30 July 2024

ASX ANNOUNCEMENT
(ASX: TGM)

METALLURGICAL TEST RESULTS CONFIRM THAT GOLD IS RECOVERABLE FROM THE TGME TAILINGS STORAGE FACILITY AND ROCK DUMPS (174,000 OZ AU)

Highlights from the Metallurgical Test Work completed by MAK Analytical:

Composite samples were collected for metallurgical test work. These samples obtained from the main tailings dam were collected from drill samples and additional samples were collected from historic surface rock dumps via trenching.

Table 1 Highlights the best laboratory results for the composite samples.

Sample No.	Type	Head Grade Gold (g/t)	Gold Recovery %
TGME A	Tailings Dam Material	1.24 g/t	58.95%
Beta and Peach Tree	Surface Rock Dump	0.94 g/t	95.43%
Vaalhoek 1	Surface Rock Dump	1.19 g/t	95.46%

Note:

- **TGME A sample: material from the main tailings dam**
- **Top 9 metres of the Main Tailings Dam contains a high grade gold zone (Figure 3)**
- **The Beta and Peach Tree samples are from surface rock dumps from the historical mining of the Beta mine, which is over 60% of the current mine schedule.**
- **Beta Mine gold recovery in the Feasibility Study is set at 88%, results show a higher average recovery of 95%.**
- **Vaalhoek 1 samples – collected from the Vaalhoek mine area. Vaalhoek resource currently does not form part of the LOM schedule.**
- **174,000 oz of gold sit on the surface at the TGME Mine site area.**

Theta Gold Mines Limited ("Theta Gold" or "Company") (ASX:TGM) is pleased to announce the results of its metallurgical test work completed at MAK Analytical Laboratories (Appendix A contains the details of the metallurgical test work). The laboratory test results achieved were in line with our expectations and further confirming the flowsheet development work undertaken in the feasibility phase (2022). The combined total surface sources (tailings dams and rock dumps) around the TGME Plant contain 174,000 oz gold (See JORC Table in Appendix B).

Figure 1: Location Map TGME

The samples were collected during the confirmatory drilling and sampling program completed by SGS (South Africa) Pty Ltd ("SGS") in March 2024[1] in conjunction with Power China representatives. The drill results for the TGME Main Tailings Storage Facility ("Main TSF") have confirmed that the tailings dams contain gold at the expected grades (See Table 2) (ASX Release May 2024)[2].

Table 2 below shows the summary of the drill results for the TGME Main Tailings dam, where the Company is considering early processing through Theta's new gold plant to provide early cashflow while the underground Beta mine is being developed**.** Appendix A has a detailed set of drill results and sampling methodology.

[1] ASX Release dated 27 March 2024 titled, "Drilling and Sampling on the TGME Tailings Dams".

[2] ASX Release dated 7 May 2024 titled, "Drilling Results from TGME Confirm High Grade Resources".

SGS South Africa (Pty) (Assay Laboratory) Ltd, engaged by TGM's preferred Engineering Procurement and Construction ("EPC") partner Yellow River Co., Pty ("YRC") (a subsidiary of Power Construction Corporation of China ("PowerChina")) to complete a drilling and sampling program at various tailing dams around the TGME plant. The drill locations of the Main TSF are indicated in Figure 2 below.

Hole Number	Hole depth metres	Number of samples per hole	Weighted Avr Grade per Hole (g/t)
TGME 1	5	4	1.49
TGME 2	5	4	1.54
TGME 3	19.5	13	1.38
TGME 4	16.5	11	0.93
TGME 5	3	2	1.28
TGME 6	10.5	7	1.14
TGME 7	22.5	15	1.07
TGME 8	13	9	1.45
TGME 9	4	3	1.54
TGME 10	18	12	1.36

Table 2: Summary of the gold assays for TGME Main Tailings Dam drill results

Figure 2 – Drill hole location map of the holes drilled by the SGS team at the TGME Main TSF

The program is now complete with a total of 407 meters drilled over the TGME Main, Blyde and Glynns Lydenburg TSFs with 117 meters drilled into the TGME Main TSF. Together with Power China, the immediate focus understanding the gold recovery of the TGME Main TSF to allow mill feed at the start of the project (see Appendix A). Metallurgical test work is now completed, allowing the Company the possibility of adding surface sources (tailings and historic rock dumps) to its early production schedule and thereby generating early cash flow ahead of the planned underground development.

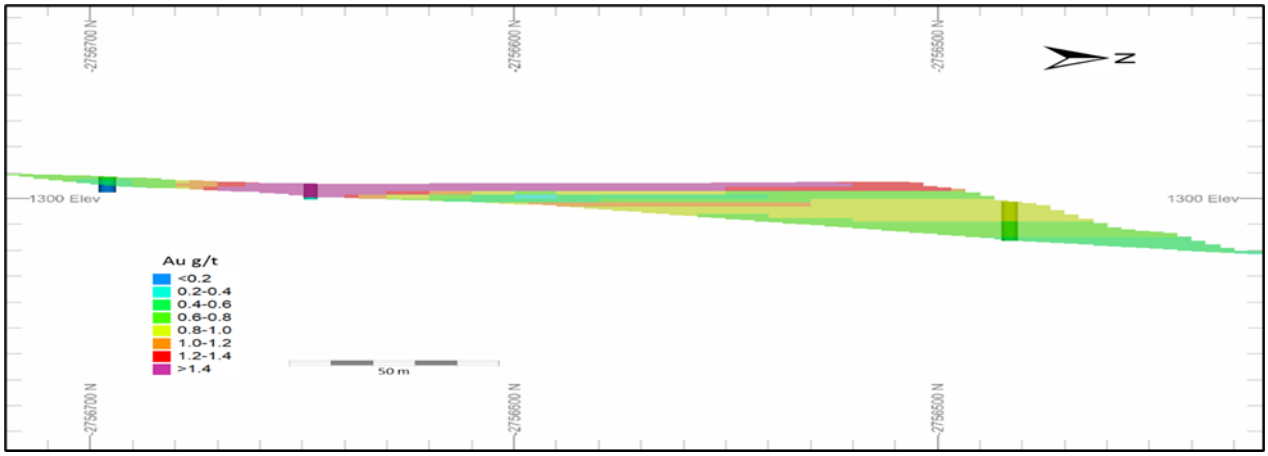

Figure 3: Shows Main Tailings Dam cross section showing the distribution of gold values. Note the higher grades occur in the upper 9 metres.

Theta Gold Chairman Mr Bill Guy stated: "The *Company has now completed the Metallurgical test work, drilling of tailings dams and sampling of the rock dumps, confirming grades and gold recoveries.*

"Theta Gold currently records 174,000 ounces of gold JORC Resources (see Appendix B) across numerous tailings, dams, and dumps around the gold plant. The company will now carefully examine the possibility of bringing forward gold production ahead of its planned underground operations by including high-grade zones from our surface sources".

[ENDS]

This announcement was approved for release by Theta Gold Mines Limited's Board.

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ABOUT THETA GOLD MINES LIMITED

Theta Gold Mines Limited (ASX: TGM | OTCQB: TGMGF) is a gold development company that holds a range of prospective gold assets in a world-renowned South African gold mining region. These assets include several surface and near-surface high-grade gold projects which provide cost advantages relative to other gold producers in the region.

Theta Gold's core project is located next to the historical gold mining town of Pilgrim's Rest, in Mpumalanga Province, some 370km northeast of Johannesburg by road or 95km north of Nelspruit (Capital City of Mpumalanga Province).
Following small scale production from 2011 – 2015, the Company is currently focusing on the construction and financing of a new gold processing plant within its approved footprint at the TGME plant.

The company has completed a FS in July 2022 for the first four mines Beta, CDM, Frankfort and Rietfontein (TGME Underground Project). 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), 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. The Company aims to build a solid production platform to over next 5 years to 160kozpa based primarily around shallow, open-pit or adit-entry shallow underground hard rock mining sources. Theta Gold has access to over 43 historical mines and prospect areas that can be accessed and explored, with over 6.7Moz of historical production recorded.

Theta Gold 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"). 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

This announcement has been prepared by and issued by Theta Gold Mines Limited 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 may contain forward looking statements. Whilst Theta Gold 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 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.

The Company confirms that all material assumptions underpinning the production target, or the forecast financial information derived from the production target continue to apply and have not materially changed from those previously released to ASX in a Feasibility Study dated 27 July 2022.

COMPETENT PERSON'S STATEMENTS

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) 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, FGSSA), 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.

Metallurgical testwork:

Mr. Rogan Roulstone confirms that he is the Competent Person in terms of Mineral Resources and Ore Reserves (JORC Code, 2012). Mr. Roulstone has read and understood the requirements of the JORC Code (2012).

Mr. Roulstone is a Competent Person as defined by the JORC Code, 2012, having more than five years' experience that is relevant to gold extraction and in particular gold extraction from a refractory ore body. Mr Roulstone is a Chemical Engineering (NHD) that graduated in 1993 and is member of the SAIMM (705817). Mr Roulstone is the managing director of RM process and has over nine years' experience on the TGME process plant design.

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) 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.

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.

Theta Gold undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today’s date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

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.

Cautionary Statement for the LOM Base Case – The Base Case is presented as potential upside to the Project. However, the Base Case is supported by a significant portion of Inferred Mineral Resources. Inferred Mineral Resources inherently have a lower level of confidence and although it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, it should not be assumed that such upgrading will occur. The realisation of the full potential of the Base Case as presented thus cannot be guaranteed.

APPENDIX A
DETAILED METHODOLOGY AND GOLD RECOVERY RESULTS

Table 1 below shows the laboratory results for the four composite samples.

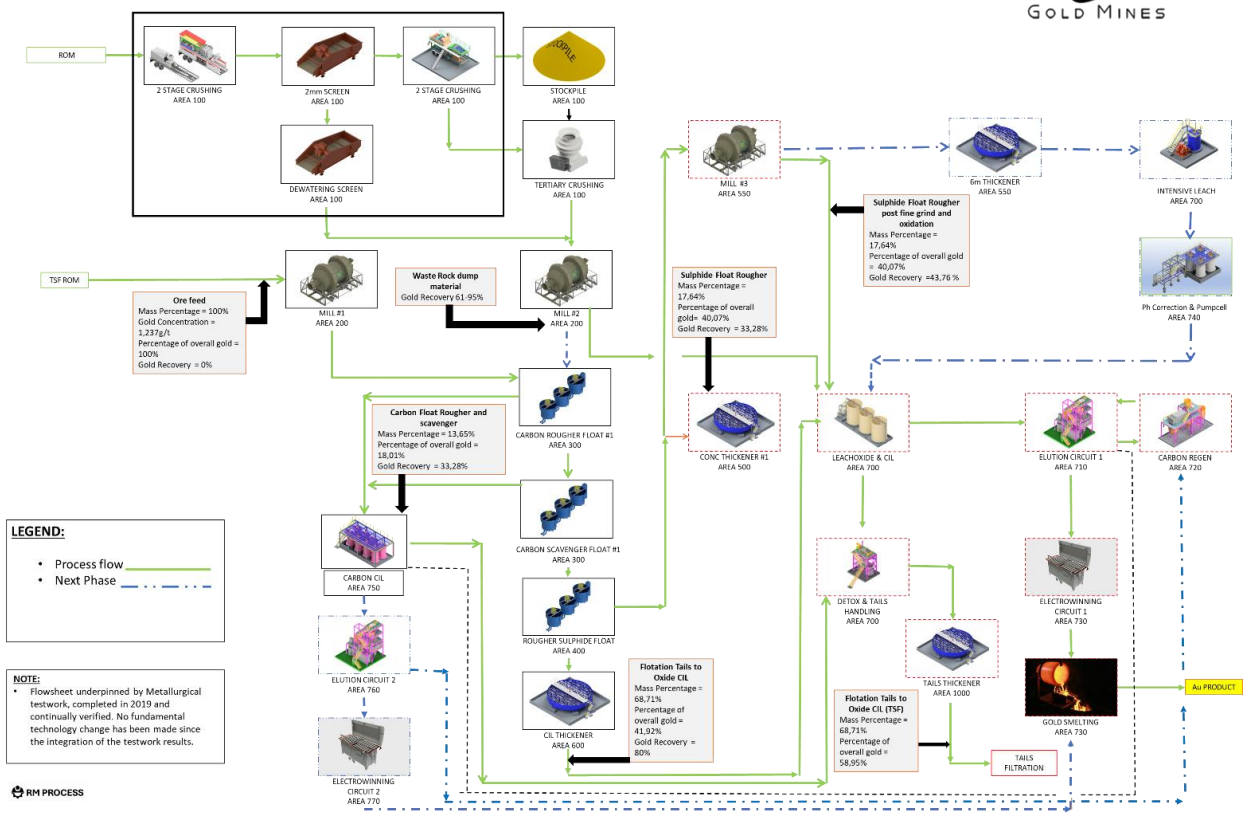
Sample No.	Type	Head Grade g/t	Gold Recovery %
TGME A	**Tailings Dam Material**	**1.24 g/t**	**58.95%**
Beta and Peach Tree	**Surface Rock Sump**	**0.94 g/t**	**95.43%**
Vaalhoek 1	**Surface Rock Sump**	**1.19 g/t**	**95.46%**
Vaalhoek 2	**Surface Rock Sump**	**1.05 g/t**	**61.42%**

Gold Recovery method

The feed to the process plant can be categorized into two primary types, namely oxidized ore body and an ore body containing carbonaceous and sulphide material. Within the definition of the aforementioned description the samples can then be categorized as follows:

- Sample categorized as oxidized ore (Free milling)
    - Beta and Peachtree
    - Vaalhoek 1
    - Vaalhoek 2
- Samples categorized as sulphide ore
    - TGME A- Current tailings storage facility

The laboratory method of the treating the samples followed the process developed during the feasibility phase, which is as follows:



The net result of this testwork is defined in Table 1.

Oxidized ore (Beta and Peachtree, Vaalhoek 1&2):

The test results achieved are based on the green lines above and can be broadly described as follows:

- ROM ore received and subjected to a three (3) stage crushing circuit,
- Post the crushing circuit the ore is finely ground to a product size of 80% pass 75 micron,
- The resulting slurry post milling in then thickened to 50% solids,
- The slurry is then subjected to a 24h CIL leach,
- Detoxification of residual cyanide follows the CIL process,
- Thickening of final tails is then performed.

Of interest to note is that the gold extraction reaction was complete within 4 hours.

The sulphide ore (TGME A):

The test results flow sheet description can briefly described as follows:

- Attrition via a ball mill
- Thicken the resulting slurry to 30% solids,
- Float the carbonaceous material and treat this via a high carbon activity CIL 24 hour bottle roll
- The tailings resulting from carbon floatation is the conditioned and the sulphide material is floated,
- The concentrate post flotation is then subject to fine grinding with a resulting product of 80% passing 38 micron,
- The tails from the sulphide floatation and the finely ground sulphide concentrate is then subjected to a high shear reactor with direct oxygen (laboratory used peroxide) injection into a high circulating volume shear reactor.
- Post the oxidation process the resulting slurry is adjusted for pH control,
- Post pH adjustment a 24-hour CIL leach is performed on the resulting slurry,
- Detoxification of residual cyanide is performed on the material post leaching,

- Thickening of final tails is the final step.

The results illustrate and confirm the process and technology selection in the feasibility phase.

Sampling Collection Method for the Surface Rock Dumps

The surface rock dump sampling programme was aimed at confirming the historical grades utilised in the inferred Mineral Resource practically and cost-effectively. The sampling exercise was not aimed at producing a compliant indicated Mineral Resource but rather at confirming the grades.

The sampling programme was aimed at gathering as many individual samples as practically possible to produce enough samples to obtain a fair spread across the surface rock dumps. These samples were then averaged to get a representative grade of the material.

The sampling programme was designed to test the surface spread as well as the depth profile. This was achieved by conducting a surface sampling grid across the rock dump as well as taking samples along two traverses (length and width) to sample the depth profile.

The traverse sampling pits were excavated by Excavator and TLB, to depths up to 4.5 meters and were executed at regular 15 m intervals along the traverses for both the width and length of the rock dump site, as depicted in Figure 1.

