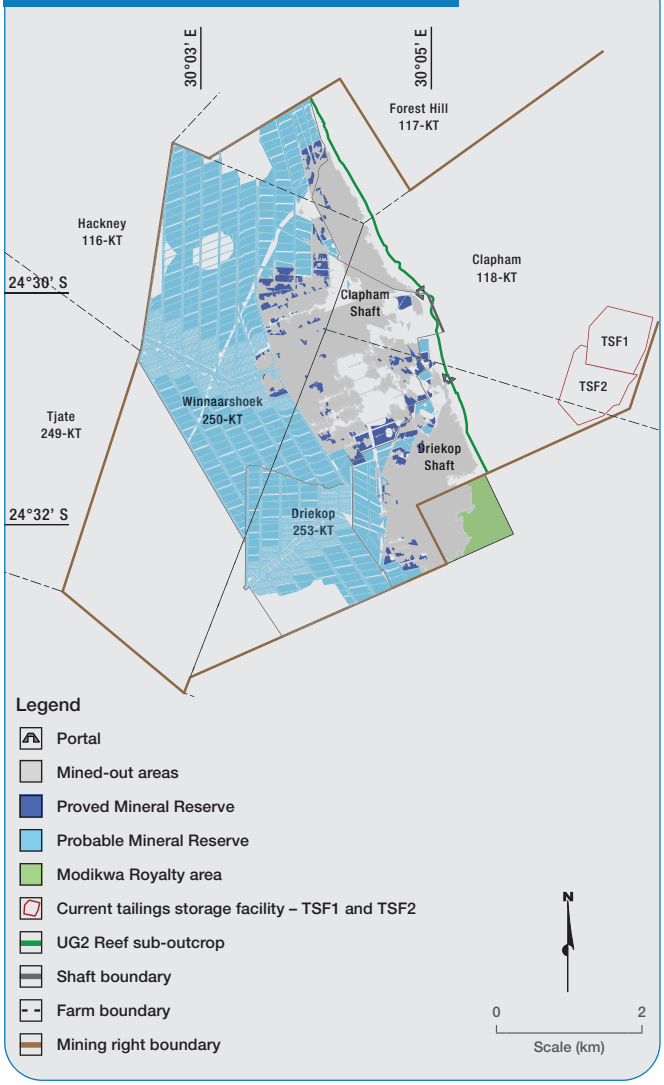
Marula Mineral Reserve estimate

As at 30 June 2022				
Orebody		UG2 Reef		
Category		Proved	Probable	Total
Tonnes	Mt	3.7	45.8	**49.5**
Width	cm	126	123	**–**
4E grade	g/t	4.40	3.79	**3.84**
6E grade	g/t	5.08	4.41	**4.46**
4E oz	Moz	0.5	5.6	**6.1**
6E oz	Moz	0.6	6.5	**7.1**
Pt oz	Moz	0.2	2.4	**2.6**
Pd oz	Moz	0.3	2.6	**2.9**

As at 30 June 2021				
Orebody		UG2 Reef		
Category		Proved	Probable	Total
Tonnes	Mt	4.1	14.0	**18.0**
Width	cm	126	125	**–**
4E grade	g/t	4.36	4.03	**4.10**
6E grade	g/t	5.03	4.65	**4.74**
4E oz	Moz	0.6	1.8	**2.4**
6E oz	Moz	0.7	2.1	**2.7**
Pt oz	Moz	0.2	0.8	**1.0**
Pd oz	Moz	0.3	0.9	**1.1**

Marula (continued)

Marula UG2 Reef Mineral Reserves



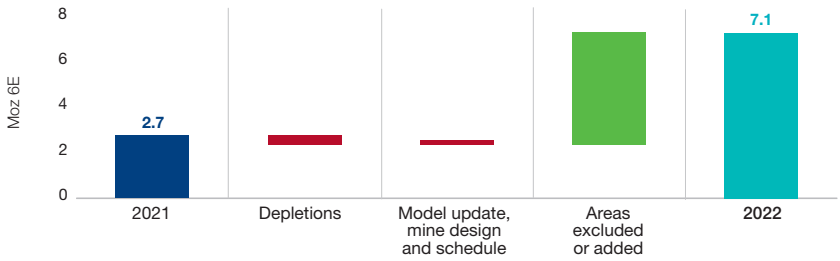

Geologist inspecting drill core at Marula

Mineral Reserve reconciliation

There is a material change in the Mineral Reserve estimate compared with the 30 June 2021 statement. The variances can be attributed to the addition of Phase II Mineral Reserves, normal mining depletions, local geological impact, updated mine design in selected areas and tail-cutting. 75% of the Probable Mineral Reserves comprise converted Phase II Measured and Indicated Mineral Resources. A significant proportion (66%) of the Mineral Reserves is located in the Clapham Shaft.

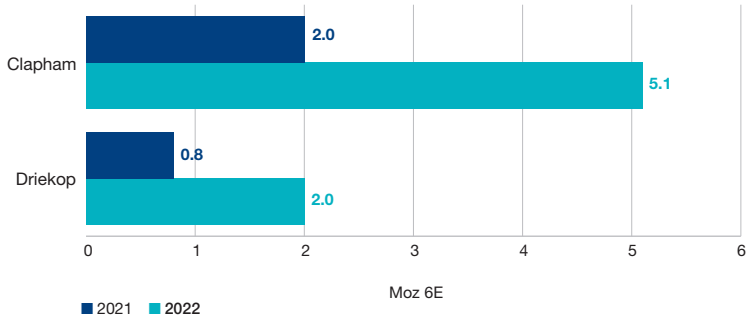
Total Marula 6E Mineral Reserves

as at 30 June 2022 (variance Moz 6E)



Marula (continued)

Marula Mineral Reserve distribution
as at 30 June 2022 (Moz 6E)



Processing

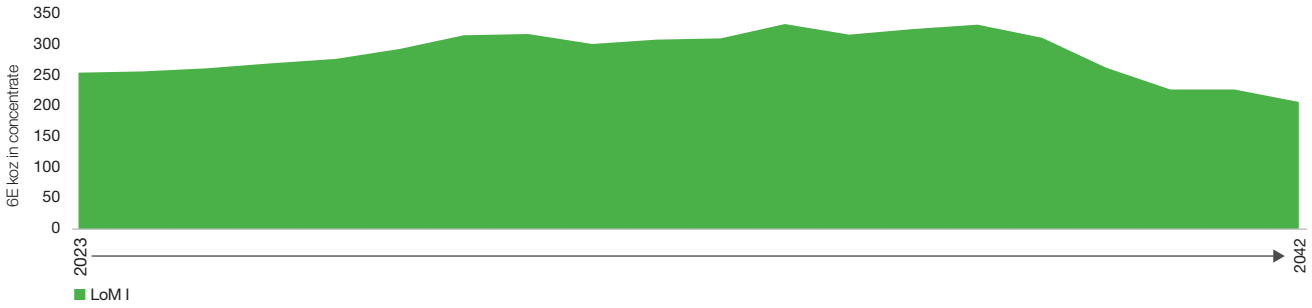
Marula has a concentrator plant where initial processing is conducted. The concentrate is transported by road to Impala's Mineral Processes in Rustenburg in terms of an LoM offtake agreement with IRS. A new TSF facility is nearing completion, earmarked for August 2022.

LoM, valuation and sensitivity

The LoM I encompasses the UG2 Reef at the Clapham Shaft down to 11 level and the Driekop Hybrid areas. Note that the indicative LoM profile is based on a range of assumptions, which could change in future.

The economic viability of the Marula Mineral Reserves is tested using net present value calculations over the LoM of the Mineral Reserve, determining the lowest real rand basket price which would still render the Mineral Reserve economically viable. These calculations generate basket prices based on the local PGM metal ratios and differ from the overall Group basket prices. This is then tested against the internal Marula estimate of the real long-term basket price and the spot price as at 30 June 2022. These tests indicate that the Marula operation requires a real long-term basket price of between R18 000 and R20 000 per 6E ounce to be economically viable. The real spot basket price for the Marula operations as at 30 June 2022 was R41 842 (US$2 537) per 6E ounce, and the Marula internal long-term real basket price is R23 509 (US$1 701), reflecting the influence of currently high rhodium prices. The commodity market remains fluid. Statistics relating to the historical production are shown on pages 28 and 29.

Marula estimated 20-year 6E LoM ounce profile
as at 30 June 2022



Two Rivers

South Africa

Two Rivers Platinum is located within the Southern sector of the eastern limb of the Bushveld Complex.

Mining right

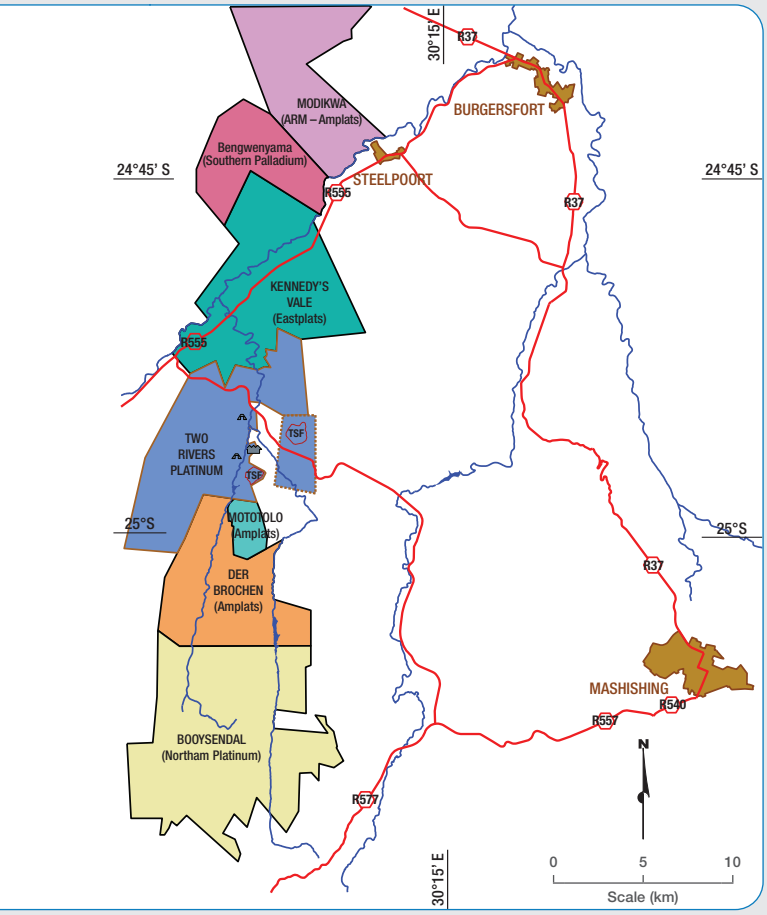
11 349ha

Implats' interest

46%

non-managed

Two Rivers regional locality map



Legend

- Town
- Mining right boundary
- Surface right boundary
- Public road
- River
- Dam
- Portal
- Processing plant
- Tailings storage facilities

Location

The mine is located on the farm Dwarsrivier 372 KT and extends to the farm Kalkfontein 367 KT and portions of the farm Tweefontein 360 KT and the farm Buffelshoek 368 KT. The mine is situated in the Limpopo province, South Africa, approximately 30km from Steelpoort and 60km from Lydenburg. Two Rivers Platinum Mine is neighboured by Mototolo Platinum Mine (Anglo American Platinum) and Dwarsrivier, Tweefontein and Thorncliffe chromite mines.

Brief history

During 2001, Assmang elected to dispose of its platinum interests at the Dwarsrivier Chrome Mine. Two Rivers, the incorporated joint venture between Avmin and Implats, secured the platinum rights in December 2001. Subsequent corporate activity involving Avmin, ARM and Harmony resulted in the transfer of Avmin's share in Two Rivers to a new, empowered platinum entity, ARM Platinum, a division of ARM. The joint venture partners began the development of the Two Rivers project in June 2005. The concentrator plant was commissioned in 2006, and in 2008 the mine successfully made the transition from a project to a mechanised operation. The Two Rivers Platinum mine is a non-managed operation in the Implats portfolio.

Geological setting

The Merensky and UG2 Reefs are separated by a sequence of primarily anorthositic and noritic layered units of some 140m to 160m in combined thickness. Both the Merensky and UG2 Reefs are present; however, no Merensky Reef is present on Tweefontein 360 KT, and the UG2 Reef only occurs on a small portion of this farm. The UG2 Reef outcrops in the Klein Dwarsrivier valley over a north-south strike of 7.5km and dips to the west at 7° to 10°. Due to the extreme topography, the Merensky Reef outcrops further up the mountain slope. The Steelpoortpark granite occurs in the

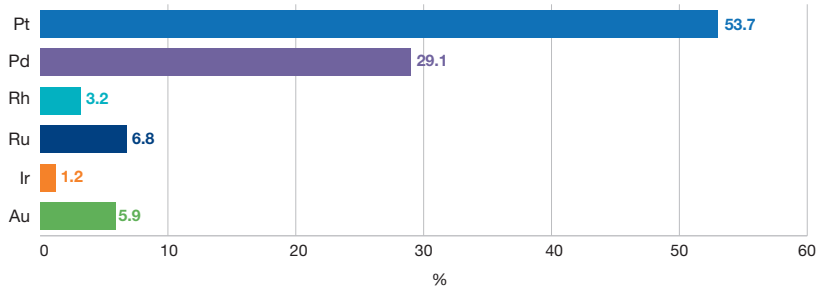
Two Rivers (continued)

southwest part of the project, which is unique to this area. Three distinct reef types have been defined for the UG2 Reef, namely the 'normal' reef with a thick main chromitite layer; a 'split' reef characterised by an internal pyroxenite/norite lens within the main chromitite layer; and a 'multiple split' reef with numerous pyroxenite/norite lenses occurring within the main chromitite layer. The multiple split reef predominates in the southern portion of the mining area. The Merensky Reef is a pyroxenite layer with a chromitite stringer close to the hangingwall contact and at the basal contact. Mineralisation is primarily associated with the upper and lower chromitite stringers. Typical vertical grade profiles are illustrated on page 53.

The area's geological structure is dominated by the regional north-northeast to south-southwest trending Kalkfontein Fault, which has an apparent vertical displacement of 1 200m down thrown to the west. A series of sub-parallel faults occur to the southeast adjacent to the Kalkfontein Fault, which affect both the Merensky and UG2 Reefs. These faults exhibit variable apparent vertical displacements of between 20m and 110m.

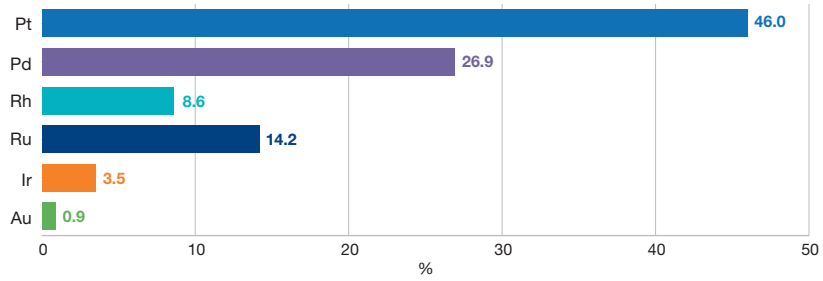
The schematic section for Two Rivers (on page 54) demonstrates the approximate 8km north-south striking Merensky and the UG2 orebodies dipping 7° to 10° towards the west, relative to the extreme topography of the mountain of the Main Zone sequence. Surface exploration drilling and geological fieldwork were challenged by the mountainous terrain that overlays the two economic orebodies. A flatter area on the mountain's eastern side is used for the general infrastructure of the mine and can be accessed from the tar road that connects with the R555 and R540. The mining area is bounded by the St George's Fault on the eastern side, where it cuts through a portion of the UG2 Reef that can be accessed and mined by the Mototolo operation of Anglo American Platinum, where a royalty agreement is in place.

Two Rivers Merensky Reef 6E ratio
as at 30 June 2022 (%)



Merensky Reef 6E ratios derived from Mineral Resource estimate.

Two Rivers UG2 Reef 6E ratio
as at 30 June 2022 (%)

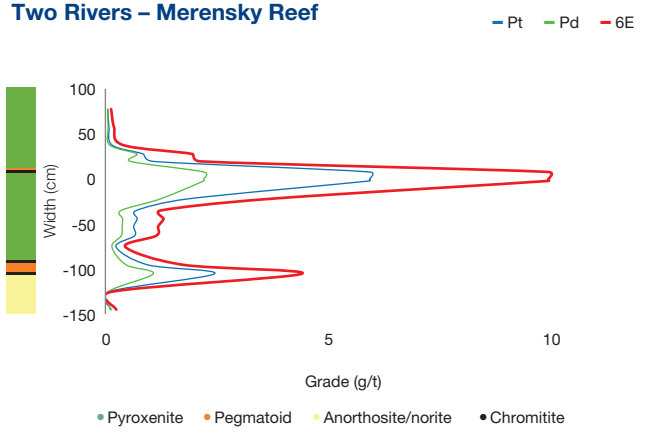


UG2 Reef 6E ratios derived from Mineral Reserve estimate.

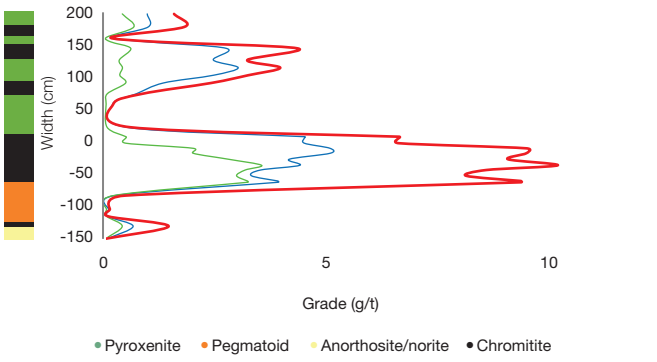
Geologists discussing drill core at Two Rivers

Two Rivers (continued)

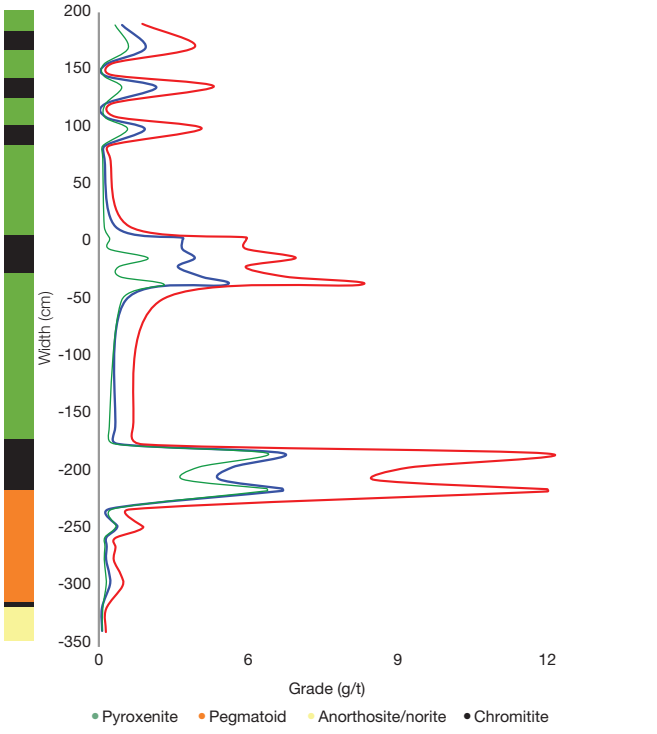
Two Rivers – Merensky Reef



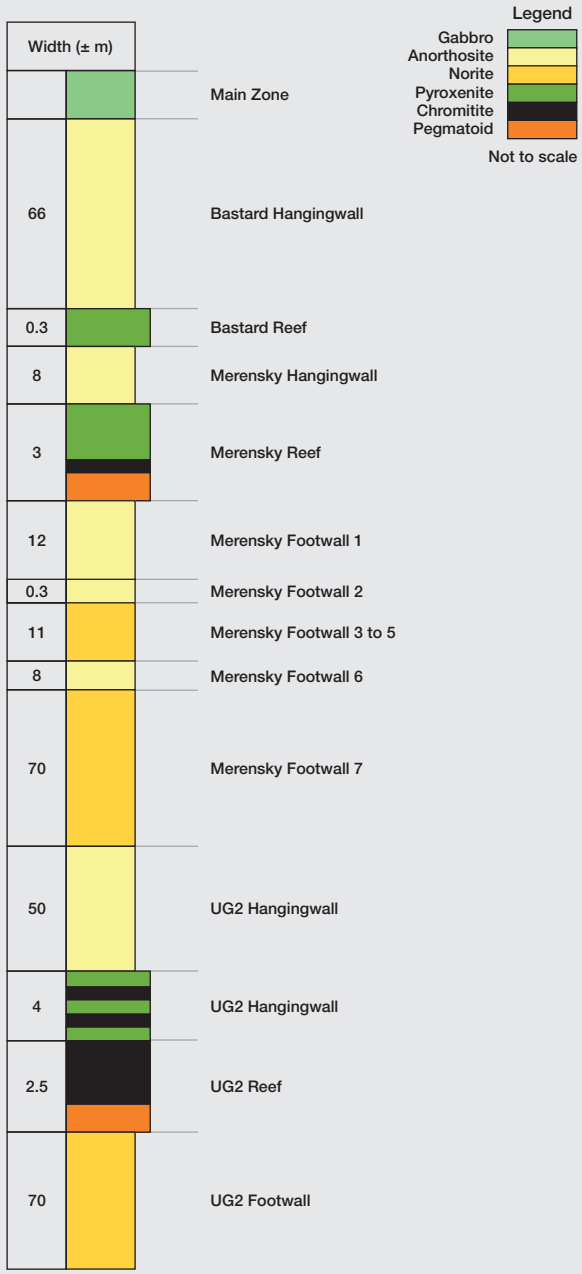
Two Rivers – UG2 (normal) Reef



Two Rivers – UG2 (split) Reef

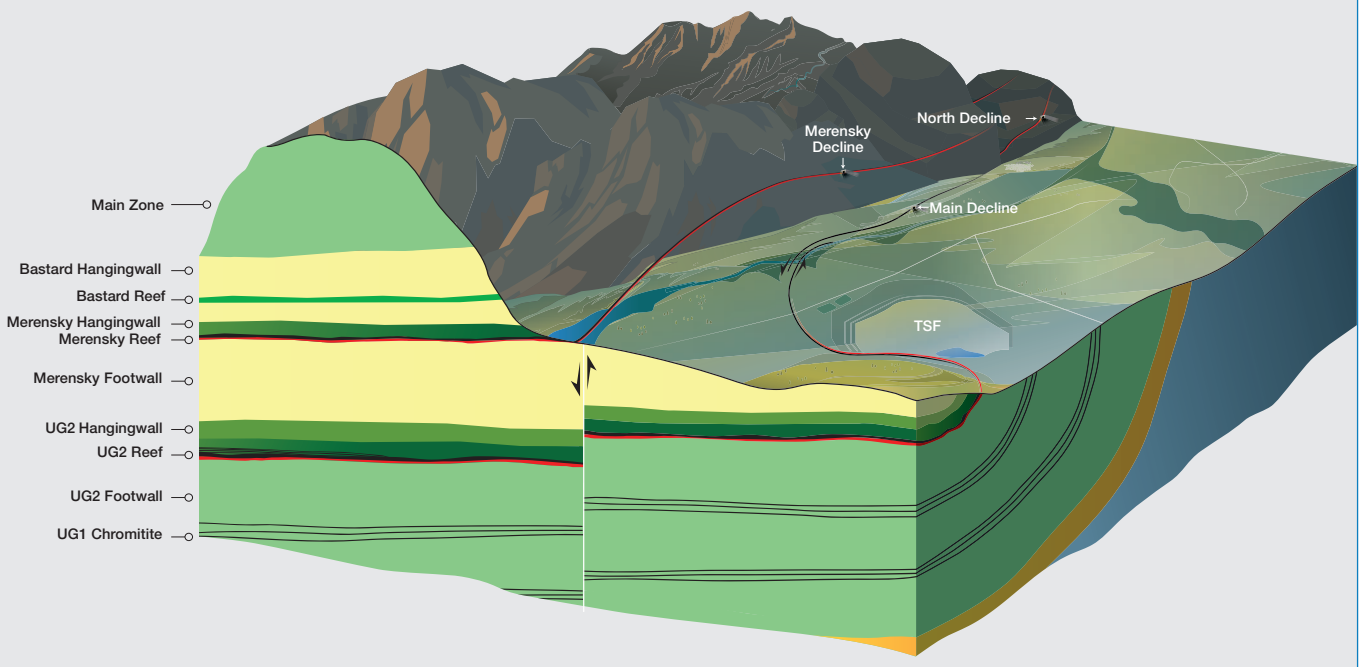


Generalised geological succession of the upper portion of the Critical Zone at Two Rivers



Two Rivers (continued)

Generalised schematic section of the stratigraphic sequence at Two Rivers



Schematic drawing, not to scale, compiled by Implats.

Exploration and studies

Two inclined surface exploration drillholes were drilled on Kalkfontein 367 KT farm during the past year, along the deepening path of Two Rivers' North Shaft to spatially locate the 58m upward displaced fault. In addition, 218 cover and geological delineation drilling was undertaken from underground to mitigate geological risks during the mining process.

General infrastructure

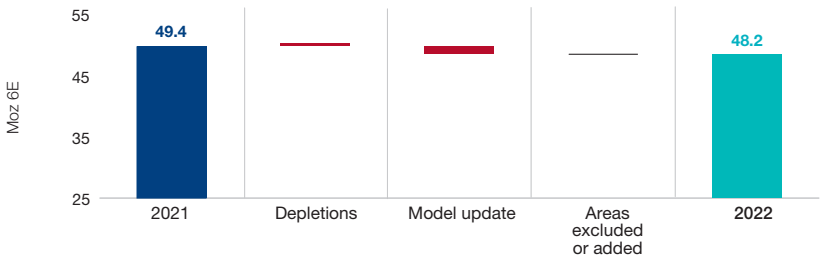
A tar road provides access to the Two Rivers Mine. Two Rivers has a Water Use Licence (WUL) to obtain its water from the Groot and Klein Dwars Rivers and underground dewatering. Electricity is obtained from Eskom via one of two 40MVA transformers at the Uchoba sub-station with an allocation of 35MVA for Two Rivers, fed from a 132kV line from the Merensky sub-station. Mining infrastructure includes three decline shafts, offices, stores, a concentrator plant, a chromite recovery plant, tailings storage facilities and overland ore conveyance.

Mineral Resource estimation and classification

Grade estimates were obtained utilising ordinary kriging of UG2 and Merensky Reef drillhole intersections. The UG2 Reef model has been updated; no changes were made to the Merensky Reef Model. The Mineral Resource classification for UG2 and Merensky reefs is based on geological and grade continuity, drillhole spacing, geostatistical parameters and historical classification.

The Mineral Resource estimate reflects the actual depletion as at 31 May 2022 and the spatial depletion to 30 June 2022 as per the planned mining. More information regarding the Mineral Resources and Mineral Reserves can be found in the 2022 ARM annual report (**www.arm.co.za**).

Total Two Rivers 6E Mineral Resources
as at 30 June 2022 (variance Moz 6E)



Two Rivers (continued)

Two Rivers Mineral Resource estimate (inclusive reporting)

As at 30 June 2022

Orebody		Merensky Reef			UG2 Reef				
Category		Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	75.7	61.4	**137.1**	17.8	77.2	80.7	**175.7**	**312.8**
Width	cm	210	145	**–**	150	144	121	**–**	**–**
4E grade	g/t	3.13	3.98	**3.51**	4.53	4.76	4.51	**4.62**	**4.13**
6E grade	g/t	3.42	4.32	**3.82**	5.52	5.74	5.38	**5.56**	**4.80**
Ni	%	0.14	0.16	**0.15**	0.04	0.04	0.04	**0.04**	**0.09**
Cu	%	0.08	0.09	**0.08**	0.01	0.01	0.01	**0.01**	**0.04**
4E oz	Moz	7.6	7.9	**15.5**	2.6	11.8	11.7	**26.1**	**41.6**
6E oz	Moz	8.3	8.5	**16.8**	3.2	14.3	14.0	**31.4**	**48.2**
Pt oz	Moz	4.6	4.5	**9.1**	1.5	6.4	6.1	**14.0**	**23.1**
Pd oz	Moz	2.3	2.6	**4.9**	0.8	4.1	4.3	**9.2**	**14.1**

As at 30 June 2021

Orebody		Merensky Reef			UG2 Reef				
Category		Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	75.7	61.4	**137.1**	16.3	84.3	83.5	**184.1**	**321.2**
Width	cm	210	145	**–**	145	143	120	**–**	**–**
4E grade	g/t	3.13	3.98	**3.51**	4.69	4.74	4.37	**4.57**	**4.12**
6E grade	g/t	3.42	4.32	**3.82**	5.72	5.73	5.23	**5.50**	**4.78**
Ni	%	0.14	0.16	**0.15**	0.04	0.04	0.04	**0.04**	**0.09**
Cu	%	0.08	0.09	**0.08**	0.01	0.01	0.01	**0.01**	**0.04**
4E oz	Moz	7.6	7.9	**15.5**	2.5	12.8	11.7	**27.0**	**42.5**
6E oz	Moz	8.3	8.5	**16.8**	3.0	15.5	14.0	**32.5**	**49.4**
Pt oz	Moz	4.6	4.5	**9.1**	1.4	7.0	6.2	**14.6**	**23.6**
Pd oz	Moz	2.3	2.6	**4.9**	0.8	4.4	4.3	**9.5**	**14.4**

Modifying factors

The table below summarises the significant modifying factors impacting on the Mineral Resource and Mineral Reserve estimates (see page 15 for further details).

Mineral Resource Key assumptions	Merensky Reef	UG2 Reef
Geological losses	30%	19%
Area	38.3 million ca	49.3 million ca
Channel width	181cm	134m

Mineral Reserve Modifying factors	Merensky Reef	UG2 Reef
Dilution	20%	23 – 30%
Pillars	15 – 25%	15 – 25%
Mine call factor	95%	95 – 99%
Relative density	3.2 – 3.3	3.6 – 3.8
Stoping width	305cm	241cm
Concentrator recoveries	82%	81%

Mining methods

The UG2 Reef is accessed via two decline shaft systems situated 3km apart, namely the Main Decline and the North Decline. Production of the UG2 Reef is through a fully mechanised bord and pillar stoping method. A mining section consists of 6m, 8m and 10m bords, with pillar sizes increasing with depth below the surface. The pillars are 6m x 6m to 12m x 12m in size. The bords are mined mainly on strike.

Construction of the Merensky Reef section commenced. The mining method will also be based on fully mechanised bord and pillar mining.

