THETA GOLD MINES

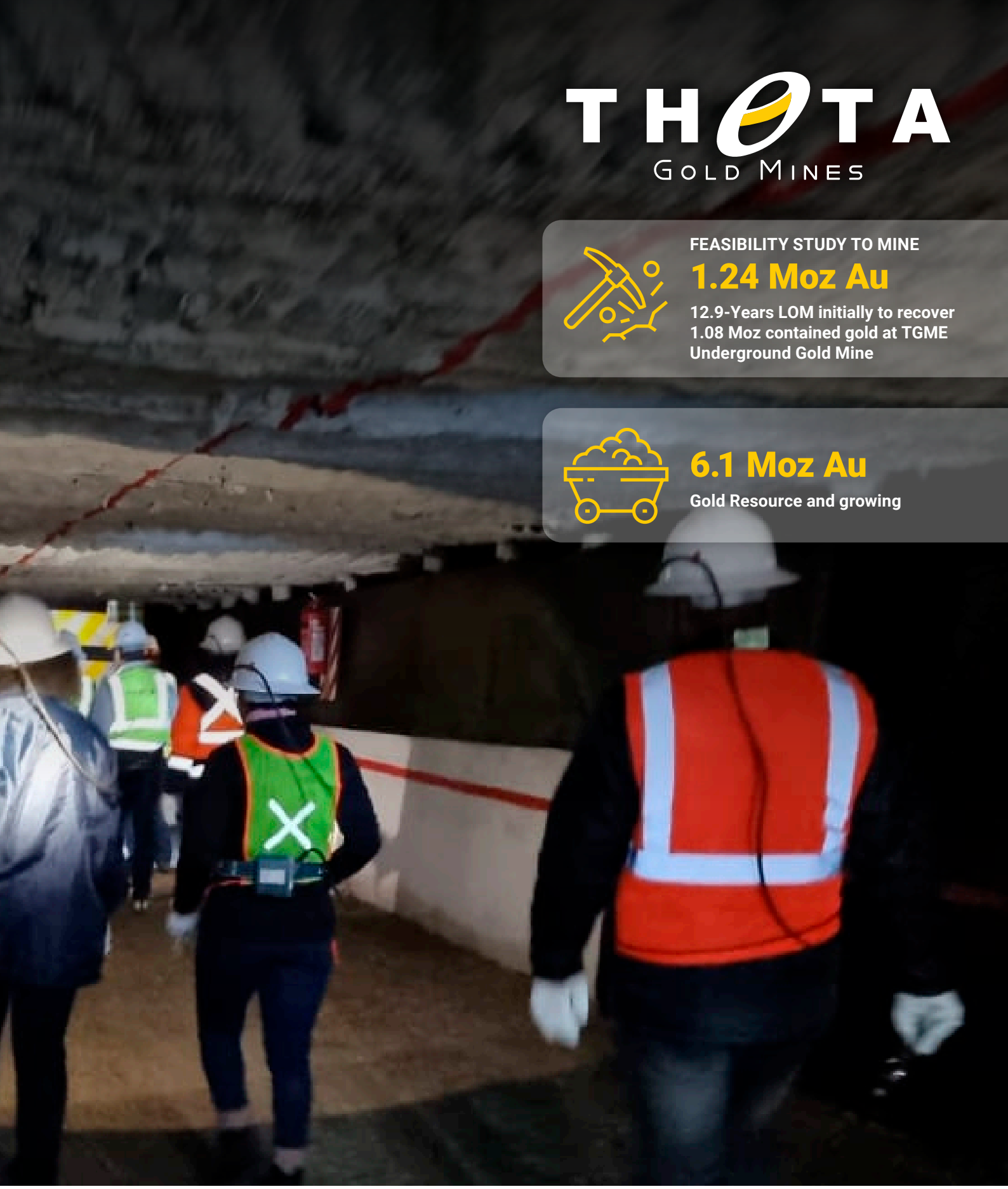
FEASIBILITY STUDY TO MINE

1.24 Moz Au

12.9-Years LOM initially to recover 1.08 Moz contained gold at TGME Underground Gold Mine

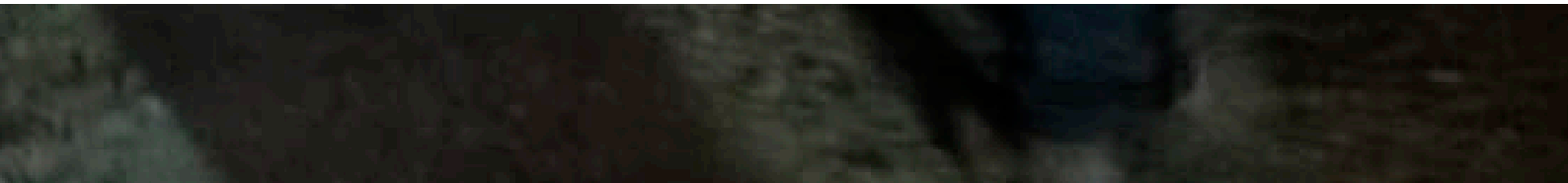
6.1 Moz Au

Gold Resource and growing



TGME UNDERGROUND GOLD MINE PROJECT

FEASIBILITY STUDY INFORMATION BOOKLET | JULY 2022



DISCLAIMER

FORWARD-LOOKING AND CAUTIONARY STATEMENTS

This announcement may refer to the intention of Theta Gold Mines regarding estimates or future events which could be considered forward looking statements. Forward looking statements are typically preceded by words such as "Forecast", "Planned", "Expected", "Intends", "Potential", "Conceptual", "Believes", "Anticipates", "Predicted", "Estimated" or similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, and may be influenced by such factors including but not limited to funding availability, market-related forces (commodity prices, exchange rates, stock market indices and the like) and political, environmental or economic events (including government or community issues, land owners, global or systemic events). Forward looking statements are provided as a general reflection of the intention of the Company as at the date of release of the document, however are subject to change without notice, and at any time. Future events are subject to risks and uncertainties, and as such results, performance and achievements may in fact differ from those referred to in this announcement. Mining, by its nature, and related activities including mineral exploration, are subject to a large number of variables and risks, many of which cannot be adequately addressed, or be expected to be assessed, in this document. Work contained within or referenced in this report may contain incorrect statements, errors, miscalculations, omissions and other mistakes. For this reason, any conclusions, inferences, judgments, opinions, recommendations or other interpretations either contained in this announcement, or referencing this announcement, cannot be relied upon. There can be no assurance that future results or events will be consistent with any such opinions, forecasts or estimates. The Company believes it has a reasonable basis for making the forward looking statements contained in this document, with respect to any production targets, resource statements or financial estimates, however further work to define Mineral Resources or Reserves, technical studies including feasibilities, and related investigations are required prior to commencement of mining. No liability is accepted for any loss, cost or damage suffered or incurred by the reliance on the sufficiency or completeness of the information, opinions or beliefs contained in this announcement.

The Feasibility Study referred to in this announcement is based on technical and economic assessments to support the estimation of Ore Reserves. There is no assurance that the intended development referred to will proceed as described, and will rely on access to future funding to implement. Theta Gold Mines believes it has reasonable grounds the results of the Feasibility Study. At this stage there is no guarantee that funding will be available, and investors are to be aware of any potential dilution of existing issued capital. The production targets and forward looking statements referred to are based on information available to the Company at the time of release, and should not be solely relied upon by investors when making investment decisions. Theta Gold cautions that mining and exploration are high risk, and subject to change based on new information or interpretation, commodity prices or foreign exchange rates. Actual results may differ materially from the results or production targets contained in this release. Further evaluation is required prior to a decision to conduct mining being made. The estimated Mineral Resources quoted in this release have been prepared by Competent Persons as required under the JORC Code (2012). Material assumptions and other important information are contained in this release.

NOTE BUSINESS ARRANGEMENT

Theta Gold Mines holds 100% issued capital of its South African subsidiary Theta Gold SA (Pty) Ltd ("TGSA"). TGSA holds a 74% shareholding in both Transvaal Gold Mining Estates Limited ("TGME") and Sabie Mines (Pty) Ltd ("Sabie Mines"). TGME holds the various exploration and mining permits. The balance of shareholding is held by Black Economic Empowerment ("BEE") entities. The South African Mining Charter requires a minimum of 26% meaningful economic participation by the historically disadvantaged South Africans ("HDSAs"). The BEE shareholding in TGME and Sabie Mines is comprised of a combination of local community trusts, an employee trust and a strategic entrepreneurial partner.

DISCLAIMER AND COMPETENT PERSONS STATEMENT

DISCLAIMER

This announcement or presentation has been prepared by and issued by Theta Gold Mines Limited (ASX:TGM | OTCQB: TGMGF) to assist in informing interested parties about the Company and should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this announcement.

This announcement or presentation may contain forward looking statements. Whilst Theta Gold Mines has no reason to believe that any such statements and projections are either false, misleading or incorrect, it does not warrant or guarantee such statements. Nothing contained in this announcement constitutes investment, legal, tax or other advice. This overview of Theta Gold Mines does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company's prospects. Before making an investment decision, you should consult your professional adviser, and perform your own analysis prior to making any investment decision. To the maximum extent permitted by law, the Company makes no representation and gives no assurance, guarantee or warranty, express or implied, as to, and take no responsibility and assume no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omissions, from any information, statement or opinion contained in this announcement. This announcement contains information, ideas and analysis which are proprietary to Theta Gold.

COMPETENT PERSONS STATEMENT

The information in this report relating to mineral resources and ore reserves is based on, and fairly reflects, the information and supporting documentation compiled by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, MGSSA), a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions and Mr Daniel van Heerden (B.Ing (Mining M.Com (Business Management), member of Engineering Council of South Africa (Pr.Eng. Reg. No. 20050318)), a director of Minxcon (Pty) Ltd and a fellow of the South African Institute of Mining and Metallurgy (FSAIMM Reg. No. 37309).

The original reports titled "Theta Gold Increases Mineral Resource to over 6Moz" dated 16 May 2019, "Optimised Mine Schedule for Theta Open Pit Starter Project Delivers Significant Improvements" dated 20 April 2020 and "Initial Maiden Underground Mining Reserve 419,000 oz Gold" dated 8 April 2021 and 25 October 2021 (TGME Project Permitting Update) were released to the Australian Securities Exchange (ASX) on those dates. The Company confirms that:

It is not aware of any new information or data that materially affects the information included in the ASX announcements; and

All material assumptions and technical parameters underpinning the estimates in the ASX announcements continue to apply and have not materially changed.

AUTHORISATION

This booklet was authorised for release by the Board of Theta Gold Mines Limited.

THETA GOLD MINES

Theta Gold Mines has completed its FS on its first 4 gold mines – with up to 40 historical gold mines to be developed.

The strategy is to become one of South Africa's Lowest Cost Producers through an efficient modular designed and engineered metallurgical plant that can process multiple streams of ore.

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CORPORATE DIRECTORY

Board of Directors

Bill Guy	Executive Chairman
Richie Yang	Non-Executive Director
Finn Behnken	Non-Executive Director
Byron Dumpleton	Non-Executive Director
Brett Tang	Non-Executive Director
Simon Liu	Non-Executive Director

Company Secretary

Brent Hofman

Senior Management

Jacques du Triou	Chief Operating Officer
Terence Mokale	SA Director of Social Corporate Services
Puseletso Matete	SA Director ESG
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ASX Code: TGM
OTC Code: TGMGF

Ordinary Shares on Issue 550M^
Market Cap A$33M^
^ As at 22 July 2022

About Theta Gold Mines

RESPONSIBLE MINING
PROFITABLE MINING

A 'NEW' Goldfield in South Africa with resources from the surface is awakening.

Theta Gold Mines Limited is a Listed ("Theta Gold" or "Company") (ASX:TGM) | (OTC: TGMGF) Company that controls and dominates the Eastern Transvaal Gold Fields, where South Africa's gold mining industry began almost 130 years ago. And we're bringing this large forgotten historical shallow goldfield back to life.

The Transvaal Gold System sits geological on the eastern side of Bushveld Complex the largest igneous intrusion on earth. We have already generated and delivered one of the largest gold resources of up to **6.1 Million Oz** on the ASX, not controlled by major mining houses.

The gold plant is near the towns of Pilgrim's Rest and Sabie in Mpumalanga Province, 370km northeast of Johannesburg.

The TGME Project has more than 43 historical mines identified across the vast prospective gold field of 620 square km (or 62,000 hectares).

Theta Gold team is active on site to deliver into a steady state of production initially from four existing mines, Beta, Frankfort, Clewer-Dukes Hill-Morgenzon (CDM), and Rietfontein which allows the Company to fully self fund numerous other mines over 5 years to target a production profile of **160,000 oz Au per year**.

Key Features

THETA GOLD MINES LIMITED CONTROLS THE EASTERN TRANSVAAL GOLD FIELDS, WHERE SOUTH AFRICA'S GOLD MINING INDUSTRY BEGAN ALMOST 130 YEARS AGO

Project
Life
12.9 Years

Underground ore mined
6.46Mt @ 5.95g/t Au for
1.24M oz of contained gold

Peak Funding Requirements
US $77M

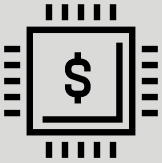
Metallurgical
Recovery
87%

THETA GOLD MINES

Payback Period Start of
Project – 31 Months

Start of Mining – 18 Months

Pre-Tax NPV 10% US$324M
@ USD/oz 1,642 (avg-Base
Case) IRR 65%



AISC US$788oz
(Year 1-4) US$847/oz
(LOM)

First Gold Pour
2nd Quarter
2024[1]

Incorporating only 4 of more than 40 previously developed mines

[1]First gold is subject to securing finance and permit approvals.

Solid growth potential

Develop multiple mines, reaching >160koz/a within five years, from the resource base of +6Moz

Modern mining and treatment methodologies enable low-cost operations (AISC <US$900/oz) and reserve expansion

First four-mine operation, central plant and tailings facility up to 100koz/a

Various expansion opportunities to increase production and the resource base for >3 decades

Expand to >160koz/a
6 mine operation @ 80kt/m

6 UG MINES TARGETED FIRST OUT OF POTENTIAL >40

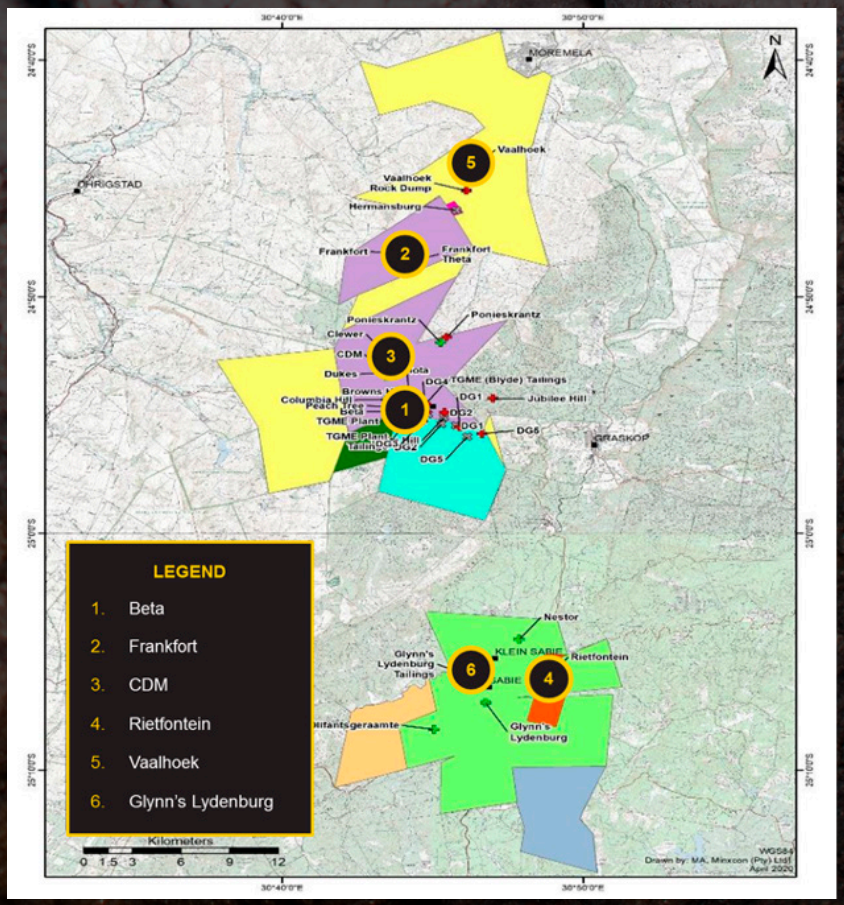


FIGURE 1. MAP LOCATION OF FIRST 6 GOLD MINES.

FS Highlights

Theta Gold Mines technical team, along with independent consultant, Minxcon (Pty) Ltd, all based in South Africa, completed a Feasibility Study for Theta Gold's TGME Underground Gold Mine Project in July 2022 to restart the following historical underground projects situated in Mpumalanga Province, South Africa:

- Beta (including the Beta North, Beta Central and Beta South sections);
- Frankfort;
- Clewer-Dukes Hill-Morgenzon (or CDM); and
- Rietfontein.

Two scheduling strategies have been investigated, namely:

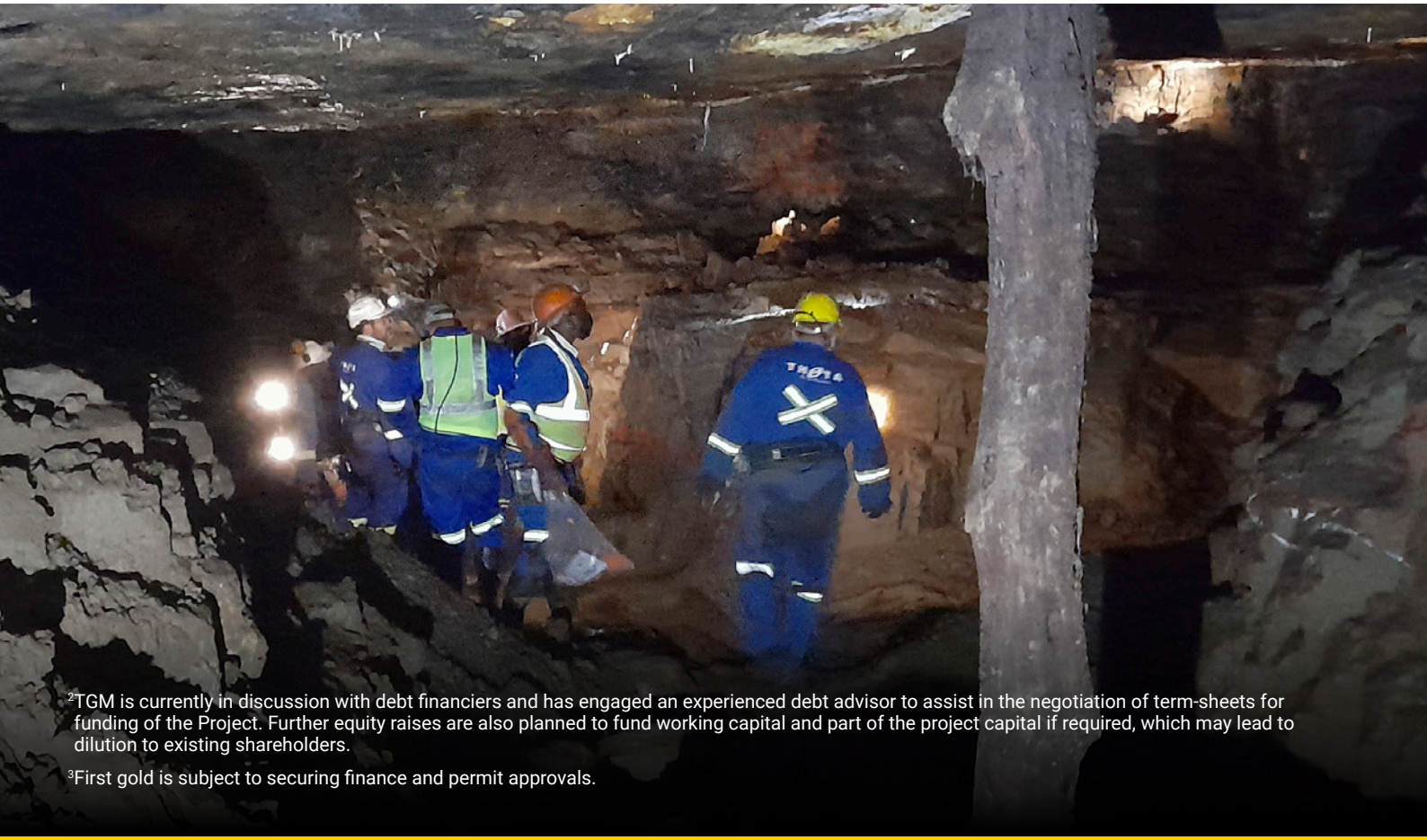
- Base Case: Life of Mine (LOM) plan targeting the total Mineral Resources (Measured, Indicated and Inferred); and
- Ore Reserve Plan: LOM plan targeting only Measured and Indicated Mineral Resources.

Beta is scheduled as the first operation to commence production, followed by Rietfontein, and finally CDM and Frankfort simultaneously. Beta and Rietfontein are higher-grade mines compared to CDM and Frankfort.

The Base Case LOM plan will comprise a 12.9-year mining operation starting in 2023 and delivering production of 1.24 million ounces of contained gold.

The estimated development capital or peak funding requirement is USD77 million (AUD102 million)[2], with the Project forecast to generate a pre-tax NPV10% of USD324 million (AUD432 million) and pre-tax Internal Rate of Return (IRR) of 65% at the forecast gold price of averaging USD1,642/oz over the LOM.

Based on these metrics, the Project has a projected payback period of 31 months. First gold production is planned for Q2 2024[3].



[2]TGM is currently in discussion with debt financiers and has engaged an experienced debt advisor to assist in the negotiation of term-sheets for funding of the Project. Further equity raises are also planned to fund working capital and part of the project capital if required, which may lead to dilution to existing shareholders.

[3]First gold is subject to securing finance and permit approvals.

FS Key metrics

Table 1: Key Project Metrics

Description	Units	Base Case	Reserve Plan
Project Start Date*	Qtr-yyyy	Q1 2023	Q1 2023
Commercial Production Start Date	Qtr-yyyy	Q2 2024	Q2 2024
Production build up period	Months	14	14
Life of mine	years	12.9	7.3
Underground ore mined (LOM)	Mt	6.46	2.85
Mined Grade	g/t	5.95	6.09
Gold Mined (LOM)	Moz	1.24	0.56
Production Rate	Kt/a	540	540
Production Rate	Kt/m	45	45
Grind size	µ	106	106
Gold recovered (average LOM)	%	87	87
Gold recovered (LOM)	Moz	1.08	0.49

Note: *Start date is subject to project finance and permitting approvals.

Base Case

Table 2 and **Table 3** detail the Project economics of the Base Case at various price scenarios in USD terms and AUD terms, respectively.

Table 2: Project Economics at Various Gold Prices – Base Case (USD)

Project Economics at gold price	Unit	Forecast (USD1,642/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	USDm	324	255	304	402	501	601
NPV @ 10% (real) Post-tax	USDm	219	174	206	269	335	400
IRR (%) Pre-tax	%	65%	57%	64%	77%	90%	102%
IRR (%) Post-tax	%	57%	50%	56%	67%	78%	87%
AISC	USD/oz	834	822	831	847	862	876
EBITDA annual average	USDm	69	58	66	81	96	111
EBIT annual average	USDm	60	49	57	72	87	102
Free Cash Flow (Pre-tax)	USDm	717	576	673	869	1066	1264
Free Cash Flow (Post-tax)	USDm	508	412	478	611	747	881
Development Capital – Peak Funding	USDm	77	77	77	77	77	77
Capital Sustaining	USDm	37	37	37	37	37	37
Payback post-tax	Months	31	33	31	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	422%	332%	395%	524%	653%	783%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	285%	226%	268%	351%	437%	521%

Table 3: Project Economics at Various Gold Prices – Base Case (AUD)

Project Economics at gold price	Unit	Forecast (USD1,642/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	AUDm	432	339	405	536	669	802
NPV @ 10% (real) Post-tax	AUDm	292	232	274	359	447	533
IRR (%) Pre-tax	%	65%	57%	64%	77%	90%	102%
IRR (%) Post-tax	%	57%	50%	56%	67%	78%	87%
AISC	AUD/oz	1,112	1,096	1,107	1,129	1,149	1,167
EBITDA annual average	AUDm	92	77	87	107	128	148
EBIT annual average	AUDm	80	66	76	96	116	136
Free Cash Flow (Pre-tax)	AUDm	956	768	897	1,158	1,421	1,686
Free Cash Flow (Post-tax)	AUDm	678	550	638	814	996	1,175
Development Capital – Peak Funding	AUDm	102	102	102	102	102	102
Capital Sustaining	AUDm	49	49	49	49	49	49
Payback post-tax	Months	31	33	31	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	422%	332%	395%	524%	653%	783%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	285%	226%	268%	351%	437%	521%

NOTE: Converted to AUD from USD using AUD:USD exchange rate of 1.333.

Figure 2: Annual Gold Production – Base Case

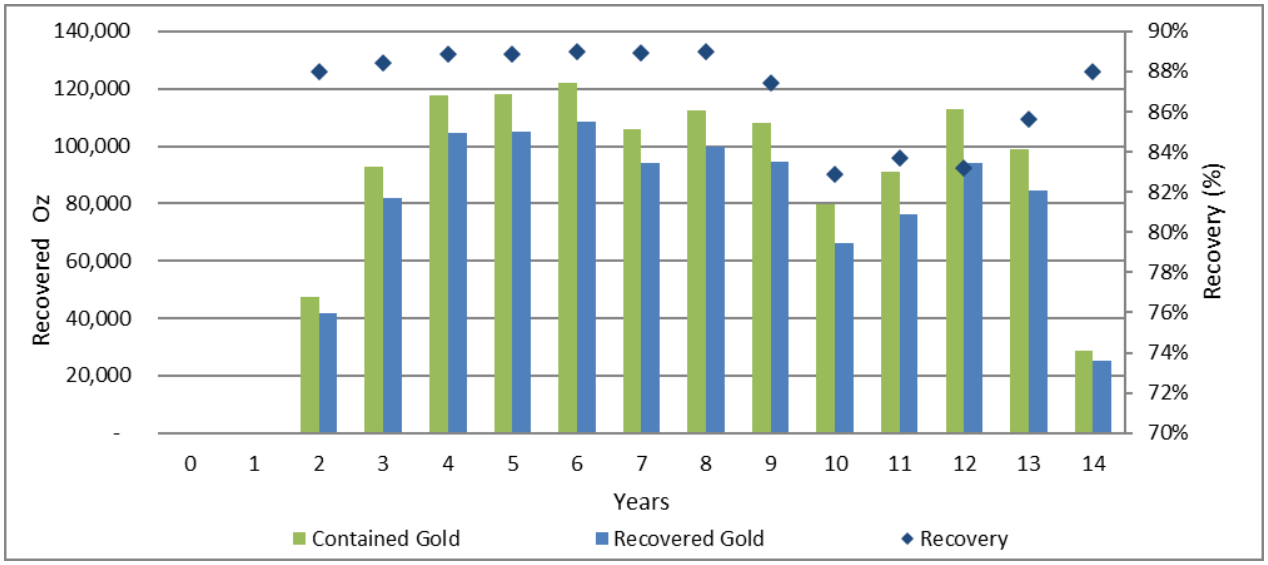
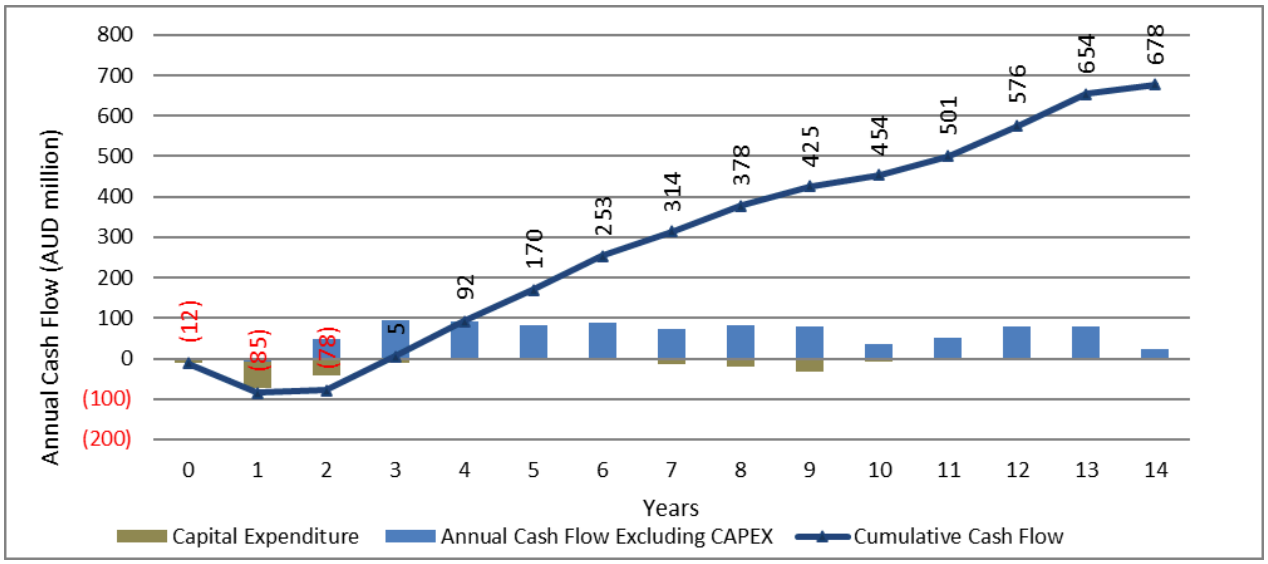


Figure 3: Annual and Cumulative Cash Flow (Post-Tax) – Base Case (AUD)



NOTES:
1. Forecast Prices averaging USD1,642/oz over LOM.
2. Converted to AUD from USD at exchange rate of 1.333 AUD:USD.

Reserve Plan

Table 4 and **Table 5** detail the Project economics of the Reserve Plan at various price scenarios in USD terms and AUD terms, respectively.

Table 4: Project Economics at Various Gold Prices – Reserve Plan (USD)

Project Economics at gold price	Unit	Forecast (USD1,635/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	USDm	144	105	134	191	250	308
NPV @ 10% (real) Post-tax	USDm	98	71	91	130	169	207
IRR (%) Pre-tax	%	58%	48%	57%	72%	85%	98%
IRR (%) Post-tax	%	50%	41%	48%	61%	74%	84%
AISC	USD/oz	846	835	843	859	874	888
EBITDA annual average	USDm	57	48	55	67	80	93
EBIT annual average	USDm	45	36	42	55	67	80
Free Cash Flow (Pre-tax)	USDm	247	186	230	318	407	497
Free Cash Flow (Post-tax)	USDm	179	136	167	229	292	353
Development Capital – Peak Funding	USDm	78	78	78	78	78	78
Capital Sustaining	USDm	18	18	18	18	18	18
Payback post-tax	Months	31	34	32	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	185%	134%	171%	246%	320%	395%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	125%	92%	117%	166%	217%	266%

Table 5: Project Economics at Various Gold Prices – Reserve Plan (AUD)

Project Economics at gold price	Unit	Forecast (USD1,635/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	AUDm	192	140	178	255	333	411
NPV @ 10% (real) Post-tax	AUDm	130	95	121	173	226	276
IRR (%) Pre-tax	%	58%	48%	57%	72%	85%	98%
IRR (%) Post-tax	%	50%	41%	48%	61%	74%	84%
AISC	AUD/oz	1,127	1,113	1,124	1,145	1,165	1,184
EBITDA annual average	AUDm	76	65	73	90	107	124
EBIT annual average	AUDm	59	48	56	73	90	107
Free Cash Flow (Pre-tax)	AUDm	330	248	307	425	543	662
Free Cash Flow (Post-tax)	AUDm	239	181	223	305	389	470
Development Capital – Peak Funding	AUDm	104	104	104	104	104	104
Capital Sustaining	AUDm	24	24	24	24	24	24
Payback post-tax	Months	31	34	32	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	185%	134%	171%	246%	320%	395%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	125%	92%	117%	166%	217%	266%

NOTE: Converted to AUD from USD using AUD:USD exchange rate of 1.333.