Vaalhoek Rock Dump

Peach Tree Rho Rock Dump

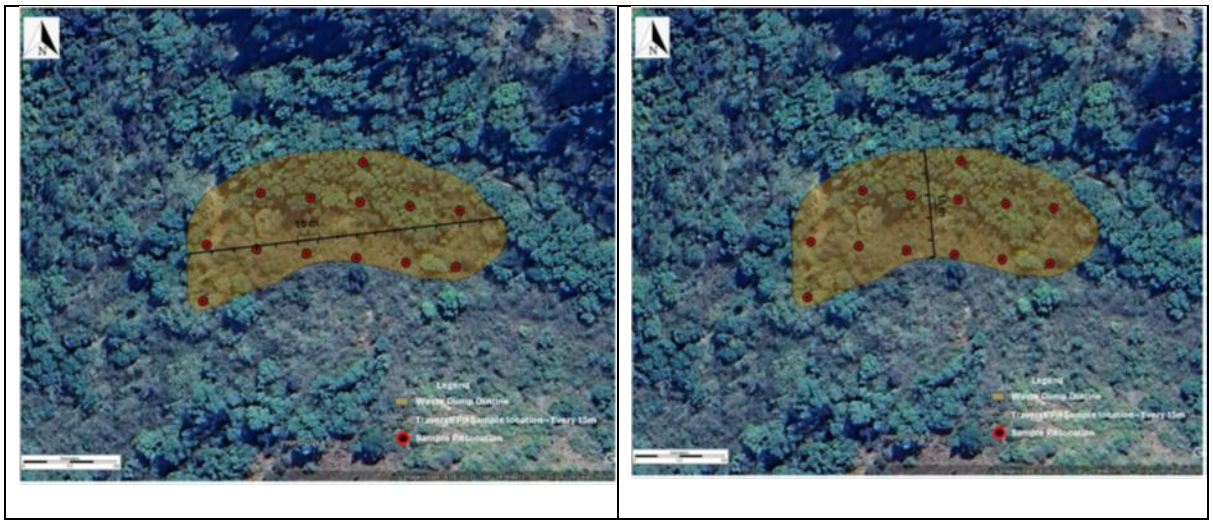


Figure 1 - Traverse sampling pits

Sampling was conducted at uniform 1.5 m intervals down these sample sections (pits), with extracted samples subsequently transferred onto a conveyor belt next to the pit for further processing.

The cone and split sample procedure was used to obtain a manageable-sized sample, Refer to Figure 2. The cone and split sample technique serves as a methodical approach for partitioning large sample material into representative subsamples. This methodology proves particularly advantageous when dealing with substantial sample sizes requiring reduction for subsequent analytical, testing, or storage purposes.

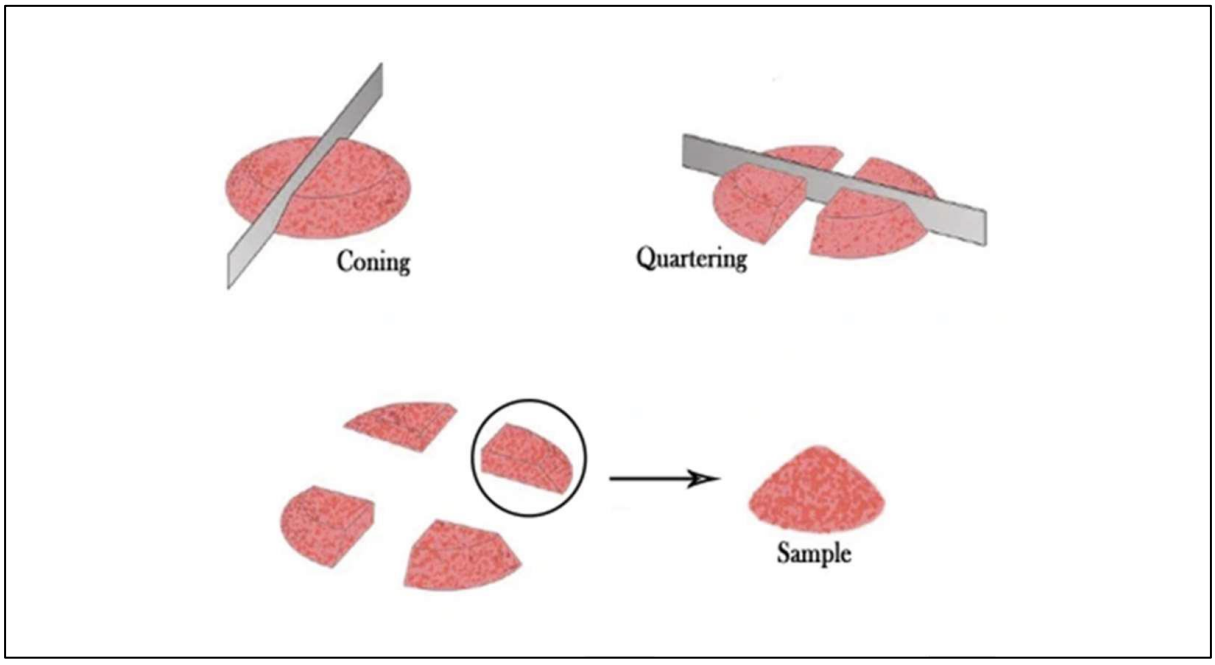


Figure 2 – Coning and Quartering of Samples

The cut samples were crushed at the on-site laboratory and subsequently screened to a 1 cm sieve fraction. Following this initial process, the sample was subjected to two additional rounds of splitting utilising a 2-way rotary splitter to generate two distinct samples designated for dispatch to Power China and Ready Lead Laboratory, respectively. Refer to Figure 3. A total of 344 samples were

prepared, with 172 samples delivered to the offices of Power China and 172 samples delivered to Ready Labs.

Figure 3 – On-site Laboratory prep work.

Sampling Collection Method for Main Tailings Dam

SGS South Africa (Pty) (Assay Laboratory) Ltd utilised a power auger drill rig. The portable rigs utilise a rotating spiral encased in a stainless-steel core barrel. This method ensures that contamination of the sample is minimised. Because the drilling is performed dry, under relatively stable conditions, no back mixing of the samples or chemical alteration of the elements in the samples can occur. The auger is advanced to refusal ("hard objects") or until the soil is encountered, indicating that the base or natural ground level below the tailings has been reached.

The rig utilises a 50 mm nominal bore drill rod producing approximately 2-3 kg of sample per meter drilled. Samples were drawn in 1.5 m increments, which resulted in between 3 and 4.5 kg of sample per increment. Final hole samples potentially had a smaller increment if they hit refusal before 1.5m was completed.

All the samples collected were indexed on-site and divided into two equal samples by making use of a two-way sample splitter. These samples were placed in labelled calico bags with one duplicate sample delivered to Ready Leads Assay Testing Laboratory ("Ready Labs") in South Africa and one sample

delivered to Power China for storage. Ready Labs is located at Cloverfield Ave & Outeniqua Road Eastvale Springs Gauteng and is a SANAS-accredited testing Laboratory with certificate number T0689.

Ready Labs completed a 50-gram fire assay on the samples with internal QA&QC using AMIS0882-85 gold standards. Gold standards were also added by Power China to samples dispatched to Ready Labs. The gold standard return assays within specification limits.

Currently, only samples at the Main Tailings Storage Facility were composited on the mine site and dispatched to Super Labs and MAK Analytics for gold recovery test work. For the Main Tailings Storage Facility, the composite head grades conformed to grade expectations.

The drill hole locations were collected by a hand handle sub 5m GPS unit and validated by spatial reference to the TGME Main TSF landform features (See tables below). Drill hole depth was determined by the depth of the tailing dam or drill refusal.

Table 3: Drill Hole Locations

Hole Number	Drill Hole Co-Ordinates	
TGME 1	24 54.921S	030 44.369E
TGME 2	24 54.883S	030 44.432E
TGME 3	24 54.826S	030 44.518E
TGME 4	24 54.841S	030 44.400E
TGME 5	24 54.922S	030 44.423E
TGME 6	24 54.861S	030 44.431E
TGME 7	24 54.885S	030 44.307E
TGME 8	24 54.948S	030 44.371E
TGME 9	24 54.913S	030 44.312E
TGME 10	24 54.826S	030 44.441E

Note: Hole co-ordinates in WGS 84

SGS South Africa (Pty) (Assay Laboratory) completed the drill program under the supervision of the TGME mine-site staff and Power China representatives. The drill program was designed by Minxcon.

The drilling results support the existing JORC-Indicated Mineral Resource for the TGME Main TSF. These drill results were also validated by comparing the results to the 2015 drill program by Minxcon.

Table 4: Drill Results for the TGME Main TSF

Hole number TGME	Sample End Depth (m)	Sample Name	Grade (g/t)
1	1.5	21/03 TGME 001 NO.1B DEPT. 1.5M 1	1.542
1	3	21/03 TGME 001 NO.1B DEPT. 3M 1	1.270
1	4.5	21/03 TGME 001 NO.1B DEPT. 4.5M 1	1.514
1	5	21/03 TGME 001 NO.1B DEPT. 5M 1	2.016
2	1.5	21/03 TGME 002 NO.1A DEPT. 1.5M 1	1.508
2	3	21/03 TGME 002 NO.1A DEPT. 3M 1	1.514
2	4.5	21/03 TGME 002 NO.1A DEPT. 4.5M 1	1.581
2	5	21/03 TGME 002 NO.1A DEPT.5M 1	1.667
3	1.5	21/03 TGME 003 NO.1B DEPT. 1.5M 1	1.474

3	3	21/03 TGME 003 NO.1B DEPT. 3M 1	1.660
3	4.5	21/03 TGME 003 NO.1B DEPT. 4.5M 1	1.905
3	6	21/03 TGME 003 NO.1B DEPT.6M 1	1.793
3	4.5	21/03 TGME 003 NO.1B DEPT.7.5M 1	0.870
3	9	21/03 TGME 003 NO.1B DEPT.9M 1	0.754
3	10.5	21/03 TGME 003 NO.1B DEPT.10.5M 1	0.996
3	12	21/03 TGME 003 NO.1B DEPT.12M 1	1.225
3	13.5	21/03 TGME 003 NO.1B DEPT.13.5M 1	1.071
3	15	21/03 TGME 003 NO.1B DEPT.15M 1	0.916
3	16.5	21/03 TGME 003 NO.1B DEPT.16.5M 1	1.107
3	18	21/03 TGME 003 NO.1B DEPT.18M 1	3.373
3	19.5	21/03 TGME 003 NO.1B DEPT.19.5M 1	0.876
4	1.5	21/03 TGME 004 NO.1B DEPT.1.5M 1	1.304
4	3	21/03 TGME 004 NO.1B DEPT.3M 1	1.825
4	4.5	21/03 TGME 004 NO.1B DEPT.4.5M 1	1.186
4	6	21/03 TGME 004 NO.1B DEPT.6M 1	0.794
4	7.5	21/03 TGME 004 NO.1B DEPT.7.5M 1	0.717
4	9	21/03 TGME 004 NO.1B DEPT.9M 1	0.870
4	10.5	21/03 TGME 004 NO.1B DEPT.10.5M 1	0.992
4	12	21/03 TGME 004 NO.1B DEPT.12M 1	0.916
4	13.5	21/03 TGME 004 NO.1B DEPT.13.5M 1	0.830
4	15	21/03 TGME 004 NO.1B DEPT.15M 1	0.119
4	16.5	21/03 TGME 004 NO.1B DEPT.16.5M 1	0.717
5	1.5	21/03 TGME 005 NO.1B DEPT. 1.5M 1	1.265
5	3	21/03 TGME 005 NO.1B DEPT. 3M 1	1.310
6	1.5	21/03 TGME 006 NO.1B DEPT.1.5M 1	2.351
6	3	21/03 TGME 006 NO.1B DEPT.3M 1	1.581
6	4.5	21/03 TGME 006 NO.1B DEPT.4.5M 1	0.952
6	6	21/03 TGME 006 NO.1A DEPT.6M 1	0.359
6	7.5	21/03 TGME 006 NO.1B DEPT.7.5M 1	0.474
6	9	21/03 TGME 006 NO.1B DEPT.9M 1	1.310
6	10.5	21/03 TGME 006 NO.1B DEPT.10.5M 1	0.988
7	1.5	22/03 TGME 007 NO.1B DEPT.1.5M 1	1.270
7	3	22/03 TGME 007 NO.1B DEPT.3M 1	1.315
7	4.5	22/03 TGME 007 NO.1B DEPT.4.5M 1	1.462
7	6	22/03 TGME 007 NO.1B DEPT.6M 1	0.356
7	7.5	22/03 TGME 007 NO.1B DEPT.7.5M 1	0.677
7	9	22/03 TGME 007 NO.1B DEPT.9M 1	0.593
7	10.5	22/03 TGME 007 NO.1B DEPT.10.5M 1	0.833
7	12	22/03 TGME 007 NO.1B DEPT.12M 1	0.830
7	13.5	22/03 TGME 007 NO.1B DEPT.13.5M 1	0.873
7	15	22/03 TGME 007 NO.1B DEPT.15M 1	0.717
7	16.5	22/03 TGME 007 NO.1B DEPT.16.5M 1	4.111
7	18	22/03 TGME 007 NO.1B DEPT.18M 1	0.711
7	19.5	22/03 TGME 007 NO.1B DEPT.19.5M 1	0.754
7	21	22/03 TGME 007 NO.1B DEPT.21M 1	0.717

7	22.5	22/03 TGME 007 NO.1B DEPT.22.5M 1	0.870
8	1.5	21/03 TGME 008 NO.1B DEPT. 1.5M 1	1.349
8	3	21/03 TGME 008 NO.1B DEPT. 3M 1	1.389
8	4.5	21/03 TGME 008 NO.1B DEPT.4.5M 1	1.434
8	6	21/03 TGME 008 NO.1B DEPT.6M 1	1.542
8	7.5	21/03 TGME 008 NO.1B DEPT.7.5M 1	1.349
8	9	21/03 TGME 008 NO.1B DEPT.9M 1	2.231
8	10.5	21/03 TGME 008 NO.1B DEPT.10.5M 1	1.265
8	12	21/03 TGME 008 NO.1B DEPT.12M 1	1.111
8	13	21/03 TGME 008 NO.1B DEPT.13M 1	1.394
9	1.5	21/03 TGME 009 NO.1B DEPT.1.5M 1	1.660
9	3	21/03 TGME 009 NO.1B DEPT.3M 1	1.429
9	4	21/03 TGME 009 NO.1B DEPT.4M 1	1.554
10	1.5	21/03 TGME 0010 NO.1B DEPT.1.5M 1	2.174
10	3	21/03 TGME 0010 NO.1B DEPT.3M 1	2.372
10	4.5	21/03 TGME 0010 NO.1B DEPT.4.5M 1	0.833
10	6	21/03 TGME 0010 NO.1B DEPT.6M 1	1.474
10	7.5	21/03 TGME 0010 NO.1B DEPT.7.5M 1	1.067
10	9	21/03 TGME 0010 NO.1B DEPT.9M 1	1.032
10	10.5	21/03 TGME 0010 NO.1B DEPT.10.5M 1	0.830
10	12	21/03 TGME 0010 NO.1B DEPT.12M 1	0.873
10	13.5	21/03 TGME 0010 NO.1B DEPT.13.5M 1	0.916
10	15	21/03 TGME 0010 NO.1B DEPT.15M 1	0.791
10	16.5	21/03 TGME 0010 NO.1B DEPT.16.5M 1	3.214
10	18	21/03 TGME 0010 NO.1B DEPT.18M 1	0.837

APPENDIX B
JORC RESOURCE TABLE S

Table 1: Combined Mineral Resource as at 1 February 2021

Resource Classification	Type of Operation	Combined Mineral Resource			
		Tonnage	Gold Grade	Gold Content	
		Mt	g/t	Kg	koz
Measured	Underground	0.091	5.37	489	15.7
	Open pit				
	Tailings				
Total Measured		**0.091**	**5.37**	**489**	**15.7**
Indicated	Underground	4.774	6.21	29 661	953.7
	Open Pit	8.109	2.14	17 364	558.2
	Tailings	5.244	0.83	4 373	140.6
Total Indicated		**18.128**	**2.84**	**51 398**	**1652.5**
Inferred	Underground	21.452	5.22	111 880	3597.0
	Open pit	4.907	5.11	25 057	805.6
	Tailings	0.023	0.57	13	0.4
	Rock Dump	0.885	1.20	1 059	34.0
Total Inferred		**27.267**	**5.06**	**138 009**	**4 437.0**
Grand Total		**45.485**	**4.17**	**189 896**	**6 105.2**

Notes:

1. Columns may not add up due to rounding.
2. Gold price used for the cut-off calculations is USD1,500/oz.
3. UG Mineral Resources are reported at a cut-off of 160 cm.g/t, open pit at 0.5 g/t and 0.35 g/t, tailings and rock dumps at 0.35 g/t.
4. Fault losses of 5% for Measured and Indicated, 10% for Inferred Mineral Resources.
5. Mineral Resources are stated as inclusive of Ore Reserves.
6. Mineral Resources are reported as total Mineral Resources and are not attributed.