Mine planning process

A 3D geological model with layer grades and widths per stratigraphic unit is used in the mine planning. The mine scheduling is applied in Datamine Studio 5D Planner™. The schedule is evaluated against the grade and thickness block model. The three distinct reef types, including normal, split reef and multiple split reef facies, significantly impact the UG2 Reef mine plan. Dilution calculations are based on the specific reef type. Hangingwall and footwall overbreak, percentage off-reef, ore remaining (mining losses), geological losses (potholes, faults, dykes and replacement pegmatoid) and a shaft call factor are applied to the planned areas to generate the tonnage and grade profiles.

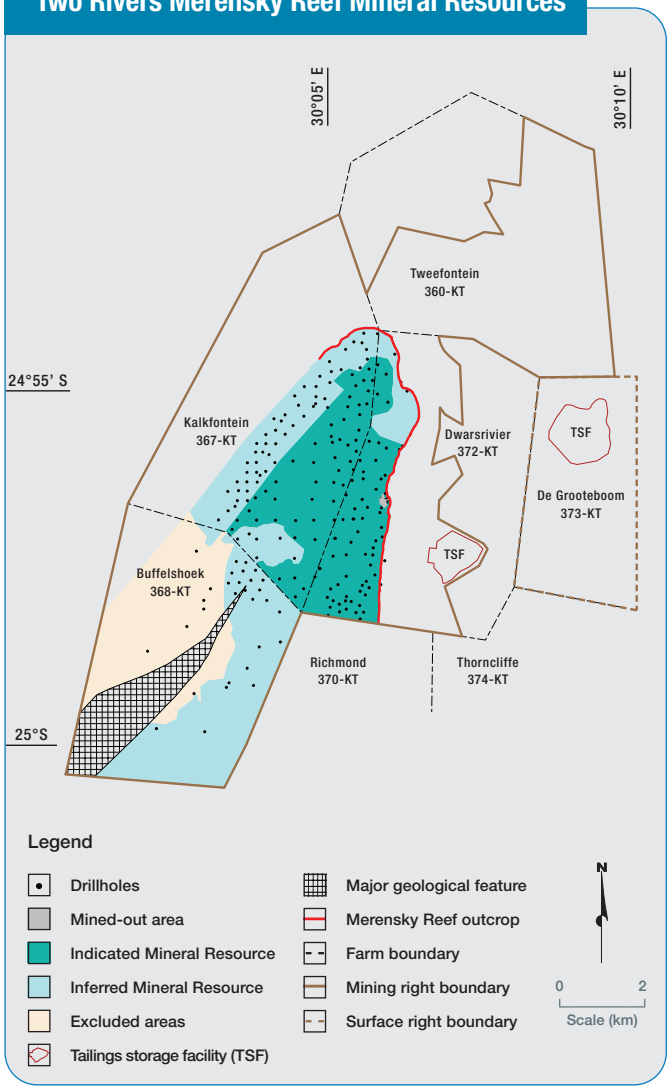
Mineral Reserve estimation and classification

The modifying factors used in the UG2 and maiden Merensky Reef Mineral Reserve estimates are based on the mine plan, which envisages a mechanised bord and pillar layout. More details regarding the Mineral Resources and Mineral Reserves can be found in the 2022 ARM annual report **(www.arm.co.za)**.

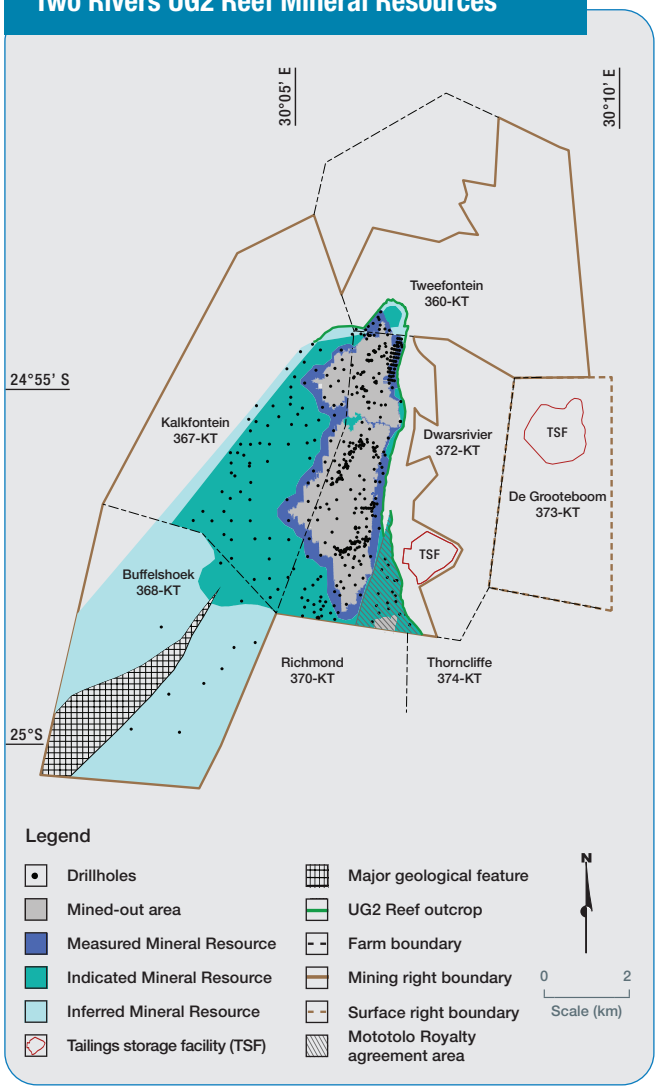
The conversion and classification of Mineral Reserves at Two Rivers are informed by:

- Economic testing at given market conditions (price deck)
- Most of the Indicated Mineral Resources can be classified as Probable Mineral Reserves
- Most of the Measured Mineral Resources can be classified as Proved Mineral Reserves.

Two Rivers Merensky Reef Mineral Resources



Two Rivers UG2 Reef Mineral Resources



Two Rivers (continued)

Two Rivers Mineral Reserve estimate

As at 30 June 2022								
Orebody		Merensky Reef			UG2 Reef			
Category		Proved	Probable	Total	Proved	Probable	Total	Total
Tonnes	Mt	–	50.4	**50.4**	12.2	58.5	**70.7**	**121.1**
Width	cm	–	305	**–**	246	241	**–**	**–**
4E grade	g/t	–	2.65	**2.65**	2.61	2.74	**2.72**	**2.69**
6E grade	g/t	–	2.89	**2.89**	3.18	3.33	**3.30**	**3.13**
4E oz	Moz	–	4.3	**4.3**	1.0	5.2	**6.2**	**10.5**
6E oz	Moz	–	4.7	**4.7**	1.2	6.3	**7.5**	**12.2**
Pt oz	Moz	–	2.6	**2.6**	0.6	2.9	**3.5**	**6.0**
Pd oz	Moz	–	1.3	**1.3**	0.3	1.7	**2.0**	**3.3**

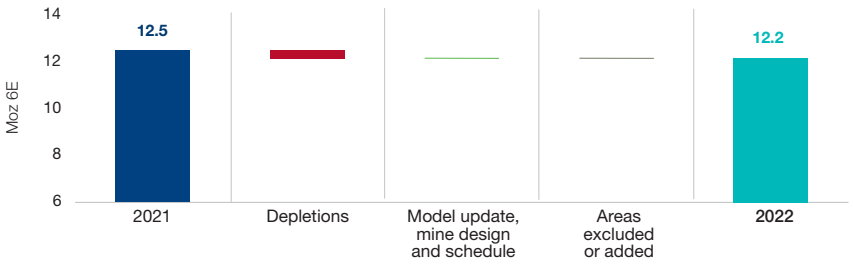
As at 30 June 2021								
Orebody		Merensky Reef			UG2 Reef			
Category		Proved	Probable	Total	Proved	Probable	Total	Total
Tonnes	Mt	–	49.6	**49.6**	9.2	61.9	**71.1**	**120.8**
Width	cm	–	305	**–**	241	241	**–**	**–**
4E grade	g/t	–	2.65	**2.65**	2.82	2.86	**2.85**	**2.77**
6E grade	g/t	–	2.89	**2.89**	3.46	3.47	**3.47**	**3.23**
4E oz	Moz	–	4.2	**4.2**	0.8	5.7	**6.5**	**10.7**
6E oz	Moz	–	4.6	**4.6**	1.0	6.9	**7.9**	**12.5**
Pt oz	Moz	–	2.5	**2.5**	0.5	3.2	**3.6**	**6.2**
Pd oz	Moz	–	1.3	**1.3**	0.3	1.9	**2.2**	**3.4**

Mineral Reserve reconciliation

The UG2 Mineral Reserve estimate was impacted by depletion and model updates, resulting in a minor change since 2021. The Merensky Reef Mineral Reserve estimate shows a slight increase since 30 June 2021, due to the updating of the tail-cutting previously applied. 39% of the Two Rivers 6E Mineral Reserves are from the Merensky Reef.

Total Two Rivers 6E Mineral Reserves

as at 30 June 2022 (variance Moz 6E)



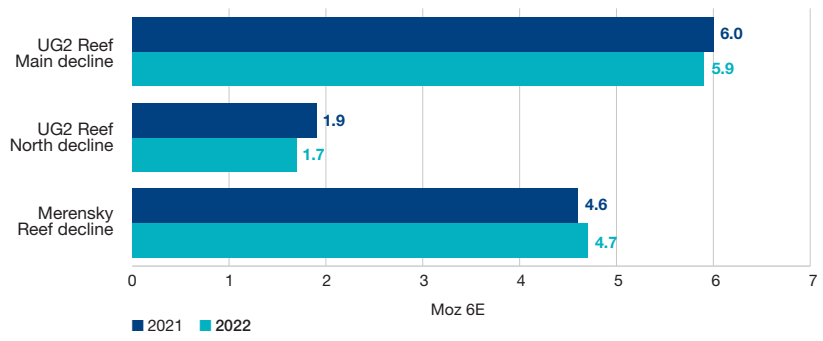
Processing

Two Rivers has a concentrator plant on-site where initial processing is undertaken. It comprises a standard MF2 design as generally used in the industry for UG2 Reef ore.

A new concentrator will process the Merensky Reef ore. Concentrate is transported by road to Impala Mineral Processes in Rustenburg, where further processing occurs in terms of an agreement with IRS.

Two Rivers Mineral Reserve distribution

as at 30 June 2022 (Moz 6E)

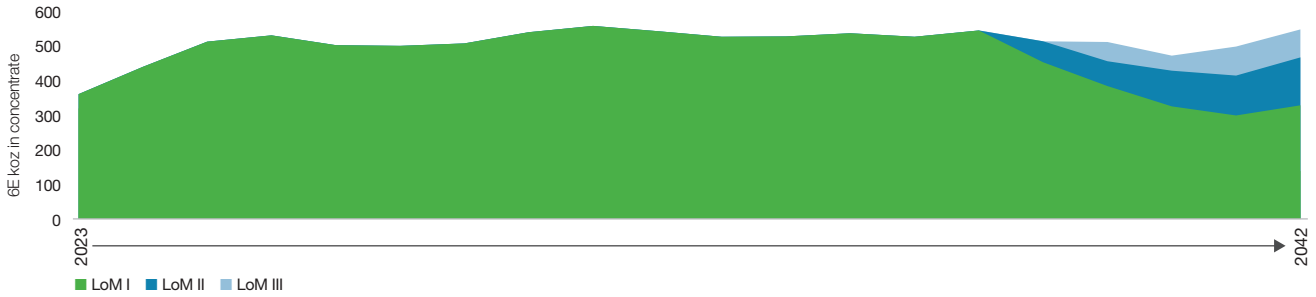


LoM, valuation and sensitivity

The estimated 20-year LoM profile for Two Rivers is shown below. LoM I constitutes production from the Main and North Decline Shafts and also the Merensky Reef. LoM II is an extension of the Main Decline infrastructure into the Kalkfontein RE and portions 1 and 2. The UG2 Reef at Buffelshoek is excluded and does not form part of LoM II. The profile is based on assumptions and may change in future. Trial mining and a feasibility study were conducted in 2012/13 on the Merensky Reef; the feasibility study was revisited and completed in 2021. The study confirmed a LoM of 24 years for the Merensky Reef at 245koz 6E per annum at steady state. The JV board approved the capital of R5.7 billion for the Merensky Reef project.

The economic viability of the Two Rivers Mineral Reserves is tested by Implats using net present value calculations over the LoM of the Mineral Reserve, determining the lowest real rand basket price that would still render the Mineral Reserve viable. These calculations generate basket prices based on the local PGM metal ratios and differ from the overall Group basket prices. This is then tested against the internal estimate of the real long-term basket price and the spot price as at 30 June 2022. These tests by Implats indicate that the Two Rivers operation requires a real long-term basket price of between R19 000 and R21 000 per 6E ounce to be economically viable. While the real spot basket price for Two Rivers as at 30 June 2022 was R38 553 (US$2 337) per 6E ounce, the Two Rivers internal long-term real basket price is R23 492 (US$1 700). Statistics relating to the historical production are shown on pages 28 and 29.

Two Rivers estimated 20-year 6E LoM ounce profile
as at 30 June 2022

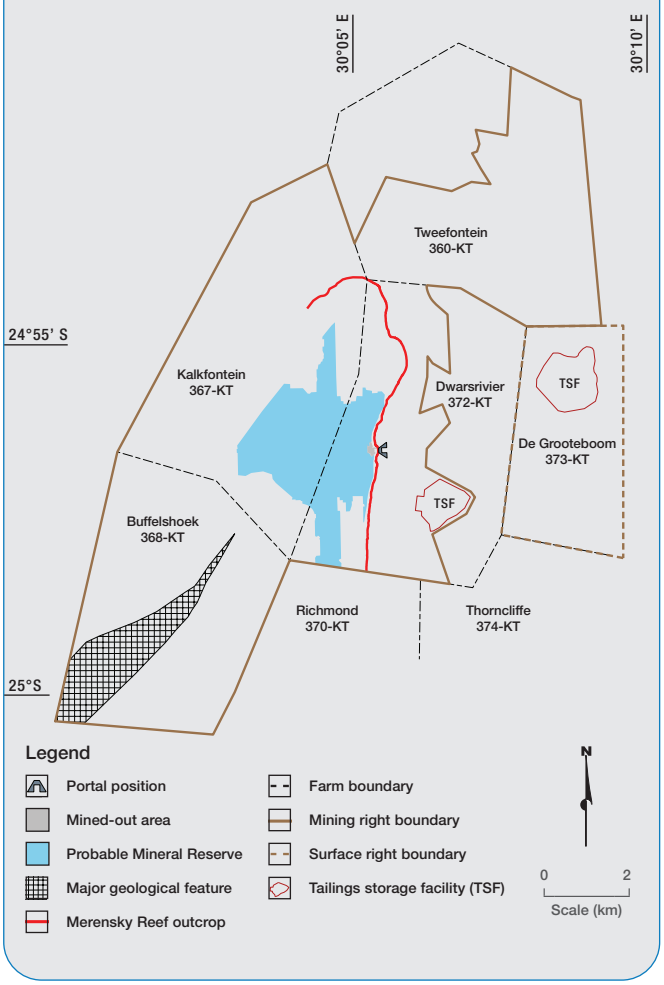


Surveyors at Two Rivers capturing measuring results

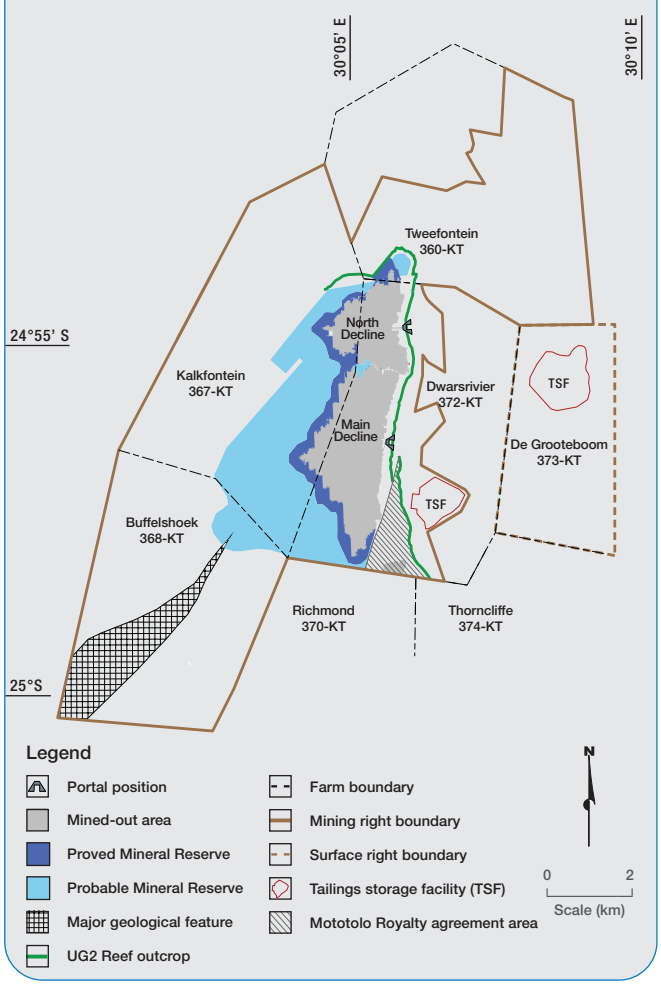
Two Rivers (continued)

Geologists inspecting drill core at Two Rivers

Two Rivers Merensky Reef Mineral Reserves



Two Rivers UG2 Mineral Reserves



Zimplats

Zimbabwe

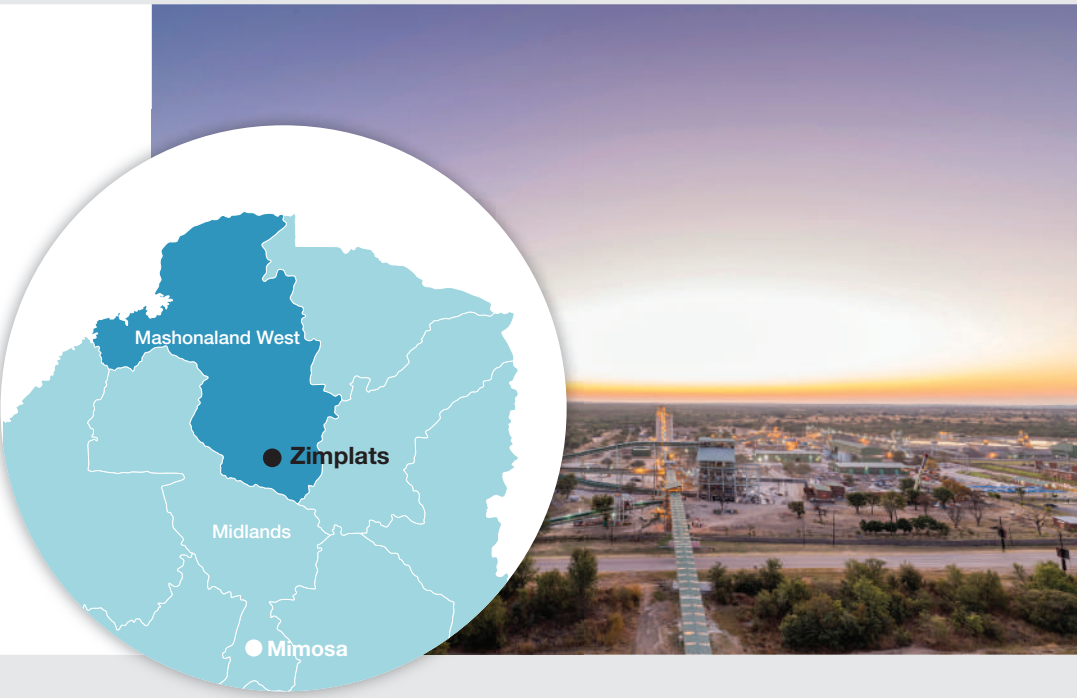
Zimplats' operations are located in the Mashonaland West province of Zimbabwe.

Mining right

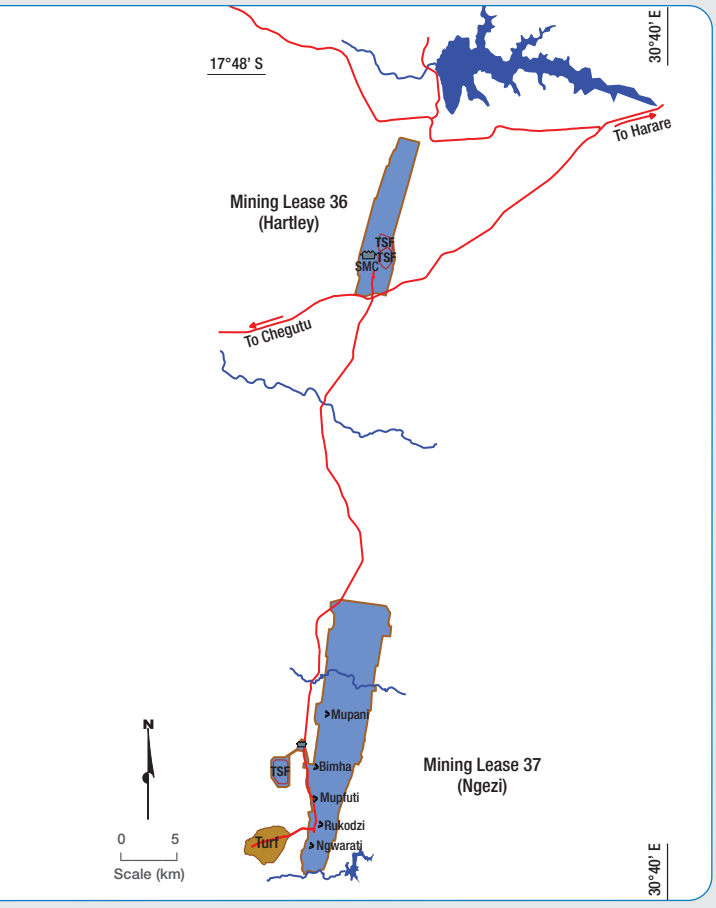
24 632ha

Implats' interest

87%
managed



Zimplats regional locality map



Legend

- Mining lease
- Tailings storage facility (TSF)
- Town
- Processing plant
- Rivers
- Portal
- Lake
- Public roads

Location

The Zimplats mines at Ngezi are located on Mining Lease 37, approximately 150km southwest of Harare, at the southern end of the Sebakwe sub-chamber of the Hartley Complex on the Great Dyke. Hartley Mine and the Selous Metallurgical Complex (SMC) are located on Mining Lease 36, in the Darwendale sub-chamber of the Hartley Complex on the Great Dyke, approximately 80km west-southwest of Harare and 77km north of the Ngezi mines.

Brief history

Delta Gold brought BHP into a joint venture (66.7% BHP and 33.3% Delta Gold) to develop Hartley Platinum Mine, and development started in 1994. By 1998 Delta Gold had extended its cover to include interests in all the platinum Mineral Resources of the Hartley Complex. In 1999 it became apparent that Hartley Platinum Mine had failed to meet its development targets and was put on care and maintenance by BHP. Zimplats subsequently took over BHP's share of Hartley, SMC and initiated the Ngezi/SMC project in 2001 with the assistance of Implats and ABSA Investment Bank. A 2.2 million tonne per year open-pit mine was established at Ngezi.

Implats progressively increased its shareholding in Zimplats until 2003, when it made an unconditional cash offer to minority shareholders in Zimplats. In 2003, Zimplats began developing underground operations at Ngezi to replace the east and west open pits. Over the years, the production volumes from the operations have been increased to the current 7.1 million tonnes of ore per year from five underground mines, all of which feed the two concentrator modules at Ngezi and the SMC concentrator. Zimplats is one of Implats' managed operations. Implats has 87% shareholding, while minority shareholders hold the remaining 13%. A third concentrator is in construction at Ngezi and will be commissioned in August 2022.

Zimplats (continued)

Geological setting

The Great Dyke of Zimbabwe developed as a series of initially discrete magma chamber compartments which coalesced as the chambers filled. The Great Dyke has been sub-divided into five sub-chambers, namely the Wedza, Selukwe (Shurugwi), Sebakwe, Darwendale and Musengezi sub-chambers. The stratigraphic units in each sub-chamber are classified into the ultramafic (lower) and the mafic (upper) sequence. The ultramafic rocks are dominated from the base upwards by dunite, harzburgite and pyroxenite, while the mafic rocks consist mainly of gabbro and gabbronorite. Thin layers of chromitite occur at the bottom of cyclic units throughout the ultramafic sequences. The PGM-bearing horizon is known as the Main Sulphide Zone (MSZ), which is part of the lower sequence and is located below the contact with the mafic sequence. The MSZ is located in the P1 pyroxenite, from 5m to about 50m below the ultramafic/mafic contact. The MSZ is a continuous layer, 2m to 10m thick, and forms an elongated basin. The Zone strikes north-northeast, dips between 5° and 20° on the margins, and flattens towards the axis (centre) of the basin. Peak base metal and PGM values are offset vertically with palladium peaking at the base, platinum in the centre and nickel towards the top (see typical vertical grade profiles on page 62). Visual identification of the MSZ is difficult; therefore, systematic monitoring of the reef using various sampling methods is needed to guide mining.

Mining occurs in areas where the dip is less than 9°, which are referred to as the MSZ 'Flats' and those with dips between 9° and 14° which are referred to as the 'MSZ Upper Ores I' (UOR I). Currently there is no mining in areas with a dip above 14° and these are referred to as the 'MSZ Upper Ores II' (UOR II).

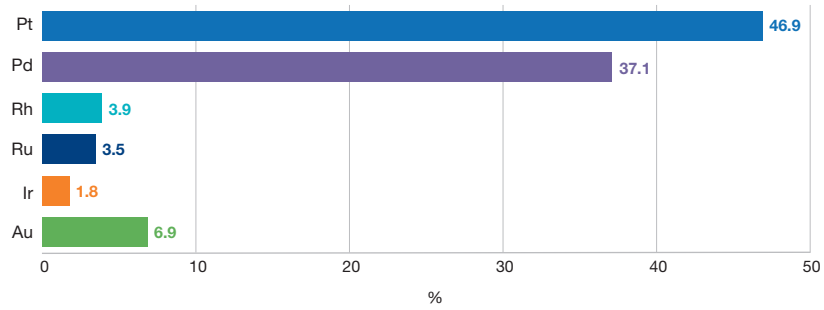
The schematic of the Zimplats operation on page 65 cuts obliquely across the 2m to 10m thick platinum-bearing MSZ orebody with an approximate north-northeast strike distance of 16km at Ngezi in the south, where the Mupani, Bimha, Mupfuti, Rukodzi and Ngwarati portals are located. Further to the north at the Hartley Complex, the MSZ orebody extends over a 9km north-northeast strike distance. It is evident on the schematic that the MSZ orebody is a continuous layer within the Great Dyke. East-west striking fault structures are forming natural boundaries between the portal areas at Ngezi. The MSZ lithologies dip at between 5° and 20° near the margins and flatten towards the central part of the Great Dyke to form a flat-lying floor. The general mining infrastructure at Ngezi is located on the western side of the Great Dyke where the orebody is accessed by portals.

Exploration and studies

During the year, the Company conducted exploration activities to evaluate the Mineral Resources on existing mines and projects at both mining leases. The primary focus was on Mupfuti, Bimha and Mupani mines and at Hartley.

The surface exploration drilling was aimed at increasing the geological confidence in the orebodies and upgrading the relevant Mineral Resources categories in drilled areas, as well as enhancing the geotechnical interpretation to manage the risk posed by ground conditions and geological structures on the operations and development projects. Routine underground core drilling continued throughout the year. This essential strategy allows the mines to interpret smaller scale geological structures that would otherwise not be captured by the surface drilling campaigns and is critical to improving the efficiency of the short-term mining plan. All drillholes were sampled on the reef horizon and the half-core split was dispatched for analysis at the internal and external laboratories.

Zimplats MSZ 6E ratio
as at 30 June 2022 (%)



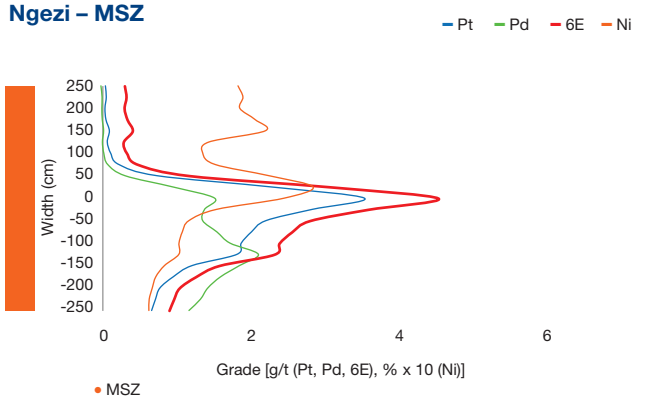
MSZ 6E ratios derived from the Mineral Reserve estimate.

The underground core drilling for reef profiling and geotechnical assessment was completed in all the active mines. The information obtained from the logging and sampling of the holes has improved the characterisation of the orebody ahead of mining. Completed surface and underground core drilling work during the past year is shown in the table below.