Figure 4: Annual Gold Production – Reserve Plan

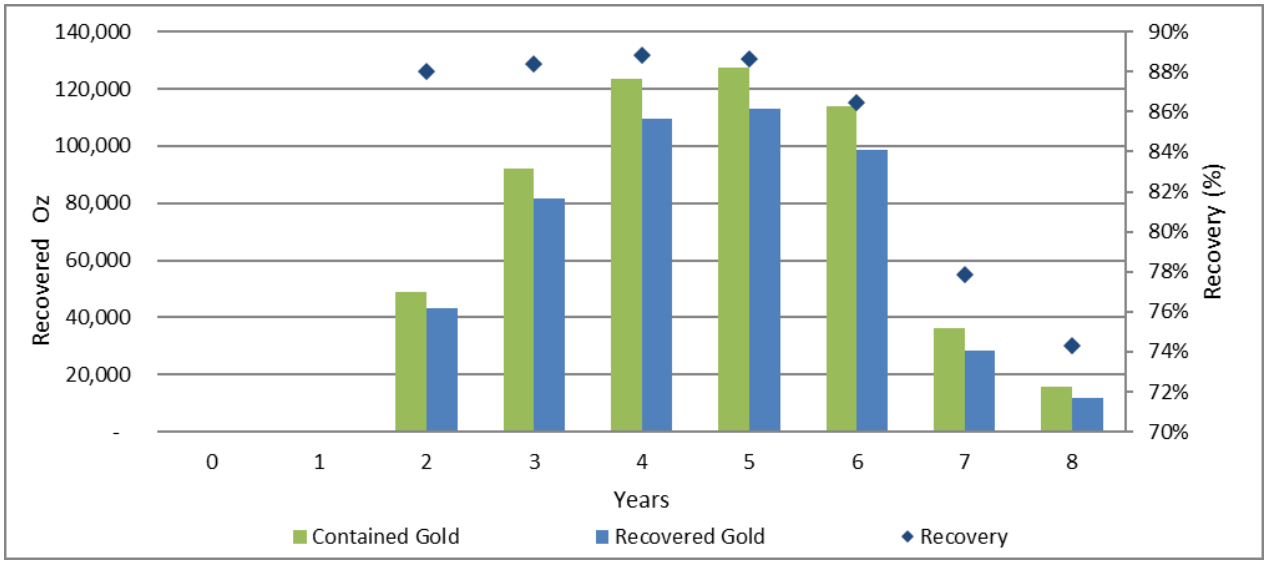
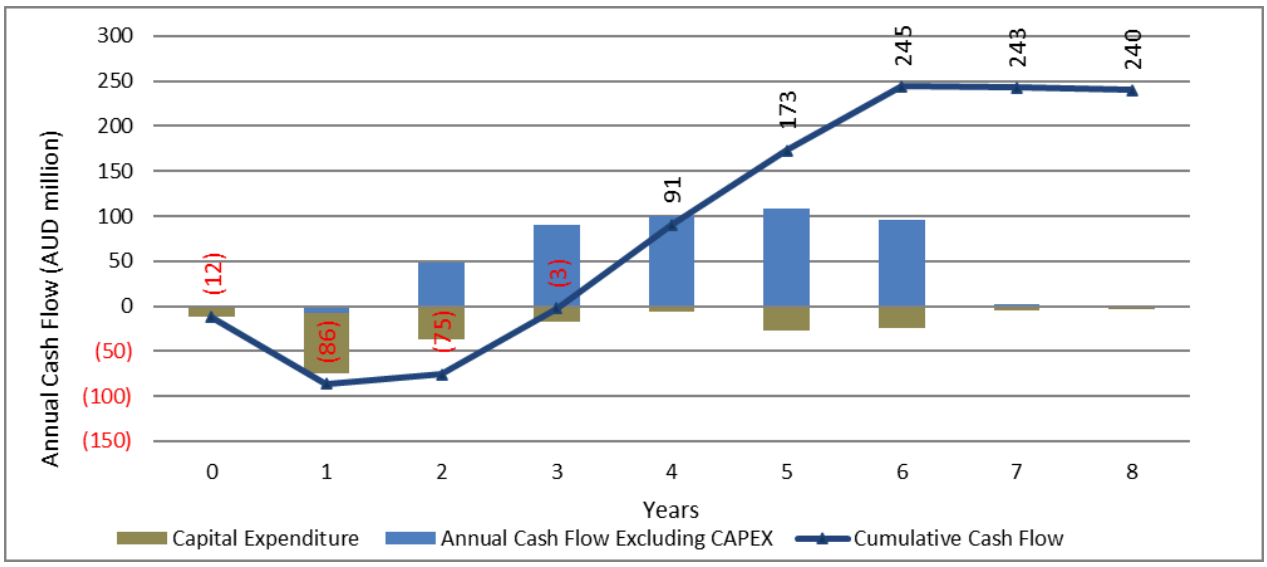


Figure 5: Annual and Cumulative Cash Flow (Post-Tax) – Reserve Plan (AUD)



NOTES:
1. Forecast Prices averaging USD1,635/oz over LOM
2. Converted to AUD from USD at exchange rate of 1.333 AUD:USD.

Project description

The TGM Underground Project aims to restart historical underground gold mines located in a historically prolific gold mining region in the Mpumalanga Province of South Africa. The Project Areas are centred on the town of Pilgrims Rest, some 370 km due northeast of Johannesburg, and ownership has always been vested in TGM or its partners.

The Project targets the Beta (including the Beta North, Beta Central and Beta South sections), Rietfontein, Frankfort and Clewer-Dukes Hill-Morgenzon ("CDM") Mines. A significant amount of gold resources remain underground which were not mined historically due to technological limitations, or limiting ore characteristics.

Beta is scheduled as the first operation to commence production, followed by Rietfontein, and finally CDM and Frankfort simultaneously. In comparison to CDM and Frankfort, Beta and Rietfontein are higher-grade mines.

A metallurgical plant, which acts as the central processing plant for all the historical operations, is situated in close proximity with a maximum distance to operations of ~40km. A new facility will be established on this footprint and will treat all the ore from the underground operations.

Two scheduling strategies have been investigated in the FS. The Base Case considers a life of mine ("LOM") plan targeting the total Mineral Resources (Measured, Indicated and Inferred). The Ore Reserve Plan considers a LOM plan targeting only Measured and Indicated Mineral Resources.

This FS demonstrates the ability to achieve optimised cash flows by scheduling production from the operations. The mine designs and associated costs per operational element feed into a combined operations financial model. The Ore Reserve Plan supports the declaration of compliant JORC Code 2012 Ore Reserves.

Mineral resources

Based on stope grade and tonnes, the JORC Code 2012 Mineral Resources utilised for the FS totals 0.09 Mt of Measured (77%) material at 5.37 g/t Au, 4.54 Mt of Indicated material at 6.24 g/t Au, and 7.74 Mt Inferred material 5.56 g/t Au. This equates 15.7 koz Measured, 911.5 koz Indicated and 1,383.2 koz of contained gold (see **Table 6** below).

Table 6: TGM Underground Projects Mineral Resources as at 1 Febraury 2021

Mineral Resource Classification	Mine	Reef	Reef Grade	Stope Grade	Reef Width	Stope width	Content	Reef Tonnes	Stope Tonnes	Au Content	
			g/t	g/t	cm	cm	cm.g/t	Mt	Mt	kg	koz
Measured	Frankfort	Bevetts	7.13	5.37	73	103	520	0.069	0.091	489	15.7
Total Measured			**7.13**	**5.37**	**73**	**103**	**520**	**0.069**	**0.091**	**489**	**15.7**
Indicated	Frankfort	Bevetts	7.86	5.13	58	96	452	0.243	0.373	1912	61.5
	CDM	Rho	13.19	3.80	23	90	307	0.258	0.895	3401	109.4
	Beta	Beta	21.66	6.58	23	90	499	0.716	2.357	15506	498.5
	Rietfontein	Rietfontein	14.57	8.20	52	92	755	0.517	0.919	7534	242.2
Total Indicated			**16.35**	**6.24**	**37**	**91**	**597**	**1.734**	**4.543**	**28,352**	**911.5**
Total Measured & Indicated			**16.00**	**6.22**	**38**	**91**	**606**	**1.803**	**4.634**	**28,841**	**927.3**
Mineral Resource Classification	**Mine**	**Reef**	**Reef Grade**	**Stope Grade**	**Reef Width**	**Stope width**	**Content**	**Reef Tonnes**	**Stope Tonnes**	**Au Content**	
			g/t	**g/t**	**cm**	**cm**	**cm.g/t**	**Mt**	**Mt**	**kg**	**koz**
Inferred	Frankfort	Bevetts	7.41	4.27	48	93	356	0.343	0.596	2543	81.8
	CDM	Rho	10.06	3.02	24	90	244	0.544	1.811	5472	175.9
	Beta	Beta	16.51	5.43	25	90	414	1.107	3.367	18285	587.9
	Rietfontein	Rietfontein	14.06	8.52	57	94	803	1.190	1.962	16721	537.6
Total Inferred			**13.51**	**5.56**	**39**	**91**	**532**	**3.184**	**7.736**	**43,022**	**1383.2**

Notes:
1. Mineral Resource cut-off of 160 cm.g/t applied.
2. Fault losses of 5% for Measured and Indicated, 10% for Inferred Mineral Resources.
3. Gold price used for the cut-off calculations is USD1,500/oz.
4. cm.g/t and g/t figures will not back calculate due to variable densities in reef and waste rock.
5. Mineral Resources are stated as inclusive of Ore Reserves.
6. Mineral Resources are reported as total Mineral Resources and are not attributed.
7. Discrepancy in summation may occur due to rounding.

The Mineral Resources were independently estimated by Minxcon (Pty) Ltd as at 1 February 2021. No further ground work or Mineral Resource revisions have taken place since then, thus the estimate is still valid. The Mineral Resources for the underground *in situ* operations are declared a 160 cm.g/t cut-off (1.76 g/t) over a diluted stoping width of 90 cm. Mineral Resources where applicable have been depleted with the historical workings of the respective Project Areas.

The Projects represent either historical and/ or mature operations. Drilling and channel chip sampling have been completed over Beta, Frankfort and CDM, with the majority of datasets being historical data.

All historical sample types were agglomerated, and data type biases were not investigated due to the small number of drill-hole intersections. Only full reef composite data was available for the chip sample data while full reef composites were calculated for each drill-hole intersection.

Data aggregation methods utilised in generating the full reef composites of the sampling are not available for review due to the historical nature of the data.

The reef widths are however generally narrow so the reef samples would probably have been one sample.

The drill-hole data is expressed as a single weighted composited point for the mother hole and deflections where applicable. In addition, drill-holes with wedges, or multiple reef intersections, weighted mean reef widths and grades were calculated for each drill-hole for use in the Mineral Resource estimation.

Where stretch values were used in the estimation these were composited to a 3 m composite based on a minimum stretch length. These values were treated separately and not included in the chip sample database. Areas utilising stretch values were immediately relegated to Inferred Mineral Resource classification.

The Mineral Resource estimation utilised block models consisting of varying block sizes. For the concordant reef types, a single cell in the Z direction was utilised. The reef thickness was estimated in order to generate a 3D model which was projected to the structural model. Depletions of historical stope workings and development (when on-reef) were applied. Where the reefs outcropped on surface and cut against topography, the model was sub-celled to this outcrop in order to accurately assess the reef volume occurring in these areas. A 90 cm stope width based on historical mining was applied to those estimated reef widths below 70 cm to create a mining or stoping grade, thus allowing for 20 cm dilution to the grade and tonnage.

The Inferred Mineral Resources have a low level of confidence and while it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will occur.

ORE Reserves

The total Ore Reserve estimate for the combined LOM plan, only targeting Measured and Indicated Resources in the LOM schedule, is detailed in **Table 7.**

Table 7: Ore Reserve Estimate for TGM Mines (Ore Reserve Plan)

Ore Reserve Category	Tonnes	Grade	Au Content	
	kt	g/t	kg	koz
Beta				
Proved	-	-	-	-
Probable	1,634	6.86	11,206	360
Rietfontein				
Proved	-	-	-	-
Probable	509	7.76	3,954	127
Frankfort				
Proved	58	4.26	245	8
Probable	258	4.08	1,053	34
CDM				
Proved	-	-	-	-
Probable	395	2.30	908	29
Combined				
Proved	58	4.26	245	8
Probable	2,796	6.12	17,121	550
Total	**2,853**	**6.09**	**17,366**	**558**

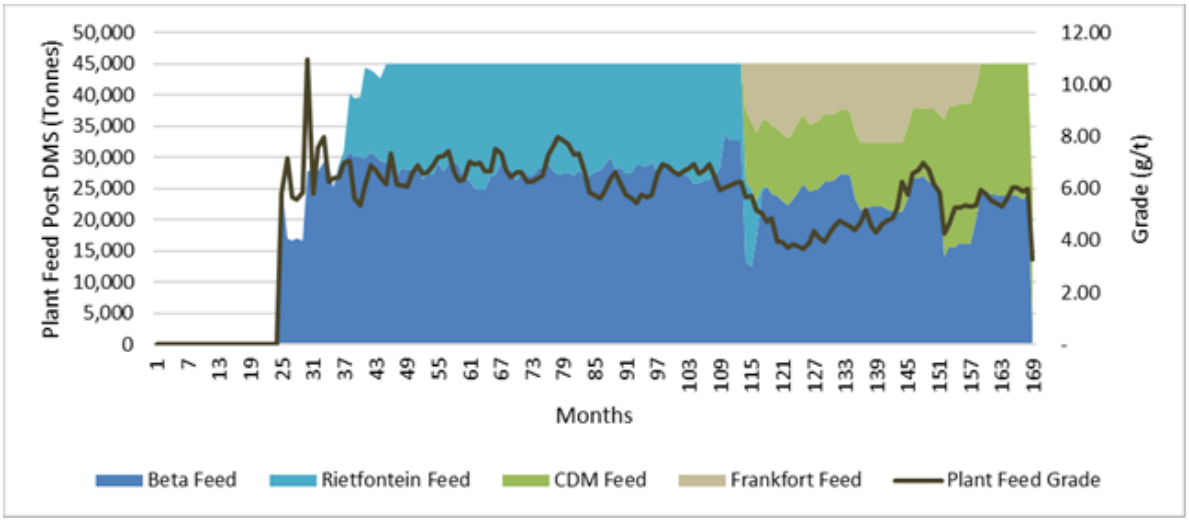
Notes:
1. An Ore Reserve cut-off of 170 cm.g/t has been applied for the Beta Mine.
2. An Ore Reserve cut-off of 150 cm.g/t has been applied for the Frankfort Mine.
3. An Ore Reserve cut-off of 121 cm.g/t has been applied for the CDM Mine.
4. An Ore Reserve cut-off of 160 cm.g/t has been applied for the Rietfontein Mine.
5. A gold price of USD1,465/oz and exchange rate of ZAR/USD 16.00 was used for the cut-off calculation.
6. Discrepancy is summation may occur due to rounding.

Life of a mine plan

Combined Plant Feed (Base Case)

The combined plant feed tonnes for the Base Case are illustrated in **Figure 6**. The feed is based on the LOM plan targeted Mineral Resources, inclusive of Inferred Mineral Resources. The total LOM for the plant feed is 11.33 years, shorter than the mining LOM plan due to stockpiling the initial on-reef development at Beta.

Figure 6: Combined Plant Feed Tonnes from Underground Operations – Base Case



The diluted Mineral Resources included in the combined LOM plan as a total of the Base Case, only targeting Mineral Resources for the LOM schedule, are detailed in **Table 8**.

Table 8: Diluted Mineral Resources included in the Life of Mine Plan (Base Case)

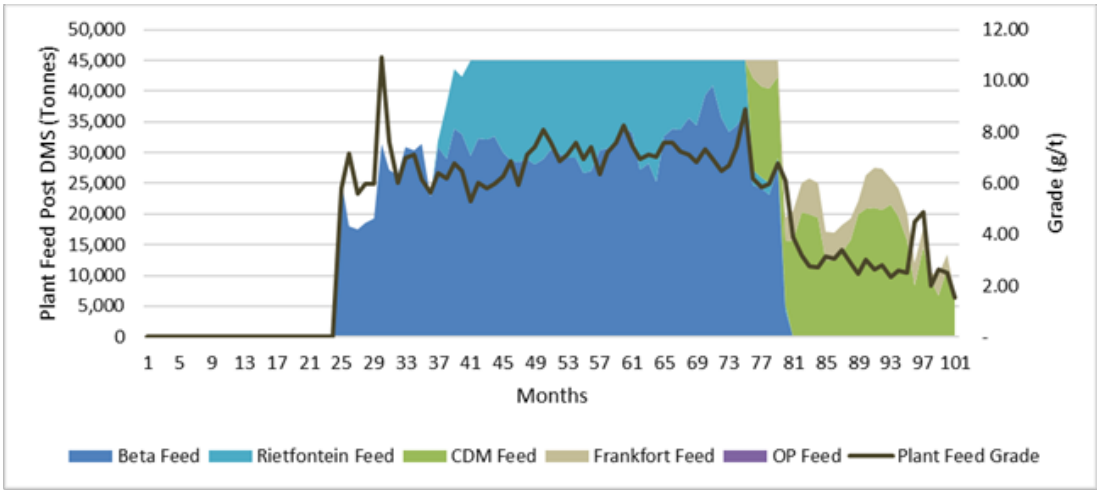
Mineral Resource Classification	Tonnes	Grade	Au Content	
	kt	g/t	kg	koz
Beta				
Measured	-	-	-	-
Indicated	1,688	6.81	11,498.82	369.70
Inferred	2,025	5.78	11,712.98	376.58
Rietfontein				
Measured	-	-	-	-
Indicated	507	7.79	3,949.94	126.99
Inferred	783	8.35	6,533.87	210.07
Frankfort				
Measured	57	4.30	244.92	7.87
Indicated	277	4.39	1,212.97	39.00
Inferred	325	4.22	1,374.31	44.19
CDM				
Measured	-	-	-	-
Indicated	403	2.32	934.44	30.06
Inferred	399	2.40	957.26	30.78
Combined				
Measured	57	4.30	244.92	7.87
Indicated	2,874	6.12	17,596.17	565.75
Inferred	3,531	5.83	20,578.41	661.61
Total	**6,462**	**5.95**	**38,419.50**	**1,235.23**

Notes:
1. A Mineral Resources inventory cut-off of 170 cm.g/t has been applied for the Beta Mine.
2. A Mineral Resources inventory cut-off of 150 cm.g/t has been applied for the Frankfort Mine.
3. A Mineral Resources inventory cut-off of 121 cm.g/t has been applied for the CDM Mine.
4. A Mineral Resources inventory cut-off of 160 cm.g/t has been applied for the Rietfontein Mine.
5. A gold price of USD1,465/oz and exchange rate of ZAR/USD 16.00 was used for the cut-off calculation.
6. Discrepancy is summation may occur due to rounding.

Combined Plant Feed (Ore Reserve Plan)

The combined plant feed tonnes for the Ore Reserve Plan are illustrated in **Figure 7**. The feed is based on the LOM plan targeting only Ore Reserves for scheduling.

Figure 7: Combined Plant Feed Tonnes from Underground Operations – Ore Reserve Plan



The total Ore Reserve estimate for the combined LOM plan, only targeting Measured and Indicated Resources in the LOM schedule, are detailed in **Table 9.**

Table 9: Ore Reserve Estimate for TGM Mines (Ore Reserve Plan)

Ore Reserve Category	Tonnes	Grade	Au Content	
	kt	g/t	kg	koz
Beta				
Proved	-	-	-	-
Probable	1,634	6.86	11,206	360
Rietfontein				
Proved	-	-	-	-
Probable	509	7.76	3,954	127
Frankfort				
Proved	58	4.26	245	8
Probable	258	4.08	1,053	34
CDM				
Proved	-	-	-	-
Probable	395	2.30	908	29
Combined				
Proved	58	4.26	245	8
Probable	2,796	6.12	17,121	550
Total	**2,853**	**6.09**	**17,366**	**558**

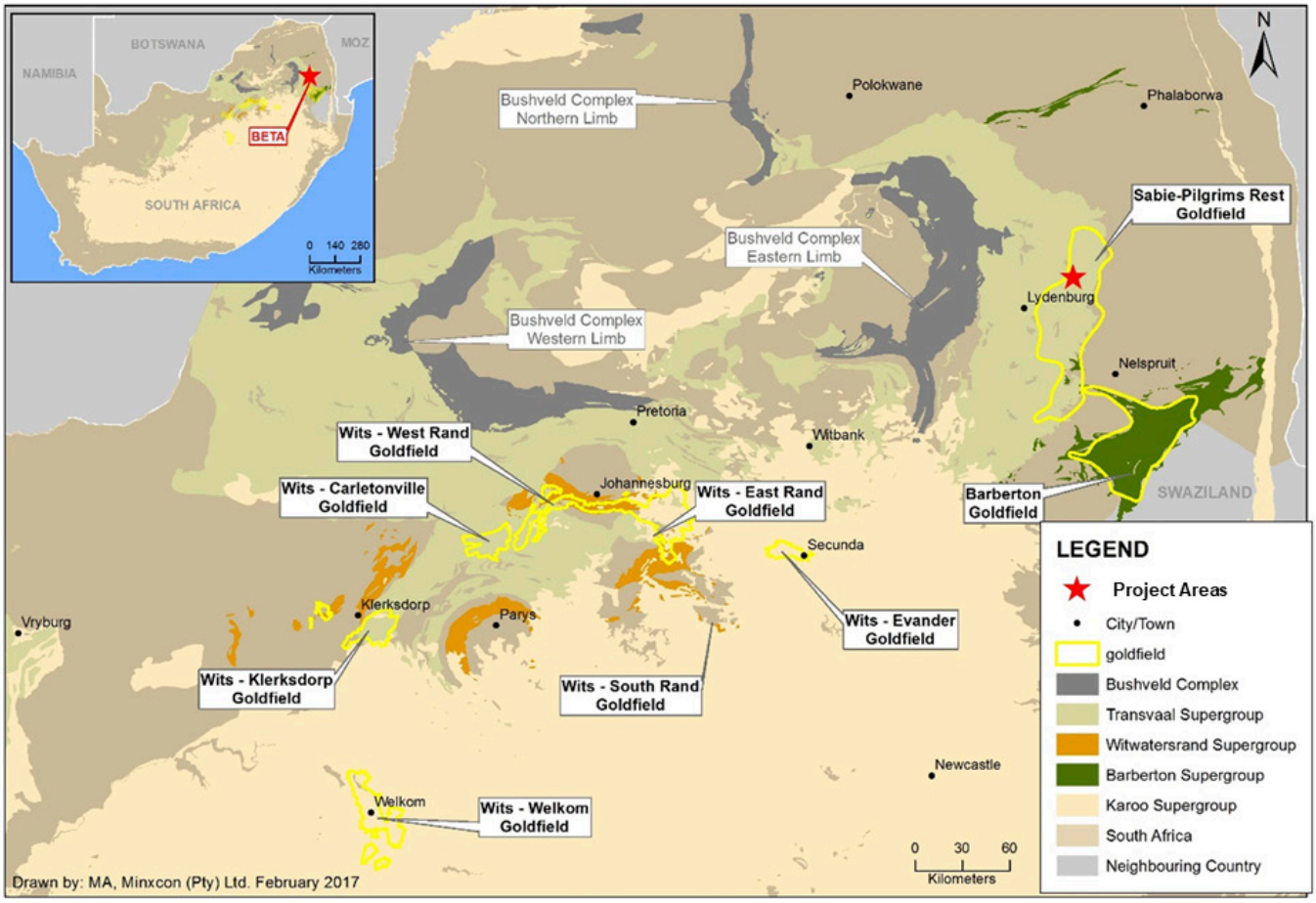
Notes:
1. An Ore Reserve cut-off of 170 cm.g/t has been applied for the Beta Mine.
2. An Ore Reserve cut-off of 150 cm.g/t has been applied for the Frankfort Mine.
3. An Ore Reserve cut-off of 121 cm.g/t has been applied for the CDM Mine.
4. An Ore Reserve cut-off of 160 cm.g/t has been applied for the Rietfontein Mine.
5. A gold price of USD1,465/oz and exchange rate of ZAR/USD 16.00 was used for the cut-off calculation.
6. Discrepancy due to summation may occur due to rounding.

Geology

The Project Areas are situated within the Sabie-Pilgrims Rest Goldfield, approximately 370 km northeast of Johannesburg **(Figure 8)**.

This metallogenic province extends for approximately 140 km in a north-north-easterly direction, over a maximum width of 30 km along the Great Escarpment of southern Africa. Gold mineralisation occurs within shear zones located within sedimentary host rocks of the Transvaal Supergroup. The orebodies considered in the FS are described as thin, sheet-like near horizontal deposits. The reefs considered for extraction through the underground operations at Beta, Frankfort and CDM, namely the Beta Reef (Beta Mine), Bevetts Reef (Frankfort Mine) and Rho Reef (CDM) are all concordant reefs that dip shallowly westwards between 3°and 12°. At the Rietfontein Mine, the Rietfontein Reef occurs as a sub-vertical hydrothermal vein striking north-northeast and fills a narrow 1-3 m wide fracture in basement granite.

Figure 8: Regional Geological Setting



Beta

The Beta Reef occurs as a sub-horizontal or hydrothermal typical “flat reef” quartz-carbonate vein which strikes north-northeast, dips at about 3° to 7° to the west and pinches and swells down dip as well as along strike.

The reef varies in width from waste-on-contact to nearly 3 m with a mean reef width of between 20 cm to 30 cm and is stratigraphically located within the dolomite of the Eccles Formation within the Malmani Subgroup of the Transvaal Supergroup. The gold-bearing material is mainly associated with pyrite with trace chalcopyrite with a minor presence of graphitic and carbonaceous material.

The Beta Reef vein has been prospected to depths of about 550 m below surface by historical as well as more recent drill holes. The only available

information is that which is available in the form of annotations on plans and various MS Excel™ spreadsheets. The deepest underground development reaches to a depth of 360 m below surface. Exploration activity indicates the presence of a pay shoot towards the east-southeast of the current westernmost workings.

The Beta Reef quartz vein follows the regional trend of bedding on a north-northeast to south-southwest strike orientation. It has been traced for nearly 2 km on strike and 2.5 km on dip and mined for at least 1.5 km down dip in the area of Beta Mine.

The Beta Mine is split into an eastern and western section by the 30 m thick north-northeast to south-southwest trending Beta Dyke which is thought to be diabasic in nature (of the late Vaalian age belonging principally to the Bushveld Complex) and intruded into the Transvaal Group. The dyke exhibits a scissor displacement on the Beta reef where in the north displacement is approximately 2 m down to the west. In the south this displacement increases to approximately 25 m to the west.

Minor dykes and faulting occur within the Mine trending along the regional north-northeast to south-southwest trending lineaments and generally have negligible displacements.

Frankfort

At the Frankfort Mine, the Bevetts Reef occurs as a concordant to sub-concordant reef. The Bevetts Reef is developed at the interface between the Bevetts quartzite and the overlying Pretoria shales. The reef consists of a quartz-carbonate vein, which can vary in thickness from a contact to in excess of 200 cm. Evidence of duplex thrusting is present, which may have served to eliminate the reef horizon in some areas and duplicate it into a thick package in other areas. Reef mineralogy is comprised of coarse euhedral sulphide crystals. These coarse sulphides are predominately pyrite, arsenopyrite and lesser tetrahedrite. Massive chalcopyrite is common. The mineralisation is commonly banded with barren milky quartz and lesser calcite between the sulphide bands.

Below the Bevetts Reef, a 100 cm thick quartzite unit is developed. Below this quartzite, the Bevetts Conglomerate, comprising rounded to sub–angular chert clasts, is sporadically developed. Below this, the thin dolomitic Rooihoogte Formation is present before passing into a 60 m thick lava unit, which contains amygdales at the top of the unit.

CDM

At CDM, the Rho Reef hosts gold mineralisation and has a general dip direction of 5° to 7° to the west and strikes in a north–south direction. The reef occurs approximately 24 m below the base of the Bevett's unconformity, which marks the end of the dolomite succession and the beginning of the Pretoria Group. The Rho Reef itself consists of an Upper Rho Reef and a Lower Rho Reef separated on average by 2 m of argillaceous dolomite. Below the Lower Rho Reef there is a sill developed approximately 5 m in the footwall ranging from 5 m to 18 m thick. A shale band varying from 5cm in the north to 60cm in the south is developed 3m below the Lower Rho Reef. Above the Upper Rho Reef, a unit termed the silver shale is developed 3 m in the hanging wall and is between 50 cm and 100 cm thick. Above the silver shale, a hanging wall sill is developed that ranges from 18 m to 22 m thick. The Bevett's conglomerate unconformably overlies this hanging wall sill.

Faulting generally trends NNE to SSW is normal and sub–vertical. Displacements are in most cases less than 3 m. Dykes occupy pre-existing fault planes and either one or both contacts are strongly faulted. Dykes follow the trend of the faulting and in most cases faults and dykes are water-bearing, though the inflow is not excessive.

The resource model is however based on one reef only, referred to as the Rho Reef. It is uncertain if the historical sampling captured is the upper or lower reef.

Rietfontein

Another style of mineralisation occurs at the Rietfontein Mine, where the Rietfontein Reef occurs as a cross-reef in the basement granites. It penetrates the overlying Black Reef Quartzite for a short distance before petering out. The granite surrounding the quartz vein is heavily decomposed as a result of the hydrothermal fluids and influx of surface water along the outcrop trace of the quartz vein. The sub-vertical hydrothermal quartz vein strikes north-northeast and fills a narrow 1-3 m wide fracture in basement granite. The quartz vein has been traced over 16 km on strike and mined for 3 km along its strike length. The gold-bearing material and the gold are associated with pyrite and trace arsenopyrite, chalcopyrite and bismuth. The vertical vein has been prospected to depths of 400 m by historical drill-holes, the only information is annotations on plan. The deepest underground development is 320 m below surface. There is no indication of the vein closing out at depth giving room for exploration of the depth extensions.

Mining

Mining Strategy

The mining strategy for the underground operations is to apply mechanised long-hole drilling to narrow reef mining to selectively mine out only the reef channel with minimal dilution at Beta, Frankfort and CDM. Rietfontein will be mined conventionally utilising shrinkage stoping with a hybrid loading methods between trackless LHDs and rail-bound locomotives.

The mining objective is to allow for an 8-month period from April 2022 for environmental approvals and finalisation of EPCM contracts before mining construction starts in December 2022, with an additional 6-month construction period before development can start in June 2023. Once UG development commences, all on-reef development is stockpiled for a period of ten months before the plant is commissioned, due to very low ore volumes being mined. First gold production is therefore in April 2024.

The existing mining infrastructure will be utilised, with the addition of new accesses, underground development and pre-development of the mining grids to access the planned mining areas at Beta, Frankfort and CDM. When mining grid development has advanced sufficiently, early stoping can commence. The aim is to open-up sufficient ground to produce the planned stoping tonnes.

At Rietfontein, the existing adits and underground development will be utilised with the addition of new development ends, a new decline and the extension of an existing decline.

The Base Case for the planned LOM is based on scheduling the Measured, Indicated and Inferred Mineral Resources at each of the four mines. Provisional LOM schedules based only on Ore Reserves are also included in this report and will be referred to as the Ore Reserve Plan.

However, the focus of the mining strategy remains on extracting all the mineable Mineral Resources, as determined in this Section. The two scenarios are summarised in **Table 10**.