Mineral Resources for the TGM Tailings Dams as at 1 February 2021

Mineral Resource Classification	Surface Operation	Reef	Tonnage	Gold	Gold Content	
			Mt	g/t	kg	koz
Indicated	Glynn's Lydenburg	Tailings	1.211	0.80	972	31.3
	Blyde 1	Tailings	0.590	0.73	434	14.0
	Blyde 2	Tailings	0.280	0.83	234	7.5
	Blyde 3	Tailings	0.316	0.87	275	8.8
	Blyde 4	Tailings	0.164	0.72	119	3.8
	Blyde 5	Tailings	0.022	0.61	14	0.4
	TGM Plant	Tailings	2.661	0.87	2,325	74.8
Total Indicated			**5.244**	**0.83**	**4,373**	**140.6**

Mineral Resource Classification	Surface Operation	Reef	Tonnage	Gold	Gold Content	
			Mt	g/t	kg	koz
Inferred	Blyde 3a	Tailings	0.023	0.57	13	0.4
Total Inferred			**0.023**	**0.57**	**13**	**0.4**

Notes:-

1. Mineral Resource cut-off of 0.35 g/t applied.
2. TGM Plant tailings: 10% discount applied for volume uncertainty.
3. Gold price used for the cut-off calculations is USD1,500/oz.
4. Mineral Resources are stated as inclusive of Ore Reserves.
5. Mineral Resources are reported as total Mineral Resources and are not attributed.

Mineral Resources for the TGM Rock Dumps as at 1 February 2021

Mineral Resource Classification	Surface Operation	Reef	Tonnage	Gold	Gold Content	
			Mt	g/t	kg	koz
Inferred	Vaalhoek	Rock Dump	0.121	1.64	199	6.4
Inferred	South East (DGs)	Rock Dump	0.408	0.93	379	12.2
Inferred	Peach Tree	Rock Dump	0.092	1.23	114	3.7
Inferred	Ponieskrantz	Rock Dump	0.129	1.63	211	6.8
Inferred	Dukes Clewer	Rock Dump	0.134	1.16	156	5.0
Total Inferred			**0.885**	**1.20**	**1,059**	**34.0**

Notes:-

1. Mineral Resource cut-off of 0.35 g/t applied.
2. Gold price used for the cut-off calculations is USD1,500/oz.
3. Mineral Resources are stated as inclusive of Ore Reserves.
4. Mineral Resources are reported as total Mineral Resources and are not attributed.

APPENDIX C

JORC Checklist – Table 1 Assessment and Reporting Criteria

NB - JORC Table 1 Sections 1 to 3 include all mineralised targets that are encompassed and quantified within the TGM portfolio as they occur in the Mpumalanga Province. The section 4 as presented below includes only the FS results of the Beta, Rietfontein, Frankfort and CDM underground operations.

JORC Checklist – Table 1 Assessment and Reporting Criteria

<table>
<tr><th colspan="3">SECTION 1: SAMPLING TECHNIQUES AND DATA</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td>Sampling techniques</td><td>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</td><td>Sampling types discussed in this section mainly pertain to historical data with the exception of the Theta Project subsequent to the 2017-2019 drilling campaign. Drilling data sampling types include diamond, reverse circulation (“RC”), percussion and auger drilling. Other sampling data types include underground channel chip sampling (as individual sample section composite data points on plans or as development or stope face composite stretch values), grab sampling as well as trench and sample pit sampling for bulk sampling for the purposes of size fraction analysis.

The table below outlines the types of sampling data collected or utilised in the Mineral Resource or Exploration Target estimates for each of the Project Areas.
<table>
<tr><th>Project Area</th><th>Reef</th><th>Sampling Data Types</th></tr>
<tr><td rowspan="2">Rietfontein</td><td rowspan="2">Rietfontein</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td rowspan="2">Beta</td><td rowspan="2">Beta</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td rowspan="2">Frankfort</td><td rowspan="2">Bevetts and Theta</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td rowspan="2">Clewer, Dukes Hill & Morgenzon</td><td rowspan="2">Rho</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td rowspan="2">Olifantsgeraamte</td><td rowspan="2">Olifantsgeraamte</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td rowspan="3">Vaalhoek</td><td rowspan="3">Vaalhoek and Thelma Leaders</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td>Stretch Values</td></tr>
<tr><td rowspan="3">Glynn’s Lydenburg</td><td rowspan="3">Glynn's</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td>Stretch Values</td></tr>
<tr><td rowspan="3">Theta Project (Theta Hill, Browns Hills and Iota section of Columbia Hill)</td><td rowspan="3">Beta, Shale, Lower Theta, Upper Theta, Lower Rho, Upper Rho and Bevetts</td><td>Drillhole Data</td></tr>
<tr><td>Trench Sampling Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td rowspan="2">Columbia Hill (remaining)</td><td rowspan="2">Rho, Shale and Shale Leaders</td><td>Drillhole Data</td></tr>
<tr><td>Channel Chip Sample Data</td></tr>
<tr><td>Hermansburg</td><td>Eluvial</td><td>RC Drillhole Data</td></tr>
<tr><td>DG1</td><td>Eluvial</td><td>RC Drillhole Data</td></tr>
<tr><td>DG2</td><td>Eluvial</td><td>RC Drillhole Data</td></tr>
<tr><td rowspan="2">DG5</td><td rowspan="2">Eluvial</td><td>Grab Samples</td></tr>
<tr><td>RC Drillhole Data</td></tr>
<tr><td>Glynn’s Lydenburg TSF</td><td>Tailings</td><td>Auger Drillhole Data</td></tr>
<tr><td>Blyde TSFs (1, 2, 3, 3a, 4, 5)</td><td>Tailings</td><td>Auger Drillhole Data</td></tr>
</table>
</td></tr>
</table>

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**

TGM Plant	Tailings	Auger Drillhole Data
Vaalhoek, South East (DGs), Peach Tree, Ponieskrantz, Dukes Clewer	Rock Dump	Bulk Sampling Data
		Trench Sampling Data
		Sampling Pit Data

a) Channel Chip Sampling Data:-
Historical (Pre-1946) chip sample values were captured in 'pennyweight' (dwt) units for gold content and in inches for channel width. The quality of the chip samples could not be ascertained due to the historical nature there-of; however, it should be noted chip sampling is a well-established sampling method in the underground South African mining industry. The sampling activity on the mines was usually managed by each mine's survey department and were usually conducted to specific company-wide standards.

More recent chip sample values were captured as cm.g/t content values and channel widths were recorded in centimetres as is the case at Frankfort while under ownership of Simmer & Jack Mines Limited. During 2008, Minxcon audited the chip sampling procedure as employed by Simmer & Jack and found the procedures employed to be of industry standard.

b) Stretch Values:-
In some instances (such as at Vaalhoek and Glynn's Lydenburg) in areas where original sample plans were not available, stretch value plans recording a composite content and channel width value for a stope length or development end were available and included in the database. The integrity of these plans as a source of grade information has been proven in other areas on the same mines where both chip sample plans and stretch value plans were available and were compared. It was found that the correlation to old sampling has been representative of the stretch values in these areas.

c) Drillhole Data:-
Historical (pre-2007/8) drillhole data (inclusive of diamond, RC, and auger) exists on many of the operations. However very little backing data is available for many of these older holes and it must be assumed that QAQC was not included in the process. Minxcon has however reviewed the general quality of the survey data for these drillholes. For the most part, collar data has been found to agree well with local topography and is considered to be acceptable for modelling purposes.

Downhole survey data with respect to diamond and RC drilling is also often absent from the older holes; however, it should be noted that over 98% of these holes were seldom drilled to depths in excess of 150 m and were vertically collared. Only 1.40% of all the drillholes on all the properties were drilled as inclined drillholes, thus it is Minxcon's view that the holes and their relative reef intercept points would be spatially acceptable for modelling purposes.

The historical drillhole data has no accompanying assay QAQC, however this fact is considered in allocation of Mineral Resource classification during modelling.

More recent drillhole data (inclusive of diamond, RC and auger) from 2008 onward is considered to be of high quality as it was conducted to updated industry standards with the incorporation of drillhole collar survey as well as assay QAQC where blanks and certified reference material were inserted for monitoring purposes, with the inclusion of coarse duplicate samples. These later drilling programmes were also either monitored, audited or managed by Minxcon personnel under Minxcon previous sister company Agere Project Management ("Agere").

d) Trench, Sample Pit and Bulk Sampling (Vaalhoek Rock Dump):-
In order to evaluate the Vaalhoek Rock Dump, trenches and sample pits were dug. The trenches and pits were surveyed by a Mine Surveyor and were sampled in sections down to a depth 1.2 m, each sample representing a composite of 40 cm down the wall of the trench or pit. These samples were then assayed. The discard material from the trenches and pits was then composited to form a bulk sample of 50 tonnes for conducting size fraction analysis. The nature and quality of the sampling in question has been considered in the Mineral Resource classification for the Vaalhoek Dump, which is Inferred.

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
		e) Bulk Sampling (South East (DGs), Peach Tree, Ponieskrantz, Dukes Clewer):- Bulk sampling was done through a triple deck screening plant (bulk samples were between 20t and maximum 520t per waste rock dump). f) Trench Sampling (Theta Project Browns Hill):- Trenching was conducted on Browns Hill during the 2017-2019 drilling campaign to assist in locating the Lower Theta Reef outcrop. Trenches were dug in roughly an east-west orientation to a depth of between 1.0 m to 2.1 m. A total of 10 trenches were dug with an approximate spacing of approximately 30 to 35 m. The trenches were sampled near to vertical at 2 m intervals, due to the very shallow dip of the reef, where full side-wall composite samples were taken. Samples were dispatched to SGS Laboratory in Barberton for analysis. The trench sampling was not used in any evaluation as its only purpose was to locate reef outcrops.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	a) Chip Sampling:- In concordant reef underground projects chip samples were taken normal to the reef dip and calculated to give a composited value for a true reef thickness. In the case of cross-reefs such as that at Rietfontein, chip sample positions were plotted on the development centre lines indicating face sampling normal to the reef dip. Scatter plots were also generated to examine the data set for errors introduced while capturing the data. All values were converted using factors of 2.54 cm for 1 inch and 1.714285 g/t for 1 dwt. The older underground sampling took place at approximately 6 m spacing along on-reef development, whilst in newer mining areas this spacing was reduced to approximately 2 to 3 m along on-reef development. In the stoping areas a grid was targeted on an approximate 5 m by 5 m grid where applicable, which is a historical grid (Pre-1946). This grid was put in place due to the nugget effect of the reef. The minimum size of the samples was 20 cm to obtain a minimum weight of 500 g. b) Trench, Sample pit and Bulk Sampling (Vaalhoek Rock Dump):- The trenches at Vaalhoek Rock Dump were located and spread as evenly as possible on the top of the dump, while pits were located on the sides of the dump and these were sampled in sections down to a depth 1.2 m, each sample representing a composite of 40 cm down the wall of the trench or pit. The discard material from the trenches and pits was then composited to form a bulk sample of 50 tonnes for conducting size fraction analysis and screened at -10 mm, +40 mm and -75 mm. The nature and quality of the sampling in question has been considered in the Mineral Resource classification for the Vaalhoek Dump, which is Inferred. c) Trench, Sample pit and Bulk Sampling (Theta Project):- The trenches were dug in roughly an east-west orientation to a depth of between 1.0 m to 2.1 m. A total of 10 trenches were dug with an approximate spacing of approximately 30 m to 35 m. The trenches were sampled near to vertical at 2 m intervals, due to the very shallow dip of the reef, where full side-wall composite samples were taken. The trench sampling was not used in any evaluation as its only purpose was to locate reef outcrops.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent	Samples presented in the historical database represent full reef composites for both diamond drilling as well as chip sampling. The historical nature of the data and the high grades encountered implies the use of fire assay as an assay technique. Sample preparation and aspects regarding sample submission for assay are not known due to the historical nature of the sampling data. Underground sampling, for metallurgical purposes, was undertaken at the northern Neck section of Vaalhoek during February 2018. Two samples weighing approximately 4kg were taken from exposed faces of the Vaalhoek Reef, in two separate underground localities of previous mining. Two samples were also taken of Thelma Leader mineralisation located in underground exposures adjacent to the Vaalhoek Dyke. These samples also weighed approximately 4 kg each. All samples were composites of rock chipped over the reef width. The four samples were submitted for Bottle Roll testwork at SGS Barberton, which is discussed under the Metallurgical section. The smallest split drillcore sample taken was 15 cm in length. After crushing and pulverising the core sample, a 30 g cupel was utilised for analysis. Low core recoveries resulted in reverting to RC drilling for evaluation purposes. For the RC drilling conducted at the Theta Project, the mass of recovered sample obtained was recorded on a per metre drilled basis, with approximately 3 kg of sample per

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
	sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	metre run, being split off by means of a 3-tier riffle splitter for submission to SGS Laboratories in Barberton. Assays pertaining to the Theta Project were conducted by means of gold by fire assay with a gravimetric and/or flame atomic absorption spectrometry ("AAS") utilising a 30 g cupel.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	a) Underground/Hard Rock Projects:- All historic (pre 2007/2008) Mineral Resource evaluation drilling for the underground projects was conducted in the form of diamond drilling. Information regarding drilling diameter, drill tube type and core orientation is not available or discernible for the earlier 1995/1996 drilling as the core is no longer available. Only core loss, intersection length and grade (g/t) are recorded with various levels of geological lithological information. Due to the age of the data in question and the non-availability of the historical drill core, information regarding drilling diameter, drill tube type, core orientation is not available. More recent drillhole data (inclusive of diamond, RC and auger) from 2008 onward is considered to be high quality as it was conducted to updated industry standards with the incorporation of assay QAQC where blanks and certified reference material ("CRM") were inserted for monitoring purposes. Core drilling utilised an NQ (47.6 mm) drill bit. Details pertaining to earlier drilling programs' core orientation are not available. Due to poor diamond drillcore recoveries during the 2017-2019 drilling campaign, core orientation was not conducted. b) Open Pit or Eluvial Projects:- Drilling on the eluvial deposits took place under the auspices of Horizon Blue Resources and is regarded as being of high quality due to good survey control and inclusion of QAQC practices. The main drilling method (95% of drillholes) utilised to evaluate these projects was reverse circulation (4.5 inch (115 mm) and 6 inch (150 mm) diameter) drilling, vertical reverse circulation drillholes, with or without temporary casing depending on ground condition in the vicinity of the various drill sites. Rotary core drilling (NQ size with 75.7 mm outside diameter and 47.6 mm inside diameter) was utilised in 5% of the drillholes on these projects. More recent drillhole data (inclusive of diamond, RC and auger) from 2008 onward is considered to be of high quality as it was conducted to updated industry standards with the incorporation of assay QAQC where blanks and certified reference material ("CRM") were inserted for monitoring purposes. Core drilling utilised an NQ (47.6 mm) drill bit. Details pertaining to earlier drilling programs' core orientation are not available. Due to poor diamond drillcore recoveries during the 2017-2019 drilling campaign, core orientation was not conducted. c) Tailings Projects:- Drilling on the tailings projects was conducted by means of small diameter (45 mm and 50 mm) auger drilling. Drillhole positions have been surveyed by TGM utilising a GPS based Total station. All holes were drilled vertically.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	a) Diamond Drilling:- Information regarding the 1995/1996 recoveries is not available. However, during the 2008 and 2012/2013 drilling campaigns the recoveries were recorded. Diamond drill core recoveries were recorded during the 2013 drilling programmes, which was managed by Minxcon Exploration (Pty) Ltd. Core recovery percentage was calculated for each drill run. Sample recoveries were maximised through drilling techniques (diamond drilling), however drilling recoveries versus grade relationships were not assessed. During the 2017-2019 drilling campaign consistent and accurate records relating to core and RC drill sample recovery were maintained on a per sample basis. Diamond drill samples were measured on a per sample basis and related back to the recorded drill run length versus the length of drill core recovered, which was then presented as a percentage. The average drill recovery achieved during the diamond drilling campaign was approximately 65%, with at least 33.3% of samples achieving recoveries of 50% or less. This low recovery resulted in reverting to RC drilling as a means of obtaining representative drill data for evaluation purposes. b) RC Drilling:- Details regarding the chip sample recovery of the historical RC drilling for the eluvial project are not available or existent in Minxcon's data records. For the