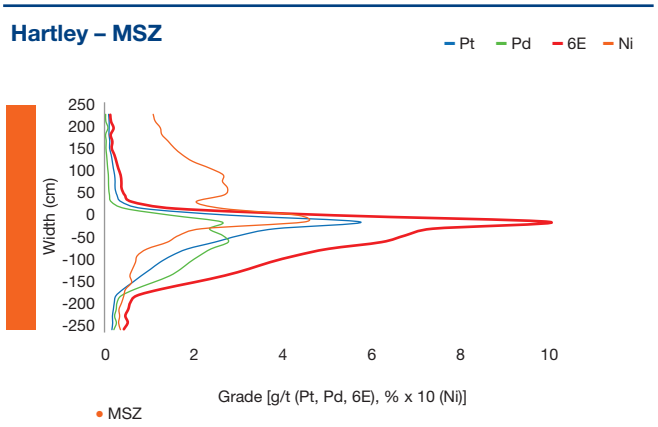
	Surface drilling		Underground drilling	
Drilling site	Number of drillholes	Total drilling (m)	Number of drillholes	Total drilling (m)
Ngwarati Mine	–	–	10	1 000
Rukodzi Mine	–	–	7	700
Mupfuti Mine	1	147	17	1 700
Bimha Mine	13	2 880	22	2 200
Mupani Mine	29	7 427	12	1 220
Hartley	47	18 624	–	–

Zimplats (continued)

Ngezi – MSZ

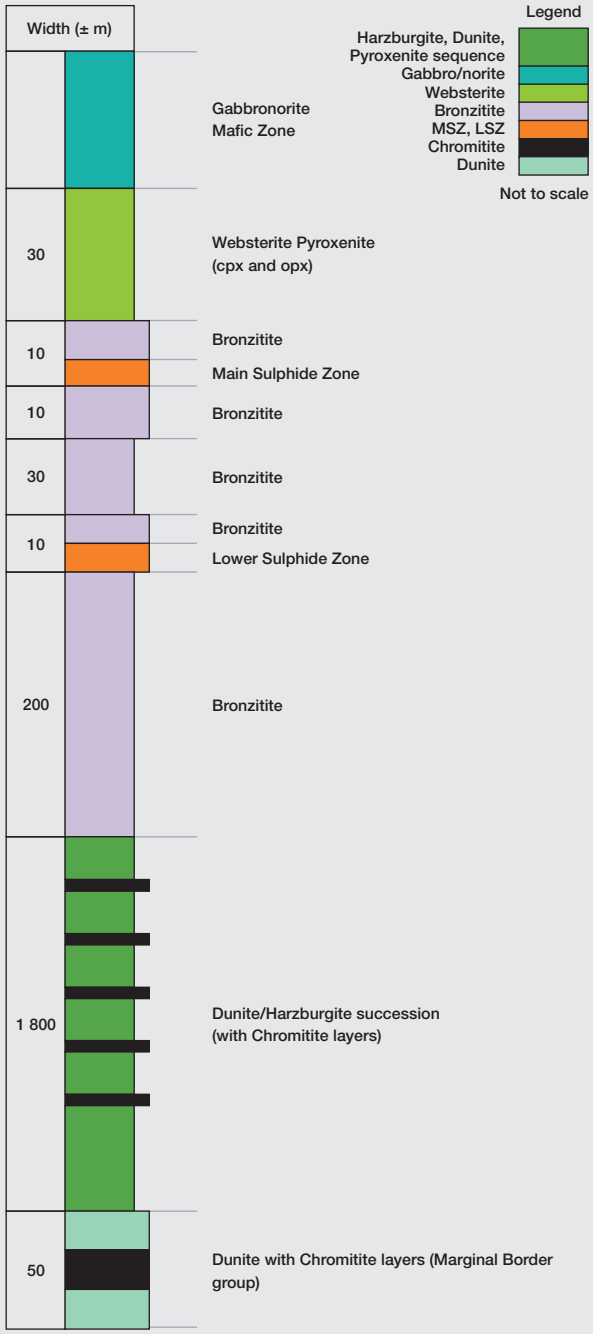


Hartley – MSZ



Underground sample cutting at Zimplats

Generalised geological succession of the upper portion of the Great Dyke at Zimplats



Zimplats (continued)

The Hartley exploration campaign carried out during the year has improved the density of the drilling around the existing old workings to inform ongoing preliminary feasibility studies (PFS) for mining. This is coupled with confirmatory drilling that is aimed at improving confidence in the historical database inherited by Zimplats from BHP which targeted specific blocks of the mining lease. Data processing is currently underway and confirms continuity of the orebody and clarifies the general attitude of the major geological structures in the area, mainly dolerite sills and large-scale faults. It is envisaged that an updated geological model and Mineral Resource estimate will be completed by the end of the next reporting period.

Following approval of the Mupfuti Replacement Bankable Feasibility Study (BFS) last year, the shaft capacity of Bimha Mine will be increased from the current design capacity of 2Mtpa to 3.1Mtpa in FY2023. Mining and construction work to upgrade the infrastructure at Mupani Mine from its design of 2.2Mtpa to 3.6Mtpa is underway with a target completion date of 2028. The development, aimed at creating more underground face-length to accommodate new teams at these two mines, has been incorporated into the business plan and production ramp-up will commence while Mupfuti Mine is still on full production. This will allow the operations to achieve higher production rates during the five-year period (along with the benefits of ongoing productivity improvements). Rukodzi Mine was depleted at the end of the year ending 30 June 2022.

Additional milling capacity at the Ngezi concentrator site will be availed during the year as a new 0.9Mtpa concentrator module to treat excess ore from the mines is currently under construction and will be commissioned in the forthcoming year.

General infrastructure

Infrastructure to support production consists of integrated road networks, four production declines, conveyor networks and ore load-out facilities for road trains. Ore processing infrastructure consists of two concentrator modules at Ngezi with an additional concentrator and a smelter at SMC. Refurbishment of a historically mothballed Base Metal Refinery (BMR) has been completed. Water for the Ngezi operations is drawn from the Ngezi and Chitsuwa dams. Zimplats' annual allocation from the two dams is 11 000Ml, and it exceeds current requirements. The SMC processing infrastructure includes a concentrator, a smelter, tailings storage facilities, stores, and offices. Water for the SMC operations is abstracted from the Manyame Dam, where Zimplats has an annual allocation of 5 000Ml. Power from the Zimbabwe Electricity Supply Authority's (ZESA) Selous sub-station is fed to the transformers at Ngezi and SMC via the 132kV overhead lines. These assets and the wide network of information and communication technology equipment provide services to the business.

Mineral Resource estimation and classification

The Mineral Resources and Mineral Reserves for ML 37 are based mainly on external nickel sulphide collection fire assays with an ICP-MS finish. The ML 36 (Hartley) Mineral Resources are primarily based on historical data from drilling campaigns conducted before the takeover of operations by Zimplats, and the estimates were updated to bring alignment of the estimation methodology, with that applied at Ngezi, utilising the original data set which was based on lead collection fire assays with ICP-MS finish. A twin hole drilling programme which aims to improve the confidence in interpreting historical data was completed during the year, with preliminary indications confirming reef continuity between old and new holes and enhancing our understanding of major structures in the orebody. Preparation of an updated Mineral Resource estimate is underway, using the available data and will be completed during the forthcoming year.

Oxide ores on the Great Dyke are defined as the weathered to semi-weathered material near the sub-outcrop of the MSZ. These oxide ores have lower metallurgical recoveries than unweathered sulphide ore using conventional extraction technology and are currently marginal to sub-economic. Mineral Resources have been estimated using kriging techniques on assay data derived from surface drillholes. Estimates are derived from composite widths, which are based on appropriate economic parameters.

The classification of Mineral Resources at Zimplats is informed by a matrix of factors which incorporates geological complexity and the confidence in the geostatistical estimation. In broad terms, confidence is derived from surface drillhole spacing, which has the largest weighting on the classification of Mineral Resources. For Ngezi (ML 37), the following applies:

- Drillhole spacing of 250m or less supports Measured Mineral Resources
- Drillhole spacing between 250m and 1 000m supports Indicated Mineral Resources
- Drillhole spacing greater than 1 000m supports Inferred Mineral Resources.

For Hartley (ML 36), the drillhole density in some portions of the Indicated and Measured Mineral Resources is wider than for ML 37. The interpretation of existing data shows geological continuity of the orebody and consistency of grades in these areas. The modelling remains consistent with the known characteristics of the mined footprint at Hartley.

The Mineral Resource estimate reflects the actual spatial depletion as at 31 May 2022 and the non-spatial forecast depletion to 30 June 2022. More details regarding the Mineral Resources and Mineral Reserves can be obtained from the 2022 Zimplats annual report (**www.zimplats.com**).

Zimplats Mineral Resource estimate (inclusive reporting)

As at 30 June 2022

Orebody		Ngezi MSZ				Hartley MSZ				MSZ Oxides – all areas			
Category		Measured	Indicated	Inferred	**Total**	Measured	Indicated	Inferred	**Total**	Indicated	Inferred	**Total**	**Total**
Tonnes	Mt	211.5	381.2	122.1	**714.9**	32.1	138.0	43.6	**213.8**	16.0	39.3	**55.4**	**984.0**
Width	cm	245	230	207	**–**	180	180	180	**–**	250	216	**–**	**–**
4E grade	g/t	3.37	3.38	3.33	**3.37**	4.05	3.78	3.44	**3.75**	3.42	3.55	**3.51**	**3.46**
6E grade	g/t	3.56	3.57	3.51	**3.56**	4.28	3.99	3.62	**3.96**	3.61	3.75	**3.71**	**3.65**
Ni	%	0.11	0.12	0.12	**0.12**	0.13	0.12	0.11	**0.12**	0.10	0.12	**0.11**	**0.12**
Cu	%	0.08	0.09	0.09	**0.08**	0.11	0.10	0.09	**0.10**	0.07	0.10	**0.09**	**0.09**
4E oz	Moz	22.9	41.4	13.1	**77.4**	4.2	16.8	4.8	**25.8**	1.8	4.5	**6.3**	**109.5**
6E oz	Moz	24.2	43.8	13.8	**81.7**	4.4	17.7	5.1	**27.2**	1.9	4.7	**6.6**	**115.5**
Pt oz	Moz	11.4	20.7	6.8	**38.8**	2.0	8.8	2.6	**13.5**	0.9	2.2	**3.1**	**55.5**
Pd oz	Moz	8.9	15.9	4.7	**29.5**	1.6	5.9	1.6	**9.2**	0.7	1.7	**2.4**	**41.2**

As at 30 June 2021

Orebody		Ngezi MSZ				Hartley MSZ				MSZ Oxides – all areas			
Category		Measured	Indicated	Inferred	**Total**	Measured	Indicated	Inferred	**Total**	Indicated	Inferred	**Total**	**Total**
Tonnes	Mt	220.6	381.8	122.1	**724.5**	32.1	138.0	43.6	**213.8**	16.0	39.3	**55.4**	**993.6**
Width	cm	245	230	210	**–**	180	180	180	**–**	250	216	**–**	**–**
4E grade	g/t	3.36	3.38	3.33	**3.37**	4.05	3.78	3.44	**3.75**	3.42	3.55	**3.51**	**3.46**
6E grade	g/t	3.55	3.57	3.51	**3.55**	4.28	3.99	3.62	**3.96**	3.61	3.75	**3.71**	**3.65**
Ni	%	0.11	0.12	0.12	**0.12**	0.13	0.12	0.11	**0.12**	0.10	0.12	**0.11**	**0.12**
Cu	%	0.08	0.09	0.09	**0.08**	0.11	0.10	0.09	**0.10**	0.07	0.10	**0.09**	**0.09**
4E oz	Moz	23.8	41.5	13.1	**78.4**	4.2	16.8	4.8	**25.8**	1.8	4.5	**6.3**	**110.5**
6E oz	Moz	25.2	43.9	13.8	**82.8**	4.4	17.7	5.1	**27.2**	1.9	4.7	**6.6**	**116.6**
Pt oz	Moz	11.9	20.7	6.8	**39.4**	2.0	8.8	2.6	**13.5**	0.9	2.2	**3.1**	**56.0**
Pd oz	Moz	9.3	16.0	4.7	**29.9**	1.6	5.9	1.6	**9.2**	0.7	1.7	**2.4**	**41.5**

Mineral Resource reconciliation

The year-on-year reduction by 9.6Mt can largely be attributed to mining depletion. The year-on-year reconciliation of the PGE Mineral Resource estimate shows an overall decrease from 116.6Moz 6E to 115.5Moz 6E.

Total Zimplats 6E Mineral Resources

as at 30 June 2022 (variance Moz 6E)

Modifying factors

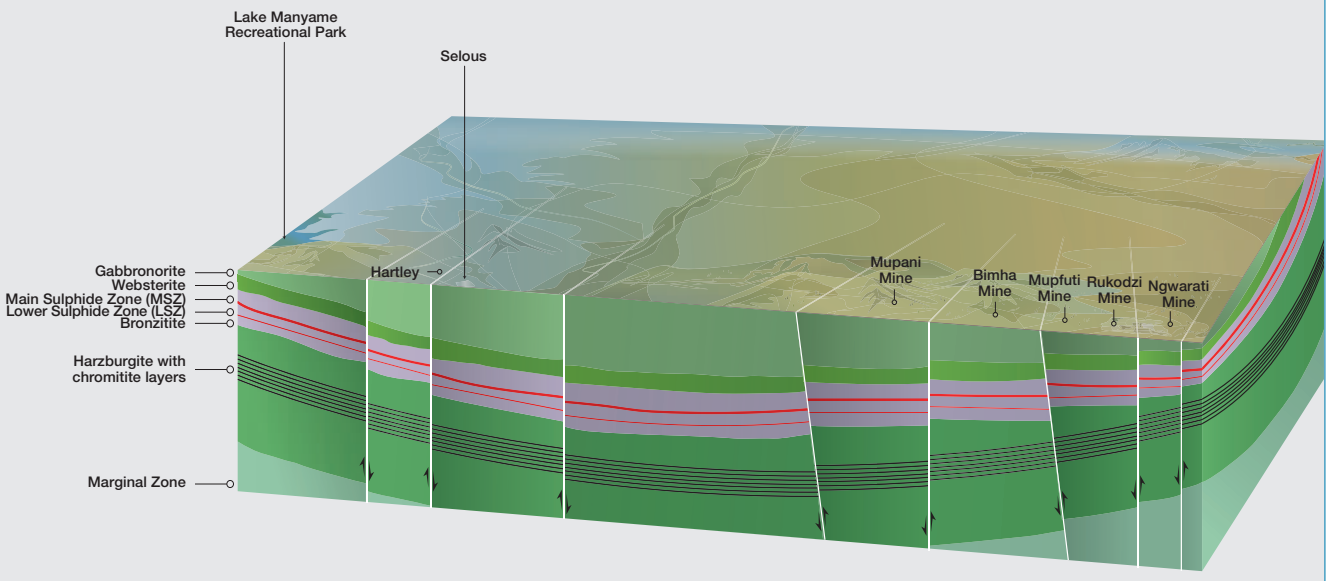
The table below summarises the significant modifying factors impacting on the Mineral Resource and Mineral Reserve estimates (see page 15 for further details).

Mineral Resource Key assumptions	Main Sulphide Zone
Geological losses	5 – 20%
Area	147 million ca
Channel width	180 – 250cm

Mineral Reserve Modifying factors	Main Sulphide Zone
Dilution	5 – 7.5%
Pillars	19 – 35%
Mine call factor	97%
Relative density	3.18 – 3.25
Stoping width	250 – 265cm
Concentrator recoveries	78 – 81%

Zimplats (continued)

Generalised schematic section of the stratigraphic sequence at Zimplats



Schematic drawing, not to scale, compiled by Implats.

Mining methods

A mechanised bord and pillar mining method is employed to extract ore from stopes whose nominal stope width is 2.5m. Mine access is through declines which are generally located centrally in each Mineral Resource block. Any asymmetry is accounted for in the mine production scheduling. The main production suite of equipment includes a single boom face rig for drilling, a roof bolter for support drilling, a 10t loader (LHD) and a dump truck, which are deployed into specialised functional teams in each of the production sections underground.

The productivity per crew varies from approximately 16 500t to greater than 23 000t of ore per month, depending on the particular mine, the dip of the reef and the existing pillar layout. The typical design comprises 7m panels with a minimum of 4m x 4m size in-stope pillars, which are determined by depth below surface, and these are surrounded by large barrier pillars which form paddocks. The paddocks are meant to arrest pillar unravelling in the event of a collapse. Ngwarati Mine does not have barrier pillars or paddocks owing to the relatively shallow depth below surface. At all the mines, the spans of rooms may decrease, and pillar dimensions may increase in very bad ground. A combination of roof bolts and tendons is integral to the support design.

Mine planning process

The primary intention of the planning function at Zimplats operations is to plan and direct the mining operations' activities to maximise the strategic aims and targets as it relates to production efficiencies and cost-effectiveness. While all MSZ 'Flats', MSZ 'Upper Ores I and II' are included in the Mineral Resource estimate, only the MSZ 'Flats' and MSZ 'Upper Ores I' are progressed to the Mineral Reserve estimate, based on the currently viable mining methods and economic considerations. Zimplats has a fleet of Extra Low Profile (XLP) equipment currently trialling in the 'Upper Ores II' towards testing a viable mining methodology.

The mine planning and scheduling for all the operations at Ngezi are undertaken as per the group cycle using modern software such as Datamine and Vulcan.

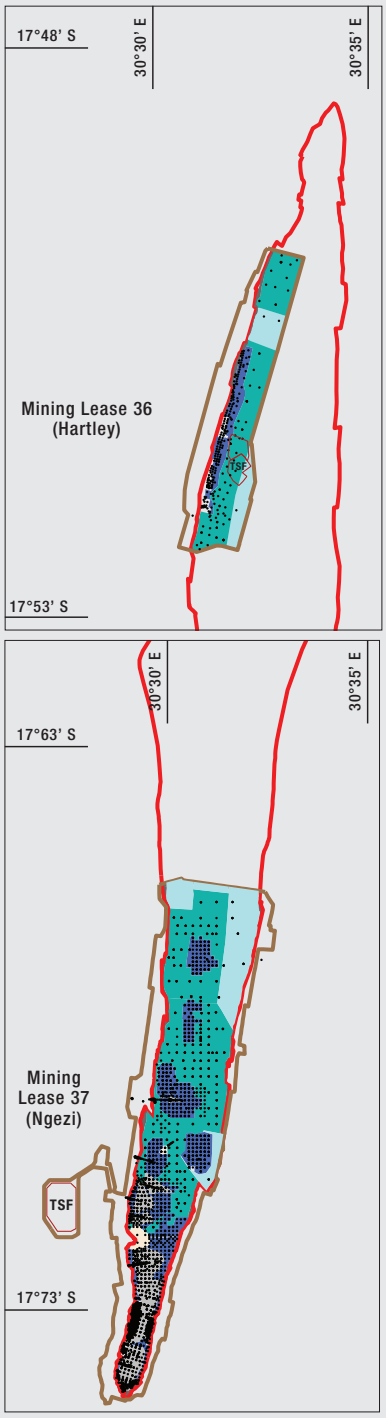
Mineral Reserve estimation and classification

The Mineral Reserve estimates are based on the updated Mineral Resource estimates, mine design and modifying factors. The Mineral Reserves reported reflect anticipated feed grades delivered to the mill. The estimations align with the business plan by scheduling ore tonnages and grades at a 265cm stoping width. The conversion and classification of Mineral Reserves at Zimplats are informed by:

- Feasible mine plan and project studies, board approval and available funding
- Economic testing at given market conditions
- Indicated Mineral Resources can be classified as Probable Mineral Reserves if the above hurdles are met
- Similarly, Measured Mineral Resources can be classified as Proved Mineral Reserves
- In certain exceptional circumstances, the Competent Person may elect to convert Measured Mineral Resources to Probable Mineral Reserves if the confidence in the modifying factors is confirmed.

Zimplats (continued)

Zimplats MSZ Mineral Resources



Zimplats Mineral Reserve estimate

As at 30 June 2022

Orebody		Ngezi MSZ		
Category		Proved	Probable	Total
Tonnes	Mt	109.3	123.8	**233.2**
Width	cm	265	265	**–**
4E grade	g/t	3.19	3.17	**3.18**
6E grade	g/t	3.37	3.35	**3.36**
Ni	%	0.10	0.10	**0.10**
Cu	%	0.08	0.08	**0.08**
4E oz	Moz	11.2	12.6	**23.8**
6E oz	Moz	11.8	13.3	**25.2**
Pt oz	Moz	5.6	6.3	**11.8**
Pd oz	Moz	4.4	5.0	**9.3**

As at 30 June 2021

Orebody		Ngezi MSZ		
Category		Proved	Probable	Total
Tonnes	Mt	116.4	124.2	**240.6**
Width	cm	265	265	**–**
4E grade	g/t	3.19	3.18	**3.18**
6E grade	g/t	3.37	3.35	**3.36**
Ni	%	0.10	0.10	**0.10**
Cu	%	0.07	0.08	**0.08**
4E oz	Moz	12.0	12.7	**24.6**
6E oz	Moz	12.6	13.4	**26.0**
Pt oz	Moz	5.9	6.3	**12.2**
Pd oz	Moz	4.7	5.0	**9.6**

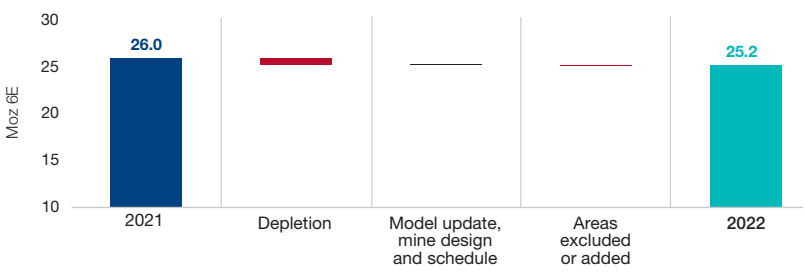
Mineral Reserve reconciliation

A net reduction in Mineral Reserves of approximately 7.4Mt is reported mainly attributable to mining depletion with 0.7Mt abandoned in areas that are not mineable due to poor ground conditions at Ngwarati and Mupfuti mines. The declared Mineral Reserves subsequently decreased by 0.8Moz 6E from 26.0Moz to 25.2Moz 6E.

More details related to this change can be found on the Zimplats website **(www.zimplats.com)**.

Total Zimplats 6E Mineral Reserves

as at 30 June 2022 (variance Moz 6E)



Zimplats (continued)

Processing

Two concentrators process ore from the mines (at Ngezi and SMC). The concentrator at Ngezi has two similar modules which have a capacity of 2.1Mtpa each and makes up a total of about 4.2Mtpa. The SMC concentrator has an upgraded design capacity of about 2.4Mtpa.

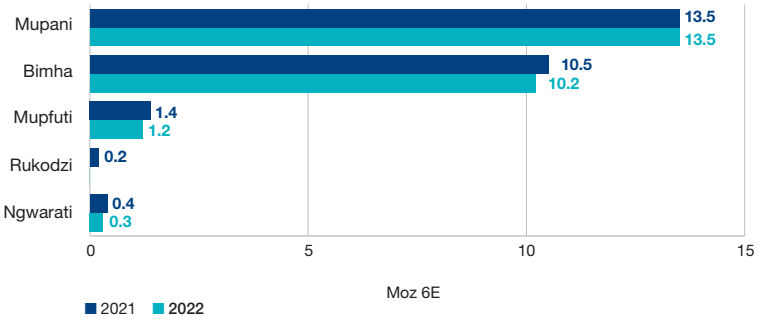
Approximately one-third of the mined ore (2.4Mt) is transported by road trains to the concentrator at SMC. An overland conveyor transports the rest to the concentrator modules at Ngezi. Concentrates from both the Ngezi and SMC concentrators are then smelted in an arc furnace and converted to matte at SMC. The resulting matte is dispatched to Impala's refinery in Springs under a LoM agreement with IRS.

LoM, valuation and sensitivity

The LoM plan for Zimplats operations is a design and costing study of an existing or future operation in which the following aspects have been realistically assessed: geological, mining, metallurgical, engineering, operational, economic, marketing, legal, environmental, social, governmental, and all other modifying factors to demonstrate that, at the time of reporting, extraction is reasonably justified. The high-level LoM profile is depicted in the graph below.

The economic viability of the Zimplats Mineral Reserves is tested by Implats using net present value calculations of the Mineral Reserve, determining the lowest real rand basket price that would still render the Mineral Reserve viable. These calculations generate basket prices based on the local PGM metal ratios and differ from the overall Group basket prices. This is then tested against the internal Zimplats estimate of the real long-term basket price and the spot price as at 30 June 2022. These tests indicate that the Zimplats operation requires a real long-term basket price of between R15 000 and R17 000 per 6E ounce to be economically viable. While the real spot basket price for Zimplats as at 30 June 2022 was R35 473 (US$2 150) per 6E ounce, the Zimplats internal long-term real basket price is R22 812 (US$1 651). The commodity market remains fluid. Statistics relating to the historical production are shown on pages 28 and 29.

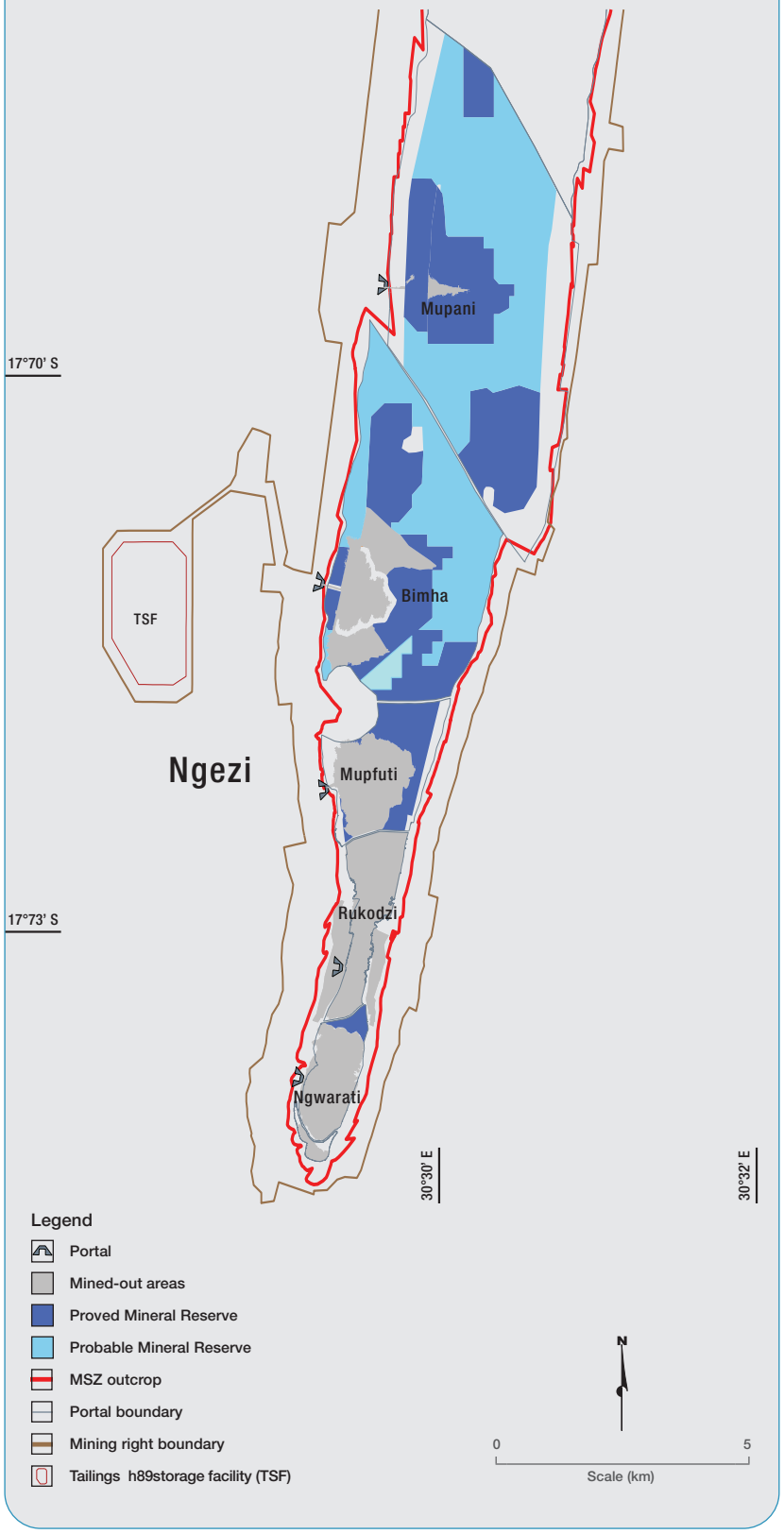
Zimplats Mineral Reserves distribution
as at 30 June 2022 (Moz 6E)



Zimplats estimated 20-year 6E LoM ounce profile
as at 30 June 2022

Zimplats (continued)

Zimplats MSZ Mineral Reserves



Barring of the hangingwall at Zimplats

Mimosa

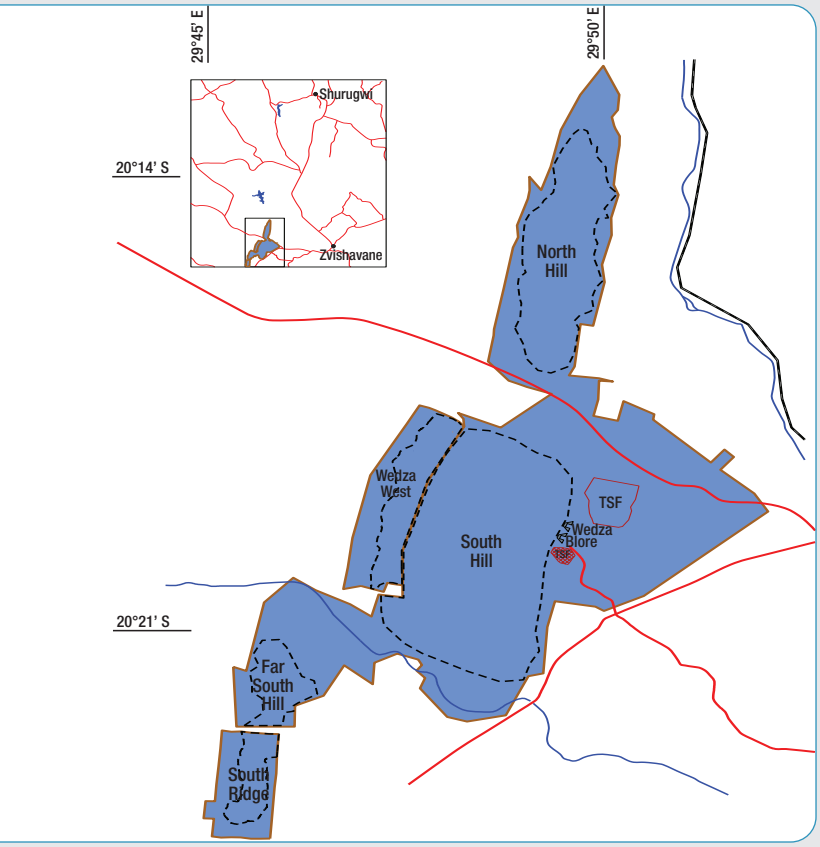
Zimbabwe

Mimosa Mining Company is situated 32km west of Zvishavane town, approximately 340km southwest from the capital city of Harare in Zimbabwe.

Mining right
7 653ha

Implats' interest
50%
non-managed

Mimosa regional locality map



Legend

- Town
- Mining right boundary
- Public road
- Railway line
- Tailings storage facility-active (TSF)
- River
- Dam
- Portal
- MSZ outline
- Tailings storage facility-dormant (TSF)

N

0 5
Scale (km)

Location

Mimosa Mine is located on the Wedza Geological complex of the Great Dyke, about 150km east of Bulawayo in the southern part of the Midlands province, Zimbabwe. The mine is situated some 80km south-southwest of the Unki Platinum Mine, operated by Anglo American Platinum.

Brief history

Mining operations started in 1926 at North Hill and lasted approximately two years, with some 60oz of platinum recovered. Union Carbide Zimbabwe secured an EPO in the Wedza area over the Mimosa deposit in 1962. Exploration and trial mining were periodically undertaken over 30 years. Zimasco acquired Mimosa from Union Carbide in 1993. Zimasco piloted platinum mining in Zimbabwe by resuscitating the operation and steadily increasing production to 1 000t per day by 1998. In July 2001, Implats acquired a 35% stake in Mimosa and increased this stake to 50% in the following year. Aquarius acquired a 50% stake in Mimosa during the same year. Sibanye Stillwater concluded a deal in 2016, which resulted in Sibanye Stillwater acquiring all the shares which formerly belonged to Aquarius. Mimosa is managed by Mimosa Investments Limited, a Mauritius-based company held by Implats and Sibanye Stillwater and is a non-managed operation in the Implats portfolio.