Table 10: Mining Strategy Scenarios

Mining Strategy Scenario	Description
Base Case	LOM plan inclusive of Measured, Indicated and Inferred Mineral Resources
Ore Reserve Plan	LOM plan including only Measured and Indicated Mineral Resources

Modifying Factors

The JORC Code defines modifying factors as mining, metallurgical, economic, marketing, legal, environmental, social and governmental considerations that are used to convert Mineral Resources to Ore Reserves.

Mining Ore Reserve Conversion Factors – Beta, Frankfort and CDM

The Ore Reserve conversion factors applied to the underground operations are detailed in **Table 11**.

The pillar loss applied to the Frankfort Mine is higher than the pillar loss applied to the Beta and CDM operations. The pillar loss applied to the Frankfort Mine was derived from the geotechnical study conducted.

Mining Ore Reserve Conversion Factors – Rietfontein

The Ore Reserve conversion factors applied to the underground operations are detailed in **Table 12**.

The stoping and raise dilution to consider an overbreak into the waste of 10 cm on either side of the reef contact.

Processing and Metallurgical Factors

There are no processing or metallurgical factors that are deemed to be classified as modifying factors applied to the Ore Reserves estimation or the Base Case mining inventory estimation.

Infrastructure Factors

There are no infrastructure factors that are deemed to be classified as modifying factors applied to the Ore Reserves estimation or the Base Case mining inventory estimation.

Economic and Marketing Factors

The Base Case and Ore Reserve plan are based on a market price of USD1,642/oz. This is included in the pay-limit calculations to determine a minimum cut-off grade for each mine.

For the Base Case, the marginal tail consisting of CDM tonnes, was excluded from the financial analysis and the LOM plan at month 169. No other economic or marketing factor was considered in converting Mineral Resources to Ore Reserve, nor for determining the Base Case mining inventory.

Legal, Environmental, Social and Governmental Factors

There are no legal, environmental, social, or governmental factors that are deemed to be classified as modifying factors applied to the Ore Reserves estimation or the Base Case mining inventory estimation.

Table 11: Ore Reserve Conversion Factors – Beta, Frankfort, CDM

Area	Factors		Unit	Value
Underground	Minor Geological Loss	Measured	%	0
		Indicated	%	5
		Inferred	%	10
	Pillar Loss Beta and CDM		%	7.05
	Pillar Loss Frankfort		%	11.46
	Ore loss		%	0.5
	Dilution		%	1
	MCF		%	85

Table 12: Ore Reserve Conversion Factors - Rietfontein

Factors		Unit	Value
Geological Losses	Measured	%	0
	Indicated	%	5
	Inferred	%	10
Pillar Loss		%	8.0
Ore Loss		%	3
Stoping and Raise Dilution		cm	20
MCF		%	85

Production Scheduling Strategy

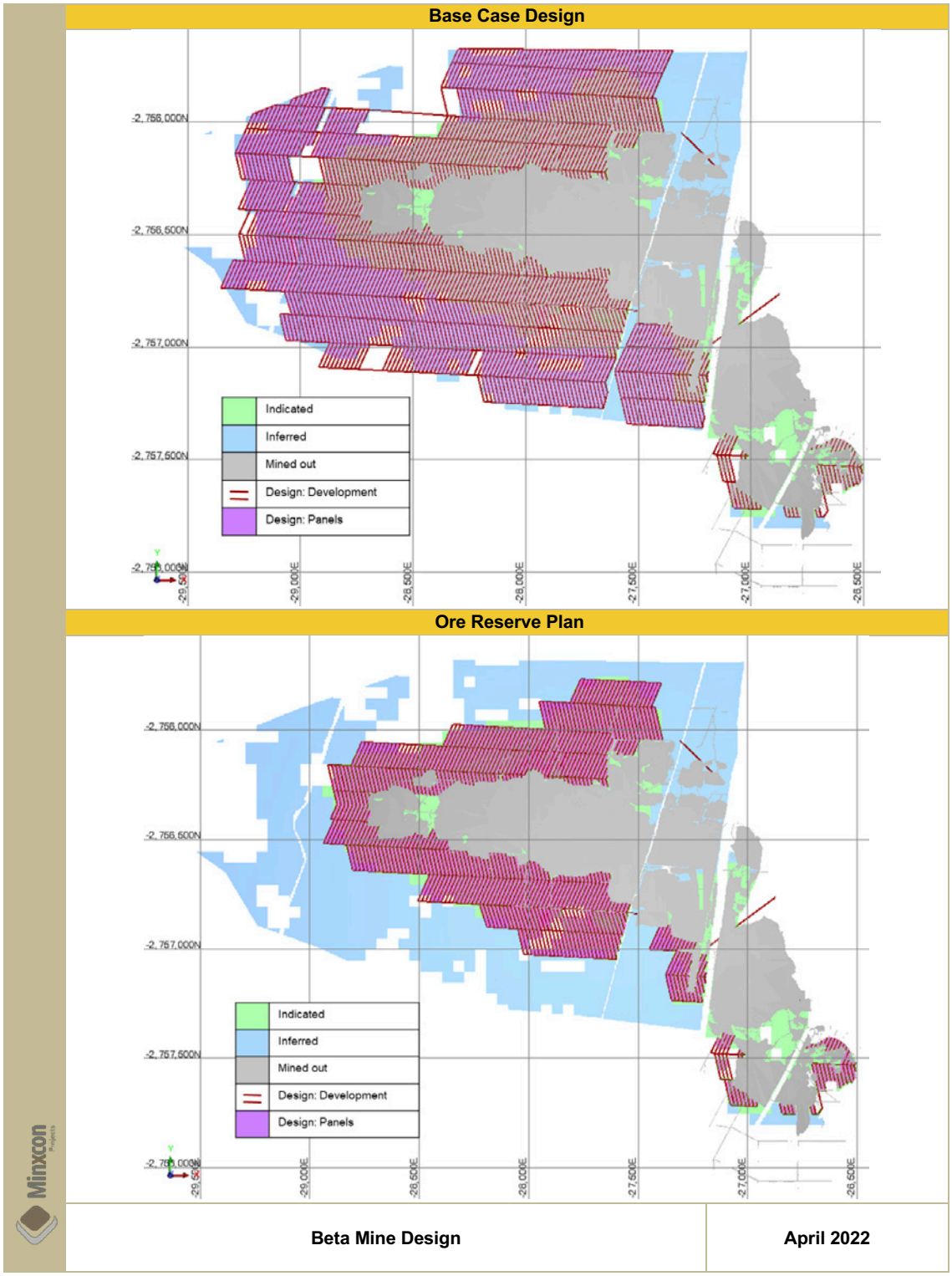
The steady state production schedule strategy is to produce:

- 30 ktpm from the Beta Mine;
- 15 ktpm from the Rietfontein Mine;
- 15 ktpm from the Frankfort Mine; and
- 10 ktpm to a 20 ktpm ramp-up near the end of CDM Mine LOM.

Beta Mine Design

The Beta Mine design is illustrated in **Figure 9**, showing the stope designs of both the Base Case and the Ore Reserve Plan.

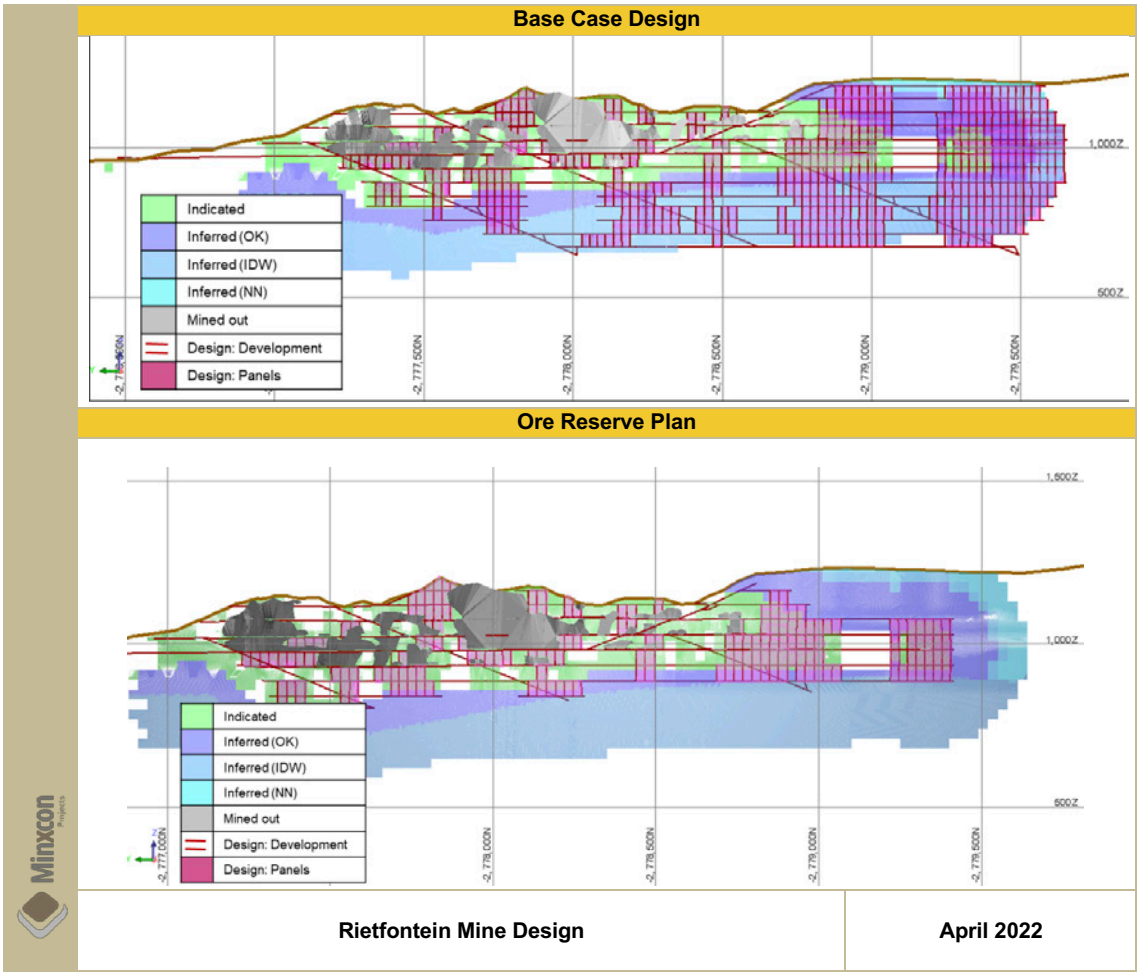
Figure 9: Beta Mine Design



Rietfontein Mine Design

The Rietfontein Mine design is illustrated in **Figure 10**, showing the stope designs of both the Base Case and the Ore Reserve Plan.

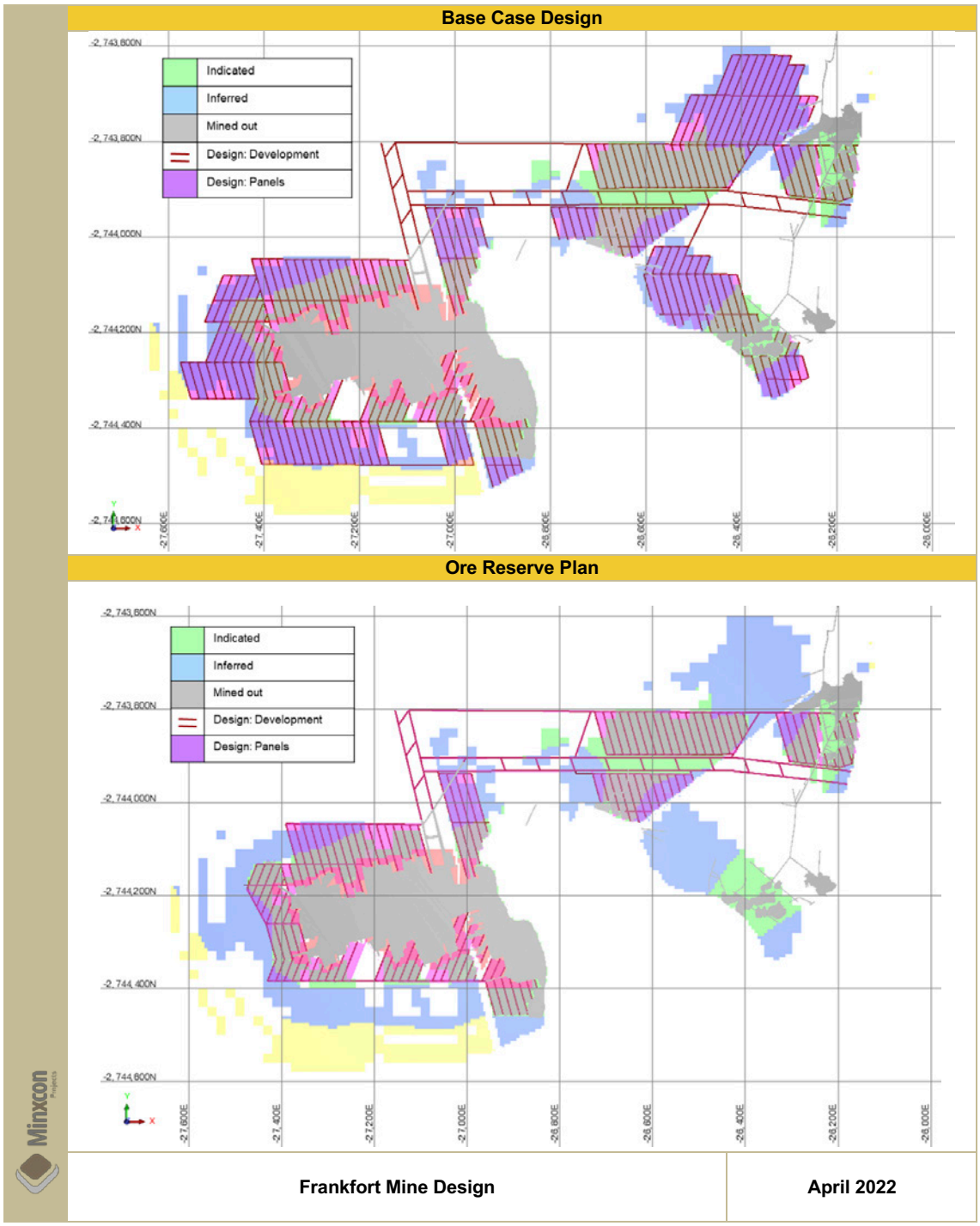
Figure 10: Rietfontein Mine Design



Frankfort Mine Design

The Frankfort Mine design is illustrated in **Figure 11**, showing the stope designs of both the Base Case and the Ore Reserve Plan.

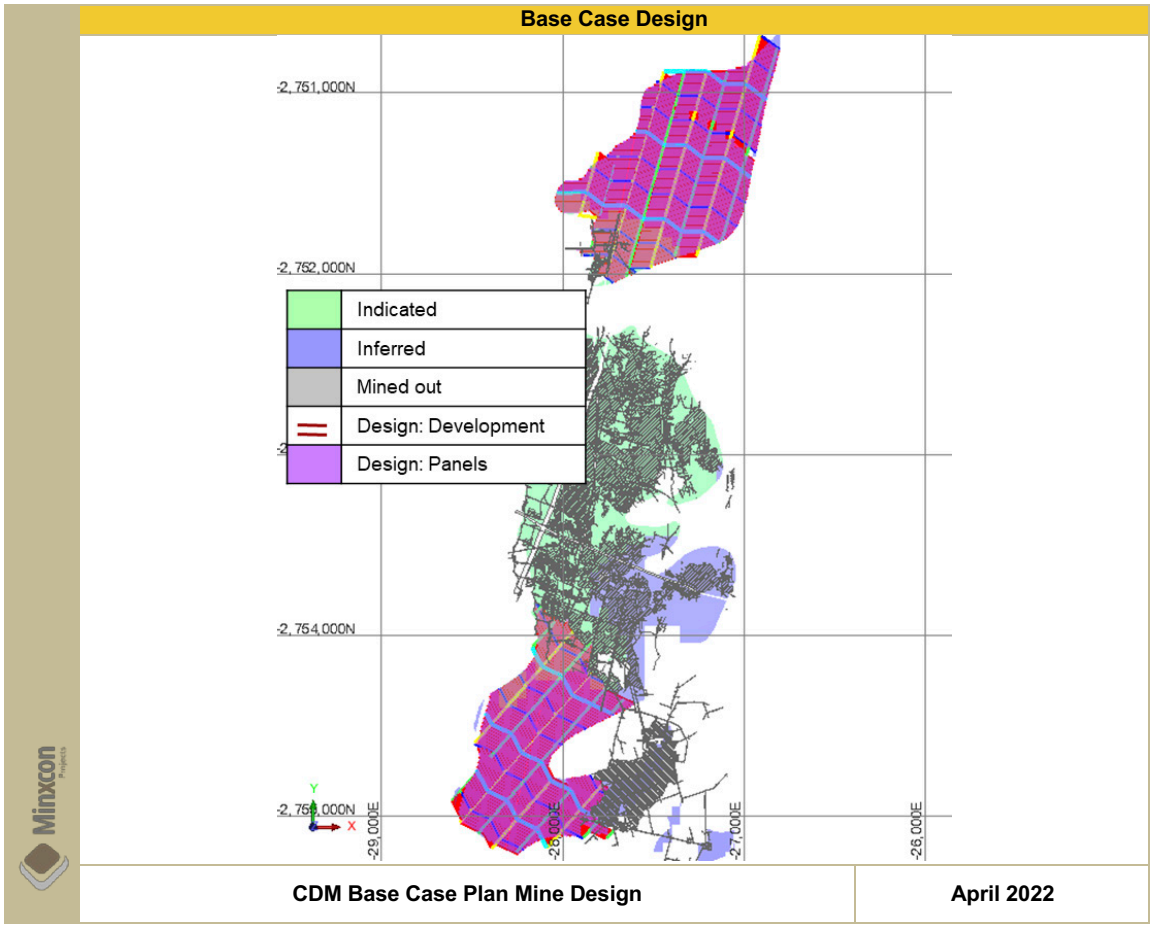
Figure 11: Frankfort Mine Design



CDM Mine Design

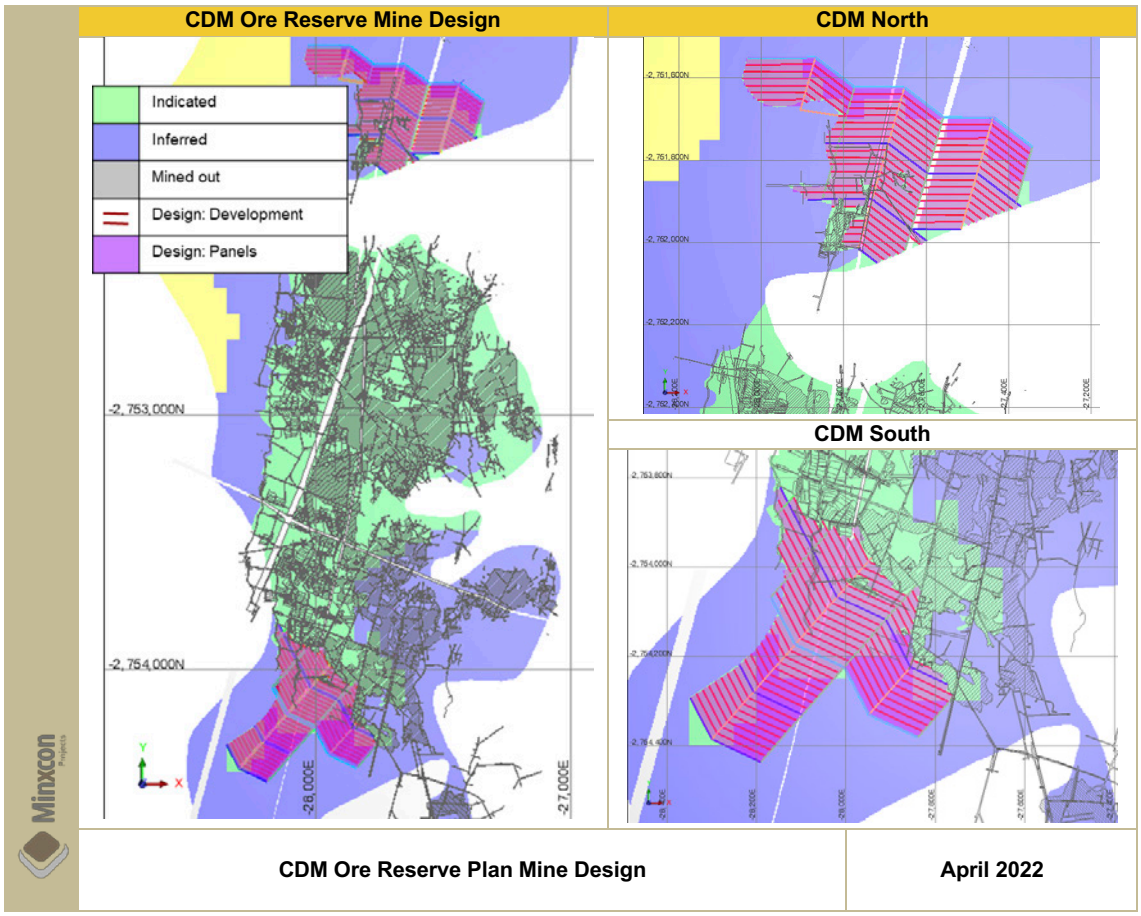
The CDM Mine will be accessed via the existing CDM North and South portals. The portals will serve the two planned mining areas independently. The CDM Mine Base Case design is illustrated in **Figure 12.**

Figure 12: CDM Base Case Plan Mine Design



The CDM Mine Ore Reserve design is illustrated in **Figure 13.**

Figure 13: CDM Ore Reserve Plan Mine Design



GEOTECH

Beta Mine

A project review and initial geotechnical recommendations for the Beta Mine were completed by an independent rock engineer, Mr. Mark Grave. Numerical modelling and empirical analysis were completed to determine rock characteristics, and potential failure zones and provide geotechnical recommendations.

The following recommendations have been made by the rock engineer:

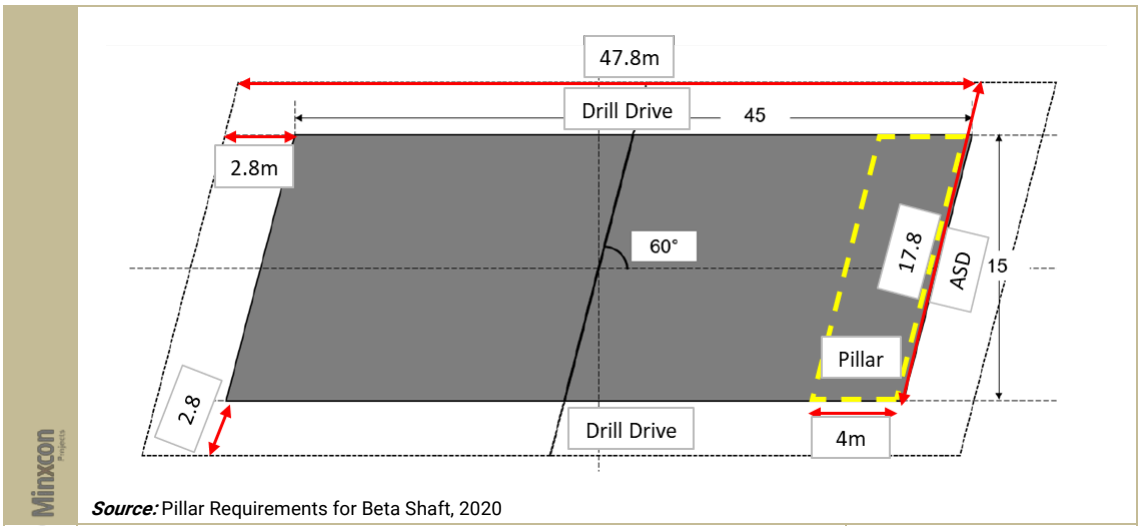
- Careful consideration must be given to prevent back area caving from propagating to the advancing face;
- Consideration of grouted backfill bags on the ledges as a means of protecting adits;
- Adit hanging walls and sidewalls should be reinforced with 1.8 m resin grouted tendons;
- At least two adits must be protected with dip rib pillars or backfill bags (W:H >=5) to comply with escape way legislation; and
- The protected adits must be connected with similarly protected strike drives not more than 200 m apart.
- A cemented backfill strategy using tailings for deposition at Beta Mine should be investigated further by means of the required geotechnical studies and reconnaissance of the mined-out areas.

The detail of the study is described in the "*Project Review and Initial Recommendations for the Beta Mine of Transvaal Gold Mining Estates (TGME)*" Report.

A pillar loss of 7.05% has been calculated from rock engineering recommendations and applied to the design to account for *in situ* material that will not be mined and left as pillars.

The recommended pillar requirements for the Frankfort Mine are detailed in **Figure 14.**

Figure 14: Recommended Beta Mine Pillar Design



Source: Pillar Requirements for Beta Shaft, 2020

The pillar loss calculation is detailed in **Table 13.**

Table 13: Beta Mine Pillar Loss Calculation

Pillar Loss		
Parameter	**Unit**	**Value**
Mining Block Length	m	45
Mining Block Width	m	15
ASD Width	m	2.8
Drill Drive Width	m	2.8
Pillar Width	m	4
Pillar Length	m	15
Mining Area	m²	851
Pillar Area	m²	60
Pillar Loss	**%**	**7.05**

It has been planned that development ends will typically be supported with shepherd crook grouted bolts, following a typical 3 x 2 pattern, spaced at 1.5 m intervals.

Stope support is planned to consist of mine poles which will be installed on the shoulder of the stopes, adjacent to the drill drives. The mine poles will be pre-stressed by installing jackpots. Typical strike spacings of 1.5 m are expected for the installation of stope support.

In areas where geological features, such as faults and dykes will be intersected it is recommended that 20 t mine poles are installed at spacings of 50 cm on either side of the contact. It has also been recommended that faults should be stitched with rebar, spaced 1 m apart in the development ends, within 50 cm of the contact on either side.

No drilling of support holes into dykes will be allowed.

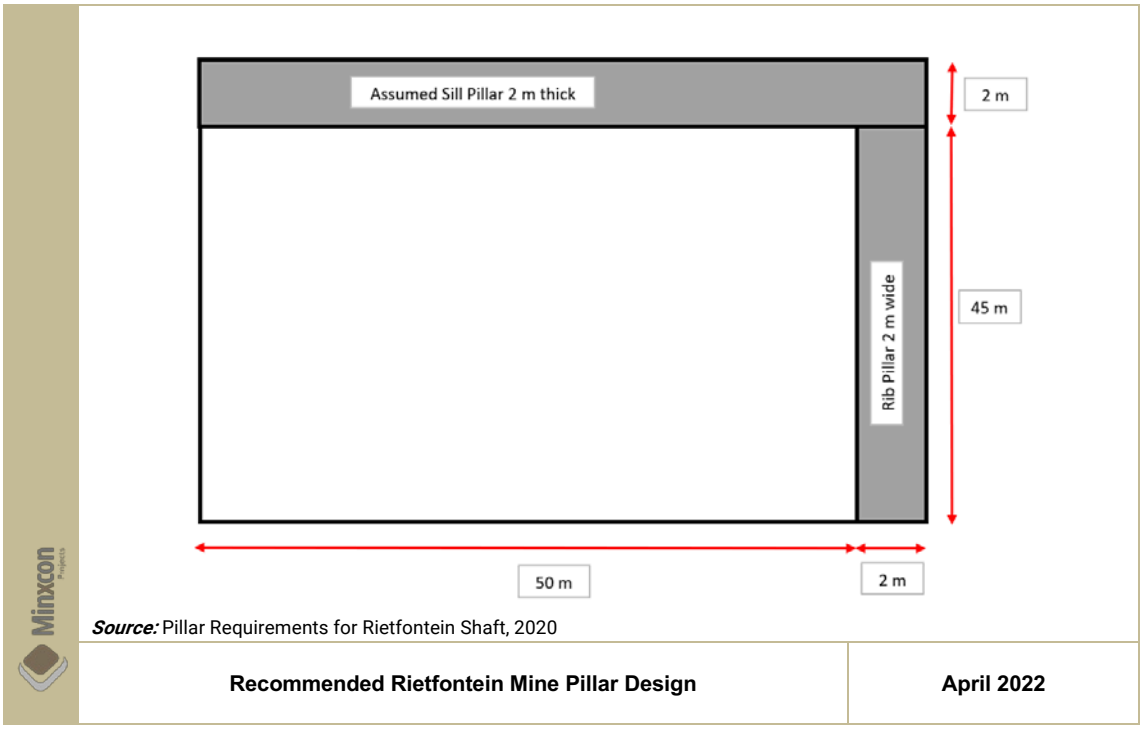
Rietfontein Mine

A pillar requirements study for the Rietfontein Mine has been completed by an independent rock engineer, Mr. Mark Grave.

A pillar loss of 8% has been calculated from rock engineering recommendations and applied to the design to account for *in situ* material that will not be mined and left as pillars.

The recommended pillar requirements for the Rietfontein Mine are detailed in **Figure 15**.

Figure 15: Recommended Pillar Design for Rietfontein Mine



The pillar loss calculation for Rietfontein Mine is detailed in **Table 14.**

Table 14: Pillar Loss Calculation

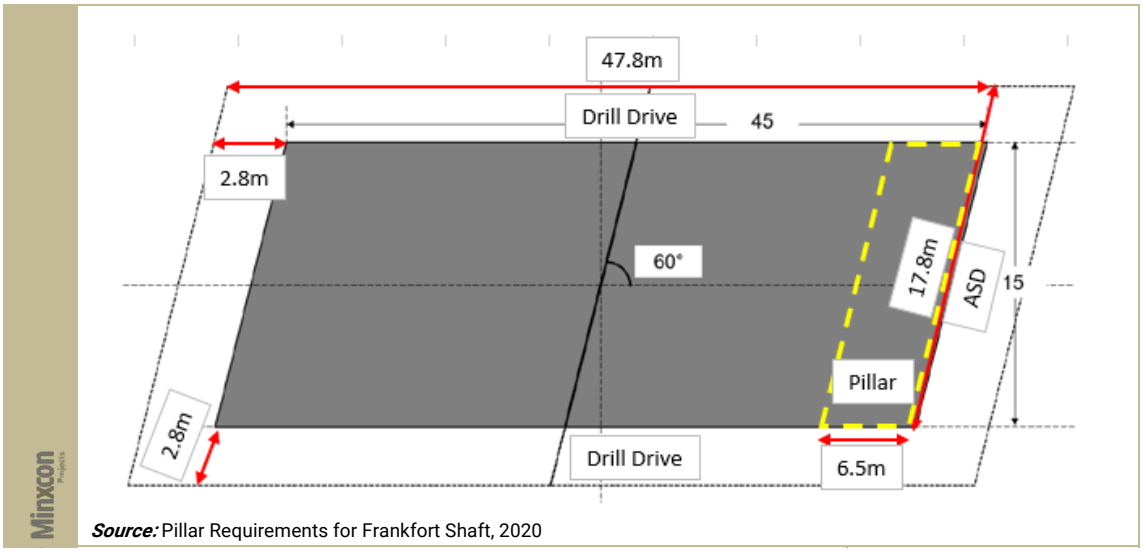
Description	Unit	Value
Stope Height	m	45
Panel Length	m	50
Rib Pillar Width	m	2
Sill Pillar Width	m	2
Mining Block Area	m²	2,444
Pillar Area	m²	194
Pillar Loss	**%**	**8.0**

Frankfort Mine

A pillar requirements study for the Frankfort Mine has been completed by an independent rock engineer, Mr. Mark Grave. A pillar loss of 11.46% has been calculated from rock engineering recommendations and applied to the design to account for *in situ* material that will not be mined and left as pillars. The recommended pillar requirements for the Frankfort Mine are detailed in **Figure 16.**

The pillar requirements study is detailed in the "*Pillar Requirements for Frankfort Shaft*" Report.