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
		RC drilling conducted at the Theta Project, the mass of recovered sample obtained was recorded on a per metre drilled basis, with approximately 3 kg of sample per metre run, being split off by means of a 3-tier riffle splitter for submission to SGS Laboratories in Barberton.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Owing to the historical nature of the data in question (prior to 2005), measures taken to maximise sample recovery and ensure the representative nature of the samples are not known. During the 2008, 2012/2013 and 2017-2019 drilling campaign, sample recoveries were maximised through utilising appropriate drilling techniques depending on the deposit in question. In order to ensure the representative nature of the drilled intersections and due to the dip of the reefs being very shallow at between 3° to 12°, drillholes were drilled vertically in order to obtain an intersection as close to normal as possible. Owing to low core recoveries achieved in the 2017-2019 drilling campaign, RC drilling was utilised to maximise sample recovery.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Sample recovery versus grade was not assessed due to the lack of historical drill core and sample rejects, as well as due to the low diamond drilling sample recovery experience during the 2017-2019 drilling campaign. Sample recovery and grade relations with regard to the RC drilling was not possible due to not having a historical RC dataset to compare with. It is Minxcon's view that samples recording a core loss would result in a net negative bias, resulting in a potentially lower reported gold value. Twinning of these holes might serve to support this theory.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Historical drillholes (pre-2007/2008) in most cases have no original drillhole logs available for review. Summary lithological strip logs or MS Excel™ logs are available in most cases however and present lithological changes and reef positions. It is Minxcon's view that the level of detail available is still supportive and appropriate for Mineral Resource estimation. This level of detail has been considered in allocation of Mineral Resource classification. All 2008 drillholes were geologically logged including the deflections (or wedges) and the 2012/2013, as well as the 2017-2019 drilling campaign drillholes were both geologically and geotechnically logged. It is Minxcon's view that logging was done to a level of detail appropriate to support Mineral Resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	No detailed drillhole logs are available for the historical (pre-2007/2008) surface drilling. No core or core photography is available for review. The 2008 and 2012/2013 logging was qualitative in nature and core photos of all intersections were also taken. Logging conducted during the 2017-2019 drilling campaign was also qualitative in nature. All drill core and reference RC Chip sample trays were photographed and archived for record purposes.
	The total length and percentage of the relevant intersections logged.	Historical drillholes (pre-2007/2008) in most cases have no original drillhole logs available for review. Summary lithological strip logs or MS Excel™ logs are available in most cases however and present lithological changes and reef positions. Based on the information available it is assumed that all historical intersections represented in the Mine Resource estimation dataset were logged. All drilling and relevant intersections relating to 2007 through to and including the 2017-2019 drilling programme were logged. The logging information per Project is presented in the full CPR document and described in detail.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	It is not known how core was split in historical drilling (pre-2007/2008) campaigns. It is assumed that core was split as has been routine exploration practice. However, sampling/core records/libraries or protocols for this period are not available for review. In later drilling programmes (including the 2017-2019 drilling campaign) core was sawn in half lengthwise down the core axis. Once the core had been split the core was sampled along lithological boundaries. The smallest sample that was taken was 15 cm which was governed by the low core recovery, as well as the minimum weight required for a laboratory sample. Individual samples for NQ cores were 20 cm long. Reef samples were >10 cm and <40 cm.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Historical Protocols pertaining to the RC and auger drilling sample splitting are not available for scrutiny and thus unknown. During the 2017-2019 RC drilling programme, samples were dry sampled and riffle split through a 3-tier riffle splitter
	For all sample types, the nature, quality and appropriateness of the sample	For historical diamond drilling (pre-2007/2008) no protocols pertaining to sample preparation techniques are available for scrutiny. Recent (inclusive of the 2017-2019 drilling campaign) drilling sampling preparation and its appropriateness is in line with industry practice.

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
	preparation technique.	
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Historical (pre-2007/2008) historical sub-sampling techniques were not available for review. All later drilling programmes utilised blanks and certified reference materials in order to maximise representivity of samples. In the 2017-2019 drilling campaign, coarse duplicates were added to the QAQC programme to test repeatability and thus representivity of samples.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Pertaining to historical (pre-2007/2008) drilling programmes, sub-sampling techniques were not available for review. In 2008, only blanks and certified reference material were used. No field duplicate/second –half or subsequent quarter sampling was conducted to Minxcon's knowledge. Later drilling programmes utilised only blanks and certified reference material. No field duplicate/second–half or subsequent quarter sampling was conducted. In the 2017-2019 drilling campaign, coarse field duplicates were added to the QAQC programme to test repeatability and thus representivity of samples. Out of 292 duplicates taken, three were identified as outliers. Once these were removed from the dataset, a correlation coefficient of 0.9683 was achieved, presenting very high correlation, thus supporting the view of sample representivity.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Pre-2007/2008: Not known. Historical sample size taken were not recorded. Later programmes considered sample length versus core diameter together with assay laboratory techniques and protocols to ensure sample sizes were appropriate relative to the material in question being sampled. It is Minxcon's view that the sample sizes take are appropriate to the gold grain size being sampled due to the fact that out of 292 duplicates taken (2017-2019 drilling programme), three were identified as outliers. Once these were removed from the dataset, a correlation coefficient of 0.9683 was achieved, presenting very high correlation, thus supporting the view of sample representivity.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Historical underground channel chips were reported in dwt, it is assumed that only fire assay was utilised and it is assumed that the technique represents total analysis. In 2008, all diamond core samples including blanks and certified reference material ("CRM") were dispatched to Set Point Laboratories ("Set Point") in Isando, Johannesburg, South Africa. Set Point is a SANAS certified laboratory, in accordance with the recognised international standard ISO/IES 17025:2005, with accreditation number T0223. The samples were analysed for Gold ("Au") by standard fire assay with ICP finish, and specific gravity ("SG") analysis were conducted on selected samples. It is assumed that the technique represents total analysis. Up to May 2007, all RC samples were sent to ALS Chemex Laboratory. From May 2007 onwards, RC samples were sent to Performance Laboratories (now SGS Performance Laboratories) and core samples to ALS Chemex (which is SANAS accredited) for fire assay by lead separation and AA finish. Each sample was also analysed for a spectrum of 34 metals using Inductively Coupled Plasma ("ICP") techniques. It is assumed that the technique represents total analysis. In 2017, samples from drillholes V6 and V8 including blanks and certified reference material were dispatched to Super Laboratory Services (Pty) Ltd ("Super Labs") in Springs, South Africa. Super Labs is a SANAS certified laboratory, in accordance with the recognised international standard ISO/IES 17025:2005, with accreditation number T0494. The assay samples are 50 g samples in mass and are assayed for gold (Au) by means of fire assay with gravimetric finish. It is assumed that the technique represents total analysis. For the 2017-2019 drilling campaign, all drillhole samples were sent to SGS Performance Laboratories in Barberton. SGS Performance Laboratories, Barberton is a SANAS certified laboratory, in accordance with the recognised international standard FAA303, with accreditation number T0565. Assays pertaining to the Theta Project were conducted by means of gold by fire assay with a gravimetric and/or flame AAS utilising a 30 g cupel. This assay technique is viewed as being total.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the	No assay methods other than those conducted by laboratories as mentioned above were utilised in the generation of any of the TGM projects sampling database.

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
	analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	No records of Assay QAQC are available for the historical data due to the age there-of (*i.e.* pre-1946 for channel chip sampling, and for drilling predating 2007/2008) and due to the accepted practices in place at the time. Drilling campaigns conducted post 2007/2008 and the accompanying sampling was conducted according to industry standards. QAQC measures were implemented by regular insertion of blanks and standards into the sampling stream. Minxcon considers that the QAQC measures, as well as data used for Mineral Resource estimation, were of adequate quality. Approximately 17% of the samples sent to the laboratory represented assay control material. Minxcon is of the opinion that an adequate number of control samples were utilised during this drilling programme. No field duplicates were however used during the 2008 drilling and sampling programmes. During the 2012/2013 exploration programme, the project was stopped due to budgetary constraints and the completed drillholes were not assayed at the time. For the 2013 drilling programme the samples were analysed in 2017 and a total of 84 samples including blanks and certified reference material were dispatched to Super Labs. Two CRMs, namely AMIS0016 and AMIS0023, and silica sand blanks were used in the sampling sequence. Roughly every fifth sample inserted in the sampling sequence was a QAQC sample. A total of two AMIS0023, two AMIS0016, five duplicates and six blank samples were used. Approximately 18% of the samples sent to the laboratory represented assay control material. Minxcon is of the opinion that an adequate number of control samples were utilised. During the 2017-2019 drilling programme the CRMs and blanks were inserted at predetermined positions in the sampling sequence, namely: analytical blank samples were placed at the beginning and at the end of a drillhole. With the diamond drilling control samples were placed in the sampling stream at every tenth sample, with a sequential rotation between a blank, CRM and duplicate. With the RC drilling, this was similarly done, but at every twentieth sample position. In both cases the control sample spacing was based upon the batch size utilised by the laboratory in order to ensure each tray included at least one blank and an additional control sample during sample preparation and analysis. Approximately 2.75% of the samples sent to the laboratory represented CRM and 4.5% represented analytical blanks and 1.3% represented coarse duplicates. These samples are in addition to the in-laboratory assay conducted by the laboratory which traditionally adds up to 20% control samples to the total sample stream, usually incorporating a CRM as well as an analytical blank and two duplicate samples to each sample batch. Minxcon is of the opinion that an adequate number of control samples were utilised during this drilling programme.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No verification of historical assay results is currently possible due to the historical nature of the data in question and the non-availability of the core. Minxcon verified the historically bagged samples for drillholes V6 and V8 for accuracy and representativeness before sending them to the laboratory in 2017. Those samples that were not representative or missing were re-sampled from the remaining core at TGM. Minxcon reviewed all historical datasets chip sampling and the historical drilling attributed to the various historical operations, as well as digital plans (scanned DXF plans of sampling plans) and found that captured sample positions had good agreement with those in the digital dataset. In addition, different versions of the underground sampling file were found and cross validated to test for data changes or eliminations. These were corrected where applicable. Minxcon reviewed, verified and cross-checked captured assays relating to the 2008 drilling dataset by means of checking for transfer mistakes, gaps and overlaps in sampling intervals and also checked that all reef composites were correctly calculated for each reef intersection, before calculating the weighted mean of drillhole points with multiple intersections of wedges. Minxcon conducted checks on sampling during the 2017-2019 drilling programme by means of standard assay QAQC procedures and reviewing and cross-checking

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
		the .pdf assay results provided by the laboratory and those copied into the database utilised for evaluation. In addition, reviews of the sampling process were conducted by Minxcon personnel other than those managing the programme, namely the then Competent Person Mr Uwe Engelmann, and Mr Paul Obermeyer, the Minxcon Mineral Resource Manager.
	Discuss any adjustment to assay data.	No adjustments were made to raw assay data according to Minxcon's knowledge.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not known. Historical data capture and data entry procedures were not available for review. The 2007/2008 and 2013 exploration programmes were logged and captured on hardcopy. These were then transferred to MS Excel™. Minxcon currently only has the data in this digital format for verification purposes. During the 2017-2019 drilling campaign, all logging and sampling were logged and captured on hardcopy and then captured in MS Excel™. Assay results were received from the laboratory in MS Excel™ .csv format as well as .PDF, thus allowing verification and comparison between hardcopy, source and digital data files.
	The use of twinned holes.	No twinned holes were drilled.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	TGM utilised a handheld GPS for the purpose of locating historical adits and mine entrances, which in turn have been utilised in conjunction with historical survey data in positioning the historical underground workings in 3D. Historical survey plans with plotted survey peg positions and elevations are available for most of the historical underground operations. These pegs were installed by mine surveyors relative to fixed local mine datum's. The survey pegs and workings have been digitised in ARCView GIS 10™. Each data point and stretch value on the original assay plans was marked and annotated with a reef width and gold grade. Assay plan images were imported into GIS and co-ordinates converted from a local grid co-ordinate (WG31) system to a WGS84 grid system. The plans were then captured into Datamine Studio 3™. The captured assay points were plotted on a plan of the underground workings to ensure that the points plotted correctly relative to development and stoping. The sampling has in turn been fixed to the underground development and stoping voids. It is Minxcon's opinion that sample positional accuracy would be within 5 to 10 m of the original sample point (within acceptable limits of a GPS). Drillhole collars were also located by means of handheld GPS co-ordinates. Assay plan images were imported into GIS and co-ordinates converted from a local grid co-ordinate system to a WGS84 grid system. The plans were then captured into Datamine®. The captured assay points were plotted on a plan of the underground workings to ensure that the points plotted correctly relative to development and stoping. Historically, sampling points were measured by means of measuring tape and the resultant offsets plotted on the sampling and development plans. Information pertaining to the instrument used for downhole survey conducted before and including the 2007/2008 drilling programmes is not available During the 2012/2013 drilling programme an EZ-Trac with EZ Com was used. Drillholes drilled at the Theta Project did not have downhole surveys conducted due to all being drilled vertically and due to them all being under 200 m in depth. Drillhole collars were located by two means. Of the 371 holes drilled some 99 collars were surveyed utilising an RTK Trimble R8 GPS Survey Total Station, while the balance was recorded by means of handheld GPS. TGM complete a LIDAR survey over the Theta Project in March 2019 which was then used to re-elevate the collar positions to the new LIDAR surface for improved accuracy. The 3D geological model was updated in June 2019 and the Mineral Resource was adjusted accordingly.
	Specification of the grid system used.	The grid system used is Hartebeeshoek 1994, South African Zone WG31.
	Quality and adequacy of topographic control.	Minxcon utilised the GPS co-ordinates provided by TGM for the adit positions, as well as ventilation openings to assist in verifying and fixing the underground workings in 3D space. Very good correlation between the digital topography and the underground mining profiles was found. The tailings and rock dump projects were surveyed utilising standard survey methods (Survey total station) and detailed topographical data collected. This data was subsequently rendered as digital contour plans. A LIDAR survey was conducted in March 2019 and was compared to the original digital topography utilised in the reef modelling. Discrepancies were found to be small with negligible impact on the geological model or the reef block models. The 3D geological model was revised in June

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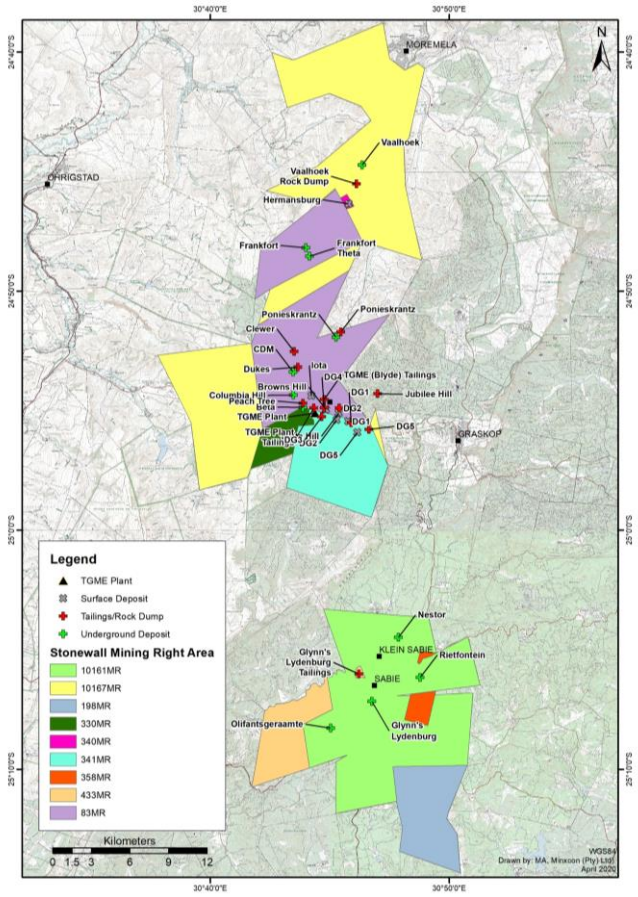
Criteria	**Explanation**	**Detail**
		2019 and the Mineral Resource adjusted accordingly. There was an overall increase of 9% in the ounces in the Mineral Resource for the Theta Project due to the changes in the reef elevation and reef outcrop positions.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	In the stoping areas, the mean channel chip sample grid spacing was approximately on a 5 m x 5 m grid, while on development in older areas samples were taken at about 5 m to 6 m intervals, while in more recent areas sample sections were taken at between 2 m to 3 m spacing. Available information shows that diamond drillholes were drilled on an irregular grid of between 200 m to 500 m. Owing to the more advanced investigation stage (*i.e.* Mineral Resources and Ore Reserves), no Exploration Results have been reported. In the stoping areas, the sample stretch values were spaced approximately at 15 m on dip and 4 m on strike, while in more detailed areas sample spacing was found to be as little as 3 m between points. In the development, stretch values spacing varied from 4 m to 20 m, while in more detailed areas sample spacing is seen to be as close a 3 m. Drillhole spacing for the underground projects varies significantly and is considered during Mineral Resource classification. In one specific case (Vaalhoek) two drillholes (V6 and V8) did not significantly affect the Mineral Resource estimation as they were beyond the variogram range of the sample points (1,000 m) as Minxcon did not include the drillhole data with the stretch value data. They did however prove continuity of the reef. For the Glynn's Lydenburg and Blyde TSF projects, auger drilling was conducted on a 25 m x 25 m grid spacing, while on the TGM Plant TSF auger drilling was conducted on an approximate 50 m x 50 m grid. The Hermansburg eluvial deposit was drilled on an approximate 25 m x 25 m grid, while the DG deposits were drilled on an approximate 20 m x 20 m by 25 m x 25 m grid spacing, depending on local topography and access.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	It is Minxcon's opinion that drillhole and sample spacing is adequate for the purpose of conducting meaningful Mineral Resource estimation in and around stoping areas due to the density of the chip sampling data. It is Minxcon's view that the drillhole spacing pertaining to the Theta Project conducted during the 2017-2019 drilling programme is adequate for the purpose of conducting Mineral Resource estimation. Spacing per reef is viewed as being appropriate to the Mineral Resource categories applied.
	Whether sample compositing has been applied.	All channel chip sample points within the underground operations database represent full reef composites. Full reef composites were applied to drillholes belonging to the underground operations due to the inherent narrow nature of the reefs concerned. All eluvial, TSF drillholes and rock dump sample points were composite at fixed downhole sample intervals for the purposes of conducting full 3D Mineral Resource Estimations on these types of deposits. During the 2017-2019 drilling programme, in thin reef environments with reefs of <1 m (Upper Theta, Lower Theta and Beta Reefs) diluted (to 1 m) reef composites were utilised for evaluation purposes due to the minimum sample width obtained during the RC drilling being 1 m. In thick reef environments (Upper Rho, Lower Rho, Bevetts and Shale reefs), individual original sample widths of 1 m were maintained for utilisation in 3D estimation.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Concordant reefs are all near horizontal and as such these dip at between 3° to 12° to the west and strike in a north–south direction. Drillholes were drilled vertically (-90° dip) to intercept the mineralised shear zones at a near perpendicular angle in order that the sampling of the drill core minimises the sampling bias. Chip sampling in concordant reef environments was conducted normal to reef dip. It is Minxcon's view that sampling orientation has attempted to reduce sample bias with respect to angle of intersection. All intersections represented corrected reef widths. Discordant reef as encountered at Rietfontein is vertical to sub-vertical. Drillholes were orientated at angles to intercept the mineralised shear zones at as near a perpendicular angle in plan and acute angle in section as possible in order that the sampling of drill core minimises the sampling bias. Chip sampling was conducted

SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
		normal to reef dip. It is Minxcon's view that sampling orientation has attempted to reduce sample bias with respect to angle of intersection. All intersections represented corrected reef widths. All sampling of the TSF was conducted vertically. This is normal to the orientation of deposition and is therefore achieves unbiased sampling
	If the relationship between the drilling orientation and the orientation of key mineralised structures is	Available information indicates that the drilling orientation provides reasonably unbiased sampling of the mineralisation zones.
Sample security	The measures taken to ensure sample security.	Measures taken to ensure sample security pertaining to the historical chip sampling are not available due to the historical nature of the data in question. Measures taken to ensure sample security during historical drilling programmes (1995/1996 and 2008 drilling) are not available due to the historical nature of the data in question. During 2012/2013 all core samples were stored in a locked facility prior to dispatch to the laboratory. The samples from the 2013 drilling campaign were bagged and labelled in 2013 but were not sent away to a laboratory for assayed due to the project ending prematurely. The samples were stored at the TGM Plant in Pilgrims Rest and delivered to the Minxcon Exploration offices in Johannesburg in November 2017 to check and verify the previously bagged samples. A standard chain of custody was implemented during the 2017-2019 drilling campaign. Immediately when the core arrived in the core yard daily, the geologist or core yard manager was required to sign the core shed register
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Minxcon reviewed all historical datasets attributed to the various projects comprising the Mineral Resources, historical plans and sections as well as digital plans (scanned DXF plans of sampling plans) and found that historically captured sample positions had good agreement with those in the digital dataset. In addition, different versions of the underground sampling files were found and cross validated to test for data changes or eliminations. Minxcon also digitised a series of plans or sampling points and stretch values which were used in the various estimations. Minxcon was not able to audit or review the sampling techniques in [illegible] due to the historical nature of the data in question.

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The mining rights are held under Transvaal Gold Mining Estates Limited ("TGME"), a 74% indirect subsidiary of TGM. The mineral rights 83MR, 340MR, 341MR, 358MR and 433MR have been granted, registered and executed, held over certain Mineral Resource areas. Their accompanying environmental and social permits are also executed. The mining rights 10161MR and 10167MR have been granted and are pending execution. It is noted that the required Environmental Authorisations for these rights have not yet been awarded. The mining rights 330MR and 198MR are still in the approval process. A Section 102 amendment process for inclusion of underground redevelopment projects into 83MR is currently underway, with the environmental and socio-economic studies, as well as water use licence application process, following prescribed regulatory timelines.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to	TGM is required to comply with DMRE regulations and instructions timeously in order to receive executed rights, as well as for the currently active rights to remain in force. Minxcon notes that a few years have lapsed since the last formal DMRE communication on 330MR and 198MR, and notes that the security of these rights may be at risk. There is reasonable basis to believe that 10161MR will be executed. The 83MR Section 102 application is following timelines as stipulated by applicable regulations and guided by government departments and processes.

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	operate in the area.	The Mineral Resources are located within the above permit areas as per the figure to follow. 
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Acknowledgement is hereby made for the historical exploration conducted from 1977 to 1982 by Placid Oil and Southern Sphere over the northern areas over the TGM holdings. From 1982 to 1992, Rand Mines conducted sporadic alluvial prospecting along the Blyde River, limited surface diamond drilling, re-opening of old workings and extensive exploration programmes around the town of Pilgrims Rest. TGME and Simmer & Jack conducted drilling, geochemical soil sampling, trenching and geological mapping.
Geology	Deposit type, geological setting and style of mineralisation.	Epigenetic gold mineralisation in the Sabie-Pilgrims Rest Goldfield occurs as concordant and discordant (sub-vertical) veins (or reefs) in a variety of host rocks within the Transvaal Drakensberg Goldfield, and these veins have been linked to emplacement of the Bushveld Complex. Mineralisation in the region occurs principally in concordant reefs in flat, bedding parallel shears located mainly on shale partings within the Malmani Dolomites. These bodies are stratiform, and are generally stratabound, and occur near the base of these units. The discordant reefs (or cross-reefs) are characterised by a variety of gold mineralisation styles. At Rietfontein, a sub-vertical quartz-carbonate vein occurs which reaches up from the Basement Granites and passes to surface through the Transvaal. They are found throughout the Sabie-Pilgrims Rest Goldfield, and are commonly referred to as cross reefs, blows, veins, and leaders and exhibit varying assemblage of gold-quartz-sulphide mineralisation generally striking northeast to north-northeast. They vary greatly in terms of composition, depth and diameter. In addition to the above, more recent eluvial deposits occur on the sides of some of the hills and are through to represent cannibalised mineralised clastic material resulting from the erosion of underlying reefs. Gold mineralisation is accompanied by various sulphides of Fe, Cu, As and Bi.
Drillhole Information	A summary of all information material to the understanding of the	A summary of the data types and the number of data attributable to each project is presented in the table below. It should be noted that all the projects listed are historical mining areas and do not constitute exploration projects in the true sense of the word. However, detailed drillhole summary tables are presented in the CPR in the appropriate sections pertaining to Exploration Targets. It should be noted that the

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	exploration results including a tabulation of the following information for all Material drillholes: * easting and northing of the drillhole collar * elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar * dip and azimuth of the hole * down hole length and interception depth * hole length.	numbers presented for drillholes in the table below represent all drillhole records, regardless of the status of the data concerned.

Project Area	Sampling Data Types	Historical datasets (Pre - 2007/2008)	Recent Datasets
		Quantity (Incl. Wedges)	Quantity
Rietfontein	Drillhole Data	8	-
	Channel Chip Sample Data	2,265	-
Beta	Drillhole Data	7	20
	Channel Chip Sample Data	4,553	-
Frankfort	Drillhole Data	15	59
	Channel Chip Sample Data	3,187	864
CDM	Drillhole Data	115	-
	Channel Chip Sample Data	24,483	-
Olifantsgeraamte	Drillhole Data	1	-
	Channel Chip Sample Data	316	-
Vaalhoek	Drillhole Data	16	8
	Channel Chip Sample Data	3,836	-
	Stretch Values	1,472	-
Glynn's Lydenburg	Drillhole Data	-	-
	Channel Chip Sample Data	26,435	-
	Stretch Values	872	-
Theta Project (Theta Hill, Browns Hill & Iota section of Columbia Hill)	Drillhole Data	263	371
	Trench Sampling	-	10
	Channel Chip Sample Data	7,472	-
Columbia Hill (remaining)	Drillhole Data	26	-
	Channel Chip Sample Data	14,478	-
Hermansburg	RC Drillhole Data		79
DG1	RC Drillhole Data	-	
DG2	RC Drillhole Data	-	221
DG5	Grab Samples	-	≈100
	RC Drillhole Data	-	19
Glynn's Lydenburg TSF	Auger Drillhole Data	-	140
Blyde TSFs (1, 2, 3, 3a, 4, 5)	Auger Drillhole Data	-	86
TGM Plant	Auger Drillhole Data	-	34
Vaalhoek (Rock dump)	Bulk Sampling Data	-	1
	Trench Sampling Data	-	13
	Sampling Pit Data	-	57
South East (DGs) (Rock dump)	Bulk Sampling Data	50	-
Peach Tree (Rock dump)	Bulk Sampling Data	8	-
Ponieskrantz (Rock dump)	Bulk Sampling Data	10	-
Dukes Clewer (Rock dump)	Bulk Sampling Data	13	-

	If the exclusion of this information is justified on the basis that the information is not Material	All the available drillholes on all projects and project types that were historically sampled and had the assay result available, were used for Mineral Resource estimation with the exception of four drillholes (in the case of Rietfontein) where out of eight drillholes, a total of four were excluded from the estimation due to excessive poor core recovery. All 10 drillholes drilled in 2012/2013 as well as three drillholes drilled in 2008 were only used for geological modelling due to the fact that the project

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	was stopped due to budget constraints and the mineralised zones were never assayed.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All chip samples and drillhole samples were agglomerated. Data type biases were not investigated due to the small number of drillhole intersections. 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. During the 2017-2019 drilling programme, in thin reef environments with reefs of <1 m (Upper Theta, Lower Theta and Beta Reefs) diluted (to 1 m) reef composites were utilised for evaluation purposes due to the minimum sample width obtained during the RC drilling being 1 m. In thick reef environments (Upper Rho, Lower Rho, Bevetts and Shale Reefs), individual original sample widths of 1 m were maintained for utilisation in 3D estimation.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	All chip samples and drillhole samples were agglomerated. Data type biases were not investigated due to the small number of drillhole intersections. 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. During the 2017-2019 drilling programme, in thin reef environments with reefs of <1 m (Upper Theta, Lower Theta and Beta Reefs) diluted (to 1 m) reef composites were utilised for evaluation purposes due to the minimum sample width obtained during the RC drilling being 1 m. In thick reef environments (Upper Rho, Lower Rho, Bevetts and Shale reefs), individual original sample widths of 1 m were maintained for utilisation in 3D estimation.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents were calculated.
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	For the historical drillhole intersections (as well as intersections pertaining to the 2017-2019 drilling campaign) no downhole lengths have been reported – only true reef widths have been recorded in the estimation database on the historical sampling plans and sections. All drilling was conducted near normal to bedding so is reef width would be very closely related to the intersection length due to the low dip of the orebody and the vertical drilling of the drillholes. Historical underground chip sampling is sampled normal to the dip of the reef so is therefore the true width.

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Criteria	**Explanation**	**Detail**
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Only true width data is available. All significant grades presented in the estimation dataset represent the value attributable to the corrected sample width and not the real sampled length.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	The TGM Mineral Resource is not a true greenfields exploration project but rather a mature mining operation with a wealth of historical underground chip sampling and drillhole intersections which have been collated, captured and digitised. The CPR has the detail diagrams of the sampling datasets for the various operations. These include chip samples and drillhole intersections.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The various Mineral Resource estimations were conducted by Minxcon and are based upon the information provided by TGM. This Report contains summary information for all historic sampling and drilling campaigns within the Project Area, as well as more recent 2019 data obtained during the evaluation drilling conducted at the Theta Project and provides a representative range and mean of grades intersected in the datasets.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical	Various exploration campaigns have been conducted over the years but not all information is available or relevant to the current Mineral Resource update. No other exploration data other than that presented for the purposes of the Mineral Resource estimation is therefore presented here. TGM has undertaken additional drilling at Columbia Hill (Iota), Theta Hill, Browns Hill and Iota (Theta Project). This data has been incorporated in the Mineral Resource estimate. TGM has completed and is still in the process of completing metallurgical testwork and studies for the recoveries of the various reefs. This testwork all forms part of the feasibility study that is being completed.

<table>
<tr><th colspan="3">SECTION 2: REPORTING OF EXPLORATION RESULTS</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td></td><td>test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</td><td></td></tr>
<tr><td rowspan="2">Further work</td><td>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</td><td>The properties have a number of potential exploration targets that may increase the current Mineral Resource and Ore Reserve. These are spread over a number of the project areas and cover lateral extensions, depth extensions as well as compiling and re-interpreting historical datasets. The table below is a summary of the near-term potential exploration targets. The scale of the exploration depends on the available budget and therefore cannot be defined currently.
<table>
<tr><th>Project</th><th>Type of Potential</th><th>Comment</th></tr>
<tr><td>Rietfontein</td><td>Lateral and depth extensions</td><td>Lateral extension is possible to the south which is untested as well as at depth below the current historical mining areas</td></tr>
<tr><td>Beta</td><td>Lateral extension</td><td>Lateral extension of the main beta "Payshoot"</td></tr>
<tr><td>CDM</td><td>Lateral extension</td><td>Lateral extension to the south toward Dukes' Hill South</td></tr>
<tr><td>Theta</td><td>Lateral extension</td><td>Lateral extension to the south on both Theta Hill and Browns Hill once 341MR is available. Lateral extension to the west and southwest at Iota</td></tr>
<tr><td>Vaalhoek</td><td>Depth extensions and open-pit opportunities</td><td>Near surface potential (open pit) exists on the Vaalhoek Reef and Thelma Leaders Reef</td></tr>
<tr><td>Glynn’s Lydenburg</td><td>Shallow lateral extensions</td><td>The new model has identified new high-grade exploration targets for possible near surface open pit opportunities</td></tr>
<tr><td>Columbia Hill</td><td>Shallow lateral extensions</td><td>The new geological interpretation has identified Columbia Hill as a potential open pit target that will be drilled in the near future</td></tr>
</table>
This table excludes all the other historical mines that have not been investigated yet.</td></tr>
<tr><td>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future</td><td>The potential areas for the various mines have been detailed in the CPR. Detailed exploration strategy and budget has not been finalised due to the unknown available budget.</td></tr>
</table>

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	drilling areas, provided this information is not commercially sensitive.	