Mimosa (continued)

Geological setting

PGM mineralisation at Mimosa is located in four isolated and fault-bounded blocks, namely, from north to south, the North Hill orebody, South Hill orebody, Mtshingwe Fault Block orebody and Far South Hill orebody areas. Each block is host to a pyroxenite layer known as the P1 pyroxenite layer, which is overlain by a gabbro layer. The platinum-bearing Main Sulphide Zone (MSZ) is located in the P1 pyroxenite some 10m below the ultramafic/mafic contact. The MSZ is a continuous layer, 2m to 6m thick, and forms an elongated basin. The mineralised zone strikes in a north-northeasterly trend and dips at about 14° on the margins, flattening towards the central part of the orebody. The MSZ at Mimosa has a well-defined grade profile where peak base metal and PGM values are offset vertically, with palladium dominant towards the base, platinum in the centre and nickel towards the top (see typical grade profile on page 71). The MSZ is visually identified using pyroxene and sulphide mineralisation. Minor faults and dykes are present at Mimosa. Although no potholes have been identified, low-grade areas and areas of no mineralisation, or 'washout channels', have been intersected.

Exploration and studies

The lease area has been explored by a total of 563 exploration core-recovering drillholes. The site has also been explored by surface mapping and trenching. The drillholes were drilled and assayed over a series of drilling campaigns spanning the life of the mine. The drill core is largely NQ size though the upper unconsolidated part of the hole is drilled HQ size. All drillholes are logged lithologically and geotechnically with all borehole data being verified for integrity before importation into the database. The Exploration Results assist with ongoing mining operations and contribute to the geological modelling of the various project areas and related feasibility studies. In the past year, 29 surface drillholes (including geotechnical holes) totalling 4 936m were drilled at the cost of US$0.6m.

Work on the bankable feasibility study for the proposed North Hill mining operation has since been completed and approved by the board subject to Mimosa obtaining a fiscal agreement on the project from the Government of Zimbabwe.

General infrastructure

The mining operation is well established with a mature infrastructure. The mine currently extracts 2 900Ml raw water per annum from the Khumalo weir. The power supply to the mine is through a 132kV overhead powerline feeder teeing off the Mberengwa switching station located some 15km south of the Mimosa Mine consumer sub-station. The maximum load capacity of the line feeding the mine consumer sub-station is 118MVA. It is adequate to accommodate an additional load. The access surface tarred road to the mine is in good condition and well maintained. The nearest railway station (Bannockburn) is 16km from the mine. General infrastructure includes offices, stores, canteen, two declines, workshops, a concentrator and a TSF facility.

Mineral Resource estimation and classification

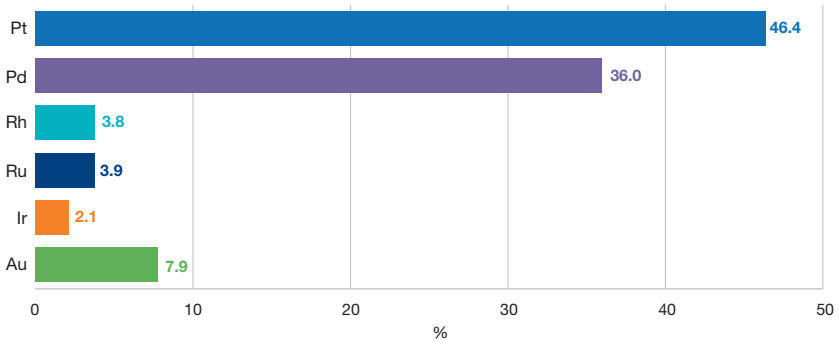
The Mineral Resource estimates have been computed using Surpac™ software using inverse distance techniques. The estimation block model cut-off for incorporating additional drillhole data was in December 2021. The Mineral Resource estimate reflects the actual spatial depletion as at 31 March 2022 and the non-spatial forecast depletion to 30 June 2022.

The classification of Mineral Resources at Mimosa is informed by a matrix considering geological complexity and the confidence in the geostatistical estimation. In broad terms, confidence is derived from surface drillhole spacing, and this has the largest weighting on the classification of Mineral Resources:

- Drillhole spacing less than 250m apart supports Measured Mineral Resources
- Drillhole spacing between 250m and 500m supports Indicated Mineral Resources
- Drillhole spacing greater than 500m supports Inferred Mineral Resources.

Mimosa MSZ 6E ratio

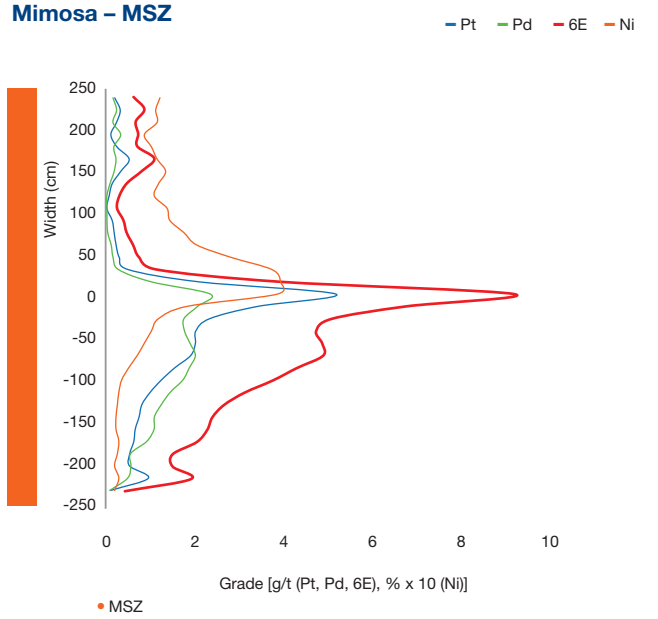
as at 30 June 2022 (%)



MSZ 6E ratios derived from the Mineral Reserve estimate.

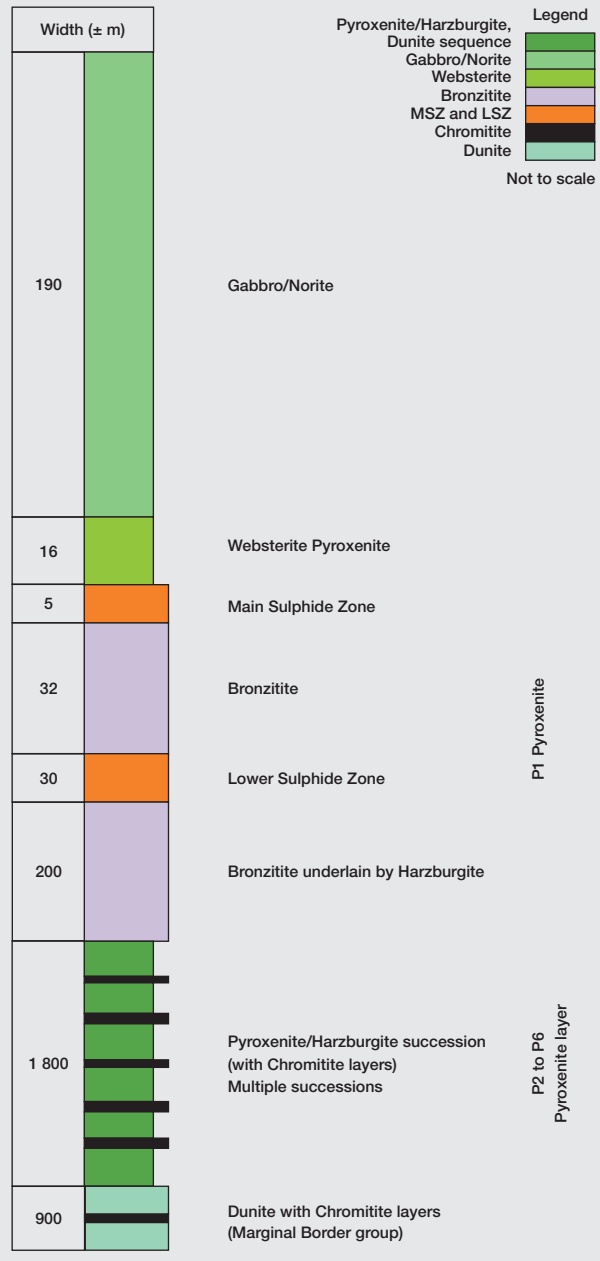
Mimosa (continued)

Mimosa – MSZ



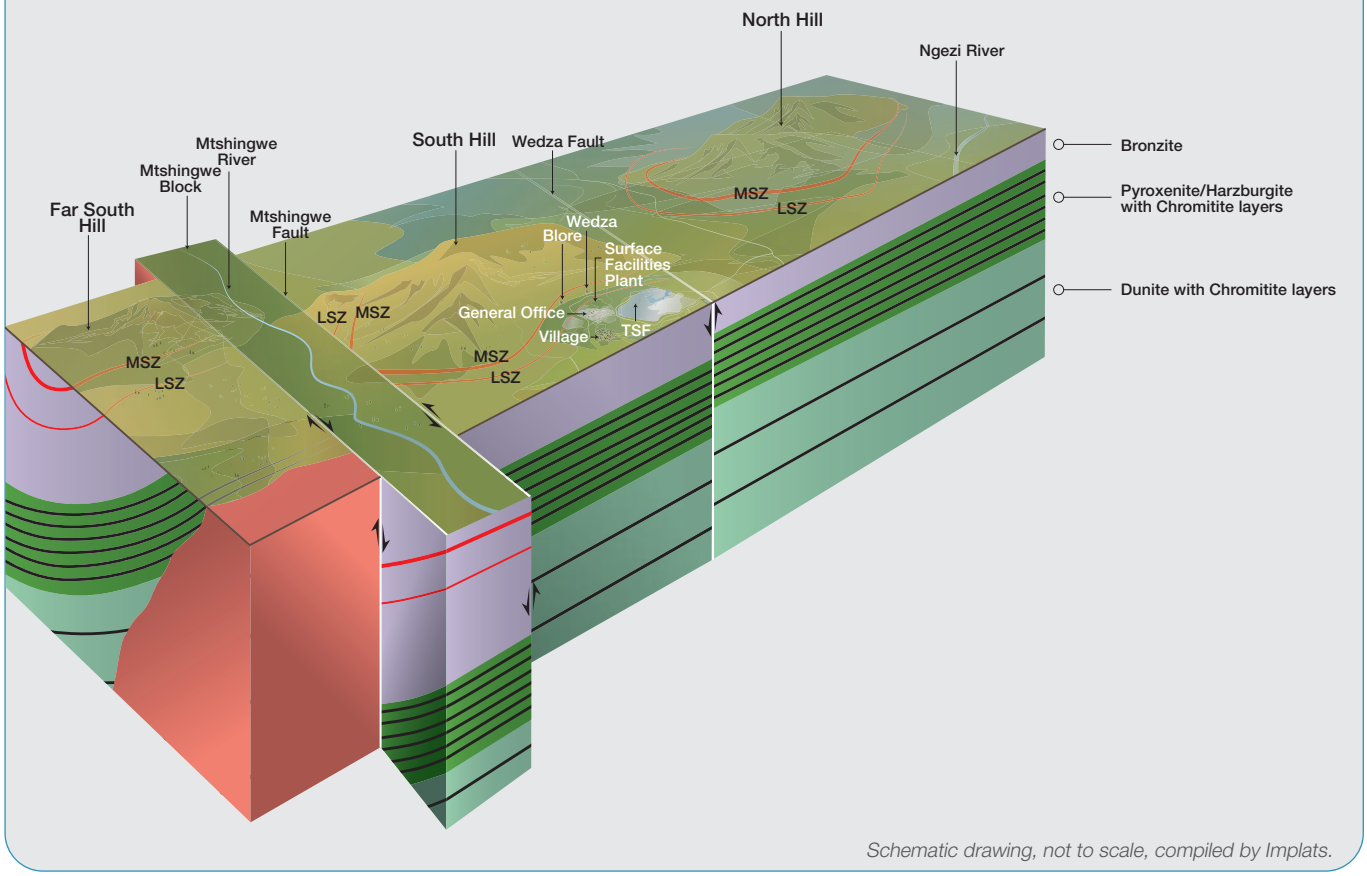
Fire Assayer discharging molten samples from fusion furnace at Mimosa Mine laboratory at South Hill

Generalised geological succession of the upper portion of the Great Dyke at Mimosa



Mimosa (continued)

Generalised schematic section of the stratigraphic sequence at Mimosa



Schematic drawing, not to scale, compiled by Implats.

The above schematic section of Mimosa demonstrates the geology of the north-north-easterly striking platinum-bearing MSZ relative to the four fault-bounded blocks, namely Far South Hill, Mtshingwe Block, South Hill and North Hill in this area of the Great Dyke. The continuous elongated basin of the MSZ layer is 2m to 6m thick and dips about 14° on the margins and flattens towards the axis of the orebody. General mining infrastructure at Mimosa is located on the eastern side of the South Hill orebody where the underground operation is accessed through the Wedza and Blore portals.

Team walking out of the Wedza Ramp at South Hill

Mimosa (continued)

Mimosa Mineral Resource estimates (inclusive reporting)

As at 30 June 2022

Orebody		South Hill MSZ				North Hill MSZ				Far South Hill MSZ				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	38.7	9.8	17.1	**65.7**	26.8	14.6	8.5	**49.9**	3.9	2.1	5.4	**11.4**	**126.9**
Width	cm	210	210	210	**–**	210	210	210	**–**	210	210	210	**–**	**–**
4E grade	g/t	3.61	3.41	3.40	**3.52**	3.41	3.52	3.43	**3.45**	3.49	3.72	3.30	**3.44**	**3.49**
6E grade	g/t	3.85	3.65	3.63	**3.76**	3.61	3.74	3.64	**3.65**	3.71	3.95	3.51	**3.66**	**3.71**
Ni	%	0.15	0.15	0.15	**0.15**	0.16	0.17	0.16	**0.16**	0.15	0.16	0.14	**0.15**	**0.16**
Cu	%	0.12	0.12	0.13	**0.13**	0.12	0.13	0.12	**0.13**	0.13	0.13	0.12	**0.12**	**0.12**
4E oz	Moz	4.5	1.1	1.9	**7.4**	2.9	1.7	0.9	**5.5**	0.4	0.2	0.6	**1.3**	**14.2**
6E oz	Moz	4.8	1.2	2.0	**7.9**	3.1	1.8	1.0	**5.9**	0.5	0.3	0.6	**1.3**	**15.1**
Pt oz	Moz	2.2	0.5	0.9	**3.6**	1.4	0.8	0.5	**2.7**	0.2	0.1	0.3	**0.6**	**7.0**
Pd oz	Moz	1.7	0.4	0.7	**2.9**	1.1	0.6	0.3	**2.1**	0.2	0.1	0.2	**0.5**	**5.4**

As at 30 June 2021

Orebody		South Hill MSZ				North Hill MSZ				Far South Hill MSZ				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	33.2	18.9	18.6	**70.8**	26.8	14.6	9.6	**51.0**	3.9	2.1	6.2	**12.1**	**133.9**
Width	cm	210	210	210	**–**	210	210	210	**–**	210	210	210	**–**	**–**
4E grade	g/t	3.60	3.40	3.40	**3.49**	3.41	3.52	3.43	**3.45**	3.49	3.72	3.30	**3.43**	**3.47**
6E grade	g/t	3.83	3.60	3.55	**3.70**	3.61	3.74	3.64	**3.65**	3.71	3.95	3.51	**3.65**	**3.67**
Ni	%	0.15	0.16	0.15	**0.15**	0.16	0.17	0.16	**0.16**	0.15	0.16	0.14	**0.15**	**0.16**
Cu	%	0.12	0.13	0.13	**0.12**	0.12	0.13	0.12	**0.12**	0.13	0.13	0.12	**0.12**	**0.12**
4E oz	Moz	3.8	2.1	2.0	**8.0**	2.9	1.7	1.1	**5.6**	0.4	0.2	0.7	**1.3**	**14.9**
6E oz	Moz	4.1	2.2	2.1	**8.4**	3.1	1.8	1.1	**6.0**	0.5	0.3	0.7	**1.4**	**15.8**
Pt oz	Moz	1.9	1.0	1.0	**3.9**	1.4	0.8	0.5	**2.8**	0.2	0.1	0.3	**0.7**	**7.3**
Pd oz	Moz	1.5	0.8	0.8	**3.1**	1.1	0.6	0.4	**2.1**	0.2	0.1	0.2	**0.5**	**5.7**

Mineral Resource reconciliation

The 30 June 2022 Mineral Resources were negatively impacted by normal mining depletion, dolerite dyke removal, oxides specific gravity change and the new geological anomaly removal.

Total Mimosa 6E Mineral Resources
as at 30 June 2022 (variance Moz 6E)

Modifying factors

The table below summarises the more significant modifying factors impacting on the Mineral Resource and Mineral Reserve estimates (see page 15 for further details).

Mineral Resource Key assumptions	Main Sulphide Zone
Geological losses	7 – 26%
Area	23 million ca
Channel width	210cm

Mineral Reserve Modifying factors	Main Sulphide Zone
Dilution	1 – 2.5%
Pillars	21 – 27%
Relative density	3.18
Stoping width	210cm
Concentrator recoveries	78 – 80%

Mimosa (continued)

Mining method

Mimosa is a shallow underground mine accessed by the two decline shafts, Wedza Decline and Blore Shaft. Mechanised bord and pillar mining method is used to extract ore over average stoping width of 2.1m. Historically, the bord widths have varied from 15m to 6m wide, depending on the ground control district. Minimum pillar sizes are dependent on depth to give a safety factor greater than 1.6. Current mining consists of 5.5m to 7m bord sizes with 8m by 4m pillars for the entire mine.

The mining cycle involves mechanised support drilling and installation, MSZ channel definition and marking, mechanised face drilling, charging and blasting, followed by mechanised lashing onto a conveyor network feeding to an underground bunker. The ore is conveyed to a surface stockpile ahead of feeding into the processing plant from the bunker. Optimum stoping widths and mining cut selection are regularly reviewed. The currently planned mining horizon is a 2.1m slice defined by the hangingwall at 0.60m above and the footwall at 1.5m below the Platinum peak. This overbreaks to an actual mining width average of 2.14m. The reported mined grade is based on inverse distance block modelling of drillhole values using Surpac™.

Mine planning process

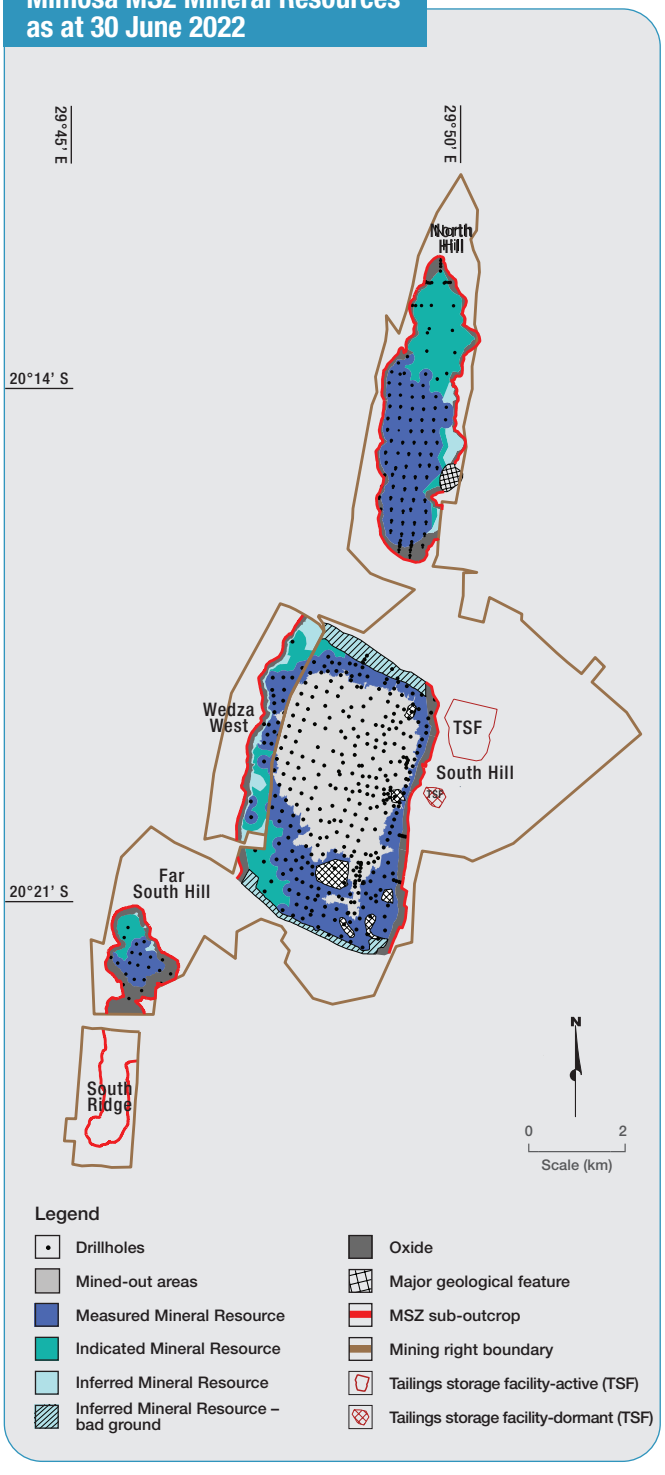
Mine design and scheduling are computer-aided using MineShed™ software. The mine plan is derived from a target milling throughput, including providing for a strategic surface stockpile. Losses due to mining modifying and geological factors are applied in production scheduling to produce a LoM production (tonnage and grade) profile.

Mineral Reserve estimation and classification

Current Mineral Reserve estimates have included the latest drilling, assay results, mine design and updated modifying factors. The Mineral Reserves quoted reflect anticipated feed grades delivered fully diluted to the mill. The estimations align with the business plan by scheduling ore tonnages and grades at a 210cm stoping width. The conversion and classification of Mineral Reserves at Mimosa are informed by:

- Feasible mine plan and project studies, board approval and available funding
- Economic testing at given market conditions (price deck)
- Indicated Mineral Resources can be classified as Probable Mineral Reserves
- Measured Mineral Resources can be classified as Proved Mineral Reserves
- In certain exceptional circumstances, the Competent Person may elect to convert Measured Mineral Resources to Probable Mineral Reserves if the confidence in the modifying factors is being confirmed.

Mimosa MSZ Mineral Resources as at 30 June 2022



Mimosa (continued)

Mimosa Mineral Reserve estimate

As at 30 June 2022

Orebody		South Hill MSZ			North Hill MSZ			
Category		Proved	Probable	Total	Proved	Probable	Total	Total
Tonnes	Mt	24.1	8.8	**32.9**	18.3	9.7	**27.9**	**60.8**
Width	cm	210	210	**–**	210	210	**–**	**–**
4E grade	g/t	3.58	3.40	**3.53**	3.35	3.47	**3.40**	**3.47**
6E grade	g/t	3.82	3.64	**3.77**	3.55	3.69	**3.60**	**3.69**
Ni	%	0.13	0.15	**0.14**	0.15	0.16	**0.15**	**0.14**
Cu	%	0.11	0.12	**0.12**	0.11	0.13	**0.12**	**0.12**
4E oz	Moz	2.8	1.0	**3.7**	2.0	1.1	**3.1**	**6.8**
6E oz	Moz	3.0	1.0	**4.0**	2.1	1.1	**3.2**	**7.2**
Pt oz	Moz	1.4	0.5	**1.8**	1.0	0.5	**1.5**	**3.3**
Pd oz	Moz	1.1	0.4	**1.4**	0.8	0.4	**1.2**	**2.6**

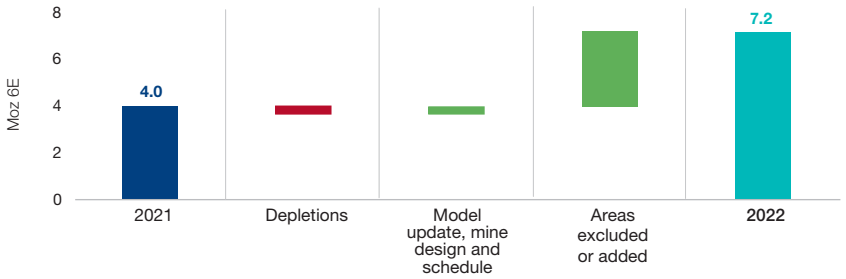
As at 30 June 2021

Orebody		South Hill MSZ			North Hill MSZ			
Category		Proved	Probable	Total	Proved	Probable	Total	Total
Tonnes	Mt	17.6	15.4	**33.1**	–	–	**–**	**33.1**
Width	cm	210	210	**–**	–	–	**–**	**–**
4E grade	g/t	3.58	3.44	**3.51**	–	–	**–**	**3.51**
6E grade	g/t	3.85	3.69	**3.78**	–	–	**–**	**3.78**
Ni	%	0.14	0.15	**0.15**	–	–	**–**	**0.15**
Cu	%	0.11	0.12	**0.11**	–	–	**–**	**0.11**
4E oz	Moz	2.0	1.7	**3.7**	–	–	**–**	**3.7**
6E oz	Moz	2.2	1.8	**4.0**	–	–	**–**	**4.0**
Pt oz	Moz	1.0	0.8	**1.8**	–	–	**–**	**1.8**
Pd oz	Moz	0.8	0.7	**1.4**	–	–	**–**	**1.4**

Mineral Reserve reconciliation

The 30 June 2022 Mimosa Mineral Reserve estimate is negatively impacted by normal mining depletion, a dolerite dyke and a geological anomaly which have been demarcated during the period. These changes arose from exploration drilling and interpretation in Wedza West during the period. The approval of the North Hill project has increased the Mineral Reserves by 3.2Moz 6E.

Total Mimosa 6E Mineral Reserves
as at 30 June 2022 (variance Moz 6E)



Processing

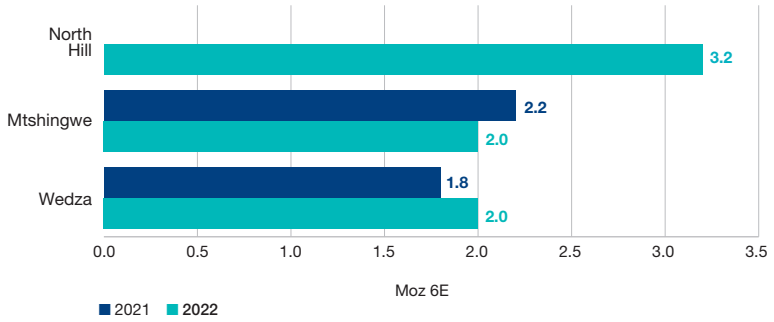
Mimosa has a concentrator plant on-site where initial processing is undertaken to produce a concentrate. The concentrate is transported by road to Impala Mineral Processes in Rustenburg in compliance with an off-take agreement with IRS. An alternative option for local beneficiation is being investigated.

LoM, valuation and sensitivity

LoM I comprises the extraction from the orebody's Mineral Reserves at South Hill and the newly approved capital project, North Hill. The economic valuation of the LoM in this reporting cycle did not result in any tail-cut. The three mining areas at South Hill comprise Wedza, Wedza West and Mtshingwe. Work will continue to assess various options to optimise extraction from different ore sources of the remaining Mineral Resources of Mimosa.

The economic viability of the Mimosa Mineral Reserves is tested by Implats using net present value calculations over the LoM of the Mineral Reserve, determining the lowest real rand basket price that would still render the Mineral Reserve viable. These calculations generate basket prices based on the local PGM metal ratios and differ from the overall Group basket prices. This is then tested against the internal Mimosa estimate of the real long-term basket price and the spot price as at 30 June 2022. These tests by Implats indicate that the Mimosa operation requires a real long-term basket price of between R16 000 and R18 000 per 6E ounce to be economically viable. In comparison, the real spot basket price for Mimosa as at 30 June 2022 was R36 682 (US$2 224) per 6E ounce, the Mimosa internal long-term real basket price is R24 081 (US$1 743) per 6E ounce. The commodity market remains fluid. Statistics relating to the historical production are shown on pages 28 and 29.