Figure 16: Recommended Pillar Design for Frankfort Mine



Source: Pillar Requirements for Frankfort Shaft, 2020

The pillar loss calculation is detailed in **Table 15.**

Table 15: Frankfort Mine Pillar Loss Calculation

Pillar Loss		
Parameter	**Unit**	**Value**
Mining Block Length	m	45
Mining Block Width	m	15
ASD Width	m	2.8
Drill Drive Width	m	2.8
Pillar Width	m	6.5
Pillar Length	m	15
Mining Area	m²	851
Pillar Area	m²	98
Pillar Loss	**%**	**11.46**

It has been recommended that development ends should be supported with shepherd crook grouted bolts, following a typical 3 x 2 pattern, spaced at 1.5 m intervals.

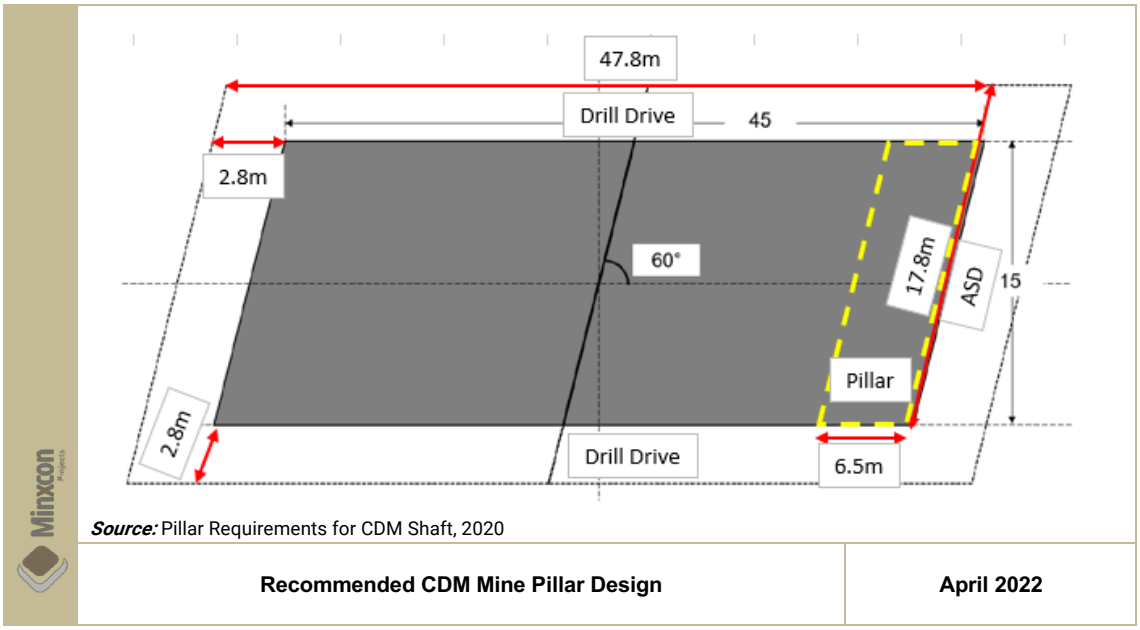
Stope support should consist of mine poles which will be installed on the shoulder of the stopes, adjacent to the drill drives. The mine poles will be pre-stressed by installing 10 t jackpots. Strike spacings of 1.5 m between the mine poles should not be exceeded.

In areas where geological features, such as faults and dykes will be intersected it is recommended that 20 t mine poles are installed at spacings of 50 cm on either side of the contact. It has also been recommended that faults should be stitched with rebar, spaced 1 m apart in the development ends, within 50 cm of the contact on either side. No drilling of support holes into dykes will be allowed.

CDM Mine

A pillar requirements study for the CDM Mine has been completed by an independent rock engineer, Mr. Mark Grave. A pillar loss of 7.05% has been calculated from rock engineering recommendations and applied to the design to account for *in situ* material that will not be mined and left as pillars. The recommended pillar requirements for the CDM Mine are detailed in **Figure 17**.

Figure 17: Recommended Pillar Design for CDM Mine



The pillar loss calculation is detailed in **Table 16**.

Table 16: CDM Mine Pillar Loss Calculation

Pillar Loss		
Parameter	**Unit**	**Value**
Mining Block Length	m	45
Mining Block Width	m	15
ASD Width	m	2.8
Drill Drive Width	m	2.8
Pillar Width	m	4
Pillar Length	m	15
Mining Area	m²	851
Pillar Area	m²	60
Pillar Loss	**%**	**7.05**

It has been planned that development ends will typically be supported with shepherd crook grouted bolts, following a typical 3 x 2 pattern, spaced at 1.5 m intervals.

Stope support is planned to consist of mine poles which will be installed on the shoulder of the stopes, adjacent to the drill drives. The mine poles will be pre-stressed by installing jackpots. Typical strike spacings of 1.5 m are expected for the installation of stope support.

In areas where geological features, such as faults and dykes will be intersected it is recommended that 20 t mine poles are installed at spacings of 50 cm on either side of the contact.

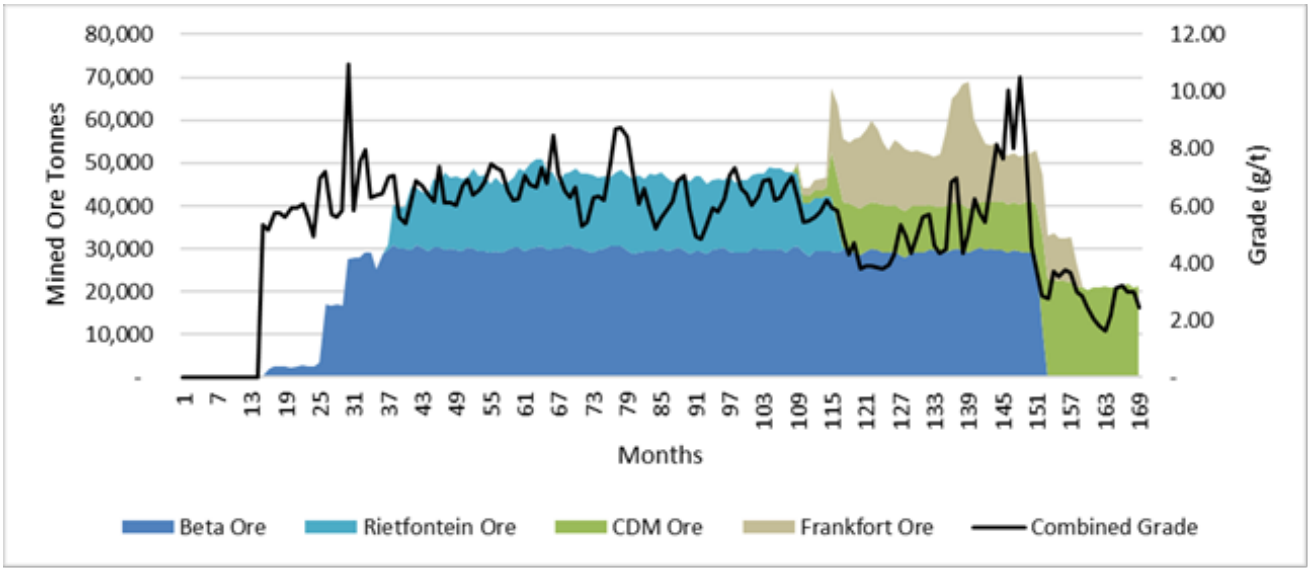
It has also been recommended that faults should be stitched with rebar, spaced 1 m apart in the development ends, within 50 cm of the contact on either side. No drilling of support holes into dykes will be allowed.

Mining and processing schedule

Base Case

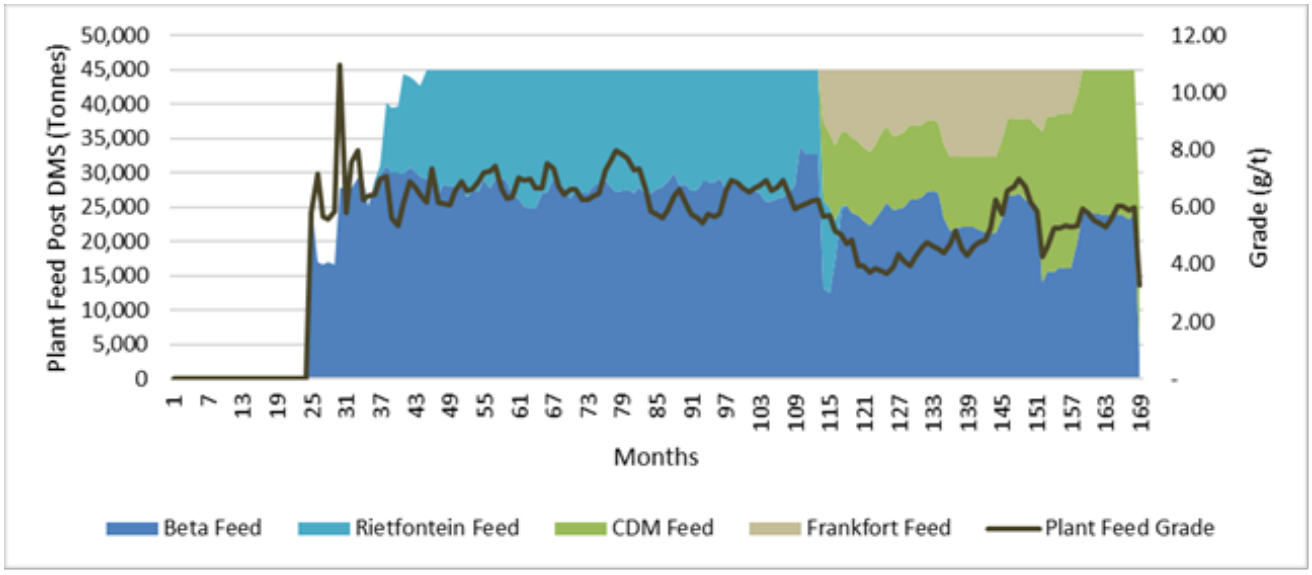
The combined mined tonnes for the Base Case are illustrated in **Figure 18**. The mined tonnes are based on the LOM plan targeted Mineral Resources, inclusive of Inferred Mineral Resources. The total LOM for the Base Case is 12.9 years.

Figure 18: Combined Mined Tonnes from Underground Operations – Base Case



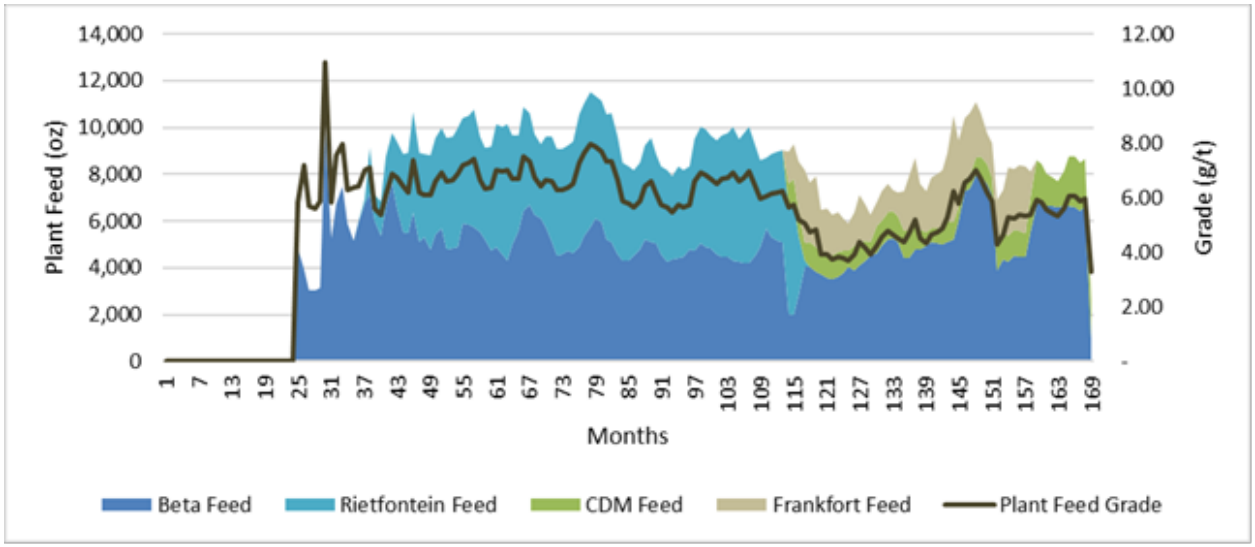
The combined plant feed tonnes for the Base Case are illustrated in **Figure 19**. The feed is based on the LOM plan targeted Mineral Resources, inclusive of Inferred Mineral Resources. The total LOM for the plant feed is 11.33 years, shorter than the mining LOM plan due to stockpiling the initial on-reef development at Beta.

Figure 19: Combined Plant Feed Tonnes from Underground Operations – Base Case



The combined plant feed content (ounces) for the Base Case is illustrated in **Figure 20.**

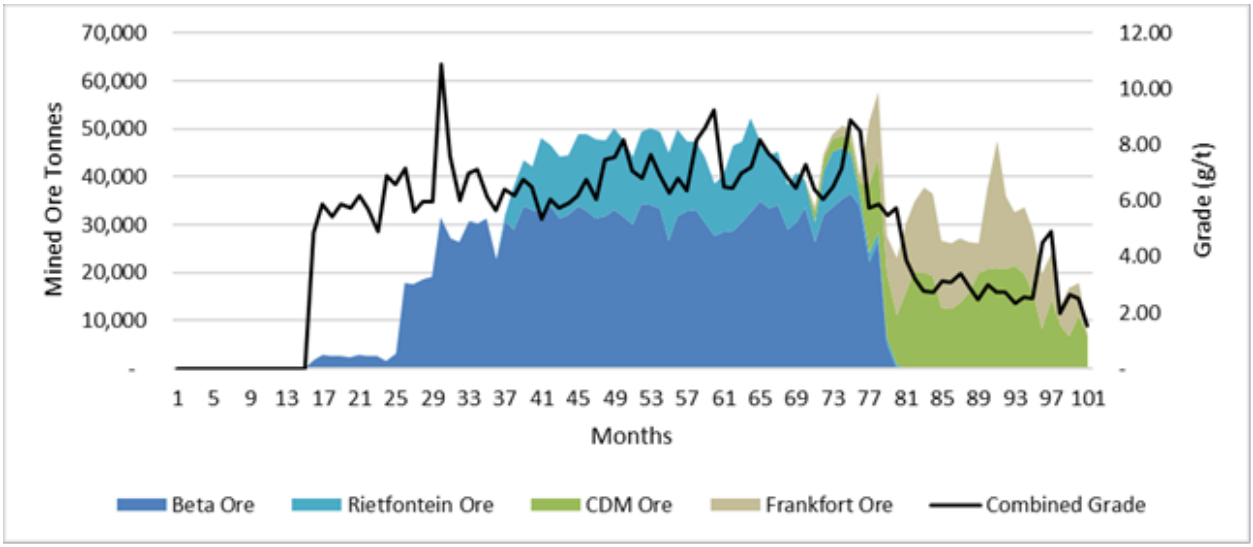
Figure 20: Combined Plant Feed Content from Underground Operations – Base Case



Reserve Plan

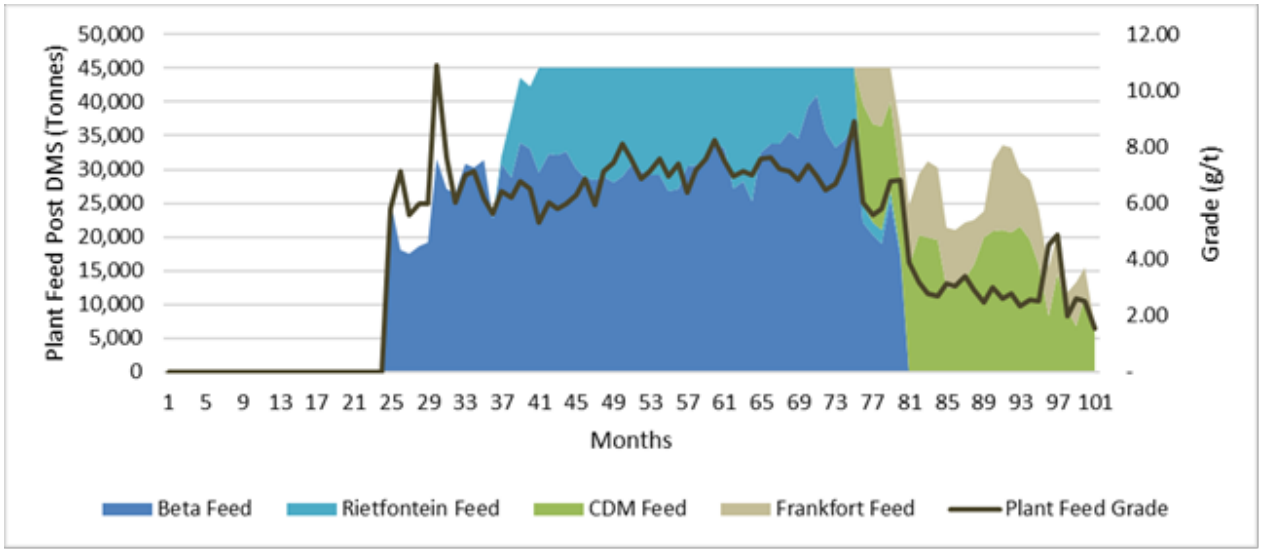
The combined mined tonnes for the Ore Reserve Plan are illustrated in **Figure 21.** The mined tonnes are based on the LOM plan targeting only Ore Reserves for scheduling.

Figure 21: Combined Mined Tonnes from Underground Operations – Reserve Plan



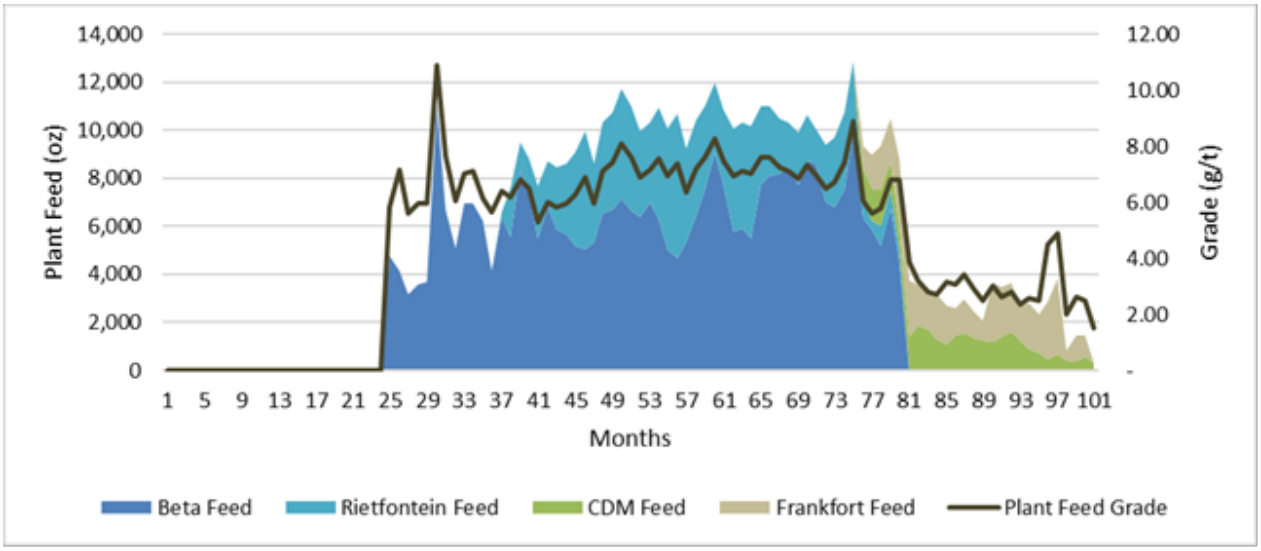
The combined plant feed tonnes for the Ore Reserve Plan are illustrated in **Figure 22**. The feed is based on the LOM plan targeting only Ore Reserves for scheduling.

Figure 22: Combined Plant Feed Tonnes from Underground Operations – Reserve Plan



The combined plant feed content (ounces) for the Ore Reserve plan is illustrated in **Figure 23.**

Figure 23: Combined Plant Feed Content from Underground Operations – Reserve Plan



Metallurgy

There are four major ore sources that metallurgical testwork was concluded on:

- Rietfontein;
- Frankfort;
- CDM; and
- Beta

Metallurgical tests included historical TGME plant data, work completed by previous owners, and supplemented by over 100 years of mining history. Recent metallurgical test work is summaries below.

Beta

Testwork concluded by Maelgwyn and SGS Laboratories on composite samples from Beta for diagnostic leaching analysis indicated recoveries between 86% and 90%, gravity testwork also excluded the possibility of a gravity step as only 12% of the gold was available for gravity recovery.

CDM

Met63 supervised and conducted testwork on four 20kg Dukes samples received from TGME, the laboratory used for the testwork is MAK Analytical in Modderfontein, South Africa.

The testwork included sulphide flotation and leach testwork on the sulphide tailings.

Frankfort

Frankfort is not process until year 8/9 and represents only 91.06 Koz of 1.383 Moz in Base LOM.

Met63 in conjunction with various laboratories conducted a comprehensive metallurgical testwork program for Frankfort ore, which has been identified as a double refractory ore. The following was key conclusions resulted from the testwork on the Frankfort ore:

- A DMS step is required to remove benign material;
- A sulphide and carbon flotation stage;
- Fine grinding of flotation tailings;
- Separate leaching circuits for oxide and sulphide material, oxidative leaching for the sulphidic ore and conventional CIL for oxide material.
- Oxidative leaching of the carbon concentrate before conventional CIL.

The achieved gold recoveries for the testwork program were between 61% and 82%. A recovery of 69% was assumed.

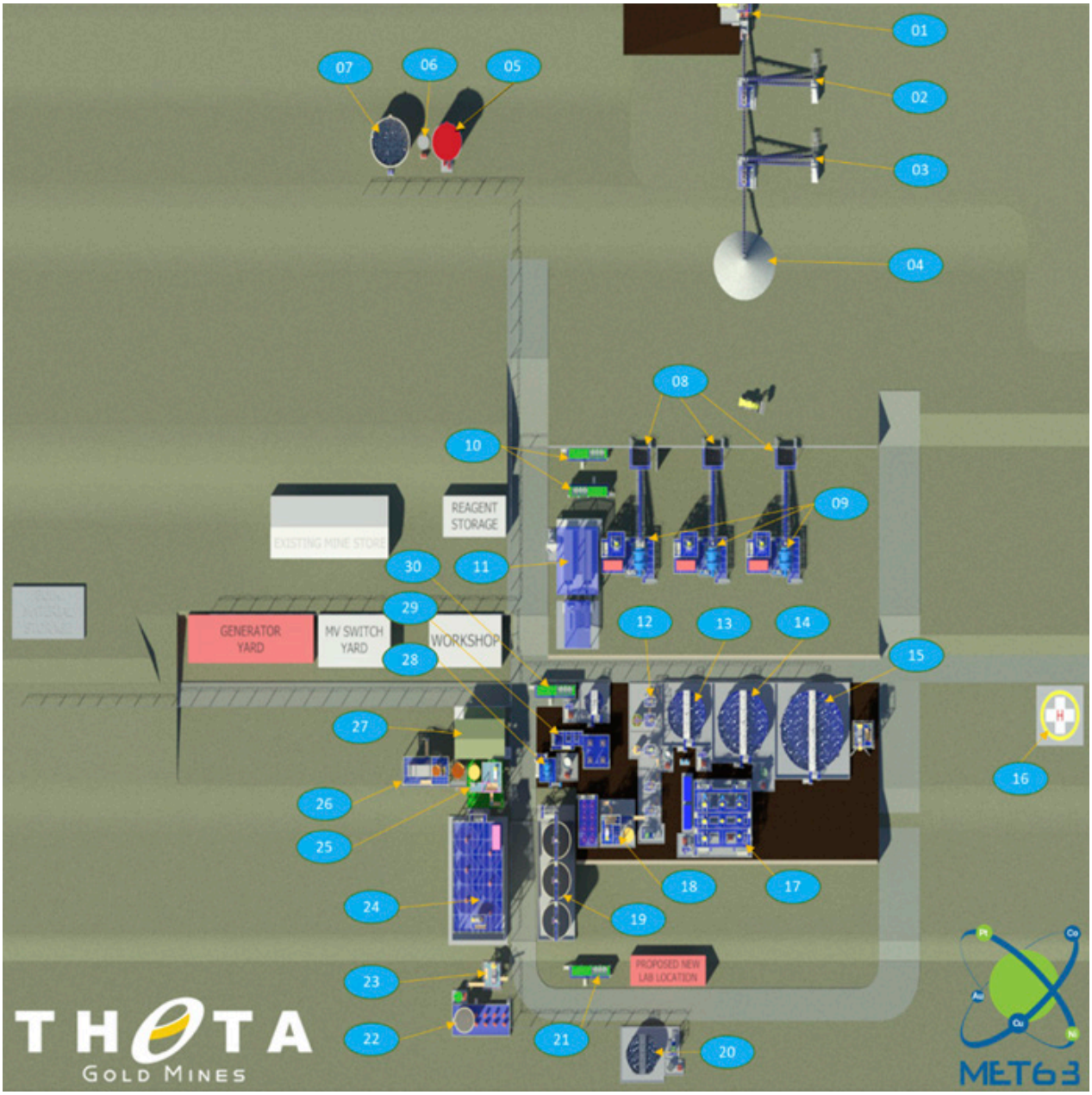
Rietfontein

Rietfontein ore, a generally free-milling orebody was investigated to determine the amenability to conventional CIL processing. The testwork was done by Ready Lead Assay Laboratory located in Boksburg in January 2022 and indicated recoveries between 88% and 93%, a recovery of 90% was assumed.

Processing

Met63 was contracted to do a detailed design and costing of a processing plant designed for a feed capacity of 45 ktpm which is equivalent to 67 tph at 92% availability. A flow schematic is shown in **Figure 24.**

Figure 24: Combined Plant Feed Content from Underground Operations – Reserve Plan



1. PRIMARY CRUSHER
2. SECONDARY CRUSHER
3. TERTIARY CRUSHER
4. STOCKPILE
5. FIRE WATER TANK
6. POTABLE WATER TANK
7. PROCESS WATER TANK
8. BALL MILL FEED BINS
9. BALL MILLS
10. MCC CONTAINERS
11. FILTER PRESS AREA
12. REAGENTS AREA
13. CARBON THICKENER
14. CONCENTRATE THICKENER
15. TAILINGS THICKENER
16. HELI-PAD
17. FLOTATION CIRCUIT
18. ELUTION COLUMN
19. OXIDATION TANKS
20. THICKENER
21. MCC CONTAINER
22. TAILINGS TRANSFER TANK
23. DETOX TANKS
24. CIL TANKS
25. ELUTION COLUMNS
26. KILN
27. GOLD ROOM
28. 6FT BALL MILL
29. SULPHIDE CIL
30. MCC CONTAINER

The feasibility study has been split into three phases, allowing for various processing scenarios aligned with the mining development program. The design of each phase is based on a stand-alone processing facility aligned with the mining plan of the ore body.

PHASE 1 – Carbon-in-Leach Plant

(Free milling ore is process for the first 7 Years **Figure 25**). The design and costing of a 45 ktpm oxide ore processing plant including crushing, milling, CIL and elution with doré produced on site. Testwork undertaken on various "free-milling" ores has indicated high undissolved gold losses, indicating the presence of small amounts of sulphidic constituents.

This was particularly evident when completing standard cyanidation bottle roll trials on Dukes and Morgenzon samples. Subsequent additional testwork supports this. As a result, the Phase 1 circuit will include a flash flotation stage, post milling to remove sulphide associated material before conventional cyanidation. This flotation mass pull will join the concentrator product from Phase 2.

Phase 2 – Gold Concentrator Plant

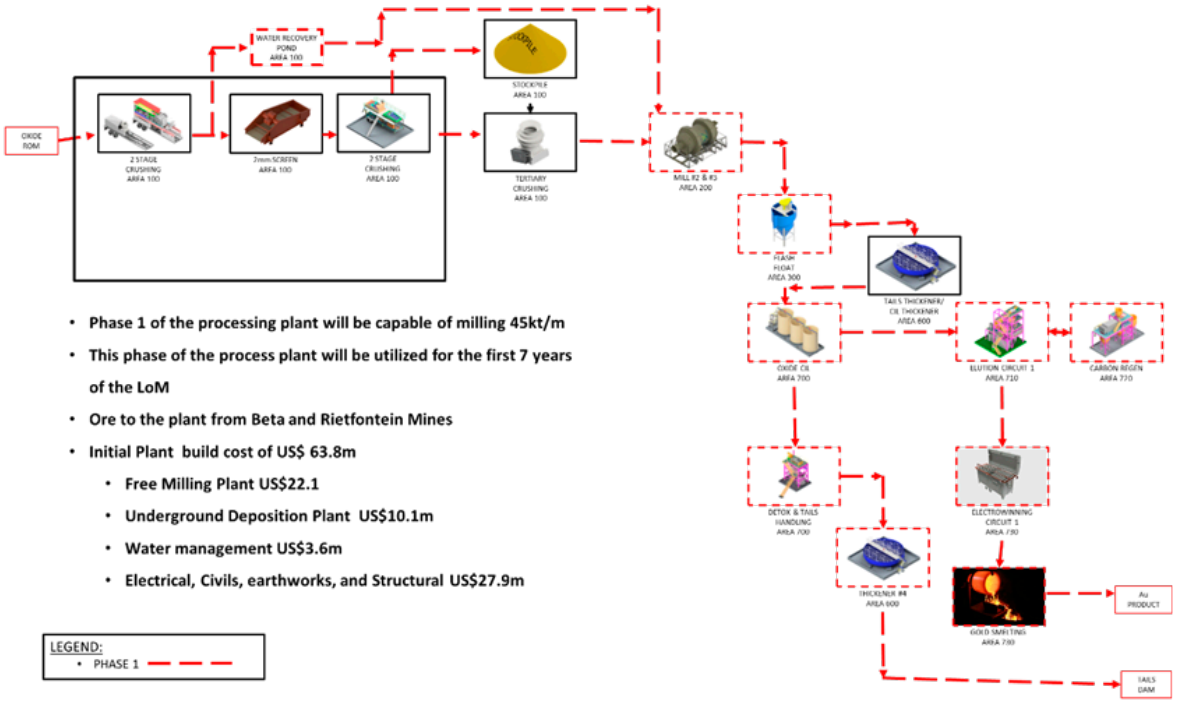
The design and cost of a 20 ktpm concentrating plant including crushing, milling, DMS and flotation. The final products consist of a combined carbon and sulphide flotation concentrate. The carbon flotation concentrate being processed through the CIL 3 plant and the sulphide flotation concentrate is processed through the CIL 1 plant.

Phase 3 – Oxidative Leaching of Sulphide Concentrate

The Phase 3 plant includes a 45 ktpm Leach-ox process plant that was designed and costed, including crushing, milling and carbon/sulphide flotation. The phase 3 plant consists of both the gold concentrator plant as well as the CIL plant as described in Phase 1 and Phase 2. The carbon flotation concentrate processed in a dedicated CIL circuit (CIL 3), sulphide flotation concentrate oxidised under atmospheric conditions with liquid oxygen injection and high shear reactors. Oxidised product to be treated in a separate batch CIL process (CIL 1) with the tails treated in a large CIL (CIL 2), that also processes the flotation tails as well as "free-milling" ore feed. This option allows for all recovered gold to be produced as doré on-site with no concentrate produced.

Although there are some shared infrastructure and processing equipment between the phases, for the purposes of this FS the phase one plant will be constructed first to treat CDM, Rietfontein and Beta ore with phase three being constructed at a later stage before mining of Frankfort ore commences.