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Minxcon reviewed all historical datasets attributed to all the underground projects, as well as digital plans (scanned DXF plans of sampling plans) and found that captured sample positions had good agreement with those in the digital dataset except for a small number of chip samples (<1%), which Minxcon subsequently corrected. In addition, different versions of the underground sampling file were found and cross validated to test for data changes or eliminations over the years. Minxcon found that database integrity was maintained over time. The chip sampling data that was captured was also verified on an ad-hoc basis by different personnel as to the personnel that captured the data. Prior to estimation a duplicate check in Datamine Studio RM™ was carried out on the datasets to eliminate duplicate data point errors, and found that less than 2% of the population included duplicate captured sample points. Minxcon reviewed existing digital drillhole logs and assay sheets for the historical drilling relative to scans of drillhole strip logs and found very good agreement. In cases were errors were encountered, these were corrected and incorporated into a date-stamped database for sign-off prior to submission for Mineral Resource estimation. With regards to the 2017-2019 exploration campaign, assay data integrity was maintained by cross-validating MS Excel™ .csv assay results files from the laboratory with the .pdf files also provided by the Laboratory. Hard copy geological logs were kept as a means of referral with reference to the geological information captured in the project database.
	Data validation procedures used.	Minxcon reviewed all historical datasets attributed to all the underground projects, as well as digital plans (scanned DXF plans of sampling plans) and found that captured sample positions had good agreement with those in the digital dataset except for a small number of chip samples (<1%), which Minxcon subsequently corrected. In addition, different versions of the underground sampling file were found and cross validated to test for data changes or eliminations over the years. Minxcon found that database integrity was maintained over time. The chip sampling data that was captured was also verified on an ad hoc basis by different personnel as to the personnel that captured the data. Prior to estimation a duplicate check in Datamine Studio RM™ was carried out on the datasets to eliminate duplicate data point errors, and found that less than 2% of the population included duplicate captured sample points. Minxcon reviewed existing digital drillhole logs and assay sheets for the historical drilling relative to scans of drillhole strip logs and found very good agreement. In cases were errors were encountered, these were corrected and incorporated into a date-stamped database for sign-off prior to submission for Mineral Resource estimation. With regards to the 2017-2019 exploration campaign, assay data integrity was maintained by cross-validating MS Excel™ .csv assay results files from the laboratory with the .pdf files also provided by the Laboratory. Hard copy geological logs were kept as a means of referral with reference to the geological information captured in the project database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Minxcon personnel have consistently visited the gold properties in the Sabie-Pilgrims Rest area since 2007. Mr Uwe Engelmann, who is a Competent Person and who is responsible for the sign-off of the Mineral Resources, undertook a site visit to the Beta Mine on 15 December 2016, as well as on 23 November 2017 and 18 May 2018 to review the current RC and diamond drilling conducted at the Theta Project to inspect the drilling and sampling procedures. During the May visit Mr Engelmann also inspected the tailings storage facilities (“TSFs”) and Vaalhoek Rock Dump for possible depletions. An additional site visit by Mr Engelmann was conducted on 10 April 2019 to review the close-out procedures associated with the protracted preceding drilling programme and again on 21

<table>
<tr><th colspan="3">SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td></td><td></td><td>January 2020 to investigate the additional waste rock dumps for which the historical data was supplied. Further visits to Beta and Frankfort were conducted by Minxcon personnel in early 2022 to oversee sampling exercises.</td></tr>
<tr><td></td><td>If no site visits have been undertaken indicate why this is the case.</td><td>Not applicable – refer to above.</td></tr>
<tr><td>Geological interpretation</td><td>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</td><td>Four types of digital 3D geological models were created in Datamine Studio 3™ and Datamine Studio RM™ for the different types of orebodies within the TGM Projects.
The four types of geological models relate to the type of orebodies encountered and include:-
Sub-vertical discordant (cross-reef) reef models
Sub-horizontal concordant (and leader) reef models
Topographical surficial reef models
Topographical TSF models
The table below presents each of the four types of geological model and the projects that they were applied to:

<table>
<tr><th>Geological Model Type</th><th>Project Area</th><th>Reef</th></tr>
<tr><td>Sub-vertical discordant (cross-reef) reef models</td><td>Rietfontein</td><td>Rietfontein</td></tr>
<tr><td rowspan="20">Sub-horizontal concordant (and leader) reef models</td><td>Beta (3D)</td><td>Beta</td></tr>
<tr><td rowspan="2">Frankfort (2D)</td><td>Bevetts</td></tr>
<tr><td>Theta</td></tr>
<tr><td>CDM (2D)</td><td>Rho</td></tr>
<tr><td>Olifantsgeraamte (2D)</td><td>Olifantsgeraamte</td></tr>
<tr><td rowspan="2">Vaalhoek (3D)</td><td>Vaalhoek</td></tr>
<tr><td>Thelma Leaders</td></tr>
<tr><td>Glynn’s Lydenburg (3D</td><td>Glynn’s</td></tr>
<tr><td rowspan="8">Theta Project (Theta Hill, Browns Hill & Iota section of Columbia Hill) (3D)</td><td>Shale Reefs</td></tr>
<tr><td>Bevetts</td></tr>
<tr><td>Upper Rho</td></tr>
<tr><td>Lower Rho</td></tr>
<tr><td>Upper Theta</td></tr>
<tr><td>Lower Theta</td></tr>
<tr><td>Beta</td></tr>
<tr><td rowspan="3">Columbia Hill (3D)</td><td>Rho</td></tr>
<tr><td>Shale</td></tr>
<tr><td>Shale Leaders</td></tr>
<tr><td rowspan="4">Topographical surficial reef models</td><td>Hermansburg</td><td>Eluvial</td></tr>
<tr><td>DG1</td><td>Eluvial</td></tr>
<tr><td>DG2</td><td>Eluvial</td></tr>
<tr><td>DG5</td><td>Eluvial</td></tr>
<tr><td rowspan="10">Topographical TSF models</td><td>Glynn’s Lydenburg</td><td>Tailings</td></tr>
<tr><td>Blyde 1</td><td>Tailings</td></tr>
<tr><td>Blyde 2</td><td>Tailings</td></tr>
<tr><td>Blyde 3</td><td>Tailings</td></tr>
<tr><td>Blyde 4</td><td>Tailings</td></tr>
<tr><td>Blyde 5</td><td>Tailings</td></tr>
<tr><td>Blyde 3a</td><td>Tailings</td></tr>
<tr><td>Vaalhoek</td><td>Rock Dump</td></tr>
<tr><td>South East (DGs), Peach Tree, Ponieskrantz and Dukes Clewer</td><td>Rock Dump (manual)</td></tr>
</table>
The geological reef wireframes for the Concordant and Disconcordant mineralised zones for all the digital geological models were constructed by Minxcon geologists and are based upon mine development plans and historical surveyed peg files (honouring the on-reef development) provided by TGM. Where this information did not exist, Minxcon digitised the development, stoping outlines, pillars, chip sample data, geological mapping and interpretation data</td></tr>
</table>

<table>
<tr><th colspan="3">SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td></td><td></td><td>(where available) and survey pegs from digital scans of historical mine survey and sampling plans. Drillholes, survey pegs and thickness modelling were utilised to model the stacked concordant reefs for the Theta Project. The eluvial deposits and TSF models were also constructed by Minxcon geologists and are based upon surveyed contour lines (in the case of the TSFs) and drillhole collars. In the case of the eluvial deposits, topographical contours in conjunction with drillhole collars, were utilised to generate the geological and geographical 3D limits to the geological wireframe models.

Minxcon is of the view that the confidence in the geological wireframes is such that it supports the relevant Mineral Resource categorisation currently utilised in the Mineral Resource estimate.</td></tr>
<tr><td></td><td>Nature of the data used and of any assumptions made.</td><td>Scanned plans were digitised to generate development strings. These were co-ordinated and repositioned relative to underground plans and survey pegs. Geological plans were also used in conjunction with limited underground geological mapping, underground survey pegs in conjunction with historical and new drillholes were used in the generation of the underground and open-pit project geological models.</td></tr>
<tr><td></td><td>The effect, if any, of alternative interpretations on Mineral Resource estimation.</td><td>The geological interpretation of the Sabie-Pilgrims Rest Goldfield (as discussed in the geology section) has not been re-interpreted but what Minxcon has undertaken is a process of collating, capturing and digitising the historical datasets (chip samples, drillhole intersections and historical plans into the electronic environment (GIS and Datamine) to assist in re-investigating the undiscovered potential at the different mines and re-estimation of Mineral Resources if there is potential. Due to the quality and volume of drilling conducted on the Theta Project during 2017-2019, Minxcon was able to generate a lithological model for the first time, which assisted greatly in correctly identifying and correlating individual reefs. In addition, the lithological modelling has played a significant role in the Mineral Reserving process associated with the Theta Project. The surficial or eluvial deposits utilised topographical control as opposed to geological control.

The Mineral Resource estimation has been restricted to the hard boundaries defined in the geological interpretation in the form of faulting and outcrop lines. For Rietfontein, a maximum depth below surface of 440 m restricts the depth extension.</td></tr>
<tr><td></td><td>The use of geology in guiding and controlling Mineral Resource estimation.</td><td>The geological reef wireframes for the various underground projects were constructed by a Minxcon geologist and are based upon mine development plans and historical surveyed peg files (honouring the on-reef development) provided by TGM. The resultant geological wireframes were then utilised as a closed volume to constrain the volume and spatial estimate of the Mineral Resources. Geological structures were constructed and utilised as hard boundaries for the purposes of Mineral Resource estimation. Due to the quality and volume of drilling conducted on the Theta Project during 2017-2019, Minxcon was able to generate a lithological model for the first time, which assisted greatly in correctly identifying and correlating individual reefs. In addition, the lithological modelling has played a significant role in the Mineral Reserving process associated with the Theta Project. The surficial or eluvial deposits utilised topographical control as opposed to geological control.</td></tr>
<tr><td></td><td>The factors affecting continuity both of grade and geology.</td><td>The Mineral Resource estimation has been restricted to the hard boundaries defined in the geological interpretation in the form of faulting and outcrop lines. For Rietfontein a maximum depth below surface of 440 m restricts the depth extension.</td></tr>
<tr><td>Dimensions</td><td>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</td><td>The block model extents for all the digital project models are shown in the table below. The block models cover all the structures modelled.
<table>
<tr><th rowspan="2">Geological Model Type</th><th rowspan="2">Project Area</th><th rowspan="2">Reef</th><th colspan="3">Block Size</th><th colspan="3">Block Model Dimension</th></tr>
<tr><th>X (m)</th><th>Y (m)</th><th>Z (m)</th><th>X (m)</th><th>Y (m)</th><th>Z (m)</th></tr>
<tr><td>Sub-vertical discordant (cross-reef) reef models</td><td>Rietfontein</td><td>Rietfontein</td><td>20</td><td>30</td><td>30</td><td>900</td><td>4020</td><td>1080</td></tr>
<tr><td rowspan="2">Sub-horizontal concordant (and</td><td>Beta</td><td>Beta</td><td>50</td><td>50</td><td>10</td><td>4350</td><td>4550</td><td>10</td></tr>
<tr><td>Frankfort</td><td>Bevetts</td><td>20</td><td>20</td><td>10</td><td>2100</td><td>1580</td><td>10</td></tr>
</table></td></tr>
</table>

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES											
Criteria	**Explanation**	**Detail**									
		leader) reef models	Clewer, Dukes Hill & Morgenzon	Rho	50	50	10	3100	7100	10
			Olifantsgeraamte	Olifantsgeraamte	20	20	1	800	1000	1
			Vaalhoek	Vaalhoek	20	20	10	2500	4380	10
				Thelma Leaders	20	20	10	2500	4380	10
			Theta Hill & Browns Hill	Beta	20	20	5	4000	3000	600
				Lower Theta	20	20	5	4000	3000	600
				Upper Theta	20	20	5	4000	3000	600
				Bevetts	20	20	5	4000	3000	600
				Shales	20	20	5	4000	3000	600
			Iota section of Columbia Hill	Rho Upper	20	20	1	1140	1600	1820
				Rho Lower	20	20	1	1140	1600	1820
				Bevetts	20	20	1	1140	1600	1820
				Upper Theta	20	20	1	1140	1600	1820
			Glynn's Lydenburg	Glynn's	20	20	10	7840	7440	10
		Topographical surficial reef models	Hermansburg	Eluvial	20	20	3	240	360	87
			DG1	Eluvial	20	20	3	292	432	103
			DG2	Eluvial	20	20	3	58	560	213
		Topographical TSF models	Glynn's Lydenburg	Tailings	25	25	3	360	485	19
			Blyde 1	Tailings	25	25	3	340	260	20
			Blyde 2	Tailings	25	25	3	156	172	20
			Blyde 3	Tailings	25	25	3	155	190	23
			Blyde 4	Tailings	25	25	3	130	145	12
			Blyde 5	Tailings	25	25	3	95	60	12
			Blyde 3a	Tailings	25	25	3	120	135	7
			TGM Plant	Tailings	10	10	1.5	720	450	51
			Vaalhoek	Rock Dump	10	10	1	280	300	40
			South East (DGs)	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A
			Peach Tree	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A
			Ponieskrantz	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A
			Dukes Clewer	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A
		Block Plans and/ or Block Listings	Ponieskrantz*	Portuguese	N/A	N/A	N/A	N/A	N/A	N/A
			Frankfort Theta*	Theta	N/A	N/A	N/A	N/A	N/A	N/A
			Nestor*	Sandstone	N/A	N/A	N/A	N/A	N/A	N/A

Note: ** These historical mines have not been converted yet and are still manual ore resource block lists.*

Estimation and modelling techniques

The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.

Estimations were carried out utilising Ordinary Kriging for the latest estimations, with the exception of the TGM Plant tailings where Inverse distance squared was seen as most appropriate. The table shows the different estimations techniques per project and the number of domains used. Domains were based on data type available and structural boundaries. The search parameters informed by the variography for the various areas are presented in the table below with the minimum and maximum number of samples used in the estimation.

Project Area	Reef	Vgram Range		Est no Samples		Type Estimation
		Min	Max	Min	Max	
Rietfontein	Rietfontein	40	120	5	15	Ordinary Kriging
Beta	Beta	40	297	5	20	Ordinary Kriging
Frankfort	Bevetts	115	120	3	30	Ordinary Kriging
CDM	Rho	383	583	10	25	Ordinary Kriging
Olifantsgeraamte	Olifantsgeraamte					Ordinary Kriging

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**

Vaalhoek	Vaalhoek	68.9	174.8	4	20	Ordinary Kriging
	Thelma Leaders	86.7	96.5	4	20	Ordinary Kriging
Theta Hill & Browns Hill	Beta	90.3	90.3	3	15	Ordinary Kriging
	Lower Theta	99.7	99.7	3	15	Ordinary Kriging
	Upper Theta	10.4	10.4	3	15	Ordinary Kriging
	Bevetts	89.5	89.5	3	15	Ordinary Kriging
	Shale	79.6	79.6	3	15	Ordinary Kriging
Iota section of Columbia Hill	Upper Theta	72	72	3	15	Ordinary Kriging
	Lower Rho	72	72	3	15	Ordinary Kriging
	Upper Rho	126.9	126.9	3	15	Ordinary Kriging
	Bevetts	72.2	72.2	2	10	Ordinary Kriging
	Shale	72.2	72.2	3	15	Ordinary Kriging
Glynn's Lydenburg	Glynn's	75	488.5	3	30	Ordinary Kriging
Hermansburg	Eluvial	25.8	25.8	12	40	Ordinary Kriging
DG1	Eluvial	122.5	122.5	4	15	Ordinary Kriging
DG2	Eluvial	85.8	85.8	4	15	Ordinary Kriging
Glynn's Lydenburg	Tailings	92.3	195.8	4	40	Ordinary Kriging
Blyde 1	Tailings	31.8	31.8	4	40	Ordinary Kriging
Blyde 2	Tailings	30.1	30.1	4	40	Ordinary Kriging
Blyde 3	Tailings	25.1	25.1	4	40	Ordinary Kriging
Blyde 4	Tailings	30.7	30.7	4	40	Ordinary Kriging
Blyde 5	Tailings	7.1	7.1	4	40	Ordinary Kriging
Blyde 3a	Tailings	31.6	31.6	4	40	Ordinary Kriging
TGM Plant	Tailings	120	120	2	10	Inverse distance Squared
Vaalhoek	Rock Dump	18.2	32.9	2	40	Ordinary Kriging
South East (DGs)	Rock Dump					Manual/Historic
Peach Tree	Rock Dump					Manual/Historic
Ponieskrantz	Rock Dump					Manual/Historic
Dukes Clewer	Rock Dump					Manual/Historic
Ponieskrantz*	Portuguese					Manual/Historic
Frankfort Theta*	Theta					Manual/Historic
Nestor*	Sandstone					Manual/Historic

Note: ** These historical mines have not been converted yet and are still manual ore resource block lists.*

The Mineral Resource was then depleted with the mining voids. The estimation techniques applied are considered appropriate. Datamine Studio™ was utilised for the statistics, geostatistics and block model estimation.

The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.