Mimosa Mineral Reserves distribution
as at 30 June 2022 (Moz 6E)

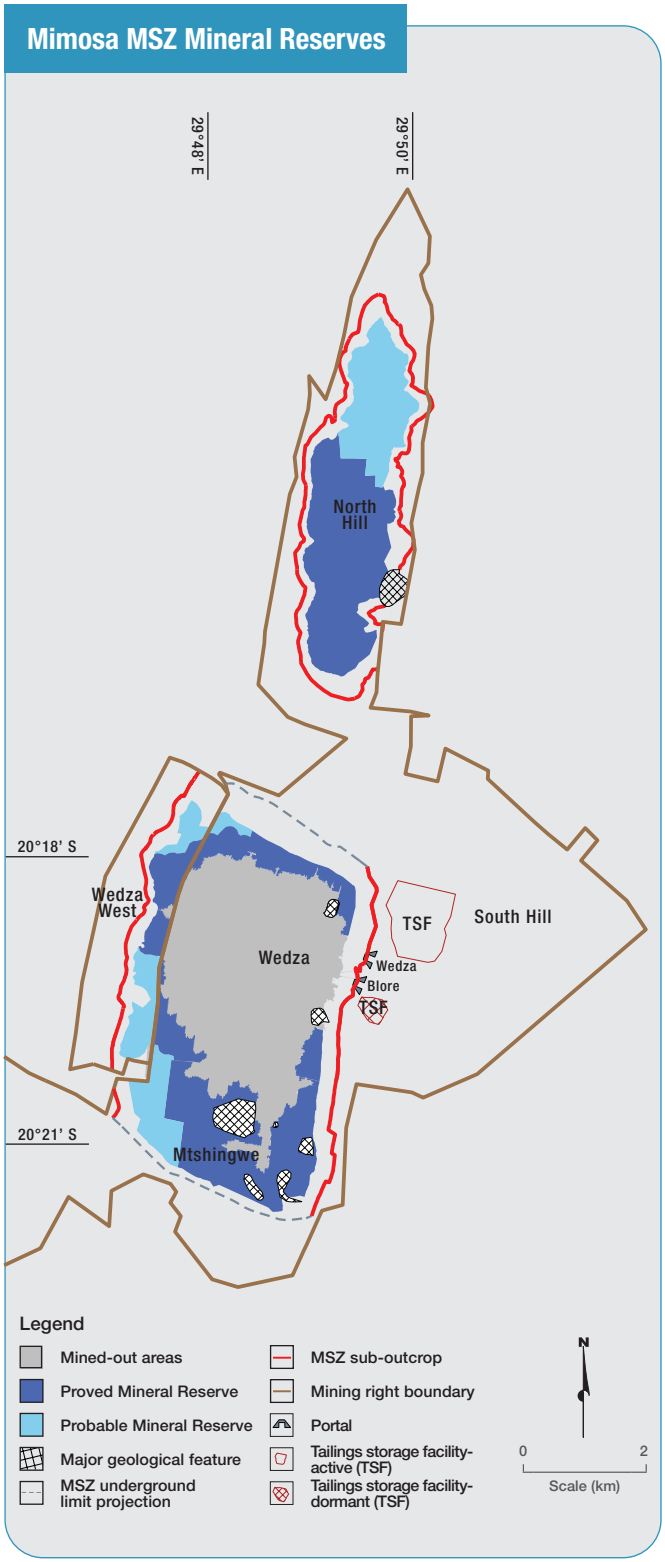


* *Wedza Mineral Reserves includes Wedza West.*

Mimosa estimated 20-year 6E LoM ounce profile
as at 30 June 2022

Mimosa (continued)

Mimosa MSZ Mineral Reserves



Aerial view of the stockpile at Mimosa Mine

Impala Canada

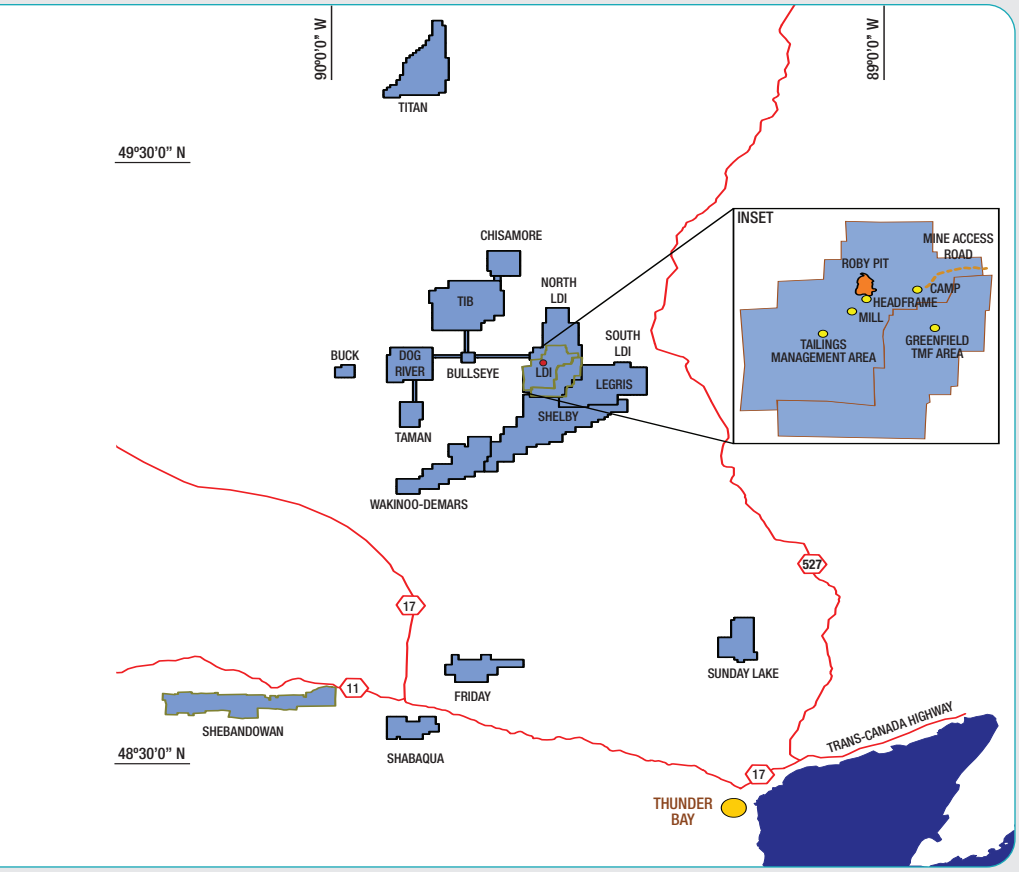
Canada

Impala Canada owns and operates the Lac des Iles Mine, has a shareholding in two exploration properties, operates a corporate office in Toronto, Ontario, and an exploration and finance office in Thunder Bay, Ontario.

Mining right
78 234ha

Implats' interest
100%
managed

Regional locality map



Location

Lac des Iles is located 106km northwest of the city of Thunder Bay in Northwestern Ontario. The mine properties comprise approximately 78 234ha of mining leases and mining claims in total.

Brief history

Geological investigations began with reconnaissance mapping in the early 1930s and again in the late 1960s, sparked by discovering aeromagnetic anomalies in the late 1950s. Various exploration programmes were undertaken over the next 25 years by several companies. In 1993 the property became North American Palladium Limited and open-pit production commenced. Mining initially concentrated on the Roby Zone by open-pit methods. In 2006, underground mining started via ramp access. In 2010, a significant mine expansion began, including shaft sinking and extension of the ramp system to access the Offset Zone for underground mining. From 2016 to 2017, a transition from a longhole stoping to a sub-level shrinkage (SLS) mining method commenced in the main Offset Zone.

Impala Canada (continued)

Impala Platinum Holdings Limited acquired North American Palladium Limited in 2019 to form Impala Canada Limited (Impala Canada), a wholly owned subsidiary of Implats.

Geological setting

The Lac des Iles Mine property captures the known extents of two discrete intrusive complexes, including the South Lac des Iles Intrusive Complex (IC) comprising the former Mine block, South Lac des Iles and Camp Lake intrusions, and the North Lac des Iles Intrusive Complex (IC).

Intrusive contacts between the two complexes suggest that the southern part of the North Lac des Iles IC was younger than the northern margin of the South Lac des Iles IC.

The North Lac des Iles IC consists of layered ultramafic rocks distributed within two types of cyclic units, including an orthopyroxene-bearing cyclic unit and an orthopyroxene-free cyclic unit. Historical surface prospecting, mapping, limited trenching and diamond drilling have identified several areas in the North Lac des Iles IC hosting PGE occurrences exceeding 1.0g/t of combined Pd+Pt+Au. These PGM occurrences are interpreted to represent stratiform or reef-type magmatic PGM mineralisation.

The South Lac des Iles IC was emplaced into predominantly intermediate composition orthogneiss basement rocks. Four major intrusive sequences (series) are recognised in the complex. Mapping and drilling have shown that the central-east part of the South Lac des Iles IC is an upright, homoclinal sequence (south-facing igneous stratigraphy) with a general north-easterly strike direction and steep southerly dips. In contrast, the major units in the western end of the complex that host most of the palladium mineralisation on the property display a general northerly strike direction and steep easterly to vertical dips. Both domains are believed to reflect the influence of pre-Lac des Iles structures on magma emplacement. The Shelby Lake structure is visible as a linear, positive magnetic anomaly to the south of the property. It is visible in the Roby pit and underground workings as an intensely recrystallised schistose melanorite unit that hosts the most mined-out and remaining higher-grade palladium Mineral Resources at Lac des Iles.

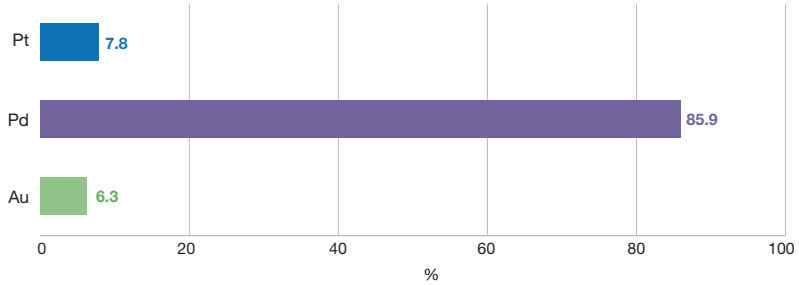
A second important pre-intrusion feeder structure to the South Lac des Iles IC has recently been inferred from geological and geophysical data, drillhole logging, lineament analysis, and metal grade trends. It is referred to as the Roby Central Fault and has an east-northeast strike, moderate to steep south dip and bisects the northeastern part of the complex. The intersection of these two structures corresponds to the thicker, central parts of the Roby and Offset Zones.

Mineral Resources on the property are classified as palladium-rich (disseminated) magmatic sulphide deposits located in the northwestern part of the noritic South Lac des Iles IC. The South Lac des Iles IC is one of several 2.68 billion-year-old mafic-ultramafic intrusions in the region, most of which are covered by mineral claims held by Impala Canada. In contrast to most of the Bushveld Complex PGE deposits, the Lac des Iles orebodies show extreme palladium enrichment over platinum and appear to have formed within or directly adjacent to feeder structures, resulting in near-vertical orientations and true widths locally exceeding 100m.

The two principal ore zones at Lac des Iles are the Roby Zone and the Offset Zone, separated by the Offset Fault. Previous surface mining included production from the Roby and Twilight Zones from the now-dormant Roby open pit. In late 2017, ongoing open-pit mining recommenced at surface in the area around the Twilight Zone. Underground mining, which commenced in 2006, initially focused on the central portions of the Roby Zone beneath the Roby pit and began transitioning to the deeper Offset Zone Mineral Resources starting in 2010. A third ore zone, the Camp Lake Zone, was recognised from deep drilling of the lower part of the Offset Zone. This Camp Lake Zone is separated from the Offset Zone by the east-northeast striking and northwest dipping Camp Lake Fault and is actively being exploratory drilled.

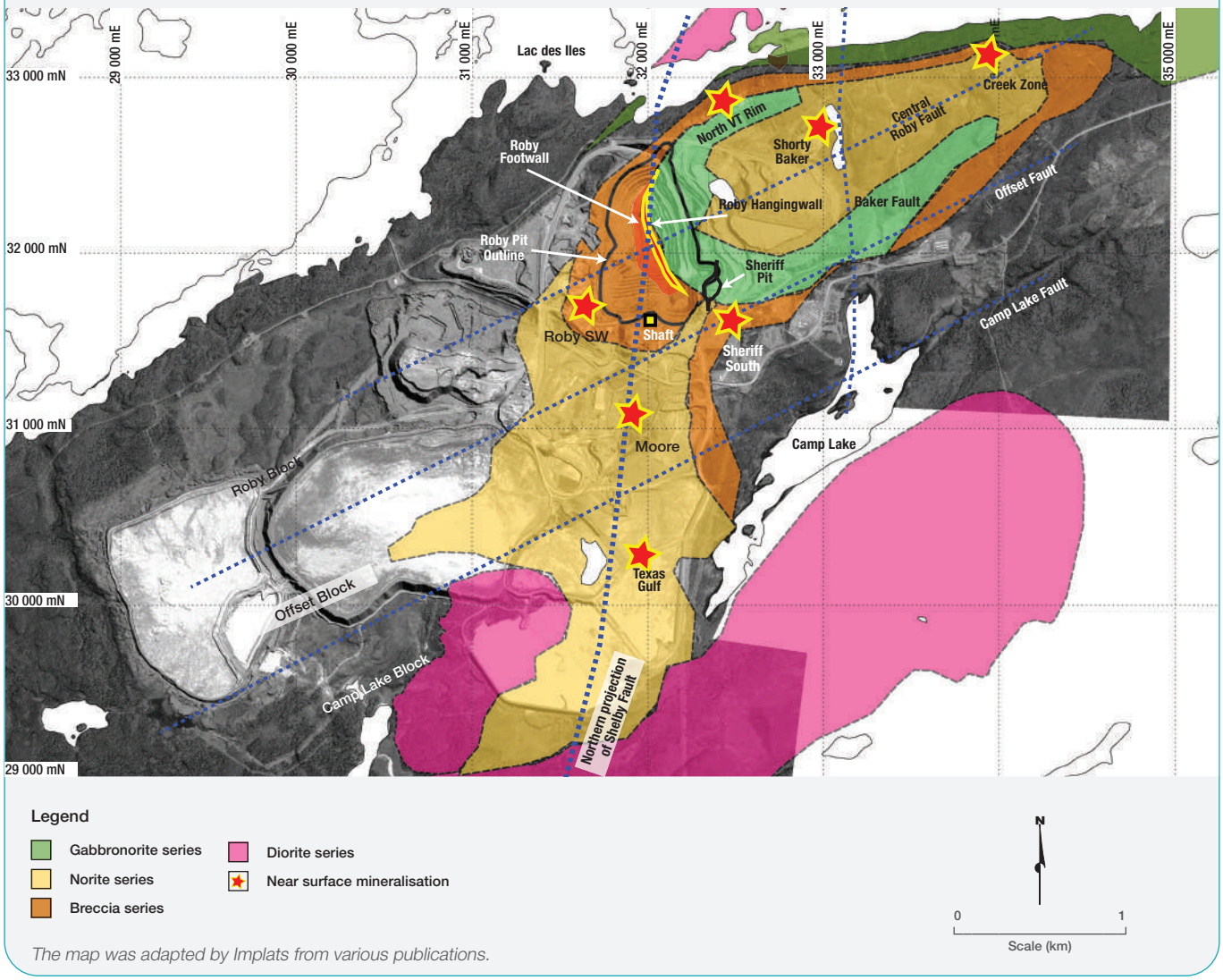
The average ratio of Pt:Pd:Au, based on the combined 2022 Mineral Reserve estimate, is shown below. The dominance of palladium is clearly illustrated as this represents some 85.9% of the combined average PGE grade. Historic internal reviews and academic studies show that the other PGE grades are negligible compared to Pd, Pt and Au.

Impala Canada 3E ratio
as at 30 June 2022 (%)



3E ratios derived from the Mineral Reserve estimate.

Simplified geology and PGE-Cu-Ni Sulphide mineralisation of the South Lac des Iles IC



The map was adapted by Implats from various publications.

Exploration and studies

Exploration activities at Impala Canada focus on near-mine targets and key regional properties located within 50km of the Lac des Iles Mill. The near-mine exploration continues to be the Company's primary vehicle to expand its Mineral Resources and extend the life of Lac des Iles. In addition, work was also conducted on exploring the greenfields properties to identify and evaluate the growth potential.

Impala Canada's exploration effort for the past year remained focused on supporting the conversion of Mineral Resources to extend the life-of-mine (LoM). In addition, increased efforts to explore the deeper-seated Camp Lake Zone along with the other brownfield targets were conducted to discover areas that could generate additional LoM value.

The past year focused on underground drilling on the conversion of Offset and C-Zone Mineral Resources (14 175m), the delineation of C-Zone and Roby Mineral Resources (14 261m) and exploratory drilling (16 585m), including testing the Camp Lake Target (9 768m). Exploratory drilling of the Camp Lake target has continued to be encouraging with recent significant intersections.

The business plan for the forthcoming year has scheduled a programme to enhance the LoM with a target gain of 50 000oz Pd in Measured and Indicated Mineral Resources and 280 000oz Pd in Inferred Mineral Resources. Some 1 550m is planned for conversion drilling within the Offset Zone, and an additional 17 067m is being allocated to delineate further C-Zone and Roby Zone Mineral Resources. Approximately 25 550m of exploratory drilling is planned for the Camp Lake target. The total exploration programme for the forthcoming year is estimated at C$14.9 million.

Impala Canada (continued)

The exploration expenditure for the past year is illustrated below.

Exploration drilling and surveys 2022

Location	Total (number)	Length (m)	Amount C$m
Underground Lac des Iles	86	45 021	12.5
Surface Lac des Iles	0	0	0.1
Total	86	45 021	12.6

Exploration drilling 2021

Location	Total (number)	Length (m)	Amount C$m
Underground Lac des Iles	167	56 244	10.8
Surface Lac des Iles	0	0	0
Total	167	56 244	10.8

General infrastructure

The Lac des Iles Mine has been in operation for several years and has a well-established permanent infrastructure. Due to its distance from the nearest city, Thunder Bay, Ontario, the mine is operated on a 'remote mine' basis in which most employees work a '14 day in/14 day out' rotation.

Site infrastructure includes:

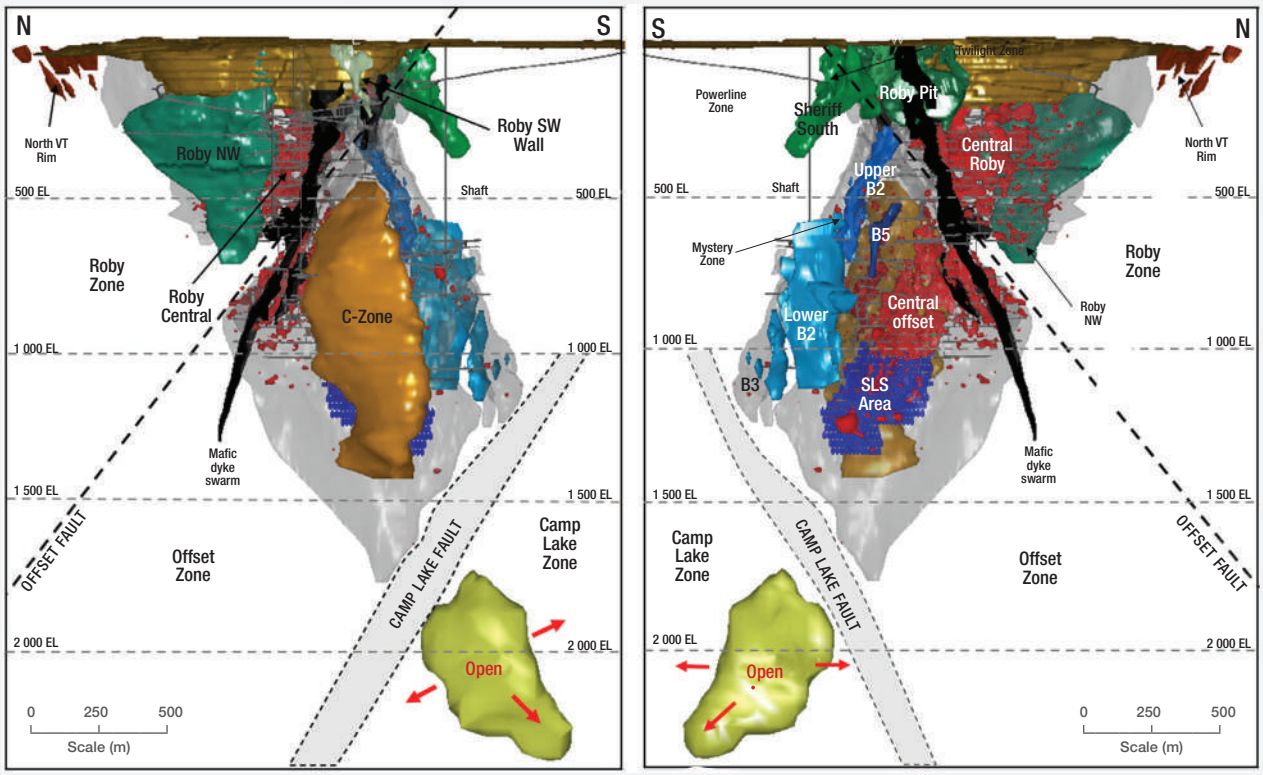
- 15km gravel access road
- Main camp accommodation
- A separate construction camp
- A potable water treatment plant
- An exploration office
- Core storage area and core-shack
- Open-pit maintenance facility and warehouse
- A fuel farm
- No 1 Shaft, headframe, hoist house, two workshops and compressor building
- Intake and exhaust fans
- Administration and mine dry buildings
- The concentrator and mill complex
- An assay lab
- The tailings management facility.

The site has an electrical power capacity of 47MW supplied by Hydro One via a 115kV line.

Mineral Resource estimation and classification

Mineral Resource estimates are reported for five metals at Lac des Iles – palladium, platinum, gold, copper and nickel. Base metal assays are based on four-acid digestion using perchloric, nitric, hydrofluoric and hydrochloric acids. This procedure results in near-total digestion. The grades are estimated from block

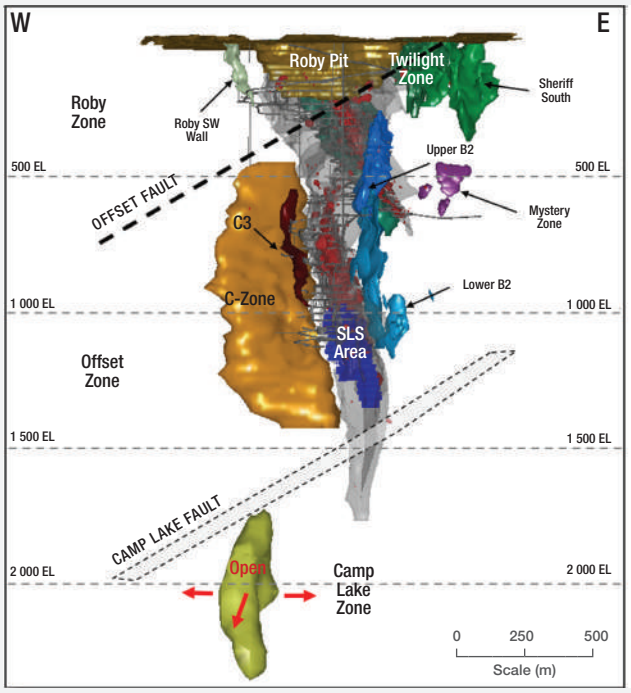
East-looking and west-looking (inverted) cross sections of Lac des Iles orebodies



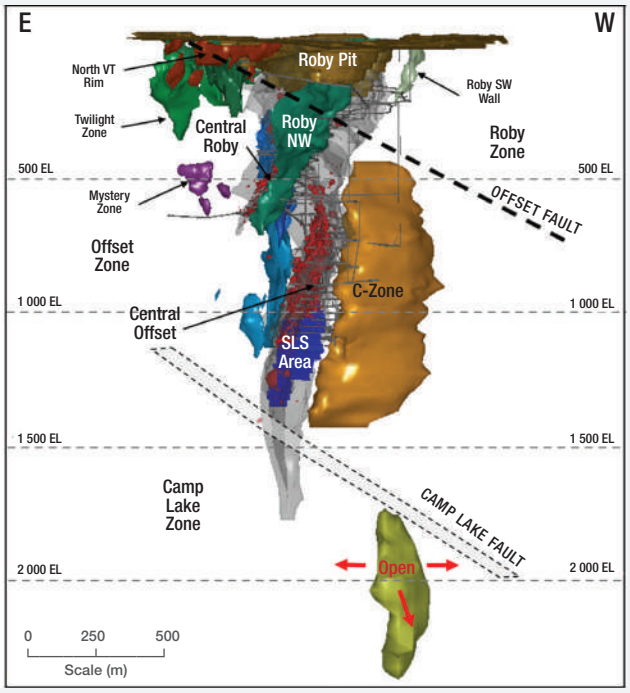
Longitudinal projection looking east

Longitudinal projection looking west

North-looking and south-looking (inverted) cross sections of Lac des Iles orebodies



Cross section projection looking north



Cross section projection looking south

models interpolated utilising a combination of ordinary kriging and inverse distance squared estimation methods where domains have inadequate data density or inconclusive variography. Dynamic anisotropy has been applied in some domains to better control the search ellipse orientation based on the domain geometry. Data included in the block model-based estimation of Mineral Resources has been restricted to only diamond drilling data that meets the guidelines of the SAMREC Code (2016). However, boundaries of mineralisation domains have been created in consideration of the definition diamond drilling data, underground chip, and pit blast hole sample data.

The selection of Mineral Resources was attained through a combination of engineering design shapes and using Datamine RM Studio's 'Mineable Reserve Optimizer®' to identify areas with sufficient grade and tonnage for potential mining. Cut-off grades are based on palladium only and were determined on the mining method likely to be used. Offset SLS and Roby SLC cut-off grades are set at 1.6g/t Pd and 1.0g/t Pd, respectively. Stoping cut-off grades vary depending on proximity to infrastructure and depth from surface (1.0g/t Pd to 2.1g/t Pd). The evaluation is undertaken to ensure reasonable prospects for eventual economic extraction (RPEEE) of the estimated Mineral Resource.

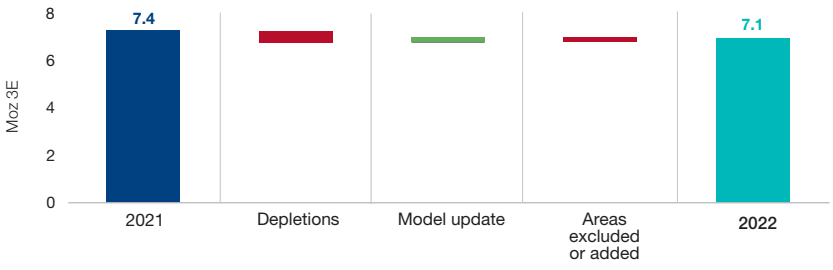
Near-surface Mineral Resources were identified using optimised pit shells. A cut-off grade of 0.68g/t Pd was used to report the Mineral Resources inside the Deswik shells.

The classification of Mineral Resources is tied directly to the estimation search ellipse and strategy for each domain and is based on the continuity of mineralisation and data density. In some domains where interpretation of the geology is still in the early stages, classifications have been post-processed and downgraded, awaiting further information.

Mineral Resource reconciliation

The combined Measured, Indicated and Inferred Inclusive Mineral Resource estimate as at 30 June 2022 is 7.09Moz 3E and 6.07Moz Pd, net of depletion.

Total Lac des Iles 3E Mineral Resources
as at 30 June 2022 (variance Moz 3E)



Impala Canada (continued)

Impala Canada Mineral Resource estimate (inclusive reporting)

As at 30 June 2022

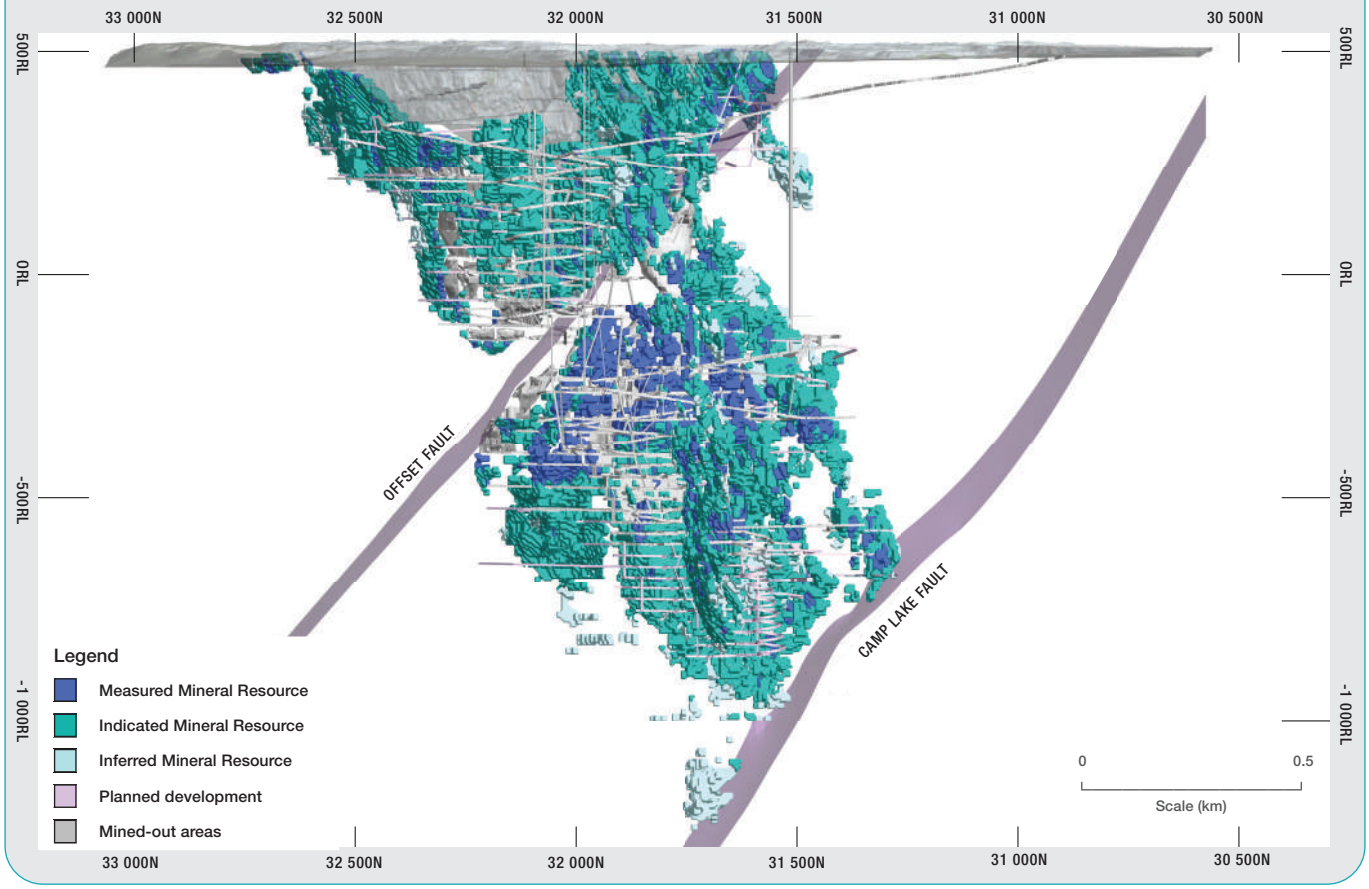
Orebody		Surface Pit				Roby Underground				Offset Underground				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	1.6	5.4	0.2	**7.1**	5.8	25.9	1.7	**33.3**	10.5	34.4	5.8	**50.7**	**91.2**
3E grade	g/t	1.55	1.48	1.50	**1.49**	2.29	2.00	1.68	**2.03**	2.99	2.83	2.31	**2.80**	**2.42**
Ni	%	0.06	0.05	0.05	**0.05**	0.06	0.05	0.04	**0.05**	0.09	0.09	0.06	**0.08**	**0.07**
Cu	%	0.05	0.06	0.06	**0.05**	0.05	0.05	0.04	**0.05**	0.07	0.07	0.06	**0.07**	**0.06**
3E oz	Moz	0.08	0.26	0.01	**0.34**	0.42	1.67	0.09	**2.18**	1.01	3.13	0.43	**4.57**	**7.09**
Pt oz	Moz	0.01	0.03	0.00	**0.04**	0.04	0.16	0.01	**0.20**	0.08	0.24	0.04	**0.35**	**0.59**
Pd oz	Moz	0.07	0.21	0.01	**0.29**	0.36	1.41	0.08	**1.84**	0.87	2.70	0.38	**3.94**	**6.07**

As at 30 June 2021

Orebody		Surface Pit				Roby Underground				Offset Underground				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	0.8	6.7	0.2	**7.7**	1.5	31.9	1.5	**35.0**	8.0	33.5	8.8	**50.3**	**92.9**
3E grade	g/t	1.65	1.51	1.81	**1.54**	2.27	2.07	1.80	**2.07**	3.07	2.95	2.62	**2.91**	**2.48**
Ni	%	0.06	0.05	0.04	**0.05**	0.06	0.05	0.05	**0.05**	0.09	0.09	0.07	**0.09**	**0.07**
Cu	%	0.05	0.05	0.04	**0.05**	0.05	0.05	0.05	**0.05**	0.07	0.08	0.06	**0.07**	**0.06**
3E oz	Moz	0.04	0.32	0.01	**0.38**	0.11	2.12	0.09	**2.32**	0.79	3.18	0.74	**4.71**	**7.41**
Pt oz	Moz	0.00	0.03	0.00	**0.04**	0.01	0.20	0.01	**0.22**	0.06	0.24	0.06	**0.36**	**0.62**
Pd oz	Moz	0.03	0.27	0.01	**0.32**	0.09	1.80	0.08	**1.97**	0.68	2.74	0.64	**4.06**	**6.34**

Estimated values less than 0.01 are reported as 0.00.