Figure 25: Process Flow Schematic Phase One



Referring to the process flow schematic shown in **Figure 25**, the final processing plant will consist of:

For Free-Milling ore and sulphide ore (Beta, Rietfontein and CDM):

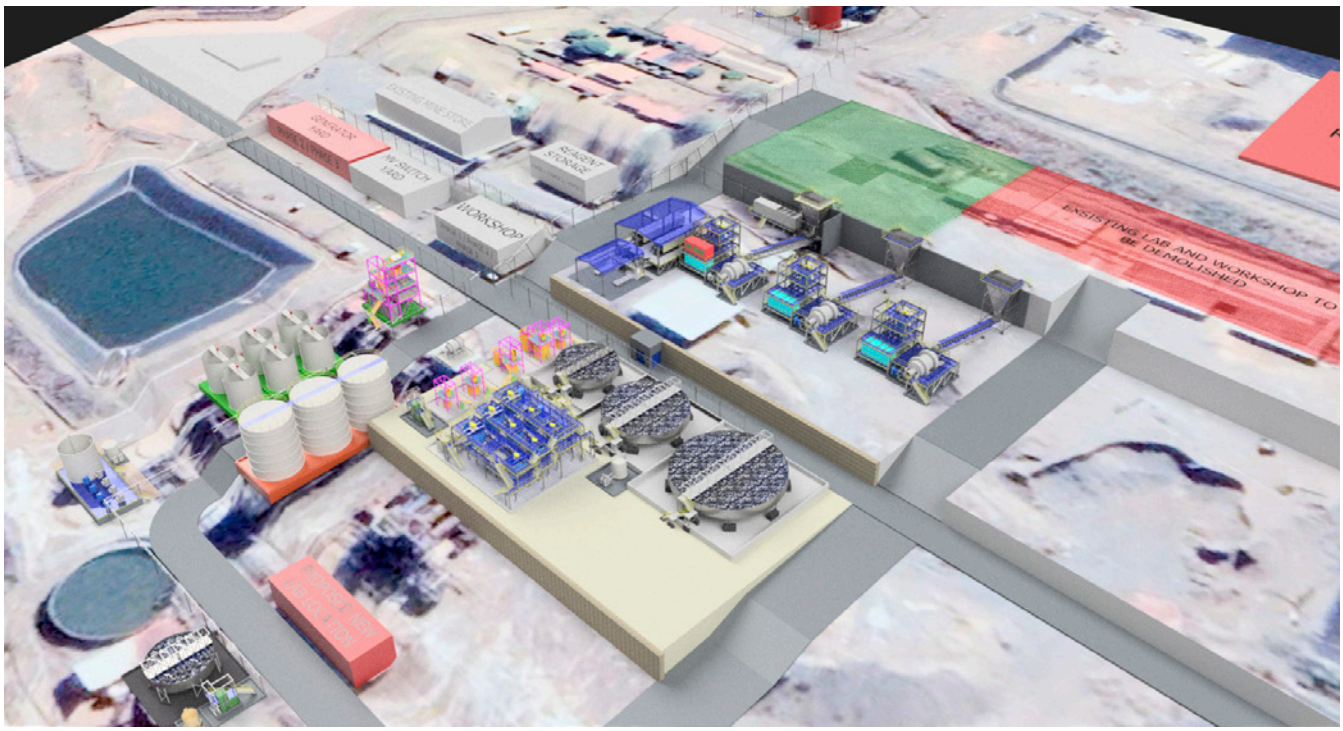
- 3-stage crushing and screening of free-milling ROM ore to produce -6mm material;
- Milling of the -6mm product from the crushing and screening circuit down to 75 µm;
- Flash flotation of the milled product to remove any sulphidic material;
- Flash flotation concentrate will be processed via oxidative leaching (CIL 1);
- Flash flotation tailings will be processed using conventional cyanidation (CIL 2);
- Elution, electrowinning and smelting of the eluate from CIL; and
- Detoxification of the CIL tailings and deposition on the TSF as well as underground deposition.

For Refractory ore (Frankfort):

- Crushing and Screening of RoM ore to -2mm and +2mm;
- Milling of the -2mm material
- Oversize (+2mm) will be processed using a DMS plant in order to remove benign material (floats);
- Milling of the sinks from the DMS and the -2 mm ore from the crushing circuit down to 212 µm;
- Flash flotation of the milled material to remove any sulphidic material;
- Flash flotation tailings are sent to a carbon flotation circuit to remove carbonaceous material;
- The carbon float tailings are sent to a sulphide flotation to remove the remaining sulphidic material;
- The carbon float concentrate is treated in a dedicated Carbon CIL circuit (CIL 3);
- The sulphide float concentrate is milled down to 75 µm and further treated using a leach-ox process (CIL 1);
- The sulphide flotation tailings are processed using conventional leaching (CIL 2);
- A dedicated elution and electrowinning circuit for treating the eluate from the Carbon CIL;
- CIL 1 and CIL 2 have a combined elution and electrowinning circuit; and
- Detoxification of the CIL tailings and underground deposition of the detoxified tailings.

A 3D rendering of the processing plant is illustrated in **Figure 26.**

Figure 26: 3D Plant Rendering



Hydrogeology and hydrology

A groundwater and hydrological study have has been conducted by MvB consulting. The study and groundwater modelling conducted concluded that sufficient water will be available from the underground operations to support the TGME underground mining operations and process plant at the planned production rates.

The purpose of the study was to:

- Assess the potential geohydrological impacts related to the proposed mining in the region. These included the risk of aquifer depletion and groundwater quality deterioration.
- Recommend possible precautionary measures and suitable monitoring.

There are essentially three potential primary risks associated with the proposed mining. These are:

- Lowering of the regional groundwater level due to inflow of groundwater into the mine workings.
- Impact on the regional groundwater quality because of seepage of contaminants from the mining operations.
- Impact on the regional groundwater quality because of seepage of contaminants from the TSF.

The following mitigation measures are recommended for the above impacts:

- Groundwater intersected in the mine workings is detrimental towards the operations and will therefore be sealed as far as possible. The aim is to minimise the groundwater inflow into the mine.
- The aim is to keep the mine as dry as possible through grouting and sealing of fissures. Any ingress water into the mine should be abstracted as quickly as possible to minimise the contact with potential contaminants. Mine service water will be circulated in a closed loop. Implementation of passive water treatment for post-closure may be considered if necessary.
- The aim is to minimise the seepage into the tailings material and to collect and return as much as possible of the water on the TSF. The return water dams will be lined, As will the new TSF. Groundwater quality monitoring will be conducted as an early warning of potential impacts and to verify the findings of the numerical model. Post-closure rehabilitation and passive treatment (if required).

Tailings storage

Beta TSF

In order to meet the deposition requirements of the Phase-I mining development, the extension of the TSF will have to be undertaken in two stages.

The first stage (Stage 1) will consist of the vertical extension of the existing TSF up to the final design height, with a capacity of 22.5 ktpm.

The second stage (Stage 2) will entail extending the footprint to the open area, to the east of the existing TSF, with a capacity of 30 ktpm. The layout of the proposed expansion of the TSF is illustrated in **Figure 27**.

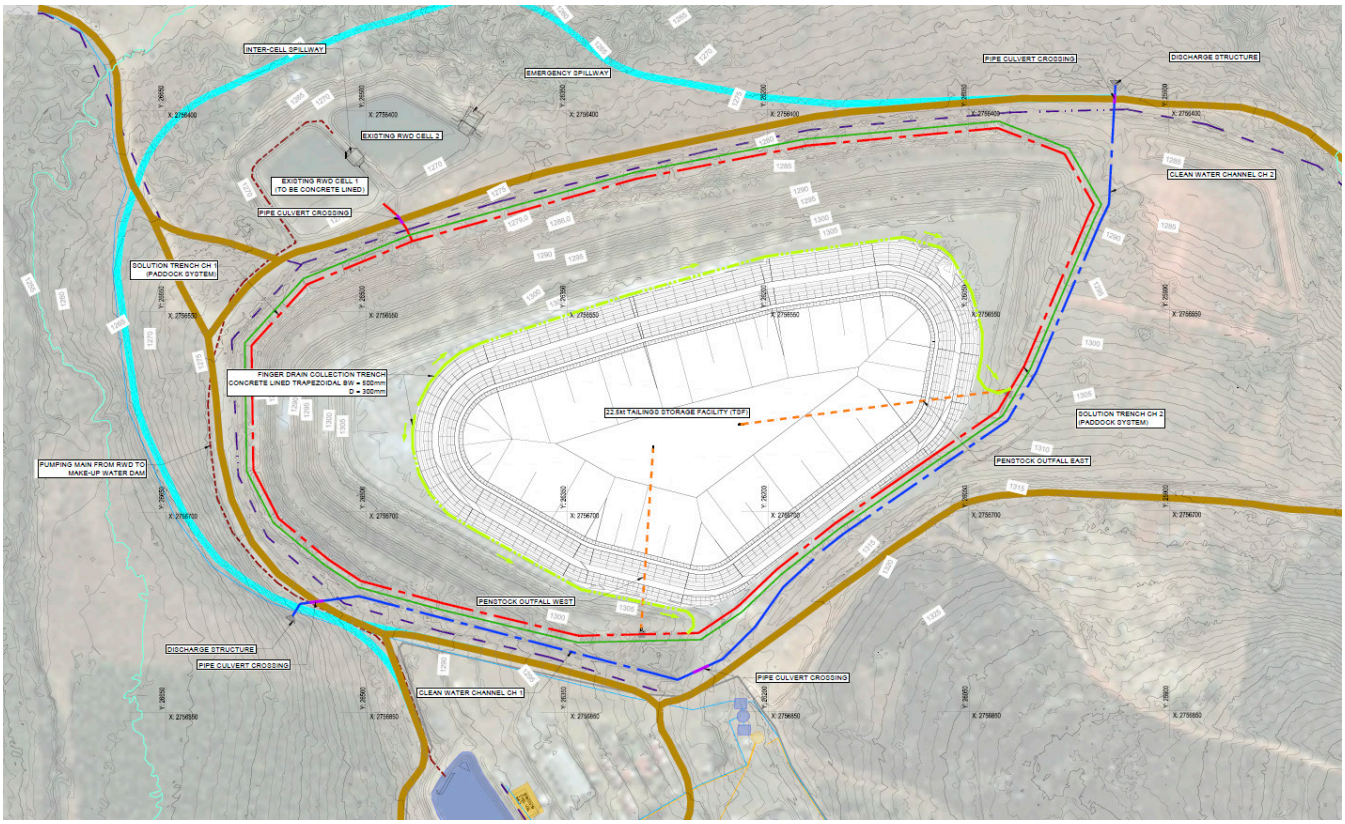
The total capacity of the planned extension will be approximately 2.09M Mt:

- Stage 1 capacity: 0.79 Mt.
- Stage 2 capacity: 1.3 Mt.

Underground Deposition

Paterson & Cooke Consulting Engineers (Pty) Ltd ("Paterson & Cooke") were contracted to do a pre-feasibility study ("PFS") report on the underground deposition of tailings material, as the current TSF does not have the required capacity to accommodate all tailings over the LOM. The design was based on backfilling the entire processing stream. The backfill will be placed in the old workings in the Beta mine namely Beta North, Beta Central and Beta South. TGME has estimated the volume of the existing voids in the Beta Mine as 1,738,012 m3 and the volume of future voids in the Beta Mine will be 723,950 m³. The estimated duration to fill the voids with tailings is approximately 5.3 years at 30 ktpm and approximately 2 years at 80 ktpm at a void fill efficiency of 65%.

Figure 27: Planned Layout of TSF Expansion



Mine services and infrastructure

The TGME underground projects are historic operating mines. The project areas are therefore established to a large degree.

Available/existing infrastructure at the Beta Underground Project area includes:

- tarred R533 regional main access road leading to the Project;
- single lane partially paved site access road;
- administration offices;
- old processing plant and associated stores, ore handling and ore feed infrastructure;
- TSF with return water dams;
- workshops;
- two water reservoirs;
- old water supply pumping system (drawing from Blyde River)
- changing facility at the process plant;
- stores and laydown yard;
- 6.6 kV line supplying power to the operation from the existing Eskom consumer substation;
- site distribution substation;
- power distribution transformers;
- processing plant motor control centres;
- processing plant pollution control dam;
- historic heap leach ponds;
- fuel storage tanks;
- salvage and reclamation yard;
- access control fencing (mainly at the administration offices and old processing plant)
- low level river crossings (Towards Beta North and Beta South); and
- various portals and developments providing access to the Beta complex underground workings.

Available/existing infrastructure at the Rietfontein Underground Project area includes:

- tarred R536 regional main access road leading from the town of Sabie past the project;
- gravel site access road;
- Old DMS process plant site – all equipment and infrastructure removed / demolished;
- Portals providing access to underground operation;
- Underground development – haulages, orepasses, incline shaft, etc.

Available/existing infrastructure at the Frankfort Underground Project area includes:

- tarred R533 regional main access road leading to Pilgrims rest;
- gravel site access road;
- Old DMS process plant site – all equipment and infrastructure removed / demolished;
- portal to underground operation.

Available/existing infrastructure at the CDM Underground Project area includes:

- tarred R533 regional main access road leading to Pilgrims rest;
- gravel site access road;
- Old DMS process plant site – all equipment and infrastructure removed / demolished;
- portal to underground operation.

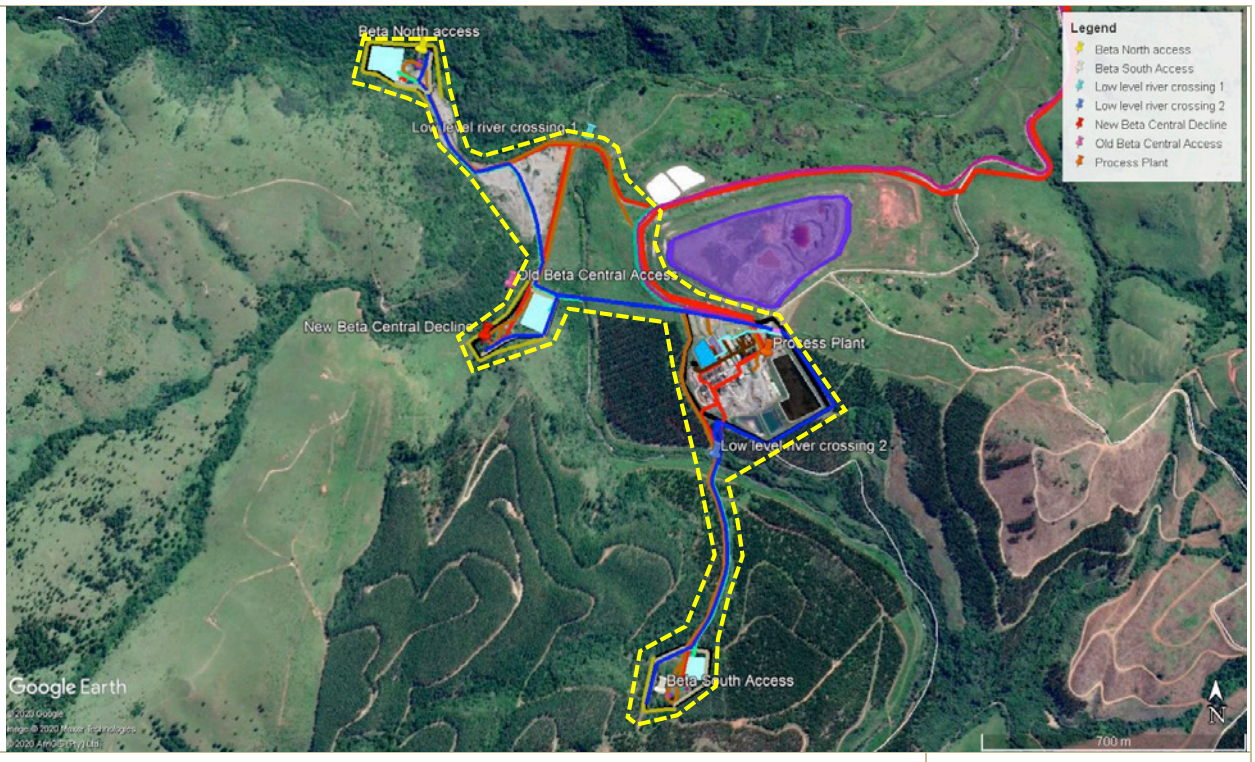
In order to effectively establish the underground mining operations and processing plant, a number of infrastructure items will be required. The required infrastructure will include, but is not limited to:

- new process and beneficiation plant;
- offices – mobile / prefabricated offices;
- fuel storage facilities;
- earth moving vehicle workshop;

- mining and engineering stores;
- first aid station;
- control room;
- mining waste sorting/ management and salvage yard;
- sewage handling facilities;
- diesel generator sets;
- additional power distribution transformers – specifically for the underground mining operations;
- additional 8 MVA supply infrastructure;
- new 6.6 kV overhead line from the existing Eskom consumer substation;
- power supply overhead lines feeding underground workings;
- RoM ore haul roads;
- site security and access control;
- mining settling and collection dam (stormwater and pollution control);
- surface water management infrastructure
- waste rock dumps and ROM pads;
- potable water treatment plant;
- underground infrastructure;
  - power supply;
  - water supply;
  - Ore handling infrastructure (Orepasses, conveyors, incline winder with required shaft equipment);and
  - dewatering system.
- Surface ore handling and load out facilities.

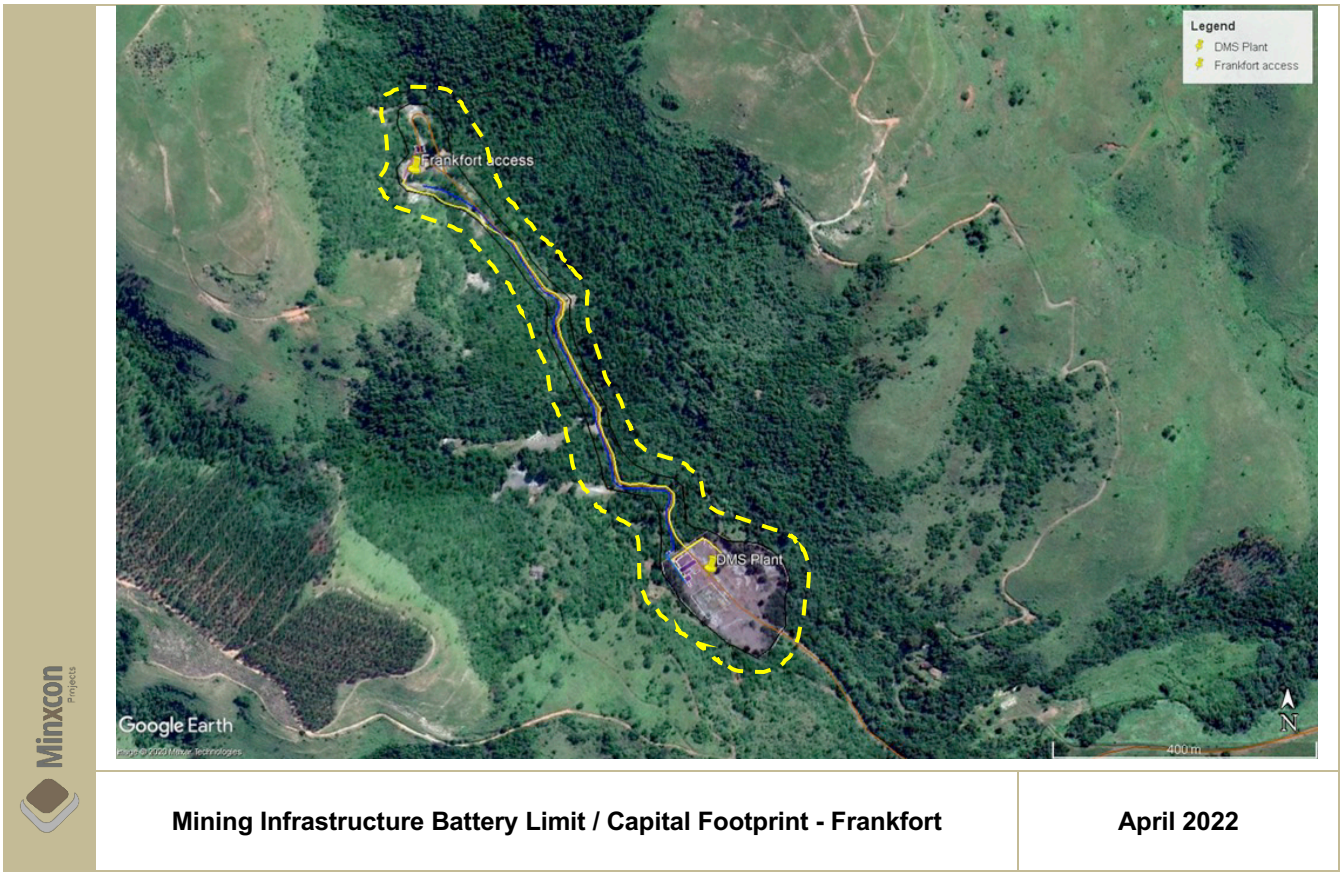
The extent of the mining and shared infrastructure battery limit is illustrated with the bright yellow dotted line in **Figure 28, Figure 29, Figure 30** and **Figure 31.**

Figure 28: Mining Infrastructure Battery Limit / Capital Footprint - Beta



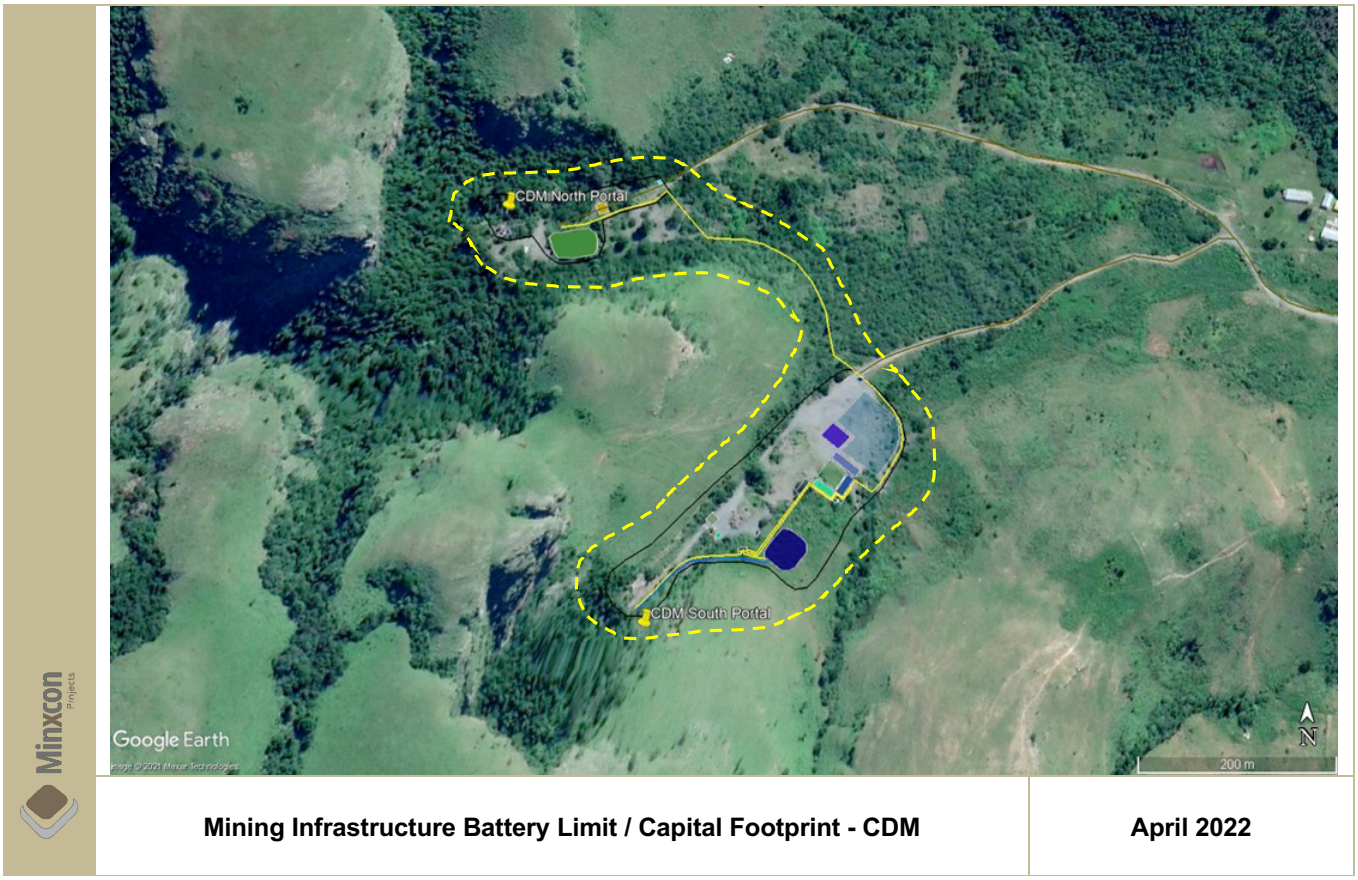
Minxcon Projects	Mining Infrastructure Battery Limit / Capital Footprint - Beta	April 2022

Figure 29: Mining Infrastructure Battery Limit / Capital Footprint - Frankfort



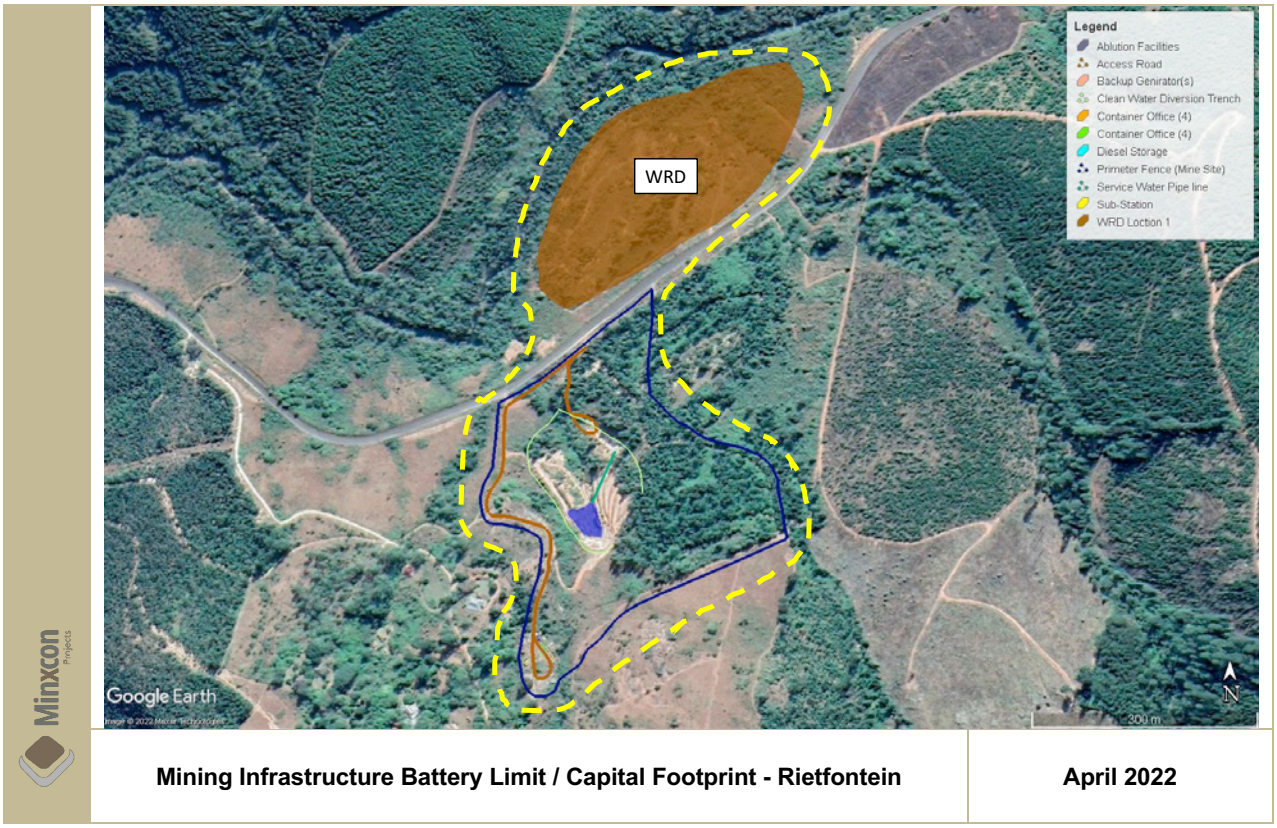
Mining Infrastructure Battery Limit / Capital Footprint - Frankfort	April 2022

Figure 30: Mining Infrastructure Battery Limit / Capital Footprint - CDM



Mining Infrastructure Battery Limit / Capital Footprint - CDM	April 2022

Figure 31: Mining Infrastructure Battery Limit / Capital Footprint - Rietfontein



Engineering and infrastructure design criteria were drafted based on the requirements for infrastructure and equipment in the main Work Breakdown Structure areas for each operation.

These areas were determined and set out based on the battery limits. The summary Work Breakdown Structure is listed in the table below in **Table 17**.

Engineering designs have been conducted based on and as set out in engineering and infrastructure design criteria. The designs provide Bills of Quantities which are utilised for capital cost estimations.

Access roads to the underground Project Areas are in place and in good and serviceable condition. Haul roads will have to be constructed to allow for the transport of run of mine ore and waste rock to the run of mine stockpile located at the process plant and waste rock dumps located at the CDM operations, respectively. The haul roads, which were not forming part of the project access or regional paved roads, will cater for single-way traffic. Haul roads were designed at a maximum gradient of 10° and consider the types of vehicles to travel on these roads.

Table17: Project Work Breakdown Structure

WBS Code	Description
WBS 0100	Access, Roads and Routes
WBS 0200	Security and Access Control
WBS 0300	Power Supply
WBS 0400	Water Supply
WBS 0500	Water Management
WBS 0600	Ventilation & Compressed Air
WBS 0700	Underground Infrastructure
WBS 0800	Mining Site
WBS 0900	Ore Storage, Load Out and Transport
WBS 1000	Vehicles
WBS 1100	Information Technology & Communication
WBS 1200	Processing Plant
WBS 1300	Indirect Capital

Power supply is currently available to the TGM plant area. Power is supplied from the Ponieskrans Eskom consumer substation located in close proximity to the TGM Plant at 22 kV via a single overhead line feeding from the Eskom Groothout Distribution substation. Power is stepped down at the Ponieskrans substation to 6.6 kV and feeds the TGM Plant intake and distribution substation. The current supply allocation to the operation is 2.5 MVA (1 x 2.5 MVA 22kV / 6.6 kV transformers and 1 x 2.5 MVA 22 kV / 6.6 kV transformers providing spare capacity).

TGM is in the process of securing an additional 12 MVA allocation. This will require upgrades to the Lydenburg Eskom Transmission substation, Groothout Eskom distribution substation, overhead line from the Groothout substation to the Ponieskrans substation and the Ponieskrans substation. This will take 24 months to complete from the date of approval (accepted as August 2022).

During the initial 17 months of mining only the Beta underground mine will be operational. Power requirements will thus consist of the first portion of the process plant as well as the requirements for the Beta operation. The requirement amounts to 7.2 MVA. The existing allocation of 2.5 MVA and the applications in process for a further 8 MVA will thus be sufficient to supply this phase of the project. Production at the process plant is however planned to start 4 months prior to the full grid power allocation being available and the process plant will thus be supplied from diesel generators.

In month 34 of production the Rietfontein operation starts up and will require an additional 2 MVA. This will bring the total power requirement to 9.2 MVA. The available allocation of 10.5 MVA will thus be sufficient to support the addition of the Rietfontein operation.

In month 70 of mining the CDM and Frankfort operations will start production. This will require an additional 4.5 MVA allocation. TGM will well in advance do the application for this additional allocation to ensure the power is available in time.

Back-up diesel generators will also be supplied at each of the mining operations to supply power to critical services at the mining operations.

The Frankfort, CDM and Rietfontein underground mining operations currently do not have the allocation for grid power supply. An application process is in progress to secure additional supply to ensure grid power is available to these operations when required.