Project Area	Reef	Historic Estimate Available
		Yes/No
Rietfontein	Rietfontein	Yes
Beta	Beta	Yes
Frankfort	Bevetts	Yes
Clewer, Dukes Hill & Morgenzon	Rho	No – not a combined resource
Olifantsgeraamte	Olifantsgeraamte	Yes
Vaalhoek	Vaalhoek	No – not a complete electronic resource
	Thelma Leaders	No – not a complete electronic resource
Glynn's Lydenburg	Glynn's	No – not a complete electronic resource
Theta Hill & Browns Hill	Beta	No
	Lower Theta	No
	Upper Theta	No
	Bevetts	No
	Shale	No
Iota section of Columbia Hill	Upper Theta	No
	Lower Rho	No
	Upper Rho	No
	Bevetts	No
Hermansburg	Eluvial	Yes
DG1	Eluvial	Yes
DG2	Eluvial	Yes

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**

Glynn's Lydenburg	Tailings	Yes
Blyde 1	Tailings	Yes
Blyde 2	Tailings	Yes
Blyde 3	Tailings	Yes
Blyde 4	Tailings	Yes
Blyde 5	Tailings	Yes
Blyde 3a	Tailings	Yes
TGM Plant	Tailings	No – not from drill sampling
Vaalhoek	Rock Dump	Yes
South East (DGs)	Rock Dump	Yes
Peach Tree	Rock Dump	Yes
Ponieskrantz	Rock Dump	Yes
Dukes Clewer	Rock Dump	Yes
Ponieskrantz*	Portuguese	No
Frankfort Theta*	Theta	No
Nestor*	Sandstone	No

Note: ** These historical mines have not been converted yet and are still manual ore resource block lists.*

The assumptions made regarding recovery of by-products.

No investigation has been conducted with regards secondary mineralisation or correlation between pyrite and gold.

Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).

No estimates pertaining to deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation) have been conducted.

In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.

Geological Model Type	Project Area	Reef	Block Size			Block Model Dimension			Sample Spacing
			X	Y	Z	X	Y	Z	
Sub-vertical discordant (cross-reef) reef models	Rietfontein	Rietfontein	20	30	30	900	4020	1080	3-5 m
Sub-horizontal concordant (and leader) reef models	Beta	Beta	50	50	10	4350	4550	10	3-5 m
	Frankfort	Bevetts	20	20	10	2100	1580	10	3-5 m
	Clewer, Dukes Hill & Morgenzon	Rho	50	50	10	3100	7100	10	3-5 m
	Olifantsgeraamte	Olifantsgeraamte	20	20	1	800	1000	1	3-5 m
	Vaalhoek	Vaalhoek	20	20	10	2500	4380	10	3-5 m
		Thelma Leaders	20	20	10	2500	4380	10	3-5 m
	Glynn's Lydenburg	Glynn's	20	20	10	7840	7440	10	3-5 m
	Theta Hill & Browns Hill	Beta	20	20	5	4000	3000	600	3-100 m
		Lower Theta	20	20	5	4000	3000	600	3-100 m
		Upper Theta	20	20	5	4000	3000	600	50-100 m
		Bevetts	20	20	5	4000	3000	600	50-100 m
		Shales	20	20	5	4000	3000	600	50-100 m

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES												
Criteria	**Explanation**	**Detail**										
			Iota section of Columbia Hill	Rho Upper	20	20	1	1140	1600	1820	3-75 m
				Rho Lower	20	20	1	1140	1600	1820	50-100 m
				Bevetts	20	20	1	1140	1600	1820	50-100 m
				Upper Theta	20	20	1	1140	1600	1820	50-100 m
		Topographical surficial reef models	Hermansburg	Eluvial	20	20	3	240	360	87	25 m
			DG1	Eluvial	20	20	3	292	432	103	25 m
			DG2	Eluvial	20	20	3	58	560	213	25 m
		Topographical TSF models	Glynn's Lydenburg	Tailings	25	25	3	360	485	19	25 m
			Blyde 1	Tailings	25	25	3	340	260	20	25 m
			Blyde 2	Tailings	25	25	3	156	172	20	25 m
			Blyde 3	Tailings	25	25	3	155	190	23	25 m
			Blyde 4	Tailings	25	25	3	130	145	12	25 m
			Blyde 5	Tailings	25	25	3	95	60	12	25 m
			Blyde 3a	Tailings	25	25	3	120	135	7	25 m
			TGM Plant	Tailings	10	10	1.5	720	450	51	50 m
			Vaalhoek	Rock Dump	10	10	1	280	300	40	25 m
			South East (DGs)	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A	
			Peach Tree	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A	
			Ponieskrantz	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A	
			Dukes Clewer	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A	
		Block Plans and/ or Block Listings	Ponieskrantz*	Portuguese	N/A	N/A	N/A	N/A	N/A	N/A	
			Frankfort Theta*	Theta	N/A	N/A	N/A	N/A	N/A	N/A	
			Nestor*	Sandstone	N/A	N/A	N/A	N/A	N/A	N/A	
		Note: ** These historical mines have not been converted yet and are still manual ore resource block lists.* The Block Models produced in Datamine Studio RM™ consisting of a cell sizes as shown in the above table. Final estimated models were projected to the reef plan based on the structural interpretation.									
	Any assumptions behind modelling of selective mining units.	No assumptions were made in terms of selective mining units with respect to the cell size selected.									
Estimation and modelling techniques	Any assumptions about correlation between variables.	Grade (Au g/t) and reef width were estimated - no correlation between thickness and grade was found during the statistical analysis, however a cm.g/t value was calculated on a post estimation basis.									
	Description of how the geological interpretation was used to control the resource estimates.	The Mineral Resource estimation has been restricted to the hard boundaries encompassed by the geological wireframes.									

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
(continued)	Discussion of basis for using or not using grade cutting or capping.	The data sets were capped per domain and the following table indicates the minimum and maximum capping of the upper limits of the data sets. Minxcon utilised 'Cumulative Coefficient of Variation' plots to assist with the capping. Reef widths were capped in the same manner due to anomalies in the sampling thickness and generally occur between the 95th to the 99th percentile. CAE Studio RM™ was utilised for the statistics, geostatistics and block model estimation. Capping ranges as depicted in the table below represent capping range for the various domains per project. These are broken up in detail in the CPR.

Geological Model Type	Project Area	Reef	Capping		Number of Estimation Samples
			RW (cm)	Au (g/t)	
Sub-vertical discordant (cross-reef) reef models	Rietfontein	Rietfontein	236	123.5	2,262
Sub-horizontal concordant (and leader) reef models	Beta	Beta	170.0	300	4,566
	Frankfort	Bevetts	200-281	46.6-57.5	4,114
	Clewer, Dukes Hill & Morgenzon	Rho	50	314.5	24,693
	Olifantsgeraamte	Olifantsgeraamte	142	147.3	316
	Vaalhoek	Vaalhoek	335.3	411.4	16,652
		Thelma Leaders	54 -78	137-304	901
	Glynn's Lydenburg	Glynn's	105-281	100-134	29,444
	Theta Hill & Browns Hill	Beta	176	14.0	1,673
		Lower Theta	176	18.2	5,609
		Upper Theta	176	63.4	148
		Bevetts	N/A	14.0	155
		Shale	N/A	4.9	59
	Iota section of Columbia Hill	Upper Theta	N/A	9.1	39
		Lower Rho	N/A	23.0	680
		Upper Rho	N/A	212.0	208
		Bevetts	N/A	19.4	26
Topographical surficial reef models	Hermansburg	Eluvial	N/A	67.1	1,076
	DG1	Eluvial	N/A	8.55	784
	DG2	Eluvial	N/A	22.5	234
Topographical TSF models	Glynn's Lydenburg	Tailings	N/A	1.8	793
	Blyde 1	Tailings	N/A	2.2	288
	Blyde 2	Tailings	N/A	2.1	176
	Blyde 3	Tailings	N/A	1.0	179
	Blyde 4	Tailings	N/A	0.9	104
	Blyde 5	Tailings	N/A	1.0	40
	Blyde 3a	Tailings	N/A	0.9	27
	TGM Plant	Tailings	N/A	2.6	288
	Vaalhoek	Rock Dump	N/A	4.1 - 16.1	80
	South East (DGs)	Rock Dump	N/A	N/A	N/A
	Peach Tree	Rock Dump	N/A	N/A	N/A
	Ponieskrantz	Rock Dump	N/A	N/A	N/A
	Dukes Clewer	Rock Dump	N/A	N/A	N/A
Block Plans and/ or Block Listings	Ponieskrantz*	Portuguese	N/A	N/A	N/A
	Frankfort Theta*	Theta	N/A	N/A	N/A
	Nestor*	Sandstone	N/A	N/A	N/A

Note: ** These historical mines have not been converted yet and are still manual ore resource block lists.*

<table>
<tr><th colspan="3">SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td></td><td>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</td><td>Swath analysis of the current estimated projects were conducted in the east-west and north-south directions in order to check correlations between the block modelled grades and the raw sampled values. Swath analysis shows a good correlation with the sample grade. In addition, correlation between the estimate and the average value of a block was investigated. Historic estimates (eluvials & TSFs and Olifantsgeraamte) were reviewed visually to ensure similar grade trends between drillholes or sampling points and the final block models. In addition, for the TSFs the mean sampled value was compared to the mean estimated value of the block models.</td></tr>
<tr><td>Moisture</td><td>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td><td>The density is based on a dry rock mass.</td></tr>
<tr><td>Cut-off parameters</td><td>The basis of the adopted cut-off grade(s) or quality parameters applied.</td><td>The Mineral Resource has been split into underground Mineral Resources, open pit Mineral Resources and tailings dams.

The following parameters were used for the declaration and pay limit calculation: Gold price, % MCF, dilution, discount rate, plant recovery factor, mining cost total plant cost. The gold price of USD1,497/oz, is the 90th percentile of the historical real term commodity prices since 1980.

<table>
<tr><th>Description</th><th>Unit</th><th>Value</th></tr>
<tr><td>Gold Price</td><td>USD/oz</td><td>1,500</td></tr>
<tr><td>% MCF</td><td>%</td><td>90%</td></tr>
<tr><td>Dilution</td><td>%</td><td>0%</td></tr>
<tr><td>Plant Recovery Factor</td><td>%</td><td>90%</td></tr>
<tr><td>Mining Costs</td><td>ZAR/t</td><td>522</td></tr>
<tr><td>Total Plant Cost</td><td>ZAR/t</td><td>472</td></tr>
<tr><td>Total Cost</td><td>ZAR</td><td>994</td></tr>
</table>

For the open pit Mineral Resource cut-off, the following parameters were used.

<table>
<tr><th>Description</th><th>Unit</th><th>Value</th></tr>
<tr><td>Gold Price</td><td>USD/oz</td><td>1,500</td></tr>
<tr><td>% MCF</td><td>%</td><td>100%</td></tr>
<tr><td>Dilution</td><td>%</td><td>0%</td></tr>
<tr><td>Plant Recovery Factor</td><td>%</td><td>92%</td></tr>
<tr><td>Mining Costs</td><td>ZAR/t</td><td>24</td></tr>
<tr><td>Total Plant Cost</td><td>ZAR/t</td><td>269</td></tr>
</table>

For the tailings Mineral Resource cut-off, the parameters were the same as above except the plant recovery factor which was 50% and the total mining and processing cost of ZAR135/t with a 10% discount.

The resultant cut-offs were 160 cm.g/t for the underground (pay limit calculation); 0.5 g/t and 0.35 g/t for the Theta Project (economic cut-off calculation) for the open pit (with in the pit shell using Datamine Maxipit software) and 0.35 g/t for the tailings dam and rock dumps (pay limit calculation).</td></tr>
<tr><td>Mining factors or assumptions</td><td>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when</td><td>A minimum stoping width of 90 cm was assumed. Where reef width (or channel width) was less than 70 cm, dilution was increased accordingly. Elsewhere, the stoping width was calculated by adding 20 cm dilution to the Mineral Resource Estimation. No dilution was applied to the open pit Mineral Resources, nor the TSF Mineral Resources, with the exception of the new Theta Project where narrow reefs (<100 cm reef thickness) were diluted to 100 cm due to the drilling sample run achieved in the RC drilling programme being at 1 m intervals.</td></tr>
</table>

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
	estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The ore will be be processed via cyanide leach and carbon adsorbsion as is done with most gold ores. A Sulphide and carbon flotation step with an oxidative leach is included for any sulphides and for treating double refractory ore. A different recovery estimate was used for each mine. The recovery assumed for Beta is 88% as it is known to be a free milling ore with limited preg-robbing caractaristics. Frankfort is a double refractory ore, with significant locked gold and preg-robbers, a 69% recovery was assumed. CDM also contains sulphides but historically gave fair recoveries, and 88% was assumed.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No environmental factors or assumptions were applied to this Mineral Resource estimation.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of	No historical bulk density measurement data is available besides a tabulated summary table indicating historically applied densities for the various in situ reefs. However, bulk density tests have been carried out for the Theta Project reefs host lithologies. Reef samples suitable for bulk density tests were however limited due to the poor core recovery achieved in the 2017-2019 diamond drilling programme. A density of 3.6 g/cm^3 was used for the calculation of in situ underground and open pit hard rock ore tonnes, in line with the value used in

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
	the measurements, the nature, size and representativeness of the samples.	previous declarations. A density of 2.84 g/cm^3, which is the average density of dolomite, was used for the waste or dilution tonnes. The Rietfontein estimate uses a 2.9 t/m^3 based on historical assumptions and estimates. The Theta Project uses a bulk density of 2.75 t/m^3 for the estimation in areas where there was new drilling data. The historical 3.6 t/m^3 for reef and 2.84 t/m^3 for the dolomites were still used in the historical areas as there was no new data. In these areas the diluted reef density is in the region of 3.1 t/m^3. The 2.75 t/m^3 is based on the field testing of the core samples only as the RC chips could not be used due to the weathered nature and fine material in the samples. 156 density readings were taken on the available reef core of which 27 were not reliable due to high clay (WAD) content and fine material. For the 129 representative core samples the density was 2.69 t/m^3 and for the solid core (53 samples) it was 2.78 t/m^3. Therefore, a density of 2.75 t/m^3 was utilised. More work is required on the density with further drilling campaigns to obtain more readings and a higher level of confidence in the density. The density is one of the reasons that the Mineral Resource categories in the Theta Project are only Indicated and Inferred with no Measured Mineral Resources. Densities were determined utilising the Archimedes principle. Bulk density for the eluvial deposits was assumed at 2.3 t/m³ based on typical unconsolidated material densities. Minxcon used an SG of 1.4 t/m³ for the modelling of all of the historical TSFs, with the exception of the TGM Plant TSF, where SG measurements were conducted utilising the “pipe method”. The SG for this TSF was calculated at 1.54 t/m³ from a total of 40 samples taken at various locations all over the TSF. In Minxcon’s view this SG may be considered to representative for this TSF.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.	The pipe method (as utilised on the TGM Plant TSF) of measuring bulk density is utilised on soft sediments and is conducted in such a manner as to ensure that little to no compaction of the material within the pipe occurs. This serves to preserve the inherent sediment porosity.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	No historical bulk density measurement data is available besides a tabulated summary table indicating historically applied densities for the various in situ reefs. However, bulk density tests have been carried out for the Theta Project reefs host lithologies. Reef samples suitable for bulk density tests were however limited due to the poor core recovery achieved in the 2017-2019 diamond drilling programme. A density of 3.6 g/cm3 was used for the calculation of in situ underground and open pit hard rock ore tonnes, in line with the value used in previous declarations. A density of 2.84 g/cm3, which is the average density of dolomite, was used for the waste or dilution tonnes. The Rietfontein estimate uses a 2.9 t/m3 based on historical assumptions and estimates. The Theta Project uses a bulk density of 2.75 t/m3 for the estimation in areas where there was new drilling data. The historical 3.6 t/m3 for reef and 2.84 t/m3 for the dolomites were still used in the historical areas as there was no new data. In these areas the diluted reef density is in the region of 3.1 t/m3. The 2.75 t/m3 is based on the field testing of the core samples only as the RC chips could not be used due to the weathered nature and fine material in the samples. 156 density readings were taken on the available reef core of which 27 were not reliable due to high clay (WAD) content and fine material. For the 129 representative core samples the density was 2.69 t/m3 and for the solid core (53 samples) it was 2.78 t/m3. Therefore, a density of 2.75 t/m^3 was utilised. More work is required on the density with further drilling campaigns to obtain more readings and a higher level of confidence in the density. The density is one of the reasons that the Mineral Resource categories in the Theta Project are only Indicated and Inferred with no Measured Mineral Resources. Densities were determined utilising the Archimedes principle. Bulk density for the eluvial deposits was assumed at 2.3 t/m³ based on typical unconsolidated material densities. Minxcon used an SG of 1.4 t/m³ for the modelling of all of the historical TSFs, with the exception of the TGM Plant TSF, where SG measurements were conducted utilising the “pipe method”. The SG for this TSF was calculated at

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
		1.54 t/m³ from a total of 40 samples taken at various locations all over the TSF. In Minxcon's view this SG may be considered to representative for this TSF.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The Mineral Resource classification for the all the block models is based on a positive kriging efficiency, calculated variogram ranges and number of samples informing the estimation. Where confidence in the historical sampling values or position were low the classification was downgraded to Inferred Mineral Resource. At the Theta Project, the highest Mineral Resource classification applied was Indicated (regardless of data spacing: 1) Historical nature associated with the chip sampling dataset, stretch values and block values and around the historical drillholes. 2) The low availability of detailed bulk density data 3) the low volume of diamond drilling conducted at the Project.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	Mineral Resources were only classified as Indicated and Inferred Mineral Resources in the vast majority of cases due to the age and spacing of the data utilised. Measured Mineral Resources were only identified on a small portion of Frankfort due to the recent nature of some areas of the channel chip sampling data. Minxcon utilised a combination of variogram ranges, spread in confidence limits and minimum number of samples to be utilised in the estimate, in conjunction with geological continuity to assign Mineral Resource categories. At the Theta Project, the highest Mineral Resource classification applied was Indicated (regardless of data spacing: 1) Historical nature associated with the chip sampling dataset, stretch values and block values and around the historical drillholes. 2) The low availability of detailed bulk density data 3) the low volume of diamond drilling conducted at the Project. The additional rock dumps (South East (DGs), Peach Tree, Ponieskrantz and Dukes Clewer) have all been classified as Inferred Mineral Resources due to the historical nature of the database. A bulk sampling programme would have to be undertaken to confirm the Mineral Resource in order for them to be converted to an Indicated Mineral Resource.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	It is the Competent Person's opinion the Mineral Resource estimation conducted by Minxcon is appropriate and presents a reasonable result in line with accepted industrial practices.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Minxcon, as well as the Competent Person, conducted internal reviews of the Mineral Resource estimate, geological modelling and the data transformations from 2D to 3D.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	Upon completion of the estimations, the older block models were visually checked with regards to the drillholes and sample points to the estimated values. Swath plot analysis was carried out on the newly estimated block models, comparing the chip samples and drillholes in a particular swath to the estimation block model also falling within the same swath. The swath plots produce a good correlation with regards the estimation and the data in both the north-south plots and the east-west plots. The Competent Person deems the Mineral Resource estimate for the current estimated projects. The estimation conducted at the Theta Project underwent similar swath and visual checks as the historical Mineral Resource block model estimates. The Competent Person deems the Mineral Resource estimate for the Current Estimated Projects to reflect the relative accuracy relative to the Mineral Resource categories as required by the Code for the purposes of declaration and is of the opinion that the methodologies employed in the Mineral Resource estimation, based upon the data received may be considered appropriate.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical	Regional accuracy is considered acceptable as evidenced by the swath plots, and direct sample point versus block model checks have ensured acceptable local accuracy with regards the estimated Projects.