Lac des Iles – east-facing section illustrating Mineral Resource estimates as at 30 June 2022



Modifying factors

When determining the appropriate external dilution and mining recovery factors to apply, consideration was given to the size, sequence and whether the shape would be open or full of cave/unconsolidated backfill material during mucking operations. Consideration was also given to draw control strategy and where and how the cave material would enter into the shape from one, two or multiple directions.

Power Geotechnical Cellular Automata® (PGCA®) software was utilised to estimate the recovered and diluted material from the Offset Central (SLS) production mining and the Roby Central (SLC). Dilution for these cave mining areas was determined as part of the PGCA® flow modelling. The flow model for the Offset Central (SLS) Zone incorporates all Measured and Indicated Offset Mineral Resource blocks less depletions as well as an estimated ore blanket of rockfill and blasted pillar material. The Roby Central (SLC) Zone model incorporates all Roby Block Measured and Indicated Mineral Resources and the estimated grades and tonnes for the historically backfilled stopes less depletion of all mining before the start of sub-level caving. Any material in either of these two cave mining areas that are not rockfill from historical mining, is not part of the ore blanket or is not of the Measured or Indicated Mineral Resource category, has a default grade of zero for all metals and has a density of 2.89t/m^3.

A summary of the weighted average modifying factors for the various mining zones is shown below (see page 15 for further details).

Weighted average modifying factors by mining zone

Mining zone	Dilution factor	Recovery factor
Roby SLC	20[1]	80[1]
Roby Central OHS	31	85
Roby SW Floor	15	78
Roby S	15	85
Roby NW	15	84
Roby NE	15	85
Offset SLS	20[1]	80[1]
Offset Lower OHS	15	84
Offset Upper OHS	20	77
Offset C-Zone	15	85
Sheriff S	15	85
B2	20	90
Sheriff Pit	5	95

[1] *Offset SLS and Roby SLC recovery and dilution are estimates; particle flow modelling was used to determine recovery.*

Mining methods

Mine production at Lac des Iles occurs from three areas: Surface Pit, Roby Zone, and the Offset Zone. These areas are broken down further by mining method, mineralisation zone and/or spatial location.

Most of the Roby Zone's planned production involves sub-level caving (SLC) targeting ore below and southwest of the current dormant pit. Production from these near-surface zones will involve a gradual ramping up of the caving operations culminating in steady-state production in 2024. Ore tonnes from the Roby Zone are transported via haul truck through a ramp to the south portal.

Production from the Offset Zone includes production by the open hole stoping (OHS) and sub-level shrinkage (SLS) methods. The SLS production represents the bulk of the Offset Zone production. Production from each of the lower mine zones will remain relatively constant over the LoM. With the exception of the near-surface Sheriff South Zone, the ore is typically hoisted to the surface through the shaft.

Mine planning process

Mine design and scheduling are undertaken using Deswik.CAD® and Deswik.Sched® software with all geological Mineral Resource block models generated using Datamine software. The planning sequence allows for a cycle that starts with a comprehensive review of the LoM mine plan followed by the detailed scheduling of a five-year development schedule and a two-year detailed month-by-month stoping schedule.

Mineral Reserve estimation and classification

The updated Mineral Reserve estimates are tabulated on the following page and reflect the total Mineral Reserve estimate for Lac des Iles (Impala Canada) as at 30 June 2022. Mineral Reserve grades are quoted after applying mine to mill modifying factors. Current Mineral Reserve estimates have included the latest drillhole information, assay results, revised mine design and updated modifying factors. The conversion and classification of Mineral Reserves at Lac des Iles (Impala Canada) are informed by:

- Feasible mine plan and project studies, board approval and available funding
- Economic testing at given market conditions (price deck) to ensure RPEEE
- Due to the bulk nature of the SLS and SLC mining methods, all Measured Mineral Resources included in the caving zone/footprint are classified as Probable Mineral Reserves
- No Inferred Mineral Resources are converted to the Mineral Reserve category. Due to the disseminated nature of the orebody and the mass mining methods, some incidental Inferred Mineral Resources (mineralised waste) are contained within the stope designs but are treated as waste dilution material with all metal grades set to zero. This is deemed insignificant.

Impala Canada (continued)

Impala Canada Mineral Reserve estimate

As at 30 June 2022											
Orebody		Surface Pit			Roby Underground			Offset Underground			
Category		Proved	Probable	Total	Proved	Probable	Total	Proved	Probable	Total	Total
Tonnes	Mt	0.5	1.7	**2.3**	2.6	18.2	**20.8**	1.8	15.5	**17.3**	**40.4**
3E grade	g/t	1.38	1.19	**1.23**	2.10	1.74	**1.78**	2.77	2.89	**2.88**	**2.22**
Ni	%	0.05	0.04	**0.04**	0.05	0.04	**0.04**	0.08	0.09	**0.09**	**0.06**
Cu	%	0.05	0.05	**0.05**	0.05	0.04	**0.04**	0.07	0.08	**0.08**	**0.06**
3E oz	Moz	0.02	0.07	**0.09**	0.18	1.02	**1.19**	0.16	1.44	**1.60**	**2.88**
Pt oz	Moz	0.00	0.01	**0.01**	0.02	0.09	**0.11**	0.01	0.10	**0.11**	**0.23**
Pd oz	Moz	0.02	0.06	**0.08**	0.15	0.86	**1.01**	0.14	1.25	**1.39**	**2.48**

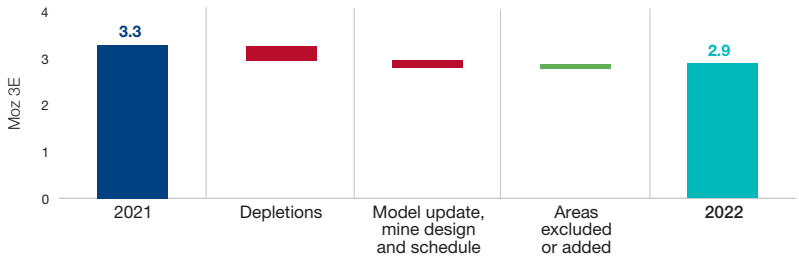
As at 30 June 2021											
Orebody		Surface Pit			Roby Underground			Offset Underground			
Category		Proved	Probable	Total	Proved	Probable	Total	Proved	Probable	Total	Total
Tonnes	Mt	0.1	1.0	**1.1**	0.5	22.3	**22.8**	1.3	19.3	**20.7**	**44.6**
3E grade	g/t	1.88	1.33	**1.36**	2.27	1.82	**1.83**	2.69	2.85	**2.84**	**2.29**
Ni	%	0.05	0.04	**0.04**	0.05	0.05	**0.05**	0.08	0.09	**0.09**	**0.06**
Cu	%	0.04	0.05	**0.05**	0.04	0.05	**0.05**	0.06	0.07	**0.07**	**0.06**
3E oz	Moz	0.00	0.04	**0.05**	0.04	1.31	**1.34**	0.12	1.77	**1.89**	**3.28**
Pt oz	Moz	0.00	0.00	**0.00**	0.00	0.12	**0.12**	0.01	0.12	**0.13**	**0.26**
Pd oz	Moz	0.00	0.04	**0.04**	0.03	1.10	**1.14**	0.10	1.53	**1.63**	**2.81**

Estimated values less than 0.01 are reported as 0.00.

Mineral Reserve reconciliation

The reconciliation with the Mineral Reserve estimate as at 30 June 2022 is shown below. There has been a decrease in the 3E Mineral Reserves net of depletion. Overall reduction in Mineral Reserves was primarily driven by mining depletion which was only slightly offset this year by Mineral Resource conversion including the addition of the new mining zone, C-Zone.

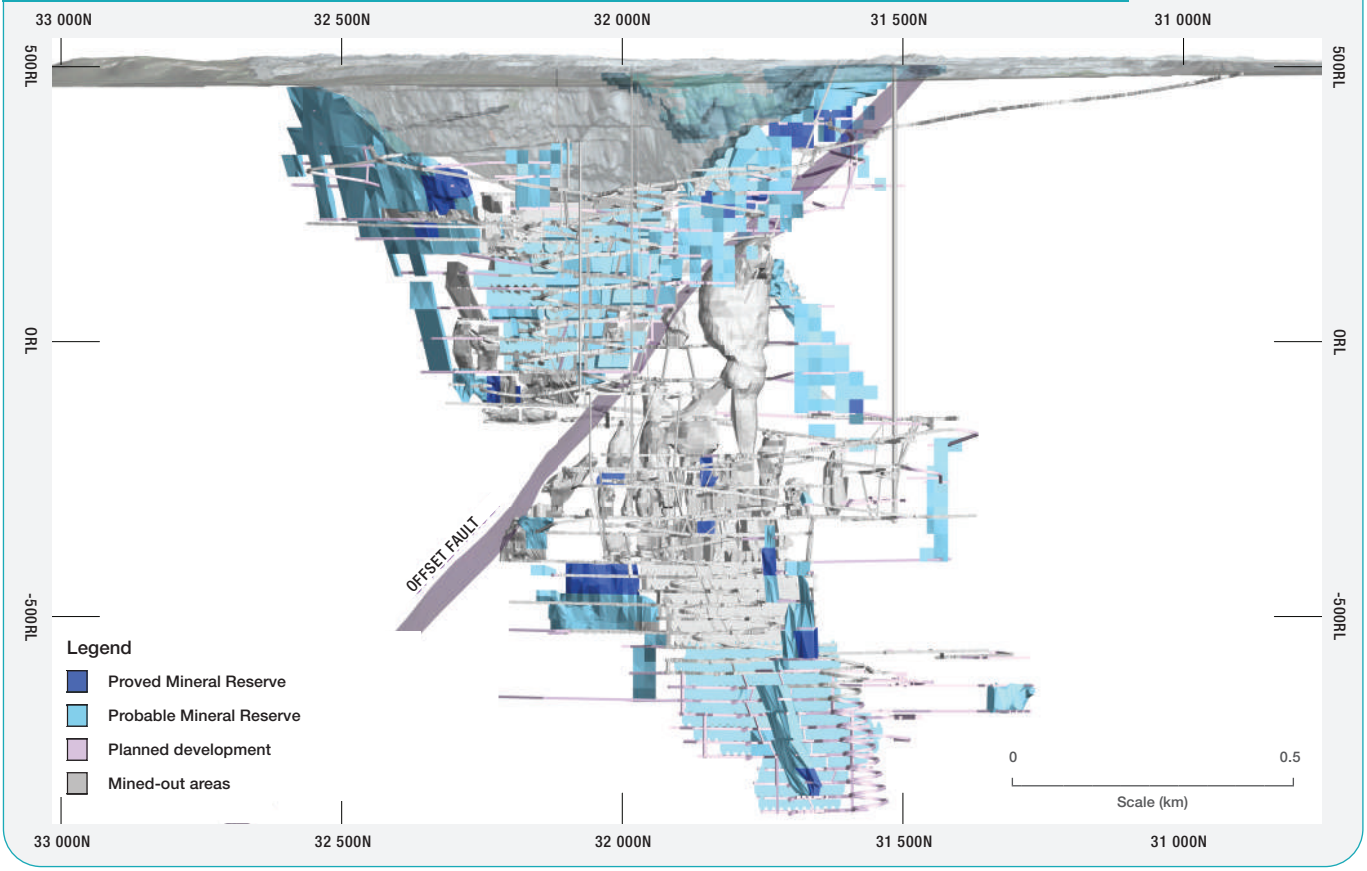
Total Lac des Iles 3E Mineral Reserves
as at 30 June 2022 (variance Moz 3E)



Processing

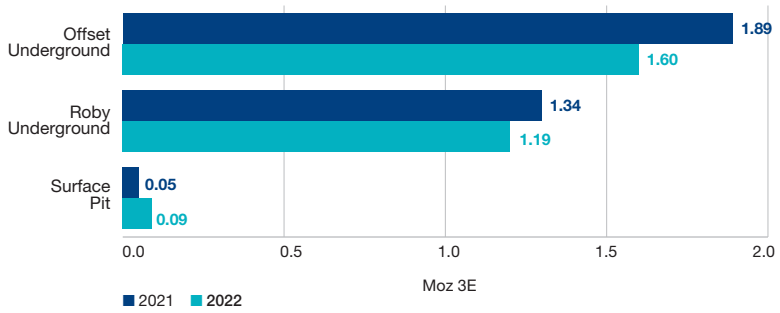
The Lac des Iles Mill has a nominal capacity of 525t per hour and an 85% utilisation to produce a capacity of 3 910 000t per year (tpa). Construction of the mill decoupling project is underway with completion in the second quarter of the forthcoming financial year. Ramp-up of the decoupling project is expected to increase nominal capacity to 600t per hour at an 87% utilisation for a design capacity of 4 579 000tpa. High-grade polymetallic sulphide concentrate is produced and shipped via trucks to its final destination. The concentrate's principal value is generated from palladium, with lesser values from platinum, gold and copper. The concentrate produced is currently sold under contract to Glencore. Nickel credits are forfeited as part of the off-take agreement with Glencore. This current off-take agreement will remain in effect

Lac des Iles – east-facing section illustrating Mineral Reserve estimates as at 30 June 2022



Lac des Iles Mineral Reserve distribution

as at 30 June 2022 (Moz 3E)



through 31 December 2023 and includes an evergreen clause to extend the contract on mutual agreement.

LoM and valuation and sensitivity

The Lac des Iles LoM I currently extends for nine years, as supported by the available geological information, Mineral Resource estimates, mine design, and schedule. Work continues to expand the footprint.

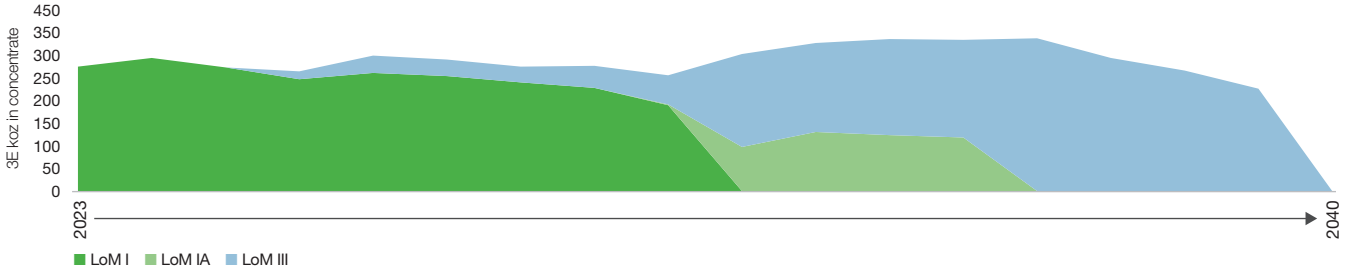
The economic viability of the Lac des Iles Mineral Reserves is tested by Implats using net present value calculations over the LoM of the Mineral Reserve, determining the lowest real rand basket price that would still render the Mineral Reserve viable.

These calculations generate basket prices based on the local PGM metal ratios and differ from the overall Group basket prices. This is then tested against the internal estimate of the real long-term basket price and the spot price as at 30 June 2022.

These tests by Implats indicate that the Lac des Iles operation requires a real long-term basket price of between R19 000 and R21 000 per 3E ounce to be economically viable. While the real spot basket price for Lac des Iles as at 30 June 2022 was R31 044 (US$1 882) per 3E ounce, the Lac des Iles internal long-term real basket price is R18 580 (US$1 345). The commodity market remains fluid. Statistics relating to the historical production are shown on pages 28 and 29.

Impala Canada (continued)

Impala Canada estimated 17-year 3E LoM ounce profile
as at 30 June 2022



Aerial view of the Lac des Iles Mine and infrastructure

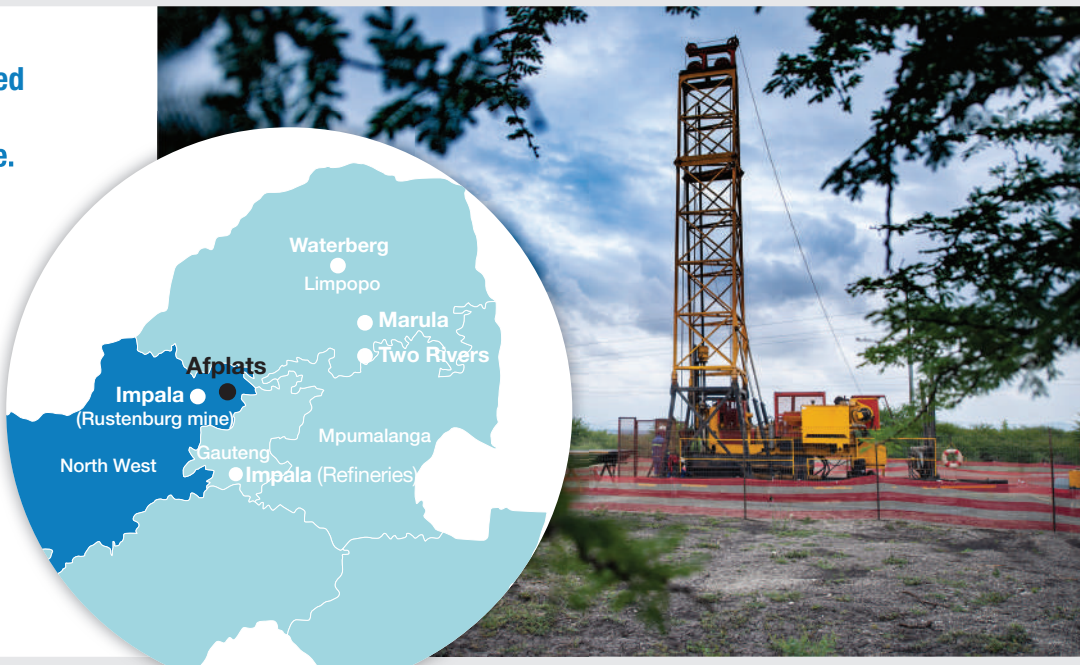
Afplats project

South Africa

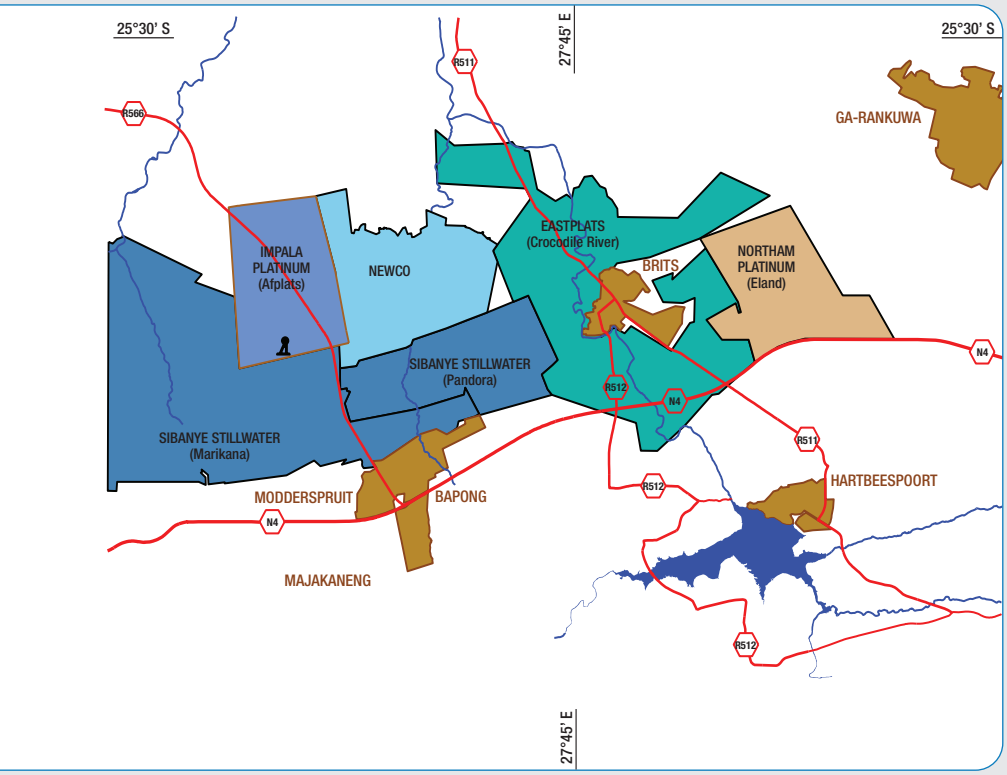
The Afplats project is situated in the Bojanala Platinum district, North West province.

Mining right
4 602ha

Implats' interest
74%
managed



Afplats regional locality map



Location

The Afplats Leeuwkop project is located approximately 23km west of the town of Brits in the North West province and some 2km due west of the R566 road to Sun City. The area is bordered to the west and south by Marikana, an operation of Sibanye Stillwater.

Brief history

The Afplats project is situated on the farm Leeuwkop 402 JQ, and is jointly owned by Implats (74%) and the Bakwena community (Ba-Mogopa Platinum Investments (Pty) Ltd, 26%). In November 2010, the respective boards approved the commencement of a feasibility study with a conventional mine design. The early work for the pre-sink of the Leeuwkop main shaft commenced on 1 April 2011. In November 2013, a decision was made to undertake another feasibility study that would convert the conventional mining layout into a bord and pillar layout. This work was completed by December 2014, when the main shaft had been sunk to 1 198m below the surface, at which depth sinking was suspended due to economic considerations negating viability at that time.

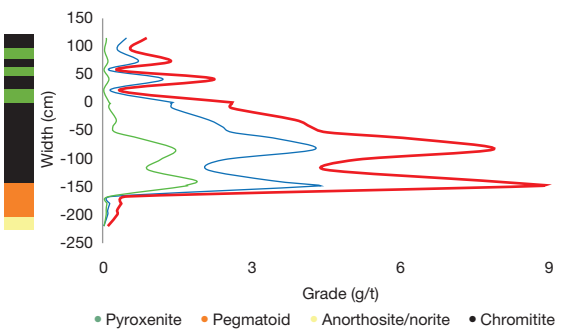
Afplats project (continued)

Geological setting

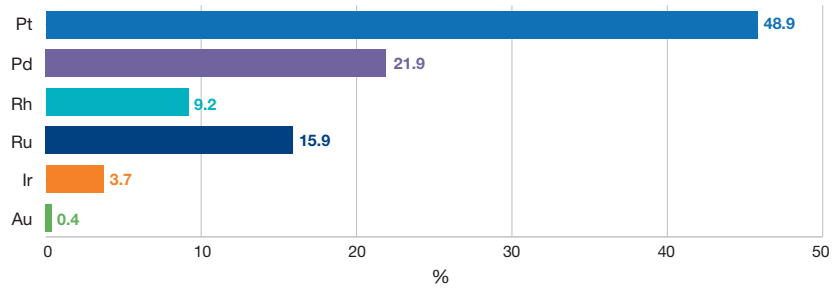
The Merensky and UG2 Reefs have been explored at Afplats, but only the UG2 Reef is considered economically exploitable. The Merensky Reef is the upper portion of the pyroxenite layer, with a very thin chromitite stringer close to the hangingwall contact.

Mineralisation peaks over the chromitite stringer and decreases into the footwall. The UG2 Reef occurs about 1 050m below the surface at the southern boundary of the Leeuwkop farm. The vertical separation between the Merensky and UG2 Reefs averages 200m, and both reefs dip northwards at 9°. The UG2 Chromitite Layer consists of two layers of chromitite, separated by thin layers of pyroxenite and is on average 1.30m thick across the Afplats area. The two UG2 Chromitite Layers were combined in the grade estimation and reported as the Mineral Resource width. The reefs are disrupted by faults, dolerite dykes, late-stage ultramafic replacement pegmatoid bodies and potholes. The global extraction rate for Afplats is estimated at 78%.

Afplats – UG2 Reef



Afplats UG2 Reef 6E ratio
as at 30 June 2022 (%)



UG2 Reef 6E ratios derived from the Mineral Resource estimate.

Exploration and studies

No exploration was undertaken during the past year. A pre-feasibility study was initiated during the past year.

General infrastructure

Afplats' Leeuwkop Shaft is accessed by an existing tarred road from the existent provincial road R556. The current infrastructure includes the shaft sinking headgear and winder houses, electricity supply by Eskom through the Big Horn sub-station, potable water supply from the Madibeng Municipality, offices and change houses for the sinking contractor and Afplats employees. The exploration core yard used by Afplats is also situated here. All infrastructure is in a secured fenced off area. The surface infrastructure has suffered significant vandalism in recent times, resulting in salvaged core being moved to Impala Rustenburg for safe-keeping.

Mineral Resource estimation, classification and reconciliation

No data was added to the Mineral Resource estimation. The following notes should be read in conjunction with the Mineral Resource table:

- The statement below reflects the total estimate for Afplats
- The Mineral Resource estimate is based on the UG2 Chromitite Layer width, and this exceeds a practical minimum mining width
- The estimate has been conducted using the Isatis™ software
- The Mineral Resource estimate for Afplats as at 30 June 2022 reduced by 5.4Moz 6E compared with the previous estimate due to expired prospecting rights.

The Mineral Resource classification is based on a Group standard practice (see page 14). The drillhole spacing has the largest effective weighting at Afplats.

Afplats project (continued)

Afplats Mineral Resource estimate (inclusive reporting)

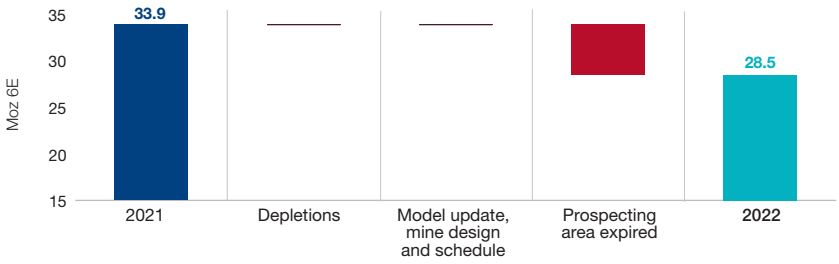
As at 30 June 2022					
Orebody		UG2 Reef			
Category		Measured	Indicated	Inferred	Total
Tonnes	Mt	79.5	9.2	47.7	**136.5**
Width	cm	134	135	129	**–**
4E grade	g/t	5.29	5.22	5.15	**5.24**
6E grade	g/t	6.58	6.48	6.35	**6.49**
Ni	%	0.03	0.04	0.03	**0.03**
Cu	%	0.01	0.01	0.01	**0.01**
4E oz	Moz	13.5	1.5	7.9	**23.0**
6E oz	Moz	16.8	1.9	9.7	**28.5**
Pt oz	Moz	8.2	0.9	4.8	**13.9**
Pd oz	Moz	3.7	0.4	2.1	**6.2**

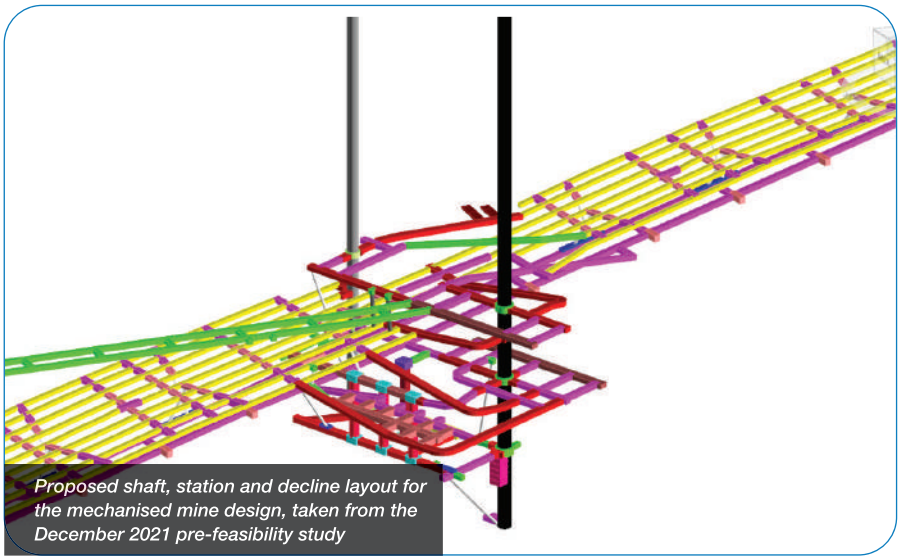
As at 30 June 2021					
Orebody		UG2 Reef			
Category		Measured	Indicated	Inferred	Total
Tonnes	Mt	98.4	10.8	55.9	**165.1**
Width	cm	133	136	129	**–**
4E grade	g/t	5.19	5.11	5.06	**5.14**
6E grade	g/t	6.46	6.36	6.25	**6.38**
Ni	%	0.03	0.03	0.03	**0.03**
Cu	%	0.01	0.01	0.01	**0.01**
4E oz	Moz	16.4	1.8	9.1	**27.3**
6E oz	Moz	20.4	2.2	11.2	**33.9**
Pt oz	Moz	10.0	1.1	5.5	**16.6**
Pd oz	Moz	4.5	0.5	2.5	**7.4**

Proposed mining methods and mine planning

A feasibility study was completed in 2011, based on a conventional method layout. The Implats board approved this feasibility study. In November 2013, a decision was made that another feasibility study must be undertaken that would convert the conventional mining layout into a bord and pillar layout. The mine planning was completed in a 3D spatial environment, and the shaft sinking layout was updated to suit the mining method. This work was completed in December 2014 but not approved by the Implats board. Therefore, the Mineral Resource estimate has not been converted to the Mineral Reserve category pending the full project approval and funding, in line with Implats' practice. The vertical shaft sinking project has been stopped and the Leeuwkop project has been deferred while studies continue.
By December 2014, the Main Shaft had progressed to a depth of 1 198m below surface, above the planned shaft bottom position of 1 396m below surface. The main shaft also offers flexibility to function as a ventilation shaft, should circumstances or alternative planning considerations change.