Water supply will mainly consist of water sourced from dewatering the existing underground workings of each operation, collected run-off water and abstraction from the Blyde River if required. Water requirements have been estimated for the individual water usage areas including the underground mining operations, process plant, offices, and admin areas as well as the tailings storage facilities. A static water balance has been completed for each of the project operational areas (Plant, Beta, Rietfontein, Frankfort and CDM). Estimations indicate that the operation will be water-positive at peak inflow of water into the underground operations. Water from the underground operations will also be utilised for the supply of potable water to the Project, and this will pass through a potable water treatment plant. The treated water will subsequently be distributed to storage facilities located across the operation for use.

The additional service water will be sourced from boreholes and potable water will be trucked from the town of Sabie and Pilgrims Rest if required.

Pumping systems, catchment and diversion trenches and dams were designed based on the expected water that needs to be dewatered from the underground operations and run-off water that will be generated from the dirty mining areas of the underground projects.

Other facilities that have been allowed for include, but are not limited to, workshops, stores, fuel storage and refuelling facilities, wash bay, underground ventilation infrastructure, underground ore transport infrastructure and surface and underground water management infrastructure.

Environmental, social and governance (ESG)

Theta Gold operates its mines in South Africa which as a country has embraced ESG changes and been on the front foot in development and implementation of ESG across the country.

Design and Construction with ESG Considerations

During the design phase of the Underground gold mine operations and metallurgical plant the Company has looked at initiatives that will reduce the carbon emissions and fewer GHG, which are less polluting, and contribute less to climate change.

Theta Gold will have in place an Ecological Compensation Programme which includes:

- Theta has offered an Ecological Compensation program for continued mining to the Department of Forestry Fishery Environment (DFFE).
- Contribution to the long-term security and biodiversity and ecosystem services through rehabilitating the ecological and hydrological functioning contributing to the long-term security of biodiversity and ecosystem services through rehabilitating the ecological and hydrological functioning of the upper portions of the Blyde River Catchment and replenishing the water licenced abstraction volume.
- Invasive Alien tree control and re-vegetation.
- Fire belt implementation as set out in the Ecological Compensation Programme.
- Control, through regular and repeated reconnaissance and control measures, all invasive alien trees within the riparian zone of the Blyde River.
- Implement erosion and sediment control operations on all cleared of IAPs and other susceptible areas, by re-vegetating all areas cleared of IAPs with indigenous plant species to the level of a cover of 15% within 10 years, with the objective of removing unnatural levels of sediment input into the Blyde River system.
- A water and waste management system have been designed for the operations that will ensure that all affected water is contained, recycled and reused in the system.
- Infrastructure layouts have been designed to be located on already disturbed footprints. Therefore, no new clearance of vegetation will take place.
- Environmental Monitoring Programme.
- Gold Process plant design, including
  - Emissions Solution and Reporting
    - Identify, track and benchmark operational greenhouse gas emissions
  - Energy efficient equipment and reduced carbon footprint by reducing wastage
    - Training and awareness programmes
  - International Cyanide Management Institute Code
    - Cyanide destruction and detoxification
  - Comply with ISO 14001 standards
- Mine design
  - Optimising processes and system
  - Optimising compressed air systems and new ventilation controls
  - Using high precision drill rigs to minimize rework
  - Using fuel additives and other business improvement initiatives to optimize equipment energy consumption

Social Aspects:

- Occupational Health and Safety
  - Proactive safety culture leading to Zero Harm focused on visible, felt leadership and discouraging undesirable behaviour and acts (Behaviour based safety)
  - HIV and Aids programme
  - TB programme
  - Other STI's programme
  - Employee wellness programme
  - Substance abuse programme
  - Communicable diseases protocols (Covid-19 protocols)
  - Vaccinations (Covid-19)
- Community forums
  - Promoting communication between affected stakeholder to forge a transparent and inclusive relationship
  - Promote active participation of host communities and other affected parties in matters of common interest
  - Identify and manage conflicts timeously
- Promote local economic growth
  - Procurement and enterprise development
  - Exploiting synergies between the SLP and the LED (Local Municipality)
  - Infrastructure development
  - Enterprise incubation
  - 4IR initiatives and innovation
- Utilize and expand the existing skills base for the empowerment of historically disadvantage people
  - Human resource development programme
  - Skills development plan
  - Career development plans
  - Mentorship and couching plans
  - Bursaries
  - Internships
  - Skills transfer programme (on-the-job training)
  - Career guidance programme (primary and high school kids)

Note: The ESG section included in this FS Report has been prepared solely by Theta Gold and does not form part of the FS work prepared and signed-off by Minxcon.

Project implementation

The project execution plan will consist of a multi-phased production build-up strategy to reach ROM production outputs of 45 ktpm from the various underground operations.

The establishment of the underground mining operations will necessitate the following major work.

- Completion of required governmental and regulatory approvals;
- Construction of the surface footprint at Beta, Rietfontein, Frankfort and CDM mines;
- Supporting infrastructure and equipment installations to support mining;
- Water treatment plants and surface water management infrastructure;
- Making safe and re-supporting historic mining areas;
- Procurement of mining equipment;
- Orebody development;
- Commissioning of tailings infrastructure; and
- Commissioning of the process plant.

The overriding requirement is to take maximum advantage of the integrated project plan between surface footprint, tailings, and processing plant.

This approach will ensure synergies throughout the project, reducing risks and project slippage.

- Other key aspects of the execution strategy are:
  - Establish and maintain a dedicated, project-specific resource base;
  - An integrated project team as described in Sections 5 and 8;
  - A contract delivery approach that capitalises on existing commercial arrangements and relationships;
  - An overriding commitment to the health, safety, environment, and community objectives for the project;
  - Existing site knowledge and past learning are to be incorporated into relevant areas of project methodology and implementation; and
  - Timeous procurement of long-lead item.

Management of the project will be implemented through an integrated project team comprising personnel from different organisations which includes:

- Owners Team – TGM;
- Contractors and Consultants – Various service providers and contractors; and
- Project Manager – TGM.

The project management team will be full-time TGM employees with various contractor companies coming on board as required. In order to achieve successful project completion, other specialist personnel or organisations may supplement the project team on an as-required basis. The project team will be located in a dedicated project office at the mine site.

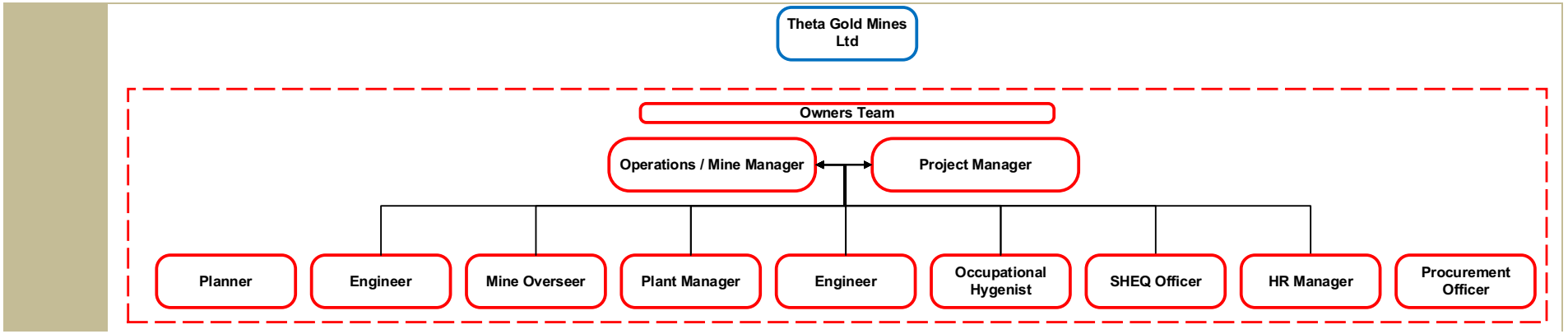
In order to successfully execute the Project, an owner's project management team will have to be appointed. A proposed team structure is illustrated in **Figure 32**.

Once the owners project management team structure has been established and key role players have been appointed, tender processes will follow, after which the required EPC contractors will be selected and appointed.

The envisioned EPC contractors will be:

- Mining EPC;
- Process Plant EPC;
- Bulk Electrical Supply EPC; and
- General Supporting Infrastructure EPC.

Figure 32: Owner's Project Execution Management Structure



Note: This structure is supported conditional to final business decisions arrived at during the completion of detailed studies and the Financial Close process. If and when a final business decision is reached that materially changes the manner in which the business will be managed, this will be amended accordingly.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Project approvals

The Beta, Frankfort and CDM Projects are located within the boundaries of an existing and executed mining tenement. Amendments to the existing mining right are required and are currently in an advanced stage. No additional tenement applications are required.

Portions of the Beta and CDM Project Areas fall within a land parcel recently demarcated as a proposed Nature Reserve. TGM has submitted conditions for continued mining for consideration to the authorities as the mining tenement predates the proposed Nature Reserve.

The Rietfontein Project occurs within the boundary of a mining tenement that has been granted and is in the process of execution for final registration.

The primary agencies involved in permits and environmental approvals for the Project are:

- Department of Mineral Resources and Energy (DMRE);
- Department of Environment, Forestry and Fisheries (DFFE);
- Department of Water and Sanitation (DWS).

A number of key environmental approvals and water use licence applications are in progress with all permits anticipated to be received by Q2 , 2023.

Project timeline

The project schedules for the mining operation, process plant, and Tailings Storage Facility (TSF) should be aligned in order to ensure timely completion of the various project entities and delivery of sustainable production.

The construction work will be planned to achieve the following goals:

- commission Beta surface infrastructure;
- commission water management systems and infrastructure ;
- commission ore flow and ore storage facilities;
- commence capital development and first stoping panels;
- commission process plant;
- commission tailings facilities; and
- re-establish and commission Rietfontein's underground operation.

The project schedule has been developed in conjunction with numerous contractors and is based on the approved scope of work, the staging requirements, and known constraints and site conditions at the time of preparation.

All required appointments of management, staff, contractors and service providers will be concluded prior to the commencement of the construction phase. A summary of the construction schedule and the key construction areas is illustrated in **Figure 33**.

Timeline to Production

Figure 33: Project Timeline

Task Description	Q2, 2022	Q3, 2022	Q4, 2022	Q1, 2023	Q2, 2023	Q3, 2023	Q4, 2023	Q1, 2024	Q2, 2024
Definitive Feasibility Study									
Environmental and Water Approvals									
Gold Plant Construction / Commissioning									
Tailings Dam Upgrading									
Electrical Power Lines									
Surface Dam Construction									
Water Management Construction									
Backfill Plant Construction									
Surface Infrastructure Beta Mine									
Development at Beta Mine									
Rock Waste Dump Construction									
Stoping at Beta Mine									
First Gold from Beta Mine									

Note: Plant construction and commissioning subject to securing funding for project and permitting approvals.

Capital and operating costs

Capital costs

Mining Capital Cost

Capital costs for Beta, Frankfort, CDM and Rietfontein have been estimated for the mining operations and certain shared infrastructure. The costs are based on the infrastructure, facilities and equipment required for an underground mining operation with a production rate of 30 ktpm for Beta, 15 ktpm for Rietfontein, 15 ktpm for Frankfort and 10 ktpm – 20 ktpm for CDM. The mining and shared infrastructure CAPEX for the four underground operations are summarised in **Table 18 and Table 19** in USD and AUD, respectively.

Table 18: Mining and Infrastructure Capital (USD)

WBS Code	WBS Area	Unit	Beta	Frankfort	CDM	Rietfontein
WBS 0100	Access, Roads and Routes	USDm	0.2	0.1	0.1	0.1
WBS 0200	Security and Access Control	USDm	0.2	0.0	0.1	0.1
WBS 0300	Power Supply	USDm	0.8	0.7	0.4	1.1
WBS 0400	Water Supply	USDm	0.8	0.3	0.2	0.2
WBS 0500	Water Management	USDm	3.6	2.4	3.2	2.5
WBS 0600	Ventilation & Compressed Air	USDm	0.9	0.4	0.7	0.4
WBS 0700	Underground Infrastructure	USDm	0.2	3.5	0.1	7.0
WBS 0800	Mining Site	USDm	1.2	0.7	1.1	0.4
WBS 0900	Ore Storage, Stockpiles and WRD	USDm	0.0	0.0	0.0	0.0
WBS 1000	Project Waste Management	USDm	0.0	0.0	0.0	0.2
WBS 1100	Vehicles	USDm	0.5	0.4	0.2	0.2
WBS 1200	Instrumentation and Communication	USDm	0.4	0.1	0.3	0.1
WBS 1300	Indirect Capital	USDm	0.2	0.1	0.2	0.2
Total		**USDm**	**9.0**	**8.7**	**6.5**	**12.3**

Table 19: Mining and Infrastructure Capital (AUD)

WBS Code	WBS Area	Unit	Beta	Frankfort	CDM	Rietfontein
WBS 0100	Access, Roads and Routes	AUDm	0.3	0.1	0.1	0.1
WBS 0200	Security and Access Control	AUDm	0.3	0.0	0.1	0.1
WBS 0300	Power Supply	AUDm	1.1	0.9	0.5	1.5
WBS 0400	Water Supply	AUDm	1.1	0.4	0.3	0.2
WBS 0500	Water Management	AUDm	4.8	3.2	4.3	3.3
WBS 0600	Ventilation & Compressed Air	AUDm	1.2	0.5	0.9	0.5
WBS 0700	Underground Infrastructure	AUDm	0.3	4.7	0.1	9.4
WBS 0800	Mining Site	AUDm	1.6	0.9	1.5	0.5
WBS 0900	Ore Storage, Stockpiles and WRD	AUDm	0.0	0.0	0.0	0.1
WBS 1000	Project Waste Management	AUDm	0.0	0.0	0.0	0.3
WBS 1100	Vehicles	AUDm	0.7	0.5	0.3	0.2
WBS 1200	Instrumentation and Communication	AUDm	0.5	0.1	0.4	0.1
WBS 1300	Indirect Capital	AUDm	0.3	0.1	0.3	0.2
Total		**AUDm**	**12.0**	**11.6**	**8.7**	**16.4**

NOTES: Converted from USD at exchange rate of 1.333 AUD:USD.

Processing Capital Cost

The total plant capital estimation for the processing plant is summarised in **Table 20.** The capital estimate includes the construction of the plant, tailings deposition and water management. The estimated total plant capital is USD75.5 million or AUD100.7 million

Table 20: Plant Capital

Subcategory	Total Cost	
	USDm	AUDm
Earthworks	0.8	1.1
Civil Construction	2.2	3.0
Structural Supply	2.2	2.9
Platework Supply	2.8	3.7
Mechanicals Supply	20.3	27.0
Piping & Valves Supply	2.4	3.1
Electrical Supply	4.8	6.4
Instrumentation Supply	1.0	1.3
Transport	0.7	0.9
Buildings	0.0	0.1
TSF – 30 ktpm	17.8	23.7
Underground Deposition	16.8	22.4
Water Management	3.8	5.0
Grand Total Plant Capital	**75.5**	**100.7**

NOTES: Converted from USD at exchange rate of 1.333 AUD:USD

Total Capital Cost

Table 21 summarised the overall capital over the LOM of the TGME underground operations.

The capital schedule over the life of the project for the Base Case is illustrated in. Capital in year 0 and year 1 consists of Beta mine's infrastructure, plant Infrastructure, oxide plant circuit 45 ktpm and the TSF. The capital in year 2 consists of the tailings backfill plant and Rietfontein mine infrastructure. Capital in year 8 and year 9 includes the DMS circuit, as well as Frankfort and CDM mines infrastructure. The engineering, procurement, and construction management ("EPCM") costs are included in the capital costs.

Table 21: Total Capital – Base Case

Total Capital	USDm	AUDm
Total Initial Capital	99.2	132.3
Total Expansion Capital	20.6	27.5
Total Sustaining Capital	37.0	49.3
Total Capital Contingencies	17.5	23.3
Total	**174.3**	**232.4**

NOTES: Converted from USD at exchange rate of 1.333 AUD:USD.

The capital schedule over the life of the project for the Base Case is illustrated in **Figure 34** and Ore Reserve Plan is illustrated **in Figure 35**. Capital in year 5 and year 6 includes the DMS circuit, as well as Frankfort and CDM mines infrastructure.

Figure 34: Annual Capital Schedule (USD) – Base Case

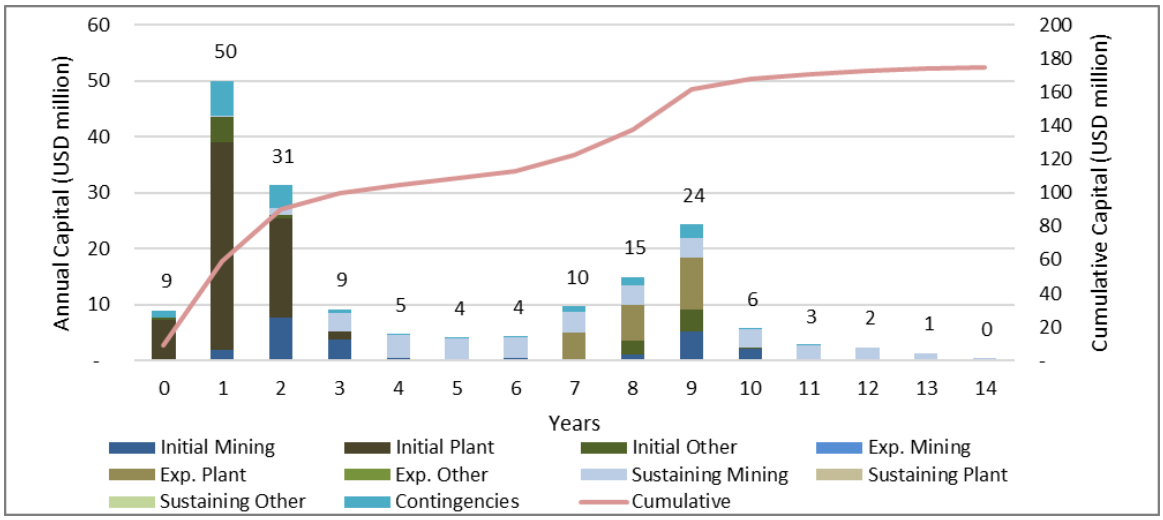
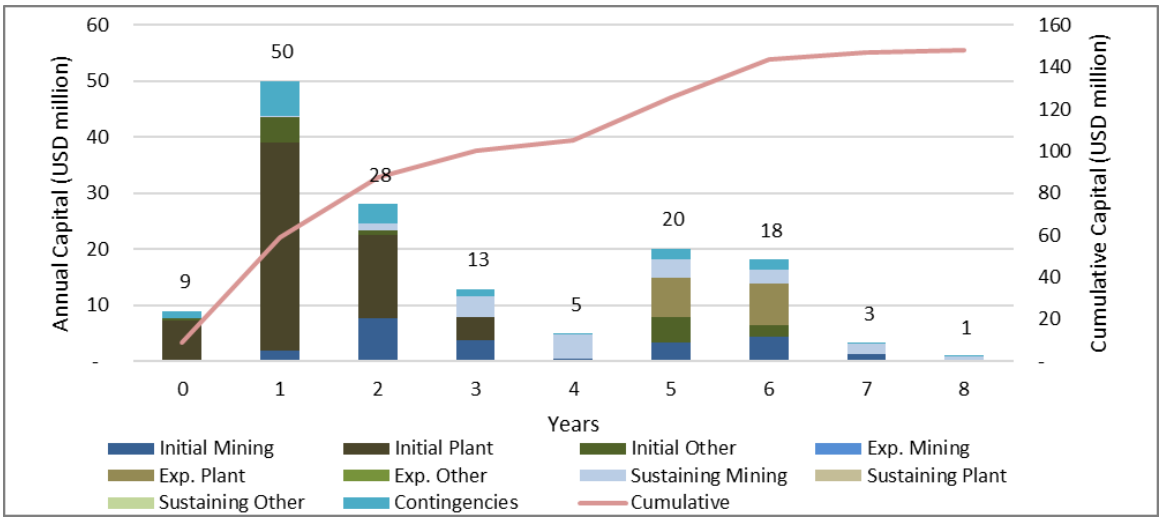


Figure 35: Annual Capital Schedule (USD) – Ore Reserve Plan



Operating costs

Mining

Beta Operating Cost – Summary Combined

The operating costs are summarised in **Table 22**, reflecting the cost per category at steady state.

Table 22: Beta Operating Cost Summary (Category Based)

Category	Total Cost	
	AUD/t Hoisted	USD/t Hoisted
Mining	53.57	40.19
Engineering	5.31	3.98
Finance	0.47	0.35
HR	0.21	0.16
Maintenance	0.11	0.08
ORM	1.12	0.84
SHE	0.95	0.71
Total	**61.73**	**46.31**

Operating Cost – Summary Combined

The operating costs are summarised in **Table 23**, reflecting the cost per category at steady state.

Table 23: Rietfontein Operating Cost Summary (Category Based)

Category	Total Cost	
	AUD/t Hoisted	USD/t Hoisted
Mining	150.48	112.89
Engineering	21.07	15.81
Finance	1.16	0.87
HR	0.59	0.44
Maintenance	0.08	0.06
ORM	3.01	2.26
SHE	2.60	1.95
Total	**179.00**	**134.28**

Frankfort Mine

Operating Cost – Summary Combined

The operating costs are summarised in **Table 24,** reflecting the cost per category at steady state.

Table 24: Frankfort Operating Cost Summary (Category Based)

Category	Total Cost	
	AUD/t Hoisted	USD/t Hoisted
Mining	28.91	21.69
Engineering	9.68	7.26
Finance	0.79	0.59
HR	0.37	0.28
Maintenance	0.08	0.06
ORM	2.01	1.51
SHE	1.61	1.21
Total	**43.47**	**32.61**

CDM Mine

Operating Cost – Summary Combined

The operating costs are summarised in **Table 25**, reflecting the cost per category at steady state.

Table 25: CDM Operating Cost Summary (Category Based)

Category	Total Cost	
	AUD/t Hoisted	USD/t Hoisted
Mining	47.57	35.69
Engineering	5.84	4.38
Finance	0.56	0.42
HR	0.27	0.20
Maintenance	0.11	0.08
ORM	1.41	1.06
SHE	1.16	0.87
Total	**56.92**	**42.70**

Processing

The operating cost for the processing plant is detailed in **Table 26** for both USD and AUD terms for the two phases of the plant. The plant will operate on generator power for a total of 4 months between the time when the plant is constructed, and the electrical infrastructure is in place. For this period, generator rental is estimated to be USD75,611/ month or AUD100,790/month and the cost of power increases to USD16.4/t or AUD21.9/t.

Table 26: Processing Operating Cost Summary

Type	Item	Unit	Phase 2 – CDM, Rietfontein and Beta	Phase 3 – All Ore
AUD Terms				
Fixed	Labour - Plant	AUD/month	122,700	122,700
	Labour - Underground Deposition	AUD/month	53,951	53,951
Fixed Total		**AUD/month**	**176,651**	**176,651**
Variable	Reagents & Grinding Media	AUD/t	9.1	12.4
	Power	AUD/t	8.8	15.3
	Water	AUD/t	0.2	0.2
	Consumables	AUD/t	0.2	0.2
	Laboratory	AUD/t	0.5	0.5
	Crushing	AUD/t	1.1	1.1
	Maintenance	AUD/t	1.7	2.9
	TSF Deposition	AUD/t	2.1	2.1
	Underground Deposition	AUD/t	15.8	15.8
	DMS Reject Transport & Deposition	AUD/t Reject Material	0.9	0.9
Variable Total		**AUD/t**	**40.5**	**51.4**
USD Terms				
Fixed	Labour - Plant	USD/month	92,048	92,048
	Labour - Underground Deposition	USD/month	40,473	40,473
Fixed Total		**USD/month**	**132,522**	**132,522**
Variable	Reagents & Grinding Media	USD/t	6.8	9.3
	Power	USD/t	6.6	11.5
	Water	USD/t	0.2	0.2
	Consumables	USD/t	0.2	0.2
	Laboratory	USD/t	0.4	0.4
	Crushing	USD/t	0.9	0.9
	Maintenance	USD/t	1.3	2.2
	TSF Deposition	USD/t	1.5	1.5
	Underground Deposition	USD/t	11.8	11.8
	DMS Reject Transport & Deposition	USD/t Reject Material	0.7	0.7
Variable Total		**USD/t**	**30.4**	**38.5**

Project Operating Cost

The total Operating Cost summary over the Base Case LOM in AUD and USD terms is provided in **Table 27** respectively, as a cost per plant feed tonne.

Table 27: Total Operating Cost Summary (Average over Life of Mine) – Base Case

Description	USD/t	AUD/t
Total Mining OPEX	66.9	89.2
Total Plant OPEX	20.2	26.9
Total TSF OPEX	8.5	11.3
Total Central Services OPEX	6.2	8.3
Total Refining Charges and Penalties	0.4	0.5
Total Environmental and Social Cost	8.7	11.6
Total Other Cost	0.9	1.2
Total Corporate Overheads	3.5	4.7
Contingencies	10.9	14.5
Total Project OPEX	**126.2**	**168.3**

The total Operating Cost summary over the Ore Reserve Plan LOM in AUD and USD terms is provided in **Table 28** respectively, as a cost per plant feed tonne.

Table 28: Total Operating Cost Summary (Average over Life of Mine) – Ore Reserve Plan

Description	USD/t	AUD/t
Total Mining OPEX	72.7	96.9
Total Plant OPEX	19.9	26.5
Total TSF OPEX	6.4	8.5
Total Central Services OPEX	7.2	9.6
Total Refining Charges and Penalties	0.4	0.5
Total Environmental and Social Cost	9.7	12.9
Total Other Cost	1.1	1.5
Total Corporate Overheads	4.5	6.0
Contingencies	11.2	14.9
Total Project OPEX	**133.1**	**177.5**

Financial cost indicators

The operating costs in the financial model were reported into different categories as defined by the World Gold Council. **Table 29** illustrates a breakdown of all the costs included in each costing category:

a. (Operating) Adjusted Operating Cost;

b. All-in Sustaining Cost ("AISC"); and

c. All-in Cost ("AIC").

Table 29: Financial Cost Indicators

<table>
<tr><td rowspan="3">All-in Costs (AIC)</td><td rowspan="2">All-in Sustaining Costs (AISC)</td><td>Adjusted Operating Costs</td><td>On-Site Mining Costs (on a sales basis)
On-Site General & Administration costs
Royalties & Production Taxes
Realised Gains/Losses on Hedges due to operating costs Community Costs related to current operations
Permitting Costs related to current operations 3rd party smelting, refining and transport costs
Non-Cash Remuneration (Site-Based)
Stockpiles / production inventory write down
Operational Stripping Costs
By-Product Credits</td></tr>
<tr><td colspan="2">Corporate General &/Administrative costs (including share-based remuneration)
Reclamation & remediation - accretion & amortisation (operating sites)
Exploration and study costs (sustaining)
Capital exploration (sustaining)
Capitalised stripping & underground mine development (sustaining)
Capital expenditure (sustaining)</td></tr>
<tr><td colspan="3">Community Costs not related to current operations
Permitting Costs not related to current operations
Reclamation and remediation costs not related to current operations
Exploration and study costs (non-sustaining)
Capital exploration (non-sustaining)
Capitalised stripping & underground mine development (non-sustaining)
Capitalised stripping & underground mine development (non-sustaining)
Capital expenditure (non-sustaining)</td></tr>
</table>

Costs reported for the underground operations on this basis are displayed per milled tonne as well as per recovered gold ounce in USD terms and AUD terms in **Table 30** and **Table 31**, respectively.

Table 30: Project Cost Indicators – USD Terms (Weighted Average over LOM)

Item	Base Case	Reserve Plan
	USD/Feed tonne	USD/Feed tonne
Net Turnover	**271**	**276**
Mine Cost	72	78
Plant Costs	31	28
Other Costs	15	15
Royalties	11	9
Operating Costs	**128**	**130**
Renewals and Replacements	6	6
Reclamation	2	4
Off-mine Overheads	3	4
All-in Sustaining Costs (AISC)	**139**	**144**
Non-Sustaining Capital	21	45
All-in Costs (AIC)	**160**	**189**
All-in Cost Margin	**41%**	**31%**
EBITDA*	138	138
EBITDA Margin	51%	50%
Gold Recovered	1,076,431	485,950
Item	**USD/Gold oz**	**USD/Gold oz**
Net Turnover	**1,628**	**1,619**
Mine Cost	429	456
Plant Costs	184	164
Other Costs	93	90
Royalties	64	51
Operating Costs	**770**	**762**
Renewals and Replacements	34	36
Reclamation	10	22
Off-mine Overheads	20	25
All-in Sustaining Costs (AISC)	**834**	**846**
Non-Sustaining Capital	128	267
All-in Costs (AIC)	**962**	**1,113**
EBITDA*	827	810

Table 31: Project Cost Indicators – AUD Terms (Weighted Average over LOM)

Item	Base Case	Reserve Plan
	AUD/Feed tonne	AUD/Feed tonne
Net Turnover	**361**	**368**
Mine Cost	95	103
Plant Costs	41	37
Other Costs	21	21
Royalties	14	12
Operating Costs	**171**	**173**
Renewals and Replacements	8	8
Reclamation	2	5
Off-mine Overheads	5	6
All-in Sustaining Costs (AISC)	**185**	**192**
Non-Sustaining Capital	28	61
All-in Costs (AIC)	**214**	**253**
All-in Cost Margin	**41%**	**31%**
EBITDA*	184	184
EBITDA Margin	51%	50%
Gold Recovered	1,076,431	485,950
Item	**AUD/Gold oz**	**AUD/Gold oz**
Net Turnover	**2,170**	**2,159**
Mine Cost	572	608
Plant Costs	245	219
Other Costs	124	121
Royalties	85	68
Operating Costs	**1,026**	**1,016**
Renewals and Replacements	46	49
Reclamation	13	29
Off-mine Overheads	27	34
All-in Sustaining Costs (AISC)	**1,112**	**1,127**
Non-Sustaining Capital	170	356
All-in Costs (AIC)	**1,283**	**1,483**
EBITDA*	1,103	1,080

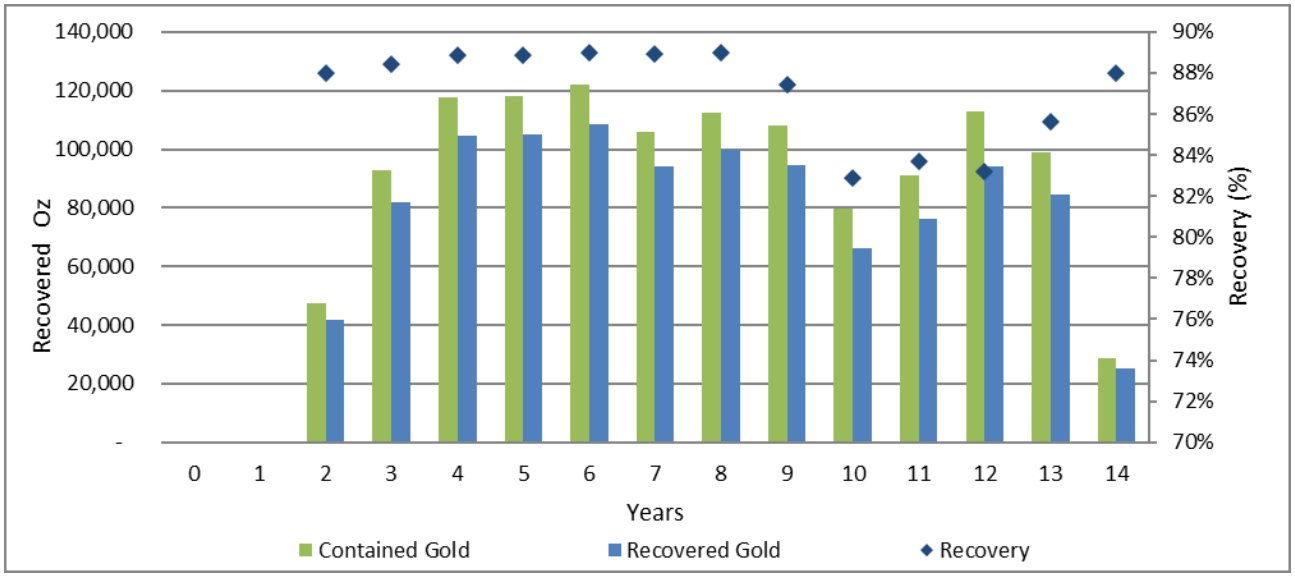
Project financials

Saleable product

The saleable product ounces per year, for the Base Case scenario, are illustrated **Figure 32.** The average recovery over the LOM is 87% for an average recovered gold grade of 5.18 g/t. The first eleven months of on-reef development from Beta are stockpiled and are then used to commission the plant.

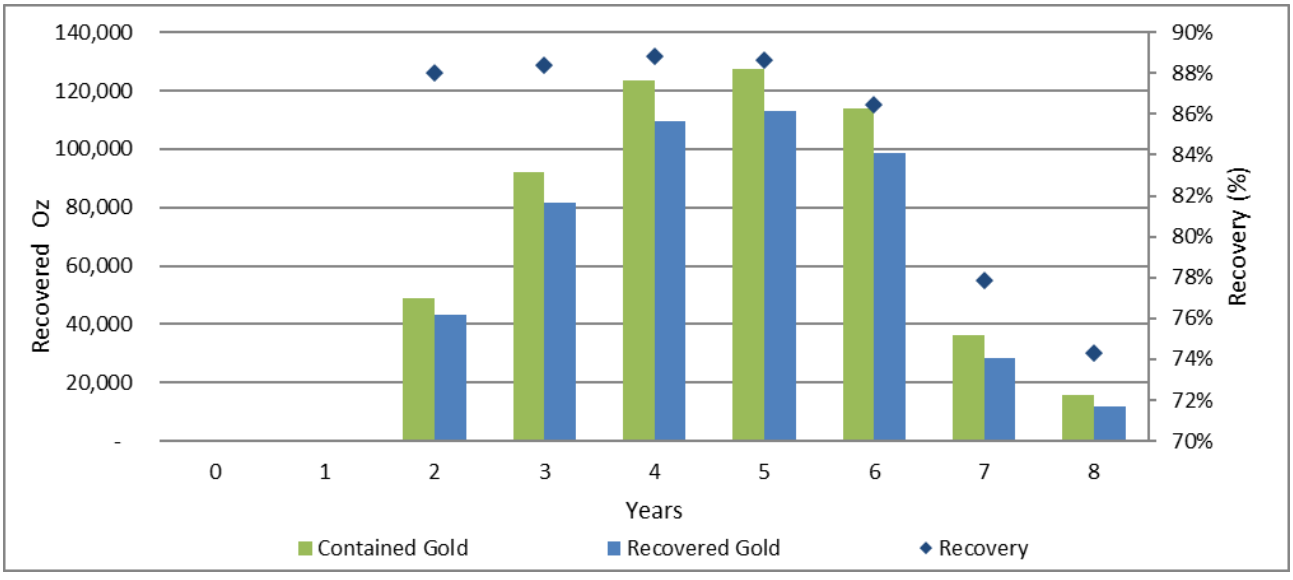
The reason for the delay is due to the on-reef development ore tonnes for those eleven months only averaging approximately 2,300 tonnes per month. The plant capital was therefore delayed allowing for sufficient build-up of the ore for commissioning.

Figure 32: Annual Gold Production – Base Case



The saleable product ounces per year, for the Reserve Plan, are illustrated in **Figure 33.** The average recovery over the LOM is 87% for an average recovered gold grade of 5.30 g/t.

Figure 33: Annual Gold Production – Reserve Plan



A breakdown of the tonnes and ounces used in the LOM are displayed in **Table 32.**

Table 32: Production Breakdown in Life of Mine

Item	Project	Base Case	Reserve Plan
Waste Tonnes Mined	Kt	4,168	2,181
Ore Tonnes Mined	Kt	6,462	2,853
Total Tonnes Mined	Kt	10,631	5,034
Content in Mine Plan	Oz	1,235,216	558,339
Grade Delivered to Plant	g/t	5.95	6.09
Recovered grade	g/t	5.18	5.30
Average Recovery	%	87.1%	87.0%
Total oz. Recovered	Oz	1,076,431	485,950

Economic input parameters

Forecast data is based on projections for the different commodity prices and the country-specific macro-economic parameters and is presented in calendar years from January to December.

Both the ZAR/USD exchange rate and USD commodity prices are in real terms. **Table 33** illustrates the forecasts for the first three years as well as the long-term forecast used in the financial model. The price forecasts and exchange rate forecasts are based on the median of various banks, brokers and analyst forecasts and converted to real terms.

From 2025 onwards a constant long-term forecast is applied for the remaining LOM. The inflation rate was sourced from International Monetary Fund ("IMF").

Minxcon also considered several constant gold price scenarios to test the sensitivity to financial results. The constant prices considered are:

- USD1,500/oz;
- USD1,600/oz;
- USD1,800/oz;
- USD2,000/oz; and
- USD2,200/oz

The results of these price scenarios are presented in the sensitivity analysis section of the report along with the forecast prices.

All results are presented utilising the forecast prices unless stated otherwise.

Cash flows

In-house DCF model was populated with the data to illustrate the NPV for the operation in real ZAR terms, which was subsequently converted to real USD terms using the exchange rate forecast. At TGME's request the USD cash flow was also converted to AUD at exchange rate as of the effective date, 1 April 2022. The NPV is derived from post-tax, pre-debt real cash flows, using the techno-economic parameters, commodity price and macro-economic projections.

This economic analysis is based on a free cash flow and measures the economic viability of the overall project as well as the economic viability of the orebody including only Measured and Indicated Resources to demonstrate if the extraction of the Ore Reserve is viable and justifiable under a defined set of realistically assumed modifying factors.

Basis of Evaluation

In generating the financial model and deriving the valuations, the following were considered:

- This Report details the optimised cash flow model with economic input parameters.
- The cash flow model is in real money terms and completed in ZAR.
- The DCF valuation was set up in months and starts April 2022, but also subsequently converted to calendar years.
- The annual ZAR cash flow was converted to USD using real term forecast exchange rates for the LOM period.
- The USD cash flow was converted to AUD from USD at exchange rate of 1.333 AUD:USD.
- A company hurdle rate of 10.0% (in real terms) was utilised for the discount factor.
- The impact of the Mineral Royalties Act using the formula for refined metals was included.
- Sensitivity analyses were performed to ascertain the impact of discount factors, commodity prices,

Table 33: Macro-economic Forecasts and Commodity Prices over the Life of Project (Real Terms)

Item	Unit	2022	2023	2024	2025	Long-Term
		0	1	2	3	
SA Inflation Rate	%	3.50%	2.70%	2.60%	2.50%	2.30%
Exchange rate	ZAR/USD	15.65	15.60	15.53	15.49	15.49
Gold	USD/oz	1,725	1,564	1,522	1,650	1,650

Source: Median of various Banks and Broker forecasts (Minxcon), IMF.

exchange rate, grade, operating costs and capital expenditures.

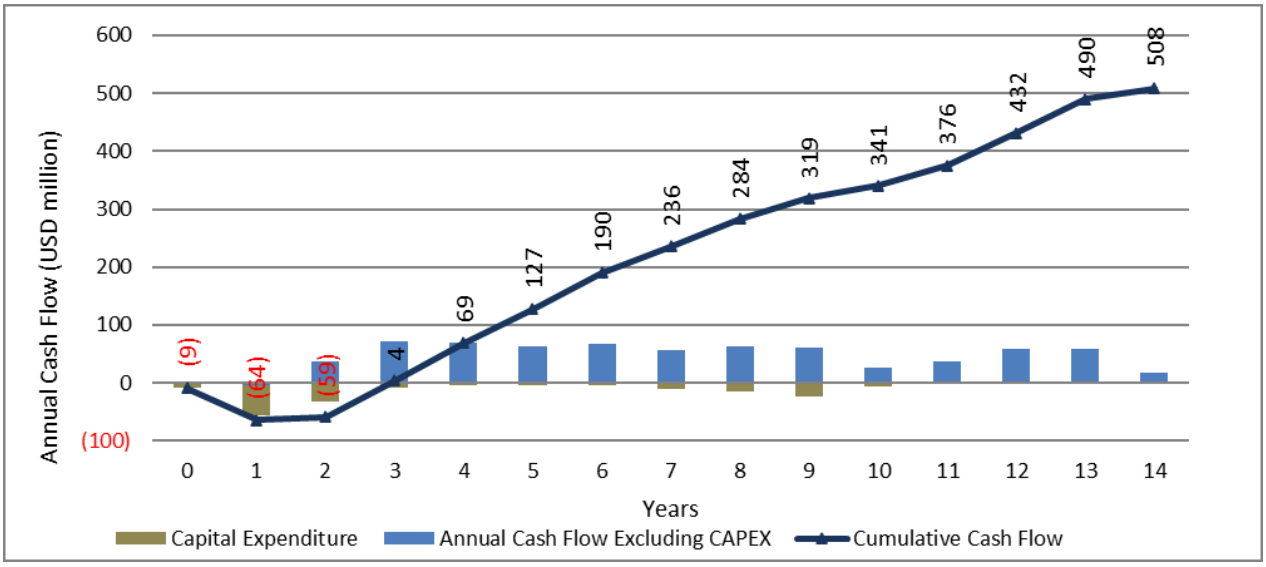
- Valuation of the tax entity was performed on a stand-alone basis.
- The full NPV of the operation was reported for the operations.
- The Base Case includes Measured, Indicated and Inferred Mineral Resources in the LOM plan.
- The Ore Reserve Plan includes only Measured and Indicated Mineral Resources in the LOM, to determine the viability of the Ore Reserves.

Base Case

The capital expenditure, cash flow excluding capital expenditure and cumulative cash flow for the Base Case over the LOM are displayed in **Figure 34** and **Figure 35** on an annual basis in USD and AUD terms, respectively.

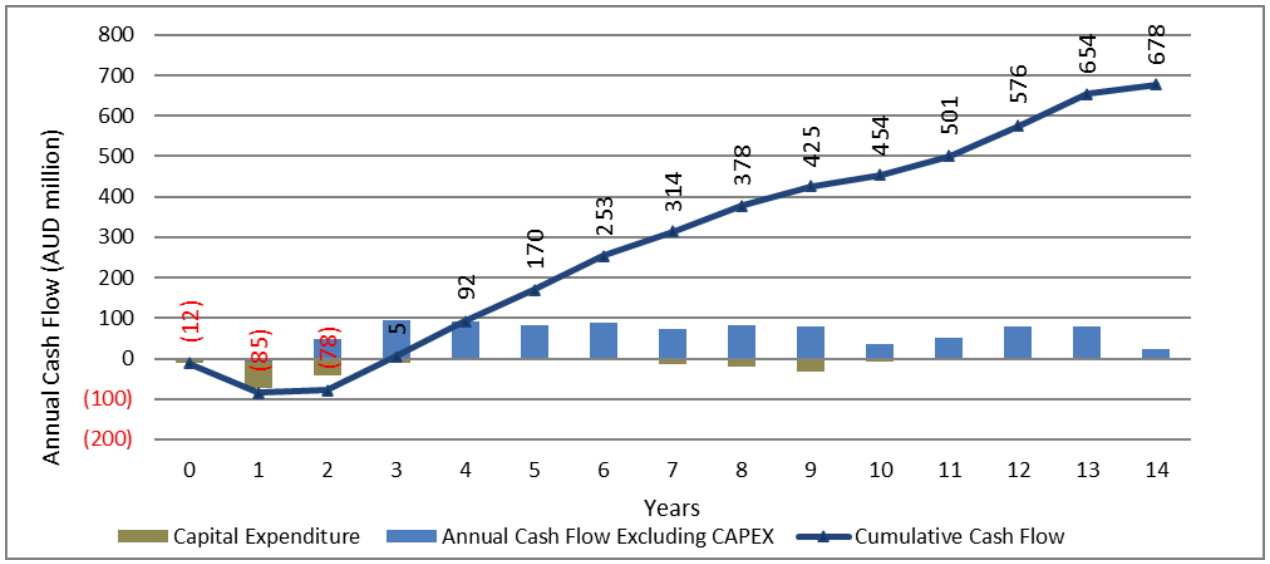
The peak funding requirement is USD77 million (or AUD102 million) (inclusive of contingencies) in month 24, with a pay-back period of 31 months from start of mining and 21 months from start of processing.

Figure 34: Annual and Cumulative Cash Flow USD (Real Terms) – Base Case



NOTE: Forecast Prices averaging USD1,642/oz over LOM.

Figure 35: Annual and Cumulative Cash Flow (Post-Tax) – Base Case (AUD)



NOTES:
1. Forecast Prices averaging USD1,642/oz over LOM
2. Converted to AUD from USD at exchange rate of 1.333 AUD:USD.

The detailed real-term annual cash flow for the Base Case is illustrated **Table 34** to follow.

Table 34: Annualised Real Cash Flow Model (USD Terms) – Base Case

Minxcon

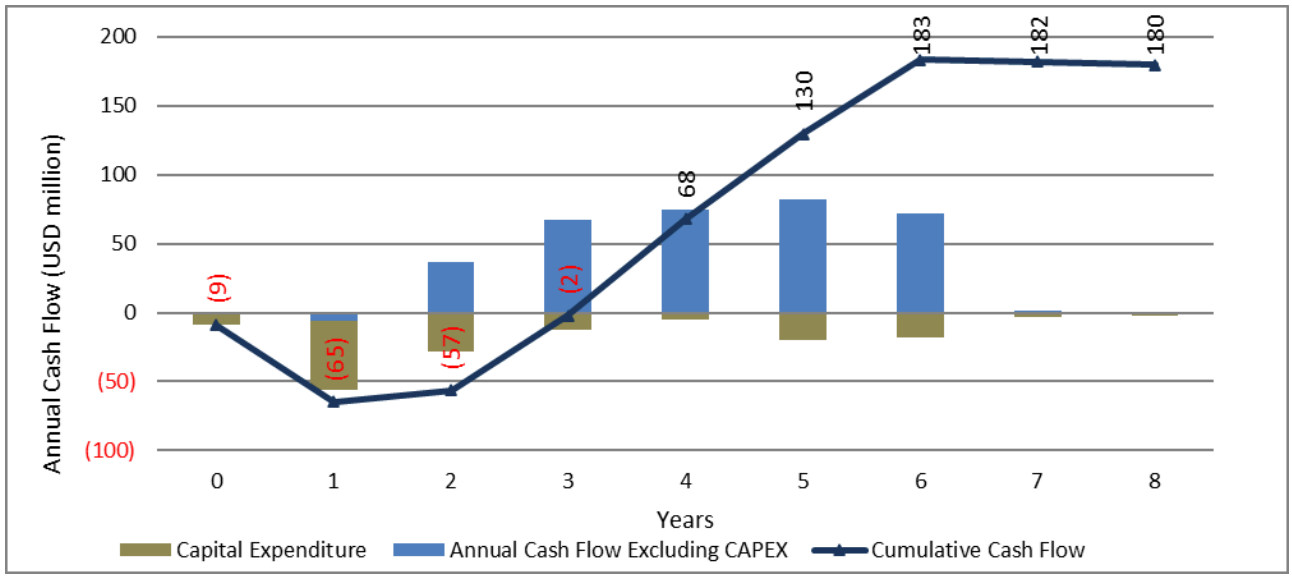
Project Title: **TGME UG Ops**
Client: TGME
Project Code: P21-013a

Project Duration		Unit	Totals															
Calendar Years				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Financial Years		years	14	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Macro-Economic Factors (Real Terms)																		
Currency		ZAR /USD	15.50	15.65	15.60	15.53	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49	15.49
Inflation	ZAR Inflation Rate	%	4.49%	4.30%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Inflation	US Inflation Rate	%	2.44%	3.50%	2.70%	2.60%	2.50%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%	2.30%
Commodities																		
Commodity prices	Gold	USD/oz	1,640	1,725	1,564	1,522	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650.00	1,650.00	1,650.00	1,650.00
Operating Statistics																		
Tonnes Produced																		
Waste		tonnes	4,168,212	0	58,270	173,079	406,060	456,756	462,306	428,042	404,750	354,994	380,704	426,996	219,325	180,148	165,537	51,246
Stripping ratio		Ratio	0.64	0.00	3.93	0.91	0.89	0.82	0.80	0.75	0.73	0.63	0.63	0.64	0.31	0.30	0.54	0.60
ROM		tonnes	6,462,465	0	14,818	191,154	454,438	559,578	576,901	567,858	558,262	562,396	608,629	665,926	703,506	608,990	304,710	85,299
ROM	(Max)	tonnes/mnth	58,625	-	1,235	15,929	37,870	46,632	48,075	47,322	46,522	46,866	50,719	55,494	58,625	50,749	25,393	7,108
Mill Head grade	Gold Grade	g/t	5.95	0.00	5.70	7.25	6.36	6.75	6.82	6.91	5.85	6.48	5.95	4.25	5.43	6.72	2.95	2.90
Tonnes to mill		tonnes	6,462,465	0	0	205,972	453,227	540,000	540,000	540,000	540,000	540,000	561,560	608,716	613,181	602,889	557,436	159,485
Recovered Grade																		
Recovered grade	Precious Metals	g/t	5.18	-	0.00	6.28	5.63	6.02	6.05	6.26	5.42	5.76	5.24	3.37	3.86	4.85	4.72	4.89
Metal recovered																		
Metal recovered	Gold	kg	33,481	0	0	1,294	2,551	3,250	3,266	3,381	2,925	3,110	2,945	2,053	2,366	2,926	2,633	780
Metal recovered	Gold	oz	1,076,431	-	-	41,612	82,003	104,494	104,991	108,698	94,057	100,000	94,677	66,004	76,072	94,088	84,660	25,076
Financial																		
Revenue		**USD**	**1,753,067,125**	**-**	**-**	**62,690,963**	**133,952,400**	**170,690,162**	**171,502,843**	**177,558,982**	**153,641,701**	**163,350,130**	**154,654,199**	**107,817,587**	**124,263,162**	**153,692,107**	**138,291,869**	**40,961,020**
Revenue	Gold	USD	1,753,067,125	0	0	62,690,963	133,952,400	170,690,162	171,502,843	177,558,982	153,641,701	163,350,130	154,654,199	107,817,587	124,263,162	153,692,107	138,291,869	40,961,020
Mining cost			**(462,359,719)**	**0**	**(2,496,034)**	**(14,686,542)**	**(41,923,428)**	**(49,811,952)**	**(49,201,471)**	**(47,092,738)**	**(45,907,990)**	**(44,290,005)**	**(43,507,921)**	**(38,949,521)**	**(33,818,367)**	**(29,426,526)**	**(16,495,515)**	**(4,751,708)**
Direct Cash Costs	Fixed Cost	USD	(3,553,990)	0	(53,958)	(116,326)	(375,083)	(375,083)	(375,083)	(375,083)	(375,083)	(375,083)	(446,852)	(188,843)	(188,843)	(181,081)	(95,692)	(31,897)
Direct Cash Costs	Variable Cost	USD	(416,773,028)	0	(2,215,164)	(13,235,076)	(37,737,124)	(44,908,510)	(44,353,527)	(42,436,497)	(41,359,453)	(39,888,558)	(39,105,804)	(35,219,812)	(30,555,127)	(26,570,307)	(14,900,230)	(4,287,837)
Direct Cash Costs	Contingeny	USD	(42,032,702)	0	(226,912)	(1,335,140)	(3,811,221)	(4,528,359)	(4,472,861)	(4,281,158)	(4,173,454)	(4,026,364)	(3,955,266)	(3,540,866)	(3,074,397)	(2,675,139)	(1,499,592)	(431,973)
Plant cost			**(198,132,195)**	**0**	**0**	**(5,899,499)**	**(11,311,634)**	**(14,185,397)**	**(14,305,456)**	**(14,251,919)**	**(14,185,369)**	**(15,928,994)**	**(19,269,346)**	**(21,443,443)**	**(21,473,610)**	**(21,377,573)**	**(19,155,484)**	**(5,344,472)**
Direct Cash Costs	Fixed Cost	USD	(19,812,444)	0	0	(1,091,934)	(1,461,341)	(1,539,715)	(1,539,715)	(1,539,715)	(1,539,715)	(1,756,483)	(1,828,739)	(1,828,739)	(1,828,739)	(1,804,654)	(1,539,715)	(513,238)
Direct Cash Costs	Variable Cost	USD	(160,307,733)	0	0	(4,271,247)	(8,821,963)	(11,356,100)	(11,465,245)	(11,416,575)	(11,356,075)	(12,724,420)	(15,688,848)	(17,665,299)	(17,692,725)	(17,629,504)	(15,874,361)	(4,345,372)
Direct Cash Costs	Contingeny	USD	(18,012,018)	0	0	(536,318)	(1,028,330)	(1,289,582)	(1,300,496)	(1,295,629)	(1,289,579)	(1,448,090)	(1,751,759)	(1,949,404)	(1,952,146)	(1,943,416)	(1,741,408)	(485,861)
Other Costs			**(110,342,277)**	**0**	**(1,635,544)**	**(4,008,844)**	**(7,628,891)**	**(9,858,057)**	**(10,445,509)**	**(10,751,261)**	**(10,745,314)**	**(11,253,826)**	**(11,334,092)**	**(7,893,647)**	**(8,287,363)**	**(8,458,604)**	**(6,161,916)**	**(1,879,408)**
Direct Cash Costs	Other Cost Fixed	USD	(28,235,730)	0	(885,682)	(1,573,046)	(2,109,352)	(2,109,352)	(2,109,352)	(2,109,352)	(2,109,352)	(2,109,352)	(2,966,725)	(2,668,749)	(2,668,749)	(2,816,731)	(1,709,735)	(490,199)
Direct Cash Costs	Other Costs Variable	USD	(63,537,859)	0	(108,358)	(1,238,061)	(4,047,397)	(6,118,222)	(6,681,504)	(6,986,109)	(7,004,489)	(7,495,283)	(6,735,456)	(3,898,002)	(4,283,382)	(4,516,487)	(3,338,336)	(1,086,773)
Direct Cash Costs	Contingeny	USD	(8,167,849)	0	(88,470)	(250,188)	(547,951)	(732,254)	(782,386)	(809,496)	(811,132)	(854,812)	(863,494)	(584,441)	(618,740)	(634,856)	(449,278)	(140,351)
Direct Cash Costs	Rehabilitation	USD	(10,400,838)	0	(553,034)	(947,549)	(924,191)	(898,229)	(872,266)	(846,304)	(820,342)	(794,379)	(768,417)	(742,454)	(716,492)	(690,529)	(664,567)	(162,085)
Direct Cash Costs			**(770,834,191)**	**0**	**(4,131,578)**	**(24,594,886)**	**(60,863,954)**	**(73,855,405)**	**(73,952,436)**	**(72,095,918)**	**(70,838,673)**	**(71,472,825)**	**(74,111,360)**	**(68,286,611)**	**(63,579,340)**	**(59,262,704)**	**(41,812,915)**	**(11,975,588)**
Production Costs	Initial Capital expenditu	USD	**(98,840,686)**	(7,778,558)	(43,541,466)	(26,094,621)	(5,137,420)	(559,106)	(111,535)	(380,155)	(304,124)	(3,457,805)	(9,062,061)	(2,402,919)	(10,915)	0	0	0
Production Costs	Contingency	USD	**(17,447,867)**	(1,150,907)	(6,235,734)	(4,071,199)	(721,437)	(67,093)	(13,384)	(45,619)	(991,636)	(1,429,382)	(2,431,818)	(288,350)	(1,310)	0	0	0
Production Costs	SIB	USD	**(36,988,778)**	0	(199,683)	(1,174,923)	(3,353,874)	(3,984,956)	(3,936,118)	(3,767,419)	(3,672,639)	(3,543,200)	(3,480,634)	(3,115,962)	(2,705,469)	(2,354,122)	(1,319,641)	(380,137)
Production Costs		**USD**	**(944,743,198)**	**(8,929,465)**	**(54,108,460)**	**(55,935,629)**	**(70,076,685)**	**(78,466,561)**	**(78,013,473)**	**(76,289,111)**	**(80,582,778)**	**(86,403,787)**	**(98,441,268)**	**(74,093,842)**	**(66,297,034)**	**(61,616,826)**	**(43,132,556)**	**(12,355,724)**
Fully Allocated Costs	Royalty	USD	(68,704,885)	0	0	(313,455)	(669,762)	(7,997,108)	(8,145,399)	(8,568,469)	(6,441,248)	(6,803,974)	(5,133,981)	(3,100,663)	(5,122,281)	(7,531,959)	(6,914,593)	(1,961,994)
Fully Allocated Costs	Other Fixed Costs	USD	(21,999,157)	0	(987,081)	(1,699,389)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(568,020)
Fully Allocated Costs		**USD**	**(1,035,447,240)**	**(8,929,465)**	**(55,095,541)**	**(57,948,473)**	**(72,450,507)**	**(88,167,729)**	**(87,862,933)**	**(86,561,640)**	**(88,728,087)**	**(94,911,822)**	**(105,279,309)**	**(78,898,565)**	**(73,237,122)**	**(71,004,506)**	**(51,902,871)**	**(14,936,292)**
EBITDA		**USD**	**891,061,270**	**0**	**(5,118,659)**	**36,083,234**	**70,714,624**	**87,133,589**	**87,700,948**	**95,190,534**	**74,657,720**	**83,369,270**	**73,704,798**	**34,726,253**	**53,743,734**	**85,041,723**	**87,708,639**	**26,404,865**
EBIT		**USD**	**717,619,885**	**(8,929,465)**	**(55,095,541)**	**4,742,490**	**61,501,893**	**82,522,433**	**83,639,910**	**90,997,341**	**64,913,614**	**68,438,308**	**49,374,890**	**28,919,022**	**51,026,040**	**82,687,601**	**86,388,998**	**26,024,728**
Taxation		USD	(209,203,886)	0	0	0	0	(17,741,804)	(25,522,021)	(27,920,593)	(19,458,720)	(20,492,073)	(14,158,341)	(7,999,568)	(15,236,380)	(25,501,018)	(27,021,297)	(8,152,070)
Income after tax		USD	507,948,376	(8,929,465)	(55,095,541)	4,742,490	61,501,893	64,780,629	58,117,889	63,076,748	45,454,894	47,946,236	35,216,549	20,919,453	35,789,660	57,186,582	59,367,700	17,872,658
Working capital changes		USD	190,975	0	190,974	338,342	1,252,145	263,359	(5,933)	(252,673)	366,701	(154,279)	283,635	508,072	(664,864)	(877,947)	(904,930)	(138,281)
Cash Flow																		
Net Cash Flow	Annual cash flow	USD	**508,139,350**	(8,929,465)	(54,904,567)	5,080,832	62,754,038	65,043,988	58,111,957	62,824,075	45,821,595	47,791,957	35,500,184	21,427,526	35,124,796	56,308,635	58,462,770	17,734,377

Reserve Plan

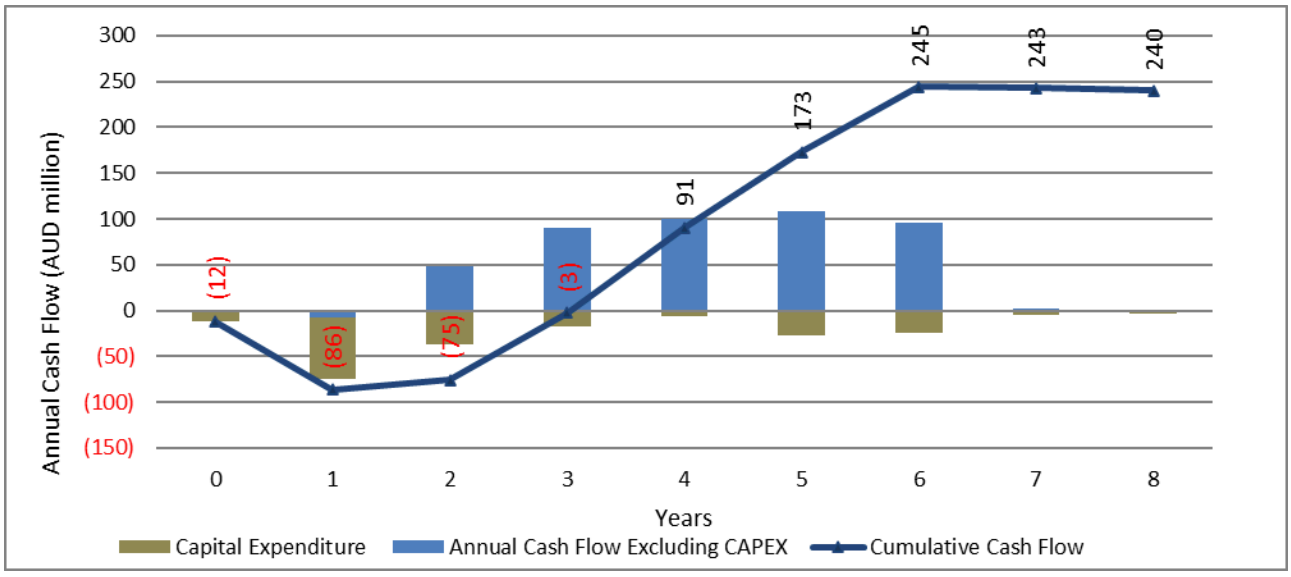
The capital expenditure, cash flow excluding capital expenditure and cumulative cash flow for the Reserve Plan over the LOM are displayed in **Figure 36** and **Figure 37** on an annual basis in USD and AUD terms, respectively. The cash flow levels out when CDM and Frankfort operate on their own, illustrating the two mines are marginal.

Figure 36: Annual and Cumulative Cash Flow USD (Real Terms) – Ore Reserve Plan



NOTE: Forecast Prices averaging USD1,642/oz over LOM.

Figure 37: Annual and Cumulative Cash Flow (Post-Tax) – Ore Reserve Plan (AUD)



NOTES:
1. Forecast Prices averaging USD1,642/oz over LOM.
2. Converted to AUD from USD at exchange rate of 1.333 AUD:USD as at 1 April 2022.

The detailed real-term annual cash flow for the Reserve Plan is illustrated **Table 35** to follow.