Total Afplats 6E Mineral Resources
as at 30 June 2022 (variance Moz 6E)

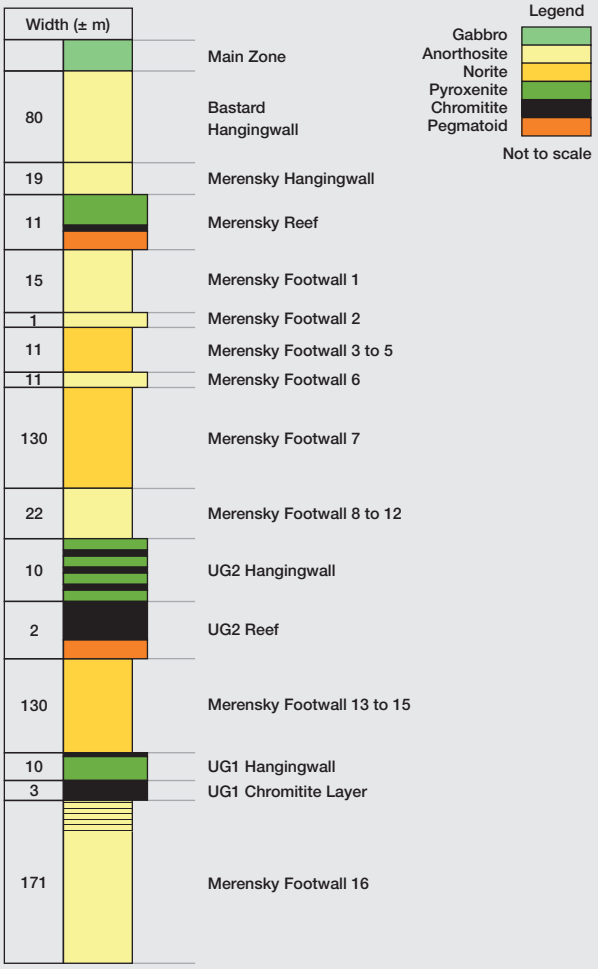




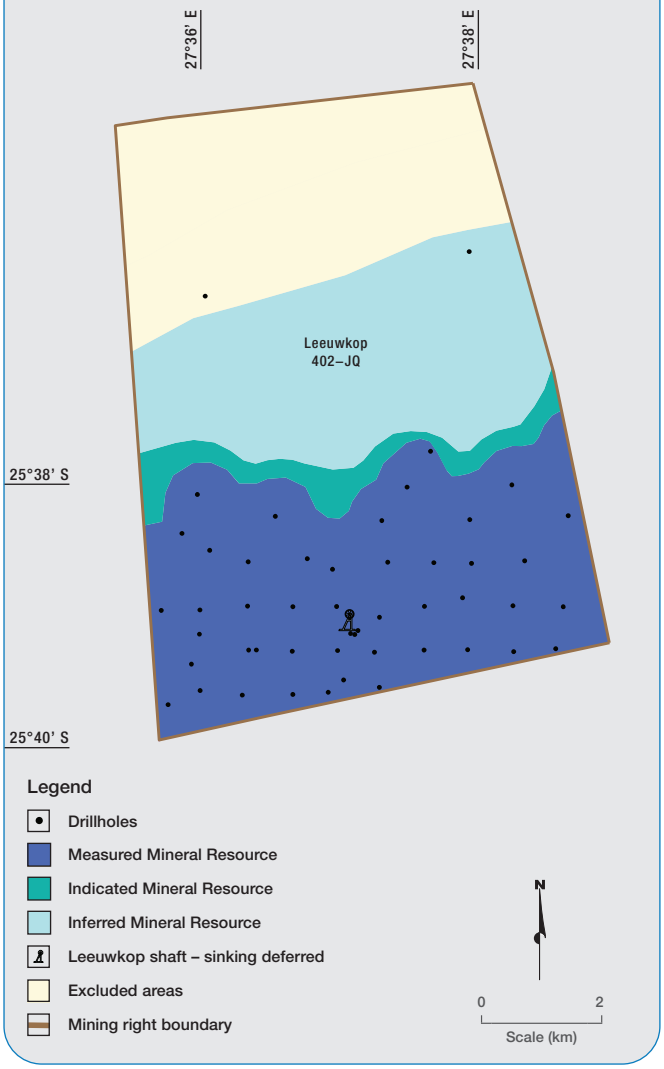
Proposed shaft, station and decline layout for the mechanised mine design, taken from the December 2021 pre-feasibility study

Afplats project (continued)

Generalised geological succession of the upper portion of the Critical Zone at Afplats



Afplats UG2 Mineral Resources



Waterberg project

South Africa

A sub-level highly mechanised longhole stoping (longhole) mining method with backfilling is envisaged. A combination of transverse and longitudinal longhole approaches is currently planned to extract the T-Zone and F-Zone Mineral Resources.

Mining right

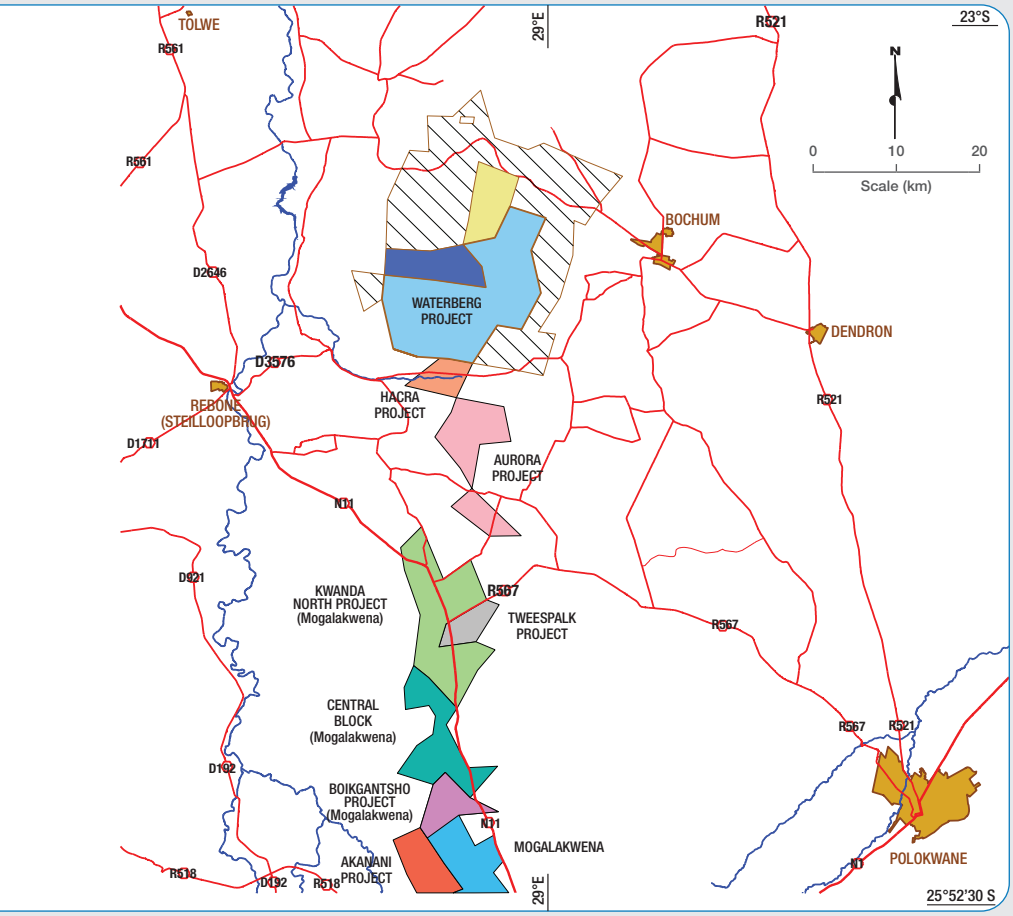
20 532ha

Implats' interest

15%

non-managed

Waterberg project regional locality map



Legend

- Town
- Mining right boundary
- Public road
- River
- Dam
- Active prospecting right
- Section 102 application (for inclusion to mining right)
- Prospecting right (under application for closure)

Location

The Waterberg project is located 85km north of the town of Mokopane in the province of Limpopo, South Africa, approximately 330km north-northeast from Johannesburg. The total project area, comprising the prospecting rights under application for closure, the active prospecting right, the mining right, and mining right application area, cover 66 003ha. The elevation ranges from approximately 880 to 1 365m above sea level.

Brief history

The Waterberg project resulted from a regional target generation initiative of Platinum Group Metals (RSA) (Pty) Ltd (PTM RSA). PTM RSA targeted this area in 2007 based on its own detailed geophysical, geochemical and geological work, off the north end of the mapped Northern Limb of the Bushveld Complex. The original prospecting area was enlarged over time, and PTM RSA entered into agreements with the Japan Oil, Gas and Metals National Corporation (JOGMEC) and the BEE entity, Mnombo Wethu Consultants (Pty) Ltd (Mnombo).

On 16 October 2017, definitive agreements were signed with Impala Platinum Holdings Limited (Implats) in terms of which Implats purchased 15% of Waterberg JV shares from PTM RSA (8.6%) and JOGMEC (6.4%).

Waterberg project (continued)

Implats also acquired a purchase and development option to increase its stake in Waterberg JV to 50.01% through additional share purchases and earn-in arrangements. The agreement included a right of first refusal to smelt and refine Waterberg project concentrate. Current ownership of the Waterberg project is held by Implats (15%), JOGMEC (12.195%), Hanwa (9.755%) and PTM (50.02%, inclusive of the interest held in Mnombo) and the remainder by Mnombo.

Since the initial prospecting rights were acquired, significant exploration activities were undertaken by PTM RSA. These were supplemented by various Mineral Resource estimates as published by PTM RSA and available on **(www.sedar.com)**. A Definitive Feasibility Study (DFS) was completed in October 2019.

In June 2020 Implats decided not to exercise the option to increase its shareholding from 15% to 50.01% based on the prevailing economic, balance sheet and funding considerations. At the same time, Implats confirmed their support for the project. With a 15% equity stake in the project, this represents a non-managed project within the Implats portfolio.

Geological setting

The Waterberg project is situated off the northern end of the Northern Limb of the Bushveld Complex. The Bushveld Complex in the Waterberg project area has intruded across a pre-existing craton scale lithological and structural boundary between two geological zones. The known Northern Limb has a north-south orientation to the edge contact that makes an abrupt strike change to the northeast, coincident with the projection of the east-west trending Hout River Shear system. This major shear marks the southern boundary of the South Marginal Zone (SMZ). The footwall to the Bushveld on the Waterberg project is interpreted to comprise facies of the SMZ.

The geology consists predominantly of the Bushveld Main Zone gabbros, gabbronorites, norites, pyroxenites and anorthositic rock types with more mafic rock material such as harzburgite and troctolites that partially grade into dunites towards the base of the package. The Bushveld succession strikes southwest to northeast with a general dip of 34º to 38º towards the west as observed from the drillhole core. The Bushveld Upper Zone is overlain by a 120m to 760m thick Waterberg Group, a sedimentary package predominantly comprised sandstones, and within the project area where sedimentary formations known as the Setlaole and Makgabeng Formations constitute the Waterberg Group. The Waterberg package is flat-lying with dip angles ranging from 2º to 5º towards the west.

PGM mineralisation within the Bushveld package underlying the Waterberg project is hosted in two main layers: the T-Zone and the F-Zone. The T-Zone occurs within the Main Zone just beneath the contact of the overlaying Upper Zone. Three potential economic layers were identified: TZ, T1, and T0. These are composed mainly of anorthosite, pegmatoidal gabbros, pyroxenite, troctolite, harzburgite, gabbronorite and norite. The F-Zone is hosted in a cyclic unit of olivine-rich lithologies near the base of the Main Zone towards the bottom of the Bushveld Complex. This zone consists of alternating units of harzburgite, troctolite and pyroxenites. The 4E metal ratios differ significantly between the T- and F-Zones. Both zones show high palladium ratios. However, the T-Zone is relatively enriched in gold and copper compared to the F-Zone.

Exploration and studies

The Waterberg project is an advanced project that has undergone extensive exploration, preliminary economic evaluations, a pre-feasibility study (PFS), and resulted in the completion of a definitive feasibility study in October 2019.

The data from which the structure of the mineralised horizons was modelled and grade values estimated were derived from a total of 362 293m of diamond drilling.

The drillhole dataset consists of 441 drillholes and 583 deflections at the date of drill data cut-off (1 December 2018).

The most significant impacts from potential mining are anticipated in the eastern (plant footprint) and southeast-central areas of the proposed mining right area from an environmental and social perspective. This delineates the area where surface infrastructure is planned as this marks the shallowest access for underground mining and is topographically relatively flat. The findings of the Environmental Assessment Practitioner and specialists' assessments have shown that the Waterberg project may result in both negative and positive impacts on the environment. Adequate mitigation measures are included in the EMPr to reduce the significance of the identified adverse effects.

During the financial year, no additional exploration activities were undertaken at the Waterberg project. Early works and construction activities on-site were limited to geotechnical work on box-cut positions and decline paths.

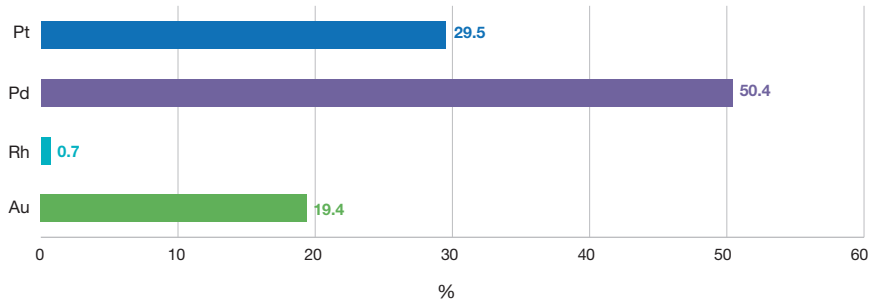
General infrastructure

The Waterberg project is located some 85km north of the town of Mokopane in Seshego and Mokerong, districts of the Limpopo province. The Waterberg project is some 56km from the N11 national road that links Mokopane with the Grobler's Bridge border post to Botswana. Current access to the project area from Mokopane and Polokwane includes approximately 34km of unpaved roads. The Waterberg project is located in a rural area with limited existing infrastructure apart from gravel roads, borehole water, and 22kV rural power distribution with limited capacity. Upgrading is planned for all existing infrastructure, including upgrading 34km of the gravel roads to the N11 national road.

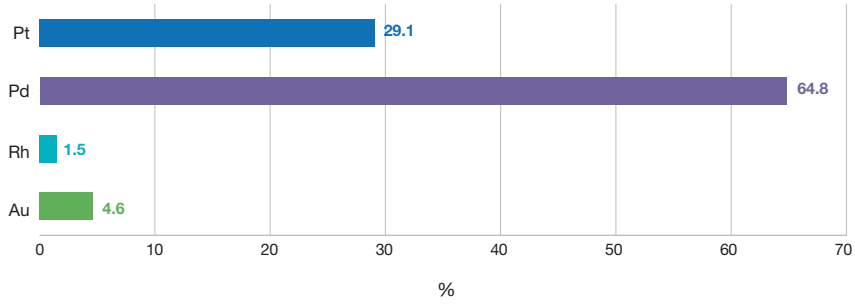
In addition to the three planned mining complexes and one processing facility, the Waterberg project infrastructure required for a successful operation would include constructing a new 132kV electrical supply from the Eskom Burotho 400/132kV main transmission station 74km south of the site. The development and equipping of a local well field spread over 20km to provide water is envisaged.

Waterberg project (continued)

Waterberg T-Zone 4E ratio
as at 30 June 2022 (%)

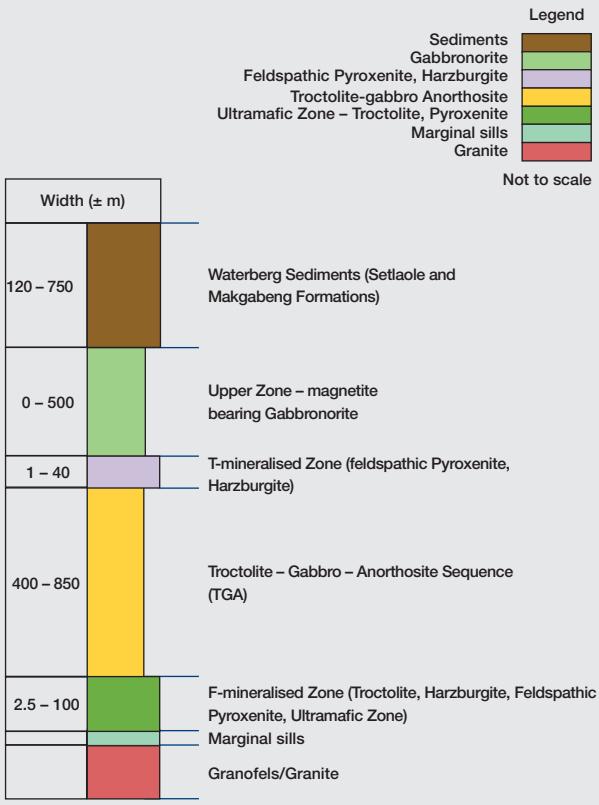


Waterberg F-Zone 4E ratio
as at 30 June 2022 (%)



T-Zone and F-Zone 4E ratios derived from the Mineral Resource estimate.

Generalised geological succession of the Bushveld Complex at the Waterberg project



Mineral Resource estimation and classification

Mineral Resources are reported inclusive of Mineral Reserves and are reflected on a 100% project basis. Mineral Resource grades are shown for 4E only, given the lack of available details about ruthenium and iridium. The nickel and copper estimates for the Waterberg project are based on the four-acid digestion method. This results in a near-total assay, while the nickel and copper reported for all the other southern African Implats operations and projects are based on a partial three-acid digestion method. Mineral Resources were estimated using ordinary kriging (OK) and simple kriging (SK) methods in Datamine Studio3. A process of geological modelling and creation of grade shells using indicating kriging (IK) was applied in the estimation process.

The cut-off grade for the T-Zone and the F-Zone considered costs, smelter discounts, concentrator recoveries from the previous and ongoing engineering work completed on the property by the Waterberg JV and its independent engineers. Two Mineral Resource estimates were compiled based on cut-off grades of 2.0 and 2.5g/t 4E, respectively. A cut-off grade of 2.5g/t 4E was used for the Mineral Resource estimate shown below.

The Mineral Resources at the Waterberg project are currently classified according to the combined criteria for sampling (QA/QC), geological confidence, number of samples in each block, semi-variogram range, kriging efficiency and regression slope.

The Mineral Resource estimate comprises 19% Measured, 60% Indicated and 21% Inferred Mineral Resources.

Modifying factors

The table below summarises the more significant modifying factors impacting on the Mineral Resource estimates (see page 15 for further details).

Mineral Resource Key assumptions	T- and F-Zones
Geological losses (in addition to known structures)	5 – 7%

Waterberg project (continued)

Waterberg Mineral Resource estimate (inclusive reporting)

As at 30 June 2022

Orebody		T-Zone				F-Zone				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	4.4	17.0	21.8	**43.3**	54.1	166.9	44.8	**265.8**	**309.1**
4E grade	g/t	4.20	4.61	3.86	**4.19**	3.36	3.24	2.98	**3.22**	**3.36**
Ni	%	0.08	0.09	0.10	**0.09**	0.20	0.19	0.17	**0.19**	**0.17**
Cu	%	0.15	0.20	0.20	**0.19**	0.09	0.09	0.06	**0.08**	**0.10**
4E oz	Moz	0.6	2.5	2.7	**5.8**	5.8	17.4	4.3	**27.5**	**33.4**
Pt oz	Moz	0.2	0.7	0.8	**1.7**	1.7	5.1	1.3	**8.0**	**9.7**
Pd oz	Moz	0.3	1.3	1.3	**2.9**	3.8	11.2	2.8	**17.8**	**20.7**

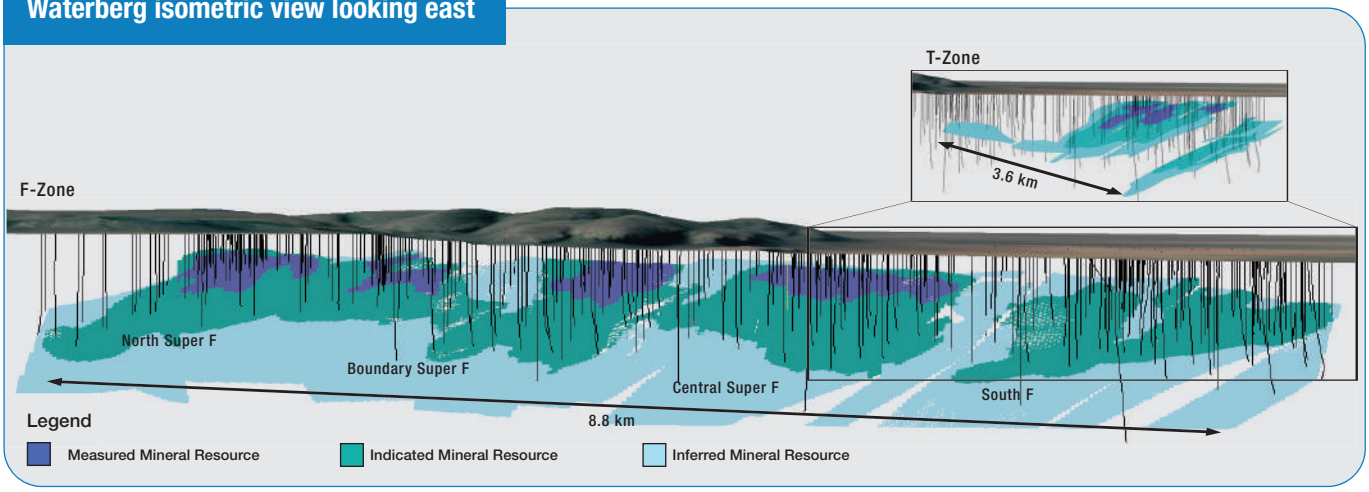
As at 30 June 2021

Orebody		T-Zone				F-Zone				
Category		Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total	Total
Tonnes	Mt	4.4	17.0	21.8	**43.3**	54.1	166.9	44.8	**265.8**	**309.1**
4E grade	g/t	4.20	4.61	3.86	**4.19**	3.36	3.24	2.98	**3.22**	**3.36**
Ni	%	0.08	0.09	0.10	**0.09**	0.20	0.19	0.17	**0.19**	**0.17**
Cu	%	0.15	0.20	0.20	**0.19**	0.09	0.09	0.06	**0.08**	**0.10**
4E oz	Moz	0.6	2.5	2.7	**5.8**	5.8	17.4	4.30	**27.5**	**33.4**
Pt oz	Moz	0.2	0.7	0.8	**1.7**	1.7	5.1	1.3	**8.0**	**9.7**
Pd oz	Moz	0.3	1.3	1.3	**2.9**	3.8	11.2	2.8	**17.8**	**20.7**

Mineral Resource reconciliation

The Mineral Resource estimate for the Waterberg project was reported as at 4 September 2019 as part of the Waterberg definitive feasibility study. This estimate remains in place and is valid as at 30 June 2022.

Waterberg isometric view looking east



Proposed mining methods and mine planning

Per the DFS completed in October 2019, the Waterberg project is planned as a 400ktpm mechanised underground mining operation accessed via declines. The DFS mine design is based on the sub-level longhole stoping (longhole) mining method and backfilling the mined voids with paste backfill. Additional mining methods could be considered in future at the Waterberg project.

A combination of transverse and longitudinal longhole approaches is currently planned to extract the Mineral Resource. Longhole stoping requires dividing the Mineral Resource targeted for production into individual stopes and establishing mining sub-levels to access the stopes and position development to facilitate drilling, blasting, and extracting the blasted material from between the sub-levels. Once mining of a stope is complete, the stope will be backfilled with paste backfill.

A transverse approach consisting of primary and secondary stopes will be applied to areas where the average true thickness (perpendicular to dip) of the Mineral Resource is 15m or greater. In the transverse approach, stopes are accessed and developed perpendicular to the strike of the orebody. A longitudinal system requiring less waste rock development will be used for areas where the true thickness is less than 15m. In the longitudinal approach, stopes are developed along (ie, parallel) the strike of the orebody.

The Waterberg project was divided into the following three mining complexes.

- The South Complex, which includes T-Zone and F-South
- The Central Complex, which includes F-Central
- The North Complex includes F-North, F-Boundary North, and F-Boundary South.

The mine plan includes a box cut and portal at each complex, each with twin declines (service decline and conveyor decline) developed to access and service the complex for the LoM.

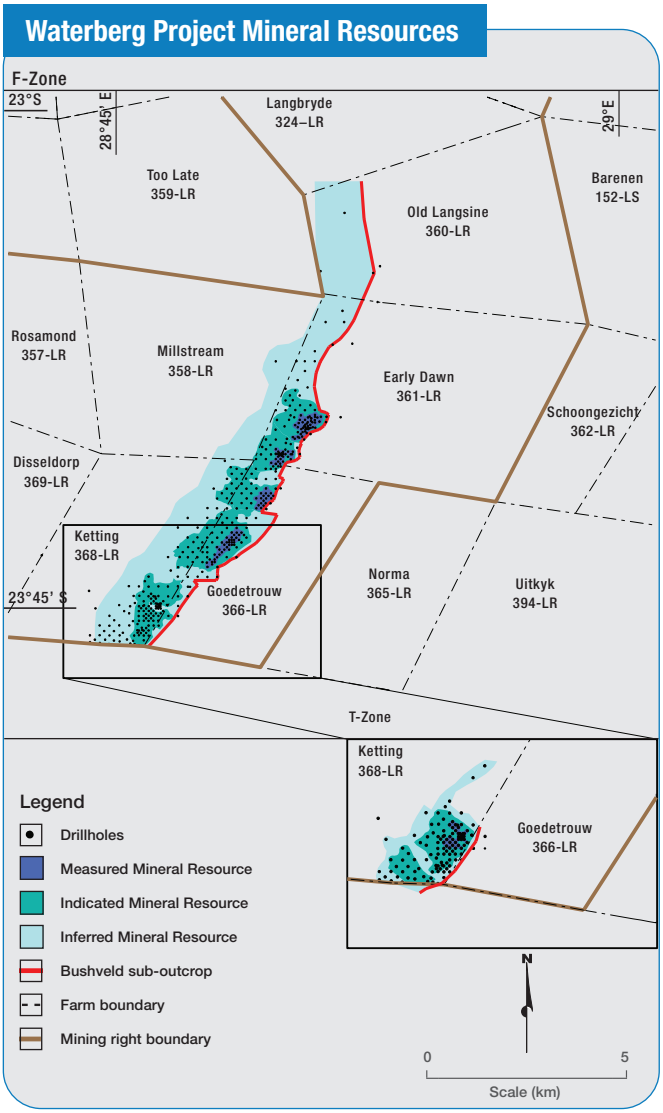
Mineral Reserve estimation, classification and reconciliation

On completion of the DFS in October 2019, a Mineral Reserve estimate for the Waterberg project was published in a NI43-101 report entitled 'Independent Technical Report, Waterberg Project Definitive Feasibility Study and Mineral Resource Update, Bushveld Complex, South Africa, effective date 4 September 2019' (**www.sedar.com**). While the Mineral Reserve estimate is in the public domain, Implats has elected not to include the estimate in this report. In essence, the internal Implats' Group-wide protocol for the estimation, classification and reporting of Mineral Resources and Mineral Reserves requires, among others, that a mining right must be in place, that the board has approved the project, and that funding is in place.

Processing

The process design for the Waterberg Concentrator Plant was developed based on the extensive metallurgical test work results and studies. The test work programme developed during the PFS and the DFS identified that the mill-float-mill-float (MF2) configuration following three-stage crushing is the most appropriate recovery technique for the PGE and the base metals for the F-Zone and the T-Zone ores. The plant design provides the controlled blending of the two ore types in the crushing circuit. The blending of the ores does not require a conceptual change to the MF2 flowsheet, but the controlled blending is considered advantageous in providing a consistent feed composition to the process. Further optimisation of the reagent addition during operation to achieve the optimal concentrate grade and recovery can be completed. The tailings will be directed to either the backfill plant for placing as cemented fill underground or to a potential tailings storage facility (TSF).

Waterberg Project Mineral Resources



Chromium ore

The world chromium ore production originates from the mineral chromite (a chromium-iron oxide) in the rock or ore called chromitite. Most of the chromium Mineral Resources of the world are to be found in the Bushveld Complex of South Africa and the Great Dyke of Zimbabwe, where it occurs as numerous thin and laterally continuous stratiform chromitite layers, interlayered with mafic and ultramafic rocks.

Up to 11 chromitite layers are known in the Great Dyke, named from the top down as Seams 1 to 11. Thirteen chromitite layers are known in the Bushveld Complex, which are further clustered into three groups, the lower, middle and upper groups of chromitite layers. Named from the bottom up, these are termed LG1 to LG7, MG1 to MG4 and the UG1 and UG2. In places, individual chromitite layers may comprise multiple layers of subsidiary chromitite units, separated by intercalated silicate units. Although some of the chromitite layers have been known since 1865, limited mining only commenced in 1916 in the Bushveld Complex and in 1919 on the Great Dyke.

The use and mining of chromium escalated after the conclusion of the Second World War, with approximately half of the total world chromium ore production mined from the Bushveld Complex.

In the Bushveld Complex, only the LG6, MG1 and UG2 chromitite layers are generally amenable to underground mining.

The uppermost chromitite layer (UG2 Reef) occurs at a depth range of 50m and 400m below the Merensky Reef and hosts economically exploitable quantities of PGMs within the chromitite. The UG2 chromitite layer is mined at Implats' Impala Rustenburg, Marula and Two Rivers operations, principally for the PGMs. Chromium can consequently be seen as a by-product of the UG2 Reef in South Africa. The LG6 and MG1, with an average Cr_2O_3 grade of between 40% and 50%, occur more than 250m below the UG2 Reef. These units can therefore not be mined from the existing infrastructure at the Implats operations and are mined by other operators close to the surface in opencast and underground mining operations for the chromium content only.

The UG2 Reef at **Impala Rustenburg** has an average *in situ* Cr_2O_3 grade of approximately 33%, and a mined grade of about 14%. The mined ore from the UG2 Reef is milled and processed to recover the PGMs at the mine's two PGM concentrator plants. The tailings from the central concentrator are pumped directly to the tailings dams, as they are predominantly Merensky Reef tailings. Some of the tailings generated by the UG2 PGM recovery plant are reprocessed at two metallurgical plants to recover the chromite. Impala Rustenburg has an offtake agreement with Merafe Resources and annually sells approximately 200kt of chromite concentrate recovered at one of the chromite recovery plants. The second chromite recovery plant, owned by Impala Chrome, is operated by Glencore Operations South Africa (Pty) Ltd.

Currently, 140kt chromite concentrate is produced per annum by Impala Chrome, and the remainder is pumped to the tailings dams. The retrieved chromite from the UG2 Reef tailings has an average Cr_2O_3 grade of approximately 40.5%. The number 3 and number 4 tailings dams at Impala Rustenburg currently contain some 510Mt of milled and processed material, with an average Cr_2O_3 grade of less than 8%.

At the **Marula Mine**, material from the UG2 Reef is milled and processed to retrieve the PGMs at the concentrator of the mine. The Makgomo chrome recovery plant subsequently reprocesses the UG2 Reef tailings generated by the concentrator to extract the chromite. The plant has been operating since 2010. The plant is operated by Chrome Traders, who also has an offtake agreement whereby all of the concentrate produced is purchased on a Free Carrier (FCA) basis. Makgomo Chrome is 50% owned by the Marula Community Chrome (Pty) Ltd, 30% by Implats and 20% by Marula Platinum Mine. In recent years some 140kt of chromium concentrate has been produced per annum, and the remainder is pumped to the tailings dams. The *in situ* grade of the UG2 chromitite layer at Marula has not been determined, but the chromite concentrate has an average Cr_2O_3 grade of approximately 41%. The tailings dam at Marula currently contains some 25Mt of milled and processed UG2 Reef material at an average Cr_2O_3 grade of roughly 12%.

At the **Two Rivers Platinum Mine**, which ARM manages, material from the UG2 Reef is milled and processed to recover the PGMs at the mine's MF2 PGM concentrator. The chromite recovery plant then reprocesses the UG2 Reef tailings generated by the concentrator to recover the chromite. The chromite recovery plant was commissioned in 2013 and is owned and operated by Two Rivers, which also has an offtake agreement with Chrome Traders whereby all of the concentrate produced is purchased on a free carrier basis from Two Rivers. Currently, some 280kt per annum of chromite is produced at a Cr_2O_3 grade of 40.1% and a silica content of less than 3.9%, with the remainder pumped to the tailings dams. The tailings dams at Two Rivers currently contain some 39Mt of milled and processed material, at an average Cr_2O_3 grade of 15%. The UG2 Reef in this area has an average *in situ* Cr_2O_3 grade of about 20.7%.

No mining has taken place at **Afplats.** The UG2 Reef in this area has an average *in situ* Cr_2O_3 grade of about 31%.

At **Zimplats,** the uppermost chromitite layer (Seam 1) occurs 220m below the MSZ and outcrops in a few places within Zimplats' mining leases (Ml36 and Ml37). Therefore, it cannot be mined from the existing infrastructure but is mined by other operators and artisanal miners close to the surface outcrop for its chromium content only. The lower seams do not outcrop within Zimplats' mining leases. This is also the case at Mimosa.

The available information is insufficient to support a comprehensive Mineral Resource or Mineral Reserve Statement for the chromium ore production by Implats.

Glossary of terms

3E (equivalent to 2PGE+Au)	Refers to the sum of platinum, palladium and gold content
4E (equivalent to 3PGE+Au)	Refers to the sum of platinum, palladium, rhodium and gold content
6E (equivalent to 5PGE+Au)	Refers to the sum of platinum, palladium, rhodium, ruthenium, iridium and gold content
A2X	A2X Markets, Stock Exchange in South Africa
AA	Atomic absorption spectroscopy
Anorthosite	Igneous rock composed almost entirely of plagioclase feldspar
ASX	Australian Securities Exchange
AusIMM	Australasian Institute of Mining and Metallurgy
BEE	Black economic empowerment
BMR	Base Metal Refinery
Bord and pillar	Underground mining method in which ore is extracted from rectangular shaped rooms, leaving parts of the ore as pillars to support the roof
Bronzitite	Igneous rock composed mainly of orthopyroxene
Ca	Centiare is a metric unit of area measurement, equal to one square metre
Chromitite	A rock composed mainly of the mineral chromite
CIMA	Chartered Institute of Management Accountants
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
DMRE	Department of Mineral Resources and Energy, Republic of South Africa
Diorite	Igneous rock composed of amphibole, plagioclase feldspar, pyroxene and small amounts of quartz
Dip	The inclination of a planar surface, measured in the vertical plane perpendicular to its strike
Dunite	Igneous rock consisting predominately of olivine
Dyke	A wall-like body of igneous rock that intruded (usually vertically) into the surrounding rock in such a way that it cuts across the stratification (layering) of this rock
ECSA	Engineering Council of South Africa
ERM	Enterprise Risk Management framework
EPO	Exclusive Prospecting Order (Zimbabwe)
ESG	Environmental, social and governance
Felsic rock	Igneous rock composed mainly of a light-coloured mineral such as feldspar (or plagioclase) and usually quartz, which is more than 60% by volume
FSAIMM	Fellow of the South African Institute of Mining and Metallurgy
FGSSA	Fellow of the Geological Society of South Africa
Gabbro	Igneous rock composed predominately of plagioclase feldspar and clinopyroxene occurring in approximately equal proportions
g/t	Metric grams per metric tonne. The unit of measurement of metal content or grade which is equivalent to parts per million
GSSA	Geological Society of South Africa
ha	Hectare is a metric unit of area measurement equal to 10 000 square metres
Harzburgite	Igneous rock composed mainly of olivine and pyroxene
ICP-MS	Inductively Coupled Plasma Mass Spectrometry
IMSSA	Institute of Mine Surveyors of Southern Africa
in situ	In its natural position or place
IRS	Impala Refining Services
ISO 31000:2018	International Organisation for Standardisation sets the international standards for risk management
ISO 14001:2015	International Organisation for Standardisation sets the international standards for environmental management
JORC Code	The Australasian Code for Reporting of Mineral Resources and Ore Reserves. This was updated and reissued as the JORC Code (2012)
JSE Limited	The South African securities exchange based in Johannesburg. Formerly the JSE Securities Exchange and prior to that the Johannesburg Stock Exchange
koz	Thousand troy ounces. All references to ounces are troy ounces with the factor being 31.10348 metric grams per ounce
Kriging	A geostatistical estimation method which determines the best unbiased linear estimates of point values or of averages
LoM	Life-of-mine
Mafic	Igneous rock composed mainly of dark ferromagnesium minerals which is less than 90% by volume
Merensky Reef	A horizon in the Critical Zone of the Bushveld Complex often containing economic grades of PGM and associated base metals. The 'Merensky Reef' as it is generally known, refers to that part of the Merensky unit, which is economically exploitable, regardless of the rock type

Glossary of terms (continued)

MGSSA	Member of the Geological Society of South Africa
Mill grade	The value, usually expressed in parts per million or gram per tonne, of the contained material delivered to the mill
Moz	Million troy ounces. All references to ounces are troy ounces with the factor being 31.10348 metric grams per ounce
MPRDA	Mineral and Petroleum Resources Development Act of South Africa
MSAIMM	Member of the South African Institute of Mining and Metallurgy
MSZ	Main Sulphide Zone is the PGM bearing horizon hosted by the Great Dyke
MSZ 'Flats'	Main Sulphide Zone at dips ranging 0º to 9º
MSZ 'Upper Ores I'	Main Sulphide Zone at dips ranging 9º to 14º
MSZ 'Upper Ores II'	Main Sulphide Zone at dips greater than 14º
Mt	Million metric tonnes
Norite	Igneous rock composed mainly of plagioclase feldspar and orthopyroxenes in approximately equal proportions
OHS	Open hole stoping mining method
Pegmatoid	Igneous rock which has the coarse crystalline texture of a Pegmatite but lacks graphic intergrowths
PEO	Professional Engineers Ontario (the licensing and regulating body for professional engineering in the province of Ontario, Canada)
PGE	Platinum Group Elements comprising the six elemental metals of the platinum group namely, platinum, palladium, rhodium, ruthenium, iridium and osmium
PGM	Platinum Group Metals being the metals derived from PGE
PGO	Professional Geoscientists Ontario
Pyroxenite	Igneous rock composed predominately of pyroxene and minor feldspar
QAQC	Quality Assurance and Quality Control
RBPlat	Royal Bafokeng Platinum
Reef	A local term for a tabular metalliferous mineral deposit
RPEEE	Reasonable Prospects for Eventual Economic Extraction applicable to Mineral Resources
RPEE	Reasonable Prospects for Economic Extraction applicable to Mineral Reserves
RPO	Recognised Professional Organisation
SACNASP	South African Council for Natural Scientific Professions
SAICA	South African Institute of Chartered Accountants
SAGC	South African Geomatics Council
SAIMM	Southern African Institute of Mining and Metallurgy
SAMESG Guideline	The South African guideline for the reporting of environmental, social and governance (ESG) parameters within the solid minerals and oil and gas industries (The SAMESG Guideline, 2017)
SAMREC	South African Mineral Resource Committee
SAMREC Code	South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves 2016 Edition
SAMVAL Code	South African Code for the Reporting of Mineral Asset Valuation 2016 Edition
Seismic surveys	A geophysical exploration method whereby rock layers can be mapped based on the time taken for wave energy reflected from these layers to return to surface
SLC	Sub-level caving mining method
SLS	Sub-level shrinkage mining method
SLP	Social and Labour Pan
SSC	SAMREC/SAMVAL Committee
Stratigraphy	Study of stratified rocks in terms of time and space
Strike	The direction of a horizontal straight line constructed on an inclined planar surface, at a direction of 90° from the true dip direction
TSF	Tailings storage facility
UG2 Reef	A distinct chromitite horizon in the Upper Critical Zone of the Bushveld Complex usually containing economic grades of PGE and limited associated base metals
Ultramafic rock	Igneous rock composed mainly of dark ferromagnesium minerals which constitutes more than 90% by volume
VRT	Virgin rock temperature
Websterite	Igneous rock composed almost entirely of clinopyroxene and orthopyroxene
WUL	Water use licence
XLP	Extra Low Profile
ZESA	Zimbabwe Electricity Supply Authority

Mineral Resource and Mineral Reserve definitions

SAMREC Code (The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves) – The Code sets out a required minimum standard for the Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves. References in the Code to Public Report or Public Reporting pertain to those reports detailing Exploration Results, Mineral Resources and Mineral Reserves and which are prepared as information for investors or potential investors and their advisers. SAMREC was established in 1998 and is modelled on the Australasian Code for reporting of Mineral Resources and Ore Reserves (JORC Code). The first version of the SAMREC Code was issued in March 2000 and adopted by the JSE in its Listings Requirements later that same year. The Code has been adopted by the SAIMM, GSSA, SACNASP, ECSA, IMSSA and SAGC, and it is binding on members of these organisations. For background information and the history of the development of the Code, please refer to the SAMREC Code, March 2000. A second edition of the SAMREC Code was issued in 2007 with an amendment being issued in 2009 and the latest edition was released in May 2016. This supersedes the previous editions of the Code.

A 'Competent Person' (CP) is a person who is registered with SACNASP, ECSA or SAGC, or is a Member or Fellow of the SAIMM, the GSSA, IMSSA or a Recognised Professional Organisation (RPO). These organisations have enforceable disciplinary processes including the powers to suspend or expel a member. A complete list of recognised organisations will be promulgated by the SAMREC/SAMVAL Committee (SSC) from time to time. The Competent Person must comply with the provisions of the relevant promulgated Acts. A Competent Person must have a minimum of five years' relevant experience in the style of mineralisation or type of deposit under consideration and in the activity which that person is undertaking. If the Competent Person is estimating or supervising the estimation of Mineral Resources, the relevant experience must be in the estimation, assessment and evaluation of Mineral Resources. If the Competent Person is estimating, or supervising the estimation of Mineral Reserves, the relevant experience must be in the estimation, assessment, evaluation and assessment of the economic extraction of Mineral Reserves. Persons being called upon to sign as a Competent Person must be clearly satisfied in their own minds that they are able to face their peers and demonstrate competence in the commodity, type of deposit and situation under consideration.

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are subdivided, and must be so reported, in order of increasing confidence in respect of geoscientific evidence, into Inferred, Indicated or Measured categories. Geological evidence and knowledge required for the estimation of Mineral Resources must include sampling data of a type, and at spacings, appropriate to the geological, chemical, physical, and mineralogical complexity of the mineral occurrence, for all classifications of Inferred, Indicated and Measured Mineral Resources.

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve. An Indicated Mineral Resource has a higher level of confidence than that applying to an Inferred Mineral Resource.

A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Mineral Reserve or to a Probable Mineral Reserve.

A 'Mineral Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.

A 'Probable Mineral Reserve' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proved Mineral Reserve.

A 'Proved Mineral Reserve' is the economically mineable part of a Measured Mineral Resource. A Proved Mineral Reserve implies a high degree of confidence in the Modifying Factors.

'SAMVAL Code' – The South African Code for the reporting of Mineral Asset Valuation (the SAMVAL Code or 'the Code') sets out minimum standards and guidelines for Reporting of Mineral Asset Valuation in South Africa. The process for establishing the SAMVAL Code was initiated through an open meeting at a colloquium convened by the Southern African Institute of Mining and Minerals (SAIMM) in March 2002. The first edition of the SAMVAL Code was released in April 2008, with further amendments in July 2009. After various discussions it became apparent that a review process was required, and this was initiated in September 2011 at an open meeting at which participants were invited to express their opinions on matters that were unclear, or that required inclusion/exclusion or modification in the 2008 edition and this resulted in the recent update released in May 2016.

A 'Competent Valuator' (CV) is a person who is registered with ECSA, SACNASP, or SAGC, or is a Member or Fellow of the SAIMM, the GSSA, SAICA, or a Recognised Professional Organisation (RPO) or other organisations recognised by the SSC on behalf of the JSE Limited. A Competent Valuator is a person who possesses the necessary qualifications, ability, and relevant experience in valuing mineral assets. A person called upon to sign as a Competent Valuator shall be clearly satisfied in their own mind that they are able to face their peers and demonstrate competence in the valuation undertaken.

The respective codes and related details can be found at the SAMCODES website (**www.samcodes.co.za**).

Third party assurance

Caracle Creek International Consulting
www.caracleecreek.com
MinRes
Mineral Resource Estimation Services

To: Impala Platinum Holding Limited. (“**Implats”**)

And To: Mr Theodore Pegram
Executive: Mineral Resources
2 Fricker Road, Illovo
Johannesburg, 2196
South Africa

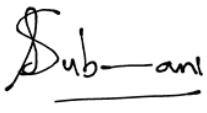
RE: Independent Mineral Resources Audit of Marula Platinum Mine, South Africa

Impala Platinum Holdings Ltd (“Implats”) appointed Caracle Creek International Consulting MinRes Pty Ltd (“CCIC MinRes”) to conduct an independent Mineral Resource Audit (“audit”) of their 2022 Mineral Resource Estimates (“MRE”) at Marula Platinum Mine. A focus of the audit was on the “Phase Two” area that has recently undergone a successful mining feasibility study.

The audit was carried out by Sivanesan (Desmond) Subramani, Principal for Geology and Mineral Resources at CCIC MinRes. Desmond has over 25 years of experience working as a geologist, of which the last 19 years have been in Mineral Resource modelling and estimation. The audit was conducted in accordance with The SAMREC Code (2016), Table One, and Implats internal code of practice (“COP”) for Estimation, Classification, and Reporting of Mineral Resources and Reserves, Bushveld Operations – “STD 17.11.00 ”. A summary of the audit is follows:

1. No Fatal Flaw or Material findings were identified during the previous 2021 audit. One Minor finding was made, which was the implementation of assay QA/QC procedures for underground section sampling. Implementation of this finding is still ongoing.
2. Results of the 30 June 2022 audit did not identify any Fatal Flaws or Material findings. One Minor finding was identified and plans to address this are provided. This Minor finding however, does not present any material risk to the Mineral Resource Estimates.
3. CCIC MinRes, therefore, confirms that the Merensky and UG2 Mineral Resources at Marula Platinum mine are compliant with The SAMREC Code (2016), and that Implats may include these estimates into their annual audited Mineral Resources Statement, as of 30 June 2022.

Dated this 12th day of July 2022



Sivanesan (Desmond) Subramani, B.Sc. Honours Geology, Pr. Sci. Nat. (400184/06)
Principal - Geology and Mineral Resources

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Mr Theodore Pegram
Executive: Mineral Resources
Impala Platinum Holdings Limited
2 Fricker Road, Illovo
Johannesburg
South Africa
6th June 2022

Dear Mr Pegram,

2022 AUDIT OF THE MINERAL RESERVE STATEMENT FOR MARULA PLATINUM

Fraser McGill (Pty) Limited carried out an independent audit of the Mineral Reserve Statement for Marula Platinum (Marula) mine as at 30 June 2022 on behalf of Impala Platinum Holdings Limited (Implats). The audit was undertaken by Mineral Reserve Competent Persons from Fraser McGill.

Following the guidelines of the SAMREC Code (2016), the 2022 Marula Mineral Reserve Audit entailed a systematic and detailed inspection of the key elements of the Mineral Reserve estimation process undertaken to validate adherence to Implats' standards and procedures, and to identify material errors and/or omissions or improvements. Fraser McGill also assessed compliance to the principles and guidelines of the SAMREC Code (2016) with respect to the estimation, classification and reporting of Mineral Reserve Estimates by Marula.

A review of the mine design and scheduling for the UG2 Mineral Reserve of Marula was undertaken, including the Phase 2 LoM extension. Fraser McGill also reviewed the key inputs and outputs of the Business and Life of Mine Planning process, Life of Mine Plans, economic viability testing of the Life of Mine Plans as well as the estimation, classification and reporting of the Mineral Reserve estimate for Marula. Fraser McGill did not perform independent estimation of the Mineral Reserves. A site visit was undertaken by the Competent Persons for the purposes of the Audit and all data exchanges were undertaken by electronic platforms, with interactive engagement, discussion and audit feedback sessions specifically by MS Teams.

Fraser McGill was satisfied that the Mineral Reserve Estimates are based on a detailed Life of Mine Plan that was tested for economic viability under a set of realistically assumed production levels, Modifying Factors and economic inputs provided by Marula and Implats.

No fatal flaws or material issues were identified in the preparation of Mineral Reserve Estimate reported in the Marula Mineral Reserve Statement for 2022. A number of issues were identified, which, whilst not material, should be addressed for future Mineral Reserve Estimates.

Fraser McGill is satisfied that the Mineral Reserve Estimates are a fair reflection of the economic value of Marula Platinum mine and has derived no impediment for inclusion of said Mineral Reserves for public reporting purposes.

This opinion does not imply that Fraser McGill has accepted the role of Competent Person for the purpose of the Mineral Reserve estimation and sign-off for Implats. Such role resides and remains with the nominated personnel of Implats and Marula Platinum mine.

Yours sincerely

Adam Wilkinson
Director
B.Eng (Hons), Pr. Eng (20100038), MSAIMM

Third party assurance (continued)

Virimai Projects

mining – energy - infrastructure - processes

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Mr Theodore Pegram
Executive: Mineral Resources
Impala Platinum Holdings Limited
No 2, Fricker Road, Illovo
Johannesburg, 2196, South Africa

30 June 2022
Dear Mr Pegram,

AUDIT OF THE MIMOSA MINE MINERAL RESOURCE AND MINERAL RESERVE STATEMENT FOR AS 30 JUNE 2022

Virimai Projects carried out an Independent Audit of the Mineral Resources and Mineral Reserves and Life of Mine Plans for Mimosa Mine following the guidelines of the SAMREC Code (2016) and the JSE Listing Requirements Section 12.13. The audit entailed a systematic and detailed inspection of the key elements of the Mineral Resources and Mineral Reserves and Life of Mine estimation process undertaken to validate adherence to Mimosa standards and procedures, and to identify material errors and/or omissions or improvements.

Two site visits were made in May 2022 by Competent Persons from Virimai Projects.

No fatal flaws or material issues were identified in the preparation of the Mineral Resources and Mineral Reserves and Life of Mine Plans reported in the Mimosa Mineral Resources and Mineral Reserves Statements as at 30 June 2022. However, a number of minor issues were identified, which should be addressed.

Virimai Projects is satisfied that the Mineral Resources and Mineral Reserves and Life of Mine are a fair reflection of the economic value of Mimosa Mine and has cleared the inclusion of said the Mineral Resources and Mineral Reserves and Life of Mine for public reporting purposes.

This opinion does not mean though that Virimai Projects has accepted the role of Competent Person for the purpose of the Mineral Resources and Mineral Reserves and Life of Mine and sign-off for Implats. Such role would remain with the nominated personnel of Implats.

Yours sincerely

Wenceslaus Kutekwatekwa
Consulting Director
BSc (Hon) Mining Engineering MBA, FSAIMM

Arimon Ngilazi
Principal Resource Geologist
BSc (Geology) MBA, MSAIMM, MAusIMM

Third party assurance (continued)

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30 June 2022
CAPR001843

Impala Platinum Holdings Limited
No 2 Fricker Road, Illovo
Johannesburg
South Africa

Attention: Mr. Theodore Pegram, Executive: Mineral Resources

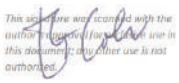
Independent Audit Certification of the June 30, 2022 Mineral Resources and Mineral Reserves for the Lac des Iles Operation, Canada

Dear Mr. Pegram:

SRK Consulting (Canada) Inc. (SRK) was commissioned by Impala Platinum Holdings Limited (Impala) to undertake an independent audit of Impala's Lac des Iles (LDI) Operation's Geological model and Mineral Resources as well as an audit of the Mineral Reserves and Life of Mine for as of June 30, 2022.

On completion of this mandate, SRK is able to confirm that no fatal flaws or material issues were identified during the audit process and that Mineral Resources and Mineral Reserves are reported in compliance with current international reporting codes, specifically the SAMREC Code (2016).

Yours truly



Glen Cole, PGeo, PrSciNat
Principal Consultant (Mineral Resources)

SRK Consulting (Canada) Inc.

Local Offices:
Saskatoon
Sudbury
Toronto
Vancouver

Group Offices:
Africa
Asia
Australia
Europe

Appointed Competent Persons and recognised professional organisations' details

Implats has written confirmation from the Competent Persons listed below that the information disclosed in this document is compliant with the SAMREC Code (2016), and where applicable, the relevant SAMREC Table 1 Appendices and JSE Section 12 Listings Requirements. The CPs concur that the information may be published in the form, format and context in which it was intended.

Mine/ Project	Competent Person's (CP) name	Employment	Title	Appointment	Qualifications	Registration RPO	Membership number	Years' experience	Contact details -Address (investor@implats.co.za)
Implats	Theodore Pegram	Full-time Implats	Implats Executive Mineral Resources	Lead CP Mineral Resources	BSc (Hons) (Geology), GDE (Mining)	SACNASP, FGSSA, FSAIMM	400032/03	33	Private Bag X18, Northlands, 2116, Gauteng, South Africa
	Gerhard Potgieter	Full-time Implats	Implats Chief Operating Officer	Lead CP Mineral Reserves	BSc Eng (Mining)	ECSA, MSAIMM	20030236	37	Private Bag X18, Northlands, 2116, Gauteng, South Africa
	Nico Strydom	Full-time Implats	Group Manager – Project Finance	Lead CV (Valuation)	CA(SA), ACMA	SAICA, CIMA	03141381	29	Private Bag X18, Northlands, 2116, Gauteng, South Africa
	Johannes du Plessis	Full-time Implats	Group Head MRM Compliance	CP Mineral Resources & CP Audits	MSc (Geology)	SACNASP, FGSSA	400284/07	21	Private Bag X18, Northlands, 2116, Gauteng, South Africa
	Louise Fouché	Full-time Implats	Group Head Mineral Resource estimation	CP Geostatistics and databases	MSc (Geology), Post-Grad Dipl (MRM)	SACNASP, FGSSA, MSAIMM	400026/99	25	Private Bag X18, Northlands, 2116, Gauteng, South Africa
Impala Rustenburg	David Sharpe	Full-time Impala	Group MRM Manager	CP Mineral Resources	BSc (Hons) (Geology), BComm	SACNASP, MGSSA	400018/91	33	PO Box 5683, Rustenburg, 0300, Northwest Province, South Africa
	Emmanuel Acheampong	Full-time Impala	Executive: Technical Services	CP Mineral Reserves	MSc Mining Engineering, MBA	ECSA, MSAIMM	980778	29	PO Box 5683, Rustenburg, 0300, Northwest Province, South Africa
	Philip Fouché	Full-time Impala	Geology Manager Exploration	CP Exploration	MSc (MRM), B Compt	SACNASP, MGSSA	400254/05	20	PO Box 5683, Rustenburg, 0300, Northwest Province, South Africa
Marula	Claudia Ngwekazi	Full-time Marula	Geology Manager	CP Mineral Resources	BSc (Hons) (Geology), GDE (Mineral Resource Estimation), Post Grad Dipl (Management)	SACNASP, MGSSA	400432/11	17	Private Bag X18, Northlands, 2116, Gauteng, South Africa
	Sifiso Mthethwa	Full-time Marula	Technical Services Manager	CP Mineral Reserves	BSc (Hons) (Geology)	SACNASP, MGSSA	400163/13	19	Private Bag X18, Northlands, 2116, Gauteng, South Africa
Two Rivers	Juan Coetzee	Full-time Two Rivers	Senior Resource Geologist	CP Mineral Resources	BSc (Hons) (Geology)	SACNASP, MGSSA, MSAIMM	114086	19	PO Box 786136, Sandton, 2146, Gauteng, South Africa
	Tobie Horak	Full-time Two Rivers	Chief Surveyor	CP Mineral Reserves	NHD (Mine Surveying), GDE (Mining Engineering)	IMSSA	1113	23	PO Box 786136, Sandton, 2146, Gauteng, South Africa
Zimplats	Steven Duma	Full-time Zimplats	Technical Services Manager	CP Mineral Resources	BSc (Hons) (Geology)	SACNASP, MAusIMM	991294	25	PO Box 6380, Harare, Zimbabwe
	Wadzanayi Mutsakanyi	Full-time Zimplats	Mine Manager	CP Mineral Reserves	BSc (Hons) (Mining Engineering)	MSAIMM, MAusIMM	709309	28	PO Box 6380, Harare, Zimbabwe
Mimosa	Dumisayi Mapundu	Full-time Mimosa	Geology and Survey Manager	CP Mineral Resources	BSc (Geology)	SACNASP	200021/05	28	PO Box 638, Harare, Zimbabwe
	Paul Man'ombe	Full-time Mimosa	Cluster Manager Mine Planning	CP Mineral Reserves	BSc Eng (Hons) Mining, MBA,(UZ) MMCC (Zim)	MSAIMM	705146	27	PO Box 638, Harare, Zimbabwe
Lac des Iles	Stuart Gibbins	Full-time Impala Canada	Chief Mine Geologist	CP Mineral Resources	MSc (Geology)	PGO	0754	23	PO Box 10547, Thunder Bay, Ontario, P7B 6T9, Canada
	Kris Hutton	Full-time Impala Canada	Technical Services Manager	CP Mineral Reserves	B Applied Science & Engineering (Mineral Engineering)	PEO	100195677	16	PO Box 10547, Thunder Bay, Ontario, P7B 6T9, Canada
	Lionnel Djon	Full-time Impala Canada	Exploration Manager	CP Exploration	PhD (Geology)	PGO	2500	12	PO Box 10547, Thunder Bay, Ontario, P7B 6T9, Canada
Afplats	Louise Fouché	Full-time Implats	Group Head Mineral Resource estimation	CP Geostatistics and databases	MSc (Geology), Post-Grad Dipl (MRM)	SACNASP, MGSSA, MSAIMM	400026/99	25	Private Bag X18, Northlands, 2116, Gauteng, South Africa
Waterberg project	Charles Muller	Independent Consultant	Director	CP Mineral Resources	BSc (Hons) Geology	SACNASP, MGSSA, MGASA	400051/05	33	CJM Consulting, Ruimsig Office Estate, 199 Hole-in-one Road, Ruimsig, Roodepoort, 1724 South Africa

Appointed Competent Persons and recognised professional organisations' details (continued)

The Mineral Reserve Statements are fully supported by an experienced team of general managers and technical services managers, who approve their respective business plans and take full responsibility for their Mineral Reserve Statements. These responsible people are listed below:

Name	Area of responsibility	Years' relevant experience
Emmanuel Acheampong	Executive Technical Services Impala Rustenburg	29
Tshediso Mohase	General manager Impala Rustenburg 10 Shaft	36
Riaan Swanepoel	General manager Impala Rustenburg 11 Shaft	32
Joseph Tsiloane	General manager Impala Rustenburg 20 Shaft	22
Arthur Kgatlane	General manager Impala Rustenburg EF, 6 and 12 Shaft	33
André Fryer	General manager Impala Rustenburg 14 Shaft	23
Hans Fourie	General manager Impala Rustenburg 16 Shaft	34
James Pieters	General manager Impala Rustenburg 1 Shaft	39
Moses Motlhageng	General manager Marula Mine	27
Simbarashe Goto	Senior general manager Mining Ngezi Mine	25
Allison Henstridge	Vice President Technical Services & Projects, Impala Canada	19
Stephen Ndiyamba*	General manager Mimosa Mine	31
Didimalang Phuthi*	Head – Technical Services Mimosa Mine	35
Ntokozo Ngema*	General manager Two Rivers Mine	21
Cindi Henderson*	Mineral Resource leader Two Rivers Mine	19

* *Non-managed.*

Recognised Professional organisations

Addresses and contact details

AusIMM	The Australasian Institute of Mining and Metallurgy PO Box 660, Carlton South, Victoria 3053, Australia Telephone: +61 (3) 9658 6100 Facsimile: +61 (3) 9662 3662 www.ausimm.com
ECSA	Engineering Council of South Africa Private Bag X691, Bruma, 2026, Gauteng, South Africa Telephone: +27 (11) 607 9500 www.ecsa.co.za
GSSA	The Geological Society of South Africa PO Box 91230, Auckland Park, 2006, Johannesburg, South Africa Telephone: +27 (11) 358 0028 www.gssa.org.za
IMSSA	The Institute for Mine Surveyors of Southern Africa PO Box 62339, Marshalltown, 2107, Johannesburg, Gauteng, South Africa Telephone: +27 (11) 498 7682 www.ims.org.za
PGO	Professional Geoscientists Ontario 25 Adelaide Street East, Suite 1100 Toronto, Ontario, Canada M5C 3A1 Telephone: + 1 416-203-2746 Facsimile: +1 416-203-6181 www.pgo.ca
PEO (in progress)*	Professional Engineers Ontario 40 Sheppard Ave W, Suite 101 Toronto, Ontario, Canada M2N 6K9 Telephone: +1 416-224-1100 www.peo.on.ca
SACNASP	South African Council for Natural Scientific Professions Private Bag X540, Silverton, 0127, Gauteng, South Africa Telephone: +27 (12) 748 6500 Facsimile: +27 (86) 206 0427 www.sacnasp.org.za
SAIMM	The Southern African Institute of Mining and Metallurgy PO Box 61127, Marshalltown, 2107, Gauteng, South Africa Telephone: +27 (11) 834 1273/7 Facsimile: +27 (11) 838 5923/8156 www.saimm.co.za
SAICA	The South African Institute of Chartered Accountants Private Bag X32, Northlands, 2116, Gauteng, South Africa Telephone: +27 (86) 1072422 www.saica.co.za

* *PEO is currently not on the list of RPOs on the SAMCODES website (www.samcode.co.za), however, the process to facilitate the potential inclusion has been initiated. Note that the Lead CP for Mineral Reserves at Implats, Gerhard Potgieter, takes full responsibility for the Lac des Iles Mineral Reserves.*

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