Table 35: Annualised Real Cash Flow Model (USD Terms) – Reserve Plan

Minxcon

Project Title: **TGME UG Ops**
Client: TGME
Project Code: P21-013a

Project Duration		Unit	Totals									
Calendar Years				2022	2023	2024	2025	2026	2027	2028	2029	2030
Financial Years		years	8	0	1	2	3	4	5	6	7	8
Macro-Economic Factors (Real Terms)												
Currency		ZAR /USD	15.53	15.65	15.60	15.53	15.49	15.49	15.49	15.49	15.49	15.49
Inflation	ZAR Inflation Rate	%	4.48%	4.30%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
Inflation	US Inflation Rate	%	2.53%	3.50%	2.70%	2.60%	2.50%	2.30%	2.30%	2.30%	2.30%	2.30%
Commodities												
Commodity prices	Gold	USD/oz	1,632	1,725	1,564	1,522	1,650	1,650	1,650	1,650	1,650	1,650
Operating Statistics												
Tonnes Produced												
Waste		tonnes	2,180,624	0	66,626	208,130	466,075	522,549	293,318	258,414	281,021	84,491
Stripping ratio		Ratio	0.76	0.00	4.29	1.04	0.99	0.90	0.55	0.52	0.71	0.52
ROM		tonnes	2,853,240	0	15,519	199,203	472,897	577,999	533,510	497,434	395,244	161,435
ROM	(Max)	tonnes/mnth	48,167	-	1,293	16,600	39,408	48,167	44,459	41,453	32,937	13,453
Mill Head grade	Gold Grade	g/t	6.09	0.00	5.72	7.22	6.15	7.01	7.47	6.58	2.85	3.05
Tonnes to mill		tonnes	2,853,240	0	0	214,722	465,488	540,000	540,000	536,352	395,244	161,435
Recovered Grade												
Recovered grade	Precious Metals	g/t	5.30	-	0.00	6.26	5.45	6.32	6.50	5.72	2.22	2.27
Metal recovered												
Metal recovered	Gold	kg	15,115	0	0	1,343	2,537	3,413	3,509	3,067	879	366
Metal recovered	Gold	oz	485,950	-	-	43,193	81,566	109,730	112,826	98,620	28,254	11,761
Financial												
Revenue		**USD**	**788,316,834**	**-**	**-**	**65,073,180**	**133,237,900**	**179,243,668**	**184,301,641**	**161,095,641**	**46,152,716**	**19,212,088**
Revenue	Gold	USD	788,316,834	0	0	65,073,180	133,237,900	179,243,668	184,301,641	161,095,641	46,152,716	19,212,088
Mining cost			**(221,858,595)**	**0**	**(3,008,625)**	**(16,309,450)**	**(45,132,965)**	**(53,235,318)**	**(39,906,575)**	**(32,254,914)**	**(23,786,176)**	**(8,224,571)**
Direct Cash Costs	Fixed Cost	USD	(1,940,675)	0	(53,958)	(116,326)	(375,083)	(375,083)	(375,083)	(447,120)	(121,153)	(76,870)
Direct Cash Costs	Variable Cost	USD	(199,748,956)	0	(2,681,155)	(14,710,447)	(40,654,885)	(48,020,661)	(35,903,622)	(28,875,529)	(21,502,644)	(7,400,013)
Direct Cash Costs	Contingeny	USD	(20,168,963)	0	(273,511)	(1,482,677)	(4,102,997)	(4,839,574)	(3,627,870)	(2,932,265)	(2,162,380)	(747,688)
Plant cost			**(80,014,122)**	**0**	**0**	**(6,097,749)**	**(11,523,437)**	**(14,078,653)**	**(13,702,759)**	**(14,854,410)**	**(13,719,001)**	**(6,038,113)**
Direct Cash Costs	Fixed Cost	USD	(9,738,613)	0	0	(1,091,934)	(1,461,341)	(1,539,715)	(1,539,715)	(1,539,715)	(1,539,715)	(1,026,477)
Direct Cash Costs	Variable Cost	USD	(63,001,499)	0	0	(4,451,474)	(9,014,510)	(11,259,061)	(10,917,338)	(11,964,294)	(10,932,104)	(4,462,717)
Direct Cash Costs	Contingeny	USD	(7,274,011)	0	0	(554,341)	(1,047,585)	(1,279,878)	(1,245,705)	(1,350,401)	(1,247,182)	(548,919)
Other Costs			**(54,751,360)**	**0**	**(2,034,758)**	**(4,771,601)**	**(8,199,833)**	**(10,561,078)**	**(9,959,828)**	**(9,357,378)**	**(6,188,408)**	**(3,678,476)**
Direct Cash Costs	Other Cost Fixed	USD	(15,259,944)	0	(885,682)	(1,573,046)	(2,109,352)	(2,109,352)	(2,109,352)	(3,043,139)	(2,086,709)	(1,343,312)
Direct Cash Costs	Other Costs Variable	USD	(25,181,275)	0	(113,438)	(1,330,905)	(3,981,283)	(6,192,243)	(5,682,823)	(4,238,513)	(2,327,653)	(1,314,415)
Direct Cash Costs	Contingeny	USD	(3,599,268)	0	(88,922)	(258,452)	(542,067)	(738,842)	(693,504)	(648,067)	(392,878)	(236,538)
Direct Cash Costs	Rehabilitation	USD	(10,710,873)	0	(946,717)	(1,609,198)	(1,567,131)	(1,520,640)	(1,474,149)	(1,427,658)	(1,381,167)	(784,211)
Direct Cash Costs			**(356,624,078)**	**0**	**(5,043,383)**	**(27,178,801)**	**(64,856,234)**	**(77,875,050)**	**(63,569,162)**	**(56,466,702)**	**(43,693,586)**	**(17,941,161)**
Production Costs	Initial Capital expenditu	USD	**(98,848,431)**	(7,778,558)	(43,541,466)	(23,276,885)	(7,962,902)	(559,106)	(7,785,587)	(6,506,167)	(1,282,059)	(155,701)
Production Costs	Contingency	USD	**(16,208,973)**	(1,150,907)	(6,235,734)	(3,507,652)	(1,286,533)	(67,093)	(1,963,762)	(1,824,762)	(153,847)	(18,684)
Production Costs	SIB	USD	**(17,748,688)**	0	(240,690)	(1,304,756)	(3,610,637)	(4,258,825)	(3,192,526)	(2,580,393)	(1,902,894)	(657,966)
Production Costs		**USD**	**(503,859,631)**	**(8,929,465)**	**(55,061,272)**	**(55,268,093)**	**(77,716,307)**	**(82,760,074)**	**(83,675,213)**	**(74,643,309)**	**(47,032,386)**	**(18,773,511)**
Fully Allocated Costs	Royalty	USD	(24,972,845)	0	0	(325,366)	(666,189)	(7,920,151)	(8,429,840)	(7,295,808)	(239,430)	(96,060)
Fully Allocated Costs	Other Fixed Costs	USD	(12,342,813)	0	(987,081)	(1,699,389)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,704,061)	(1,136,040)
Fully Allocated Costs		**USD**	**(541,175,289)**	**(8,929,465)**	**(56,048,353)**	**(57,292,848)**	**(80,086,557)**	**(92,384,286)**	**(93,809,113)**	**(83,643,178)**	**(48,975,877)**	**(20,005,612)**
EBITDA		**USD**	**394,377,098**	**0**	**(6,030,464)**	**35,869,625**	**66,011,415**	**91,744,407**	**110,598,579**	**95,629,070**	**515,639**	**38,827**
EBIT		**USD**	**247,141,545**	**(8,929,465)**	**(56,048,353)**	**7,780,332**	**53,151,343**	**86,859,382**	**90,492,528**	**77,452,463**	**(2,823,161)**	**(793,524)**
Taxation		USD	(68,170,780)	0	0	0	0	(16,941,237)	(27,634,332)	(23,595,212)	0	0
Income after tax		USD	178,970,765	(8,929,465)	(56,048,353)	7,780,332	53,151,343	69,918,145	62,858,196	53,857,252	(2,823,161)	(793,524)
Working capital changes		USD	229,694	0	229,693	436,363	1,418,034	89,310	(1,162,880)	(165,264)	1,356,500	(1,257,461)
Cash Flow				2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030
Net Cash Flow	Annual cash flow	USD	**179,200,458**	(8,929,465)	(55,818,661)	8,216,695	54,569,377	70,007,455	61,695,316	53,691,987	(1,466,661)	(2,050,985)

Project Economics

The Project NPVs for the two scenarios are shown in **Table 36** in USD and AUD, respectively. The real term best-estimated value of the Base Case is USD219 million (AUD292 million) at a real discount rate of 10.0%. The real term best-estimated value decreases to USD98 million (AUD130 million) when only the Ore Reserve Plan is considered at a real discount rate of 10.0%. The IRR of the Base Case and Ore Reserve Plan are 57% and 50%, respectively, indicating a robust project. The Project is financially viable when considering only the potential Reserves, hence an updated Ore Reserve can be declared.

Table 36: Project NPVs at Various Discount Rates (Project) (Real Terms)

Project Value (Post-tax)	Base Case	Reserve Plan
USD Terms	**USDm**	**USDm**
NPV @ 0%	508.1	179.2
NPV @ 2.5%	406.6	154.0
NPV @ 5%	328.2	132.3
NPV @ 7.5%	267.1	113.8
NPV @ 10%	**218.8**	**97.8**
NPV @ 12.5%	180.2	83.9
NPV @ 15%	149.2	71.9
IRR	57.2%	50.2%
AUD Terms	**AUDm**	**AUDm**
NPV @ 0%	677.5	238.9
NPV @ 2.5%	542.1	205.3
NPV @ 5%	437.6	176.5
NPV @ 7.5%	356.1	151.7
NPV @ 10%	**291.7**	**130.3**
NPV @ 12.5%	240.3	111.9
NPV @ 15%	198.9	95.9
IRR	57.2%	50.2%

NOTE: Converted to AUD from USD at exchange rate of 1.333 AUD:USD.
The profitability ratios for the Project are displayed in **Table 37** for the two scenarios.

Table 37: Project Profitability Ratios

Profitability Ratios	Unit	Base Case	Reserve Plan
Internal Rate of Return (IRR)	%	57%	50%
Total ounces in Mine plan	oz	1,235,216	558,339
Total ounces Recovered	oz	1,076,431	485,950
LoM	Months	155	87
LoM	Years	12.9	7.3
Benefit-Cost Ratio/Money on Investment 10%	Ratio	6.6	3.8
Capital Gain 10%	%	564%	284%
Average Payback Period (from Start of Mining)	Months	31	31
Average Payback Period (from First Gold)	Months	21	21
Peak Funding Requirement	USDm	77	78
Peak Funding Requirement	AUDm	102	104
Peak Funding Month	Months	24	24
Revenue over LoM (Undiscounted)	USDm	1,753	788
EBITDA over LOM (Undiscounted)	USDm	891	394
Net Cash Flow over LoM (Undiscounted)	USDm	508	179
Break-even Feed Grade (Excluding CAPEX)	g/t	2.9	3.0
Break-even Feed Grade (Including CAPEX)	g/t	3.5	4.2
Break-even Gold Price (Excluding CAPEX)	USD/oz	800	809
Break-even Gold Price (Including CAPEX)	USD/oz	962	1,113
Average Gold Price	USD/oz	1,642	1,635
Average Exchange Rate	ZAR/USD	15.50	15.52

Sensitivity Analysis

Based on the real cash flow calculated in the financial model, Minxcon performed single-parameter sensitivity analyses to ascertain the impact on the NPV. The bars represent various inputs into the model; each being increased or decreased by 15%. The left-hand side of the graph indicates a negative 15% change in the input while the right-hand side of the graph indicating a positive 15% change in the input. A negative effect to the NPVs represented by red bars and a positive effect represented by blue bars. For the DCF, the gold price, exchange rate and grade have the biggest impact on the sensitivity of the Project followed by the mining operating costs. The Project is least sensitive to capital, plant and other operating costs.

Figure 38: Project Sensitivity USD (NPV10.0%) – Base Case

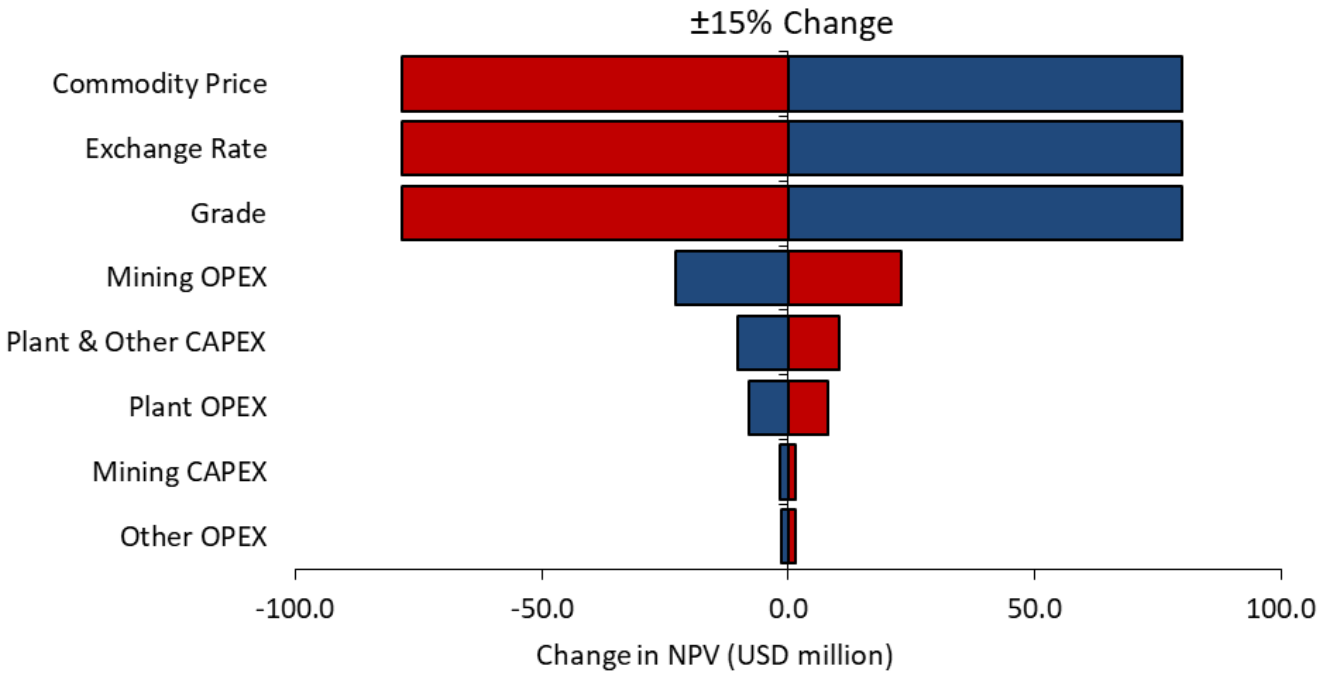
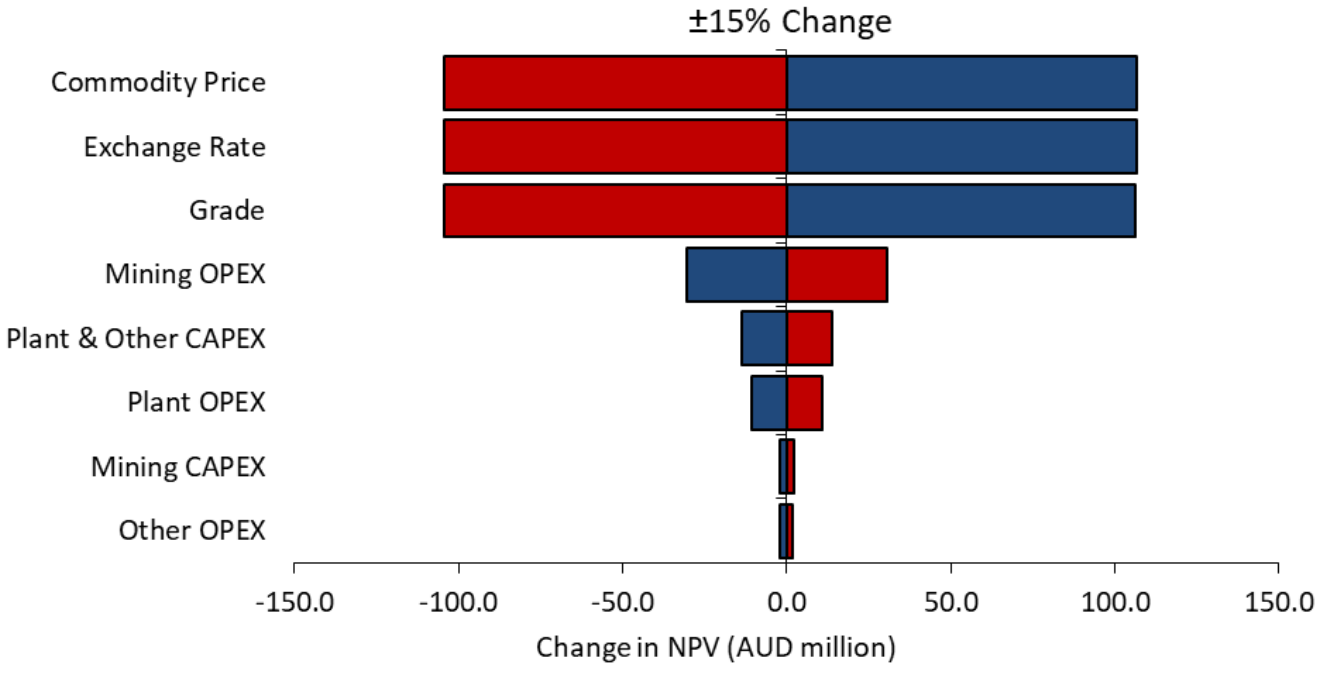


Figure 39: Project Sensitivity AUD ($NPV_{10.0\%}$) – Base Case



Base Case

The project is most sensitive to a movement in the gold price, ZAR:USD exchange rate and grade, all of which directly affect the revenue. **Table 40** and **Table 41** detail the Project economics of the Base Case at various price scenarios in USD terms and AUD terms, respectively.

Table 40: Project Economics at Various Gold Prices – Base Case (USD)

Project Economics at gold price	Unit	Forecast (USD1,642/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	USDm	324	255	304	402	501	601
NPV @ 10% (real) Post-tax	USDm	219	174	206	269	335	400
IRR (%) Pre-tax	%	65%	57%	64%	77%	90%	102%
IRR (%) Post-tax	%	57%	50%	56%	67%	78%	87%
AISC	USD/oz	834	822	831	847	862	876
EBITDA annual average	USDm	69	58	66	81	96	111
EBIT annual average	USDm	60	49	57	72	87	102
Free Cash Flow (Pre-tax)	USDm	717	576	673	869	1066	1264
Free Cash Flow (Post-tax)	USDm	508	412	478	611	747	881
Development Capital – Peak Funding	USDm	77	77	77	77	77	77
Capital Sustaining	USDm	37	37	37	37	37	37
Payback post-tax	Months	31	33	31	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	422%	332%	395%	524%	653%	783%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	285%	226%	268%	351%	437%	521%

Table 41: Project Economics at Various Gold Prices – Base Case (AUD)

Project Economics at gold price	Unit	Forecast (USD1,642/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	AUDm	432	339	405	536	669	802
NPV @ 10% (real) Post-tax	AUDm	292	232	274	359	447	533
IRR (%) Pre-tax	%	65%	57%	64%	77%	90%	102%
IRR (%) Post-tax	%	57%	50%	56%	67%	78%	87%
AISC	AUD/oz	1,112	1,096	1,107	1,129	1,149	1,167
EBITDA annual average	AUDm	92	77	87	107	128	148
EBIT annual average	AUDm	80	66	76	96	116	136
Free Cash Flow (Pre-tax)	AUDm	956	768	897	1,158	1,421	1,686
Free Cash Flow (Post-tax)	AUDm	678	550	638	814	996	1,175
Development Capital – Peak Funding	AUDm	102	102	102	102	102	102
Capital Sustaining	AUDm	49	49	49	49	49	49
Payback post-tax	Months	31	33	31	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	422%	332%	395%	524%	653%	783%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	285%	226%	268%	351%	437%	521%

NOTE: Converted to AUD from USD using AUD:USD exchange rate of 1.333.

Reserve Plan

Table 42 and **Table 43** detail the Project economics of the Reserve Plan at various price scenarios in USD terms and AUD terms, respectively.

Table 42: Project Economics at Various Gold Prices – Reserve Plan (USD)

Project Economics at gold price	Unit	Forecast (USD1,635/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	USDm	144	105	134	191	250	308
NPV @ 10% (real) Post-tax	USDm	98	71	91	130	169	207
IRR (%) Pre-tax	%	58%	48%	57%	72%	85%	98%
IRR (%) Post-tax	%	50%	41%	48%	61%	74%	84%
AISC	USD/oz	846	835	843	859	874	888
EBITDA annual average	USDm	57	48	55	67	80	93
EBIT annual average	USDm	45	36	42	55	67	80
Free Cash Flow (Pre-tax)	USDm	247	186	230	318	407	497
Free Cash Flow (Post-tax)	USDm	179	136	167	229	292	353
Development Capital – Peak Funding	USDm	78	78	78	78	78	78
Capital Sustaining	USDm	18	18	18	18	18	18
Payback post-tax	Months	31	34	32	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	185%	134%	171%	246%	320%	395%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	125%	92%	117%	166%	217%	266%

Table 43: Project Economics at Various Gold Prices – Reserve Plan (AUD)

Project Economics at gold price	Unit	Forecast (USD1,635/ oz Avg)	USD1,500/oz	USD1,600/oz	USD1,800/oz	USD2,000/oz	USD2,200/oz
NPV @ 10% (real) Pre-tax	AUDm	192	140	178	255	333	411
NPV @ 10% (real) Post-tax	AUDm	130	95	121	173	226	276
IRR (%) Pre-tax	%	58%	48%	57%	72%	85%	98%
IRR (%) Post-tax	%	50%	41%	48%	61%	74%	84%
AISC	AUD/oz	1,127	1,113	1,124	1,145	1,165	1,184
EBITDA annual average	AUDm	76	65	73	90	107	124
EBIT annual average	AUDm	59	48	56	73	90	107
Free Cash Flow (Pre-tax)	AUDm	330	248	307	425	543	662
Free Cash Flow (Post-tax)	AUDm	239	181	223	305	389	470
Development Capital – Peak Funding	AUDm	104	104	104	104	104	104
Capital Sustaining	AUDm	24	24	24	24	24	24
Payback post-tax	Months	31	34	32	28	25	24
Capital Efficiency (Pre-Tax NPV/Dev Capital	%	185%	134%	171%	246%	320%	395%
Capital Efficiency (Post-Tax NPV/Dev Capital	%	125%	92%	117%	166%	217%	266%

NOTE: Converted to AUD from USD using AUD:USD exchange rate of 1.333.

Upside Opportunities

While TGM has sought to maximise the value of the TGME Underground Gold Mine Project during the completion of the Feasibility Study, a number of potential opportunities exist to further enhance the valuation of the project, including:

- Expanding the resource and mine life beyond 12.9 years through further underground exploration drilling and bringing on further mines from up to 40 historic mines within the region;
- Potential to increase the overall reserve tonnage and/or grade through additional drilling and reserve definition works;
- Due to the modular design and construction of the processing plant the ability to expand the number of streams and increasing the capacity throughput for the circuit by increased milling, leaching and elution with minimal additional capital expenditure.
- Potential improvement in recovery grade through continual metallurgical test work and general orebody mineralogy optimisation.
- Potential improvements and optimisation in productivity by the utilization of modern mine planning and controls.
- Potential to reduce the future required electrical grid power supply with green energy supply.
- Potential to re-mine the current tailings dams and deposit these mine tails into underground deposition reducing the current disturbed environmental footprint.

Key Risks

A risk assessment was conducted to identify the risks associated with the Project. In the workshop, various techniques were used to identify and assess risks and their consequences. During the initial risk analysis, the process was performed without taking into consideration any controls or mitigations to contain the risks and their consequences. Using the rating system, the worst-case scenario (inherent risk rating) is determined.

Following the identification and rating of the inherent risks, controls or mitigations were identified that are already in place or are well understood in terms of the specific risk identified. Based on the effectiveness of the controls, the likelihood and consequences of the risk were re-evaluated, which resulted in the residual risk profile of the Project.

The risk profile contains several indicators that will be useful in guiding the stakeholders in identifying appropriate actions that need to be taken in a subsequent action plan. These indicators include high levels of likelihood, consequence, and exposure, as well as borderline or defective controls.

The top-ranking risks associated with the Project sorted on risk rating are detailed in **Table 44.**

Table 44: Risk Assessment

ID	Project	Risk Category	Risk	Description / Cause	Risk Likelihood	Impact	Risk Rating	Mitigation/Control	Risk Likelihood	Impact	Residual Risk Rating
1	Beta	Permitting	Delay in dewatering of Beta underground workings	Approvals not in place to use and/or discharge water that is pumped out of mine	3	3	13	Prepare and submit application for licences and adhere to all requirements and instructions in order to obtain authorisations.	2	3	9
2	Beta, Frankfort, CDM	Permitting	Delay in commencement of processing operations	Appropriate approvals and permits not in place to allow for underground storage of tailings at the Beta mine	3	3	13	Prepare and submit application for licences and adhere to all requirements and instructions in order to obtain authorisations.	2	3	9
3	Beta, Frankfort, CDM, Rietfontein	Infrastructure	Insufficient Capital Provisions	Unknowns with regards to underground conditions due to lack of access to some areas may require additional capital expenditure not accounted for in this study	3	3	13	Detailed reconnaissance work to be conducted as soon as access can be gained to the unaccused workings to verify condition and verify requirements for re-establishing the underground workings at the four TGME underground operations	1	3	6
4	Beta, Frankfort, CDM, Rietfontein	Metallurgy / Processing	Insufficient Capital Provisions	Underestimation of underground repositioning operating and capital cost. Design conducted is oversized and needed to be scaled to fit production profiles.	2	3	9	Design and costing estimate to be upgraded from PFS level to FS level for correct production profile.	1	3	6
5	Beta, Frankfort, CDM	Permitting	Delay in commencement of mining operations	Appropriate mining rights (mine works programmes), permits and authorisations, including Water Use Licence and Environmental Authorisation, are not in place for the proposed operations.	2	4	14	Prepare and submit application for licences and adhere to all requirements and instructions in order to obtain authorisations.	1	3	6
6	Beta, Frankfort, CDM, Rietfontein	Infrastructure	Insufficient power available to the support the operations	Current available allocations do not meet requirements to support the operations on grid power for LoM	3	3	13	Applications for additional grid power allocation is in progress. This process should be expedited by any means to ensure timeous availability of grid power to the operations.	2	2	5
7	Beta, Frankfort, CDM, Rietfontein	Metallurgy / Processing	Reduced production	TSF design conducted for allowable deposition rate of 22.5 ktpm with a future extension that will increase the allowable deposition rate to 30 ktpm. To provide for the planned production of the Beta mine at 30 ktpm the extension phase had to be pulled forward in terms of capital expenditure. Impact of this is unknown	3	2	8	Review of the two phases of the TSF to understand and mitigate the higher upfront deposition.	2	2	5

Competent Person's Statement

Mineral Resources

Mr. Uwe Engelmann confirms that he is the Competent Person for the TGM Mineral Resources as reported on TGM's Mineral Resources which is extracted from TGM's ASX announcement dated 8 April 2021(Initial Maiden Underground Mining Reserve) and 25 October 2021 (TGME Project Permitting Updated) available to view at www.asx.com.au and was prepared in accordance with the guidelines of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012). Mr. Engelmann has read and understood the requirements of the JORC Code (2012).

Mr. Engelmann is a Competent Person as defined by the JORC Code, 2012, having more than five years' experience that is relevant to the style of mineralisation and type of deposit described in this report and to the activity for which he is accepting responsibility. Mr. Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci. Nat. No. 400058/08, MGSSA), is a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions. Mr. Engelmann is a full time employee of Minxcon (Pty Ltd and has reviewed this report and consents to the inclusion of the matters based on his supporting information in the form and context in which it appears.

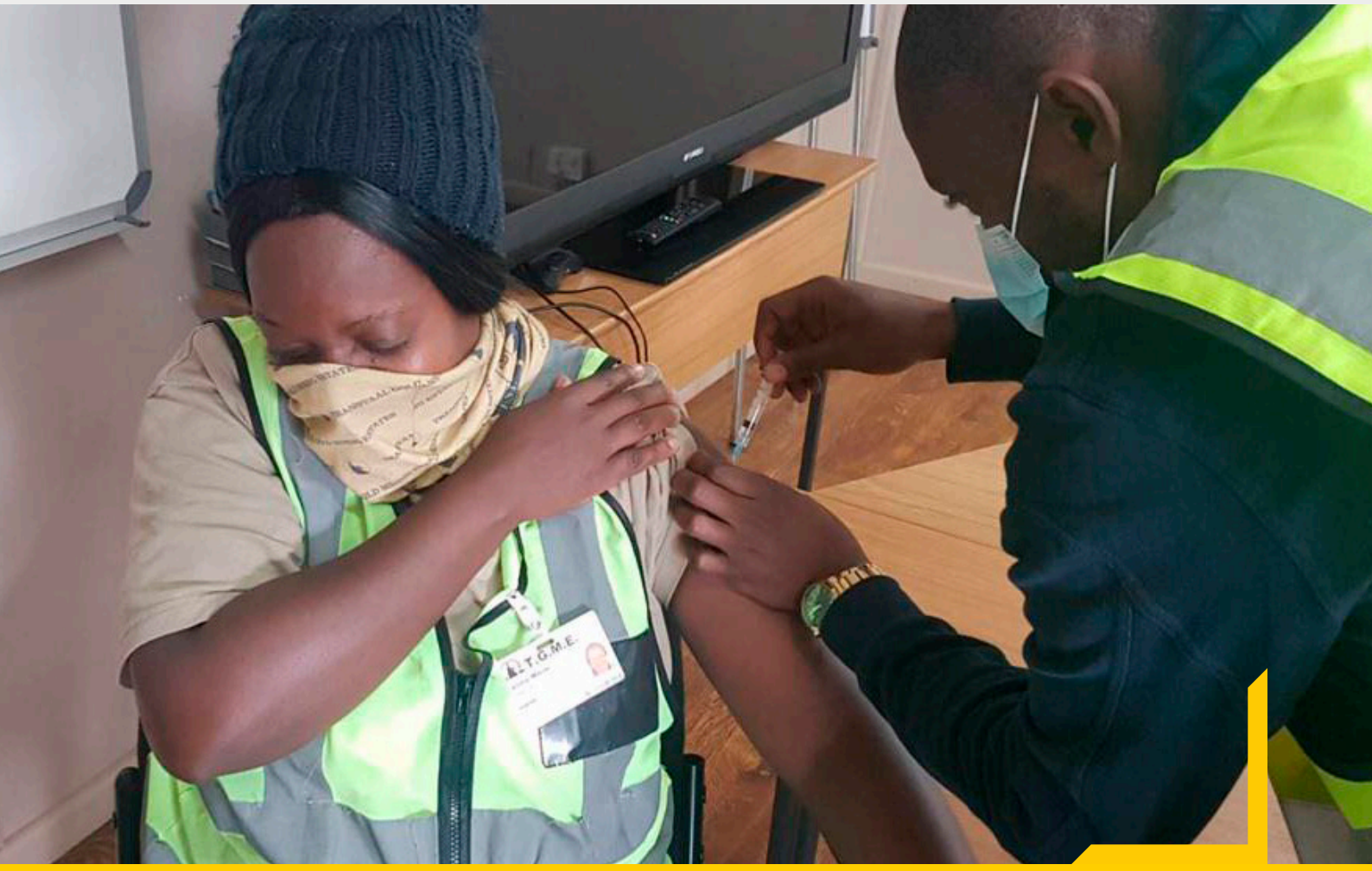
The information in this announcement that relates to TGM's Mineral Resources is extracted from TGM's ASX announcement dated 8 April 2021 (Initial Maiden Underground Mining Reserve) available to view at www.asx.com.au, and was prepared in accordance with the guidelines of the JORC Code (2012). TGM confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resources estimates in the relevant market announcement continue to apply and have not materially changed other than as disclosed in TGM's ASX announcement dated 25 October 2021 regarding the TGME Project Permitting Update. TGM confirms that the form and content in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

ORE Reserves

The information in this report relating to Ore Reserves is based on, and fairly reflects, the information and supporting documentation compiled by Mr. Daniel van Heerden (B.Eng (Mining M.Com (Business Management), member of Engineering Council of South Africa (Pr.Eng. Reg. No. 20050318)), a director of Minxcon (Pty) Ltd and a fellow of the South African Institute of Mining and Metallurgy (FSAIMM Reg. No. 37309).

Mr van Heerden has sufficient experience that is relevant to the style of mineralisation under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code (2012). Mr van Heerden consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to TGM's Ore Reserves is extracted from TGM's ASX announcement dated 8 April 2021 (Initial Maiden Underground Mining Reserve) and 25 October 2021 (TGME Project Permitting Updated) available to view at www.asx.com.au, and was prepared in accordance with the guidelines of the JORC Code (2012). TGM confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Ore Reserve estimates in the relevant market announcement continue to apply and have not materially changed other than as disclosed in TGM's ASX announcement dated 25 October 2021 regarding the TGME Project Permitting Update. TGM confirms that the form and content in which the Competent Person's findings are presented have not been materially modified from the original market announcement.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INFORMATION
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