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
	and economic evaluation. Documentation should include assumptions made and the procedures used.	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Accuracy of the estimate relative to production data (historical projects) cannot be ascertained at this point as the project is still in the exploration phase. Accurate historical production figures are not readily available. At the Theta Project, a feasibility study has been completed with no accurate production data being available from the historical workings for the various reefs. Production has not commenced, thus "ground-truthing" at this point is not possible. Also, proposed open pit mining methods are not aligned to the historical underground mining methods employed.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	Ore Reserves and mining were investigated for the Beta, Rietfontein, Frankfort and CDM underground operations. The Ore Reserve estimation utilises the same Mineral Resource models used for the Mineral Resource classification as at 1 February 2021.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	All Mineral Resources are stated as inclusive of the Ore Reserves.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The Competent Person Mr van Heerden has conducted a number of site visits of the gold properties held by TGM in the Sabie-Pilgrims Rest area since 2007. Mr van Heerden vistied Project Area near the plant facility throughout 2019. Further site visits were conducted on 7 March 2019 and 5 November 2019. On 22 September 2019, the Rietfontein Project was also visited with the purpose to identify access options for underground operations. Later site visits on 27-28 September 2021 were conducted to all the projects included in the underground redevelopment project.
	If no site visits have been undertaken indicate why this is the case.	Site visits have taken place, as described above.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	Two mining strategy scenarios have been proposed by Minxcon. The first scenario, the Base Case LoM schedule have not been converted to Ore Reserves. The second scenario, the Ore Reserve Plan LoM schedule for Beta, Rietfontein, Frankfort and CDM are at a Feasibility Level of Study and Measured Mineral Resources and Indicated Mineral Resources have been converted to Proved and Probable Ore Reserves respectively, using the appropriate modifying factors. Frankfort Mine is the only underground operation for which Measured Mineral Resources have been declared and converted to Proved Ore Reserves.
	The Code requires that a study to at least Prefeasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that	Detailed LoM plans and schedules have been completed for the four underground operations in the Ore Reserve Plan. All components are at a Feasibility Study Level including detailed geotechnical studies at each of the four undergroung mines. The studies conducted on the underground operations have been deemed at an overall FS Level. Life of mine plans to a feasibility level of detail was the basis of the Ore Reserve classification. The mine plans take into consideration all relevant modifying factors and productivities. A financial valuation was conducted on the life of mine plans and was found economically viable. The table below is a summary of the general study status.

General	Status	Study Level	Comment

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES					
Criteria	**Explanation**	**Detail**			
	material Modifying Factors have been considered.	Mineral Resource categories	Measured and Indicated	FS	The areas that were targeted for mining were only Indicated and Measured Resources.
		Ore Reserve categories	Proved and Probable	FS	Ore Reserve can be added as they are Proved and Probable Ore Reserve categories
		Mining method	Detailed and Optimised	FS	
		Geotechnical Parameters	Detailed and Optimised	FS	
		Mine design	Detailed mine plan and schedule	FS	
		Infrastructure Design	Engineering 20% - 50% complete	FS	
		Scheduling	Monthly for the LoM	FS	
		Mineral Processing	Detailed and optimised	FS	FS done by Met63. Reviewed by Minxcon.
		Tailings Deposition	TSF - Surface deposition	PFS	Detailed design completed by Eco-Elementum.
			TSF - Underground deposition	PFS	Detailed design completed by Paterson & Cooke.
		Permitting - (water, power, mining, prospecting & environmental)	Authorities engaged and applications submitted were not already in possession	FS	
		Social licence to operate	Formal communication structures and engagement models in place	PFS	

The table below is a summary of the capital cost study status level.

Capital Cost Category	Discipline	Status	Study Level	Comment
Basis of Estimate to include the following areas:				
Civil/structural, architectural, piping/HVAC, electrical, instrumentation, construction labour, construction labour productivity, material volumes/amounts, material/equipment, pricing, infrastructure	Mining & Shared Infrastructure	Engineering 20% - 50% complete. Estimated material take-off quantities. Vendor quotations.	FS	
	Processing	Detailed and optimised.	FS	FS done by Met63 and reviewed by Minxcon.
	TSF - Surface deposition	Detailed from engineering at 20% to 50% complete, estimated material take-off quantities, and multiple vendor quotations	FS	FS completed by Eco Elementum.
	TSF - Underground deposition	Estimated from historic factors or percentages and vendor quotes based on material volumes. Engineering at 5-20%.	PFS	Underground deposition capital completed to PFS level by Paterson & Cooke.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES						
Criteria	**Explanation**	**Detail**				
		Contractors	Mining & Shared Infrastructure	Percentage of direct cost by area for contractors; historic for subcontractors	PFS	
			Processing	Detailed and optimised.	FS	FS done by Met63 and reviewed by Minxcon.
			TSF - Surface deposition	Written quotes from contractor and subcontractors	FS	FS completed by Eco Elementum.
			TSF - Underground deposition	Included in unit cost or as a percentage of total cost	PFS	
		Engineering, procurement, and construction management (EPCM)	Mining & Shared Infrastructure	Key parameters, Percentage of detailed construction cost	PFS	Owner will be managing the engineering, procurement and construction internally.
			Processing	Key parameters, Percentage of detailed construction cost	PFS	Owner will be managing the engineering, procurement and construction internally.
			TSF - Surface deposition	Percentage of estimated construction cost	PFS	
			TSF - Underground deposition	Percentage of estimated construction cost	PFS	
		Pricing	Mining	FOB mine site, including taxes and duties	PFS	
			Processing	Detailed quotations for major equipment.	FS	Capital accuracy factor below 15%.
			TSF	FOB mine site, including taxes and duties	PFS	Capital cost scaled from recent quotation.
		Owner's costs	Total Operation	Pre-production owner's costs currently funded through TGM and not included in project financials. Development owner's costs provided for in detail.	FS	Detailed Estimates
		Escalation	Mining & Shared Infrastructure	Escalation Applied	FS	Applicable escalation rates applied to relevant dated costs utilised to obtain costs in 2022 terms. Financial modelling done in real terms
			Processing	Escalation Applied	FS	Applicable escalation rates applied to relevant dated costs utilised to obtain costs in 2022 terms.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES						
Criteria	**Explanation**	**Detail**				
						Financial modelling done in real terms
			TSF	Escalation Applied	FS	Applicable escalation rates applied to relevant dated costs utilised to obtain costs in 2022 terms. Financial modelling done in real terms
		Accuracy Range (Order of magnitude)	Mining & Shared Infrastructure	Combined underground Mines ±10-15%	FS	
			Processing	Combined open pit and underground Plants ±10-15%	FS	
			TSF	Combined TSF and Backfill ±15-25%	PFS	
		Contingency Range (Allowance for items not specified in scope that will be needed)	Mining & Shared Infrastructure	Combined 12% (actual to be determined based on risk analysis)	FS	Contingencies not applied directly on capital cost estimates but in financial model
			Processing	Combined 14.4% (actual to be determined based on risk analysis)	FS	Contingencies not applied directly on capital cost estimates but in financial model
			TSF	Combined 19.44% (actual to be determined based on risk analysis)	PFS	Contingencies not applied directly on capital cost estimates but in financial model
		The table below is a summary of the operating cost study status level.				

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
		<table><tr><th>Operating Cost Category</th><th>Discipline</th><th>Status</th><th>Study Level</th><th>Comment</th></tr><tr><td rowspan="4">Basis</td><td>Mining</td><td>Detailed Estimates</td><td>FS</td><td></td></tr><tr><td>Processing</td><td>Estimated from historic factors or percentages and vendor quotes based on material volumes.</td><td>FS</td><td>Vendor quotes based on equipment list and material volumes.</td></tr><tr><td>TSF - Underground deposition</td><td>Estimated from historic factors or percentages and vendor quotes based on material volumes.</td><td>PFS</td><td></td></tr><tr><td>TSF – Surface Deposition</td><td>Estimated from historic factors or percentages and vendor quotes based on material volumes. Factoring.</td><td>PFS</td><td></td></tr><tr><td rowspan="4">Operating quantities</td><td>Mining</td><td>Detailed Estimates</td><td>FS</td><td></td></tr><tr><td>Processing</td><td>Specific consumption based on load list and testwork</td><td>FS</td><td>Specific estimates with no factoring.</td></tr><tr><td>TSF - Surface deposition</td><td>Specific estimates with some factoring</td><td>PFS</td><td></td></tr><tr><td>TSF - Underground deposition</td><td>Specific estimates with some factoring</td><td>PFS</td><td>Conservative estimate for rates used</td></tr><tr><td rowspan="4">Unit costs</td><td>Mining</td><td>Detailed Estimates</td><td>FS</td><td></td></tr><tr><td>Processing</td><td>Unit cost based on vendor quotations and some historic pricing</td><td>FS</td><td></td></tr><tr><td>TSF - Surface deposition</td><td>Specific estimates for labour, power, and consumables, factoring</td><td>FS</td><td>FS completed by Eco-Elementum.</td></tr><tr><td>TSF - Underground deposition</td><td>Specific estimates for labour, power, and consumables, factoring</td><td>FS</td><td>Detailed design by Paterson & Cooke.</td></tr><tr><td rowspan="3">Accuracy Range</td><td>Mining</td><td>Combined 10% - 15%</td><td>FS</td><td></td></tr><tr><td>Processing</td><td>Combined 10% - 15%</td><td>FS</td><td></td></tr><tr><td>TSF</td><td>Combined 15% - 25%</td><td>PFS</td><td></td></tr><tr><td rowspan="3">Contingency Range (Allowance for items not specified in scope that will be needed)</td><td>Mining</td><td>+ 10% (actual to be determined based on risk analysis)</td><td>FS</td><td></td></tr><tr><td>Processing</td><td>+ 9.8% (actual to be determined based on risk analysis)</td><td>FS</td><td></td></tr><tr><td>TSF</td><td>+ 13% (actual to be determined based on risk analysis)</td><td>PFS</td><td></td></tr></table>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	A planning pay limit for each of the underground operations was calculated using current economic planning parameters and the cut-off grade was derived from the pay limit calculation. The planning pay limit was applied to the Mineral Resource model and blocks above the planning pay limit were included in the LoM designs. The Ore Reserve cut-offs applied to the underground operations are: • Beta Mine: 170 cm.g/t; • Rietfontein: 160 cm.g/t; • Frankfort Mine: 163 cm.g/t; and

<table>
<tr><th colspan="3">SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td></td><td></td><td>• CDM Mine: 121 cm.g/t</td></tr>
<tr><td rowspan="5">Mining factors or assumptions</td><td>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</td><td>Only Measured and Indicated Mineral Resources have been converted to Proved and Probable Ore Reserves, respectively. No Inferred Mineral Resources have been included in the Ore Reserve estimation. The basis of the Ore Reserve estimation is detailed LoM designs and schedules for the four underground operations.

The Mineral Resource to Ore Reserve conversion requires application of appropriate factors which would account for any changes to the Mineral Resources in the life of mine plan as a result of mining the ore. As part of the technical studies the Ore Reserve conversion factors were determined and applied to the Mineral Resources in the LoM plan available for conversion to reserves. This includes Inferred Resources that completes the credibility of practical and technical mining sequencing. The Inferred Resource portions are not includd in the Ore Reserve estimations.</td></tr>
<tr><td>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</td><td>The mining method selected to be implemented on the undergournd operations at Beta Mine, Frankfort Mine and CDM Mine, is mechanised long hole drilling applied to a narrow reef orebody. The mining method requires pre-development of a mining block in preparation for stoping operations. Selective Blast mining will be applied to the development ends allowing separate extraction of the reef and waste cuts. The selected mining method allows for minimal dilution.

A Shrinkage Stoping method have been selected for Rietfontein mine. Conventional drill and blast methods will break the rock and retrieved via mechanized loading through drawpoints on a lower level. Mechanised development of stoping blocks will be applied to prepare mining blocks for stoping.

Detailed development and stoping plans have been designed using GEOVIA Minesched™ software. A combination of technical studies conducted at TGM and benchmarked parameters were used as mining constraints to produce a logical production sequence for each of the operations.

A combination of existing and planned access will be used to expedite men, material and machine access to stoping operations.</td></tr>
<tr><td>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</td><td>Geotechnical studies for all four underground mines have been completed at a FS level. The recommendations as per the geotechnical reports have been applied to the Mineral Resources in the LoM plan to account for pillar losses, ore loss and dilution. Numerical modelling on the local geology within the parameters of the mining methods have been conducted. Detailed stope layout and support designs are included in the report.</td></tr>
<tr><td>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</td><td>Geological Losses applied to the four underground operations are 0 % for Measured Mineral Resources, 5 % for Indicated Mineral Resources and 10 % for Inferred Mineral Resources.</td></tr>
<tr><td>The mining dilution factors used.</td><td>The Ore Reserve conversion factors applied to the underground operations are detailed in the tables below. Detailed geotechnical studies from the four mines provided sufficient information to calculate the dilution factors used. Due to the different mining method used at Rietfontein, the modifying factors was determined differently than the other three mines.

<table>
<tr><th>Area</th><th colspan="2">Factors</th><th>Unit</th><th>Value</th></tr>
<tr><td rowspan="8">Underground</td><td rowspan="3">Minor Geological Loss</td><td>Measured</td><td>%</td><td>0</td></tr>
<tr><td>Indicated</td><td>%</td><td>5</td></tr>
<tr><td>Inferred</td><td>%</td><td>10</td></tr>
<tr><td colspan="2">Pillar Loss Beta and CDM</td><td>%</td><td>7.05</td></tr>
<tr><td colspan="2">Pillar Loss Frankfort</td><td>%</td><td>11.46</td></tr>
<tr><td colspan="2">Ore loss</td><td>%</td><td>0.5</td></tr>
<tr><td colspan="2">Dilution</td><td>%</td><td>1</td></tr>
<tr><td colspan="2">MCF</td><td>%</td><td>85</td></tr>
</table>

The pillar loss applied to the Frankfort Mine is higher than the pillar loss applied to the Beta and CDM operations.</td></tr>
</table>

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES

Criteria	Explanation	Detail
		The Ore Reserve conversion factors applied to the Rietfontein mine is detailed below. **Factors** / **Unit** / **Value** Geological Losses – Measured: % 0 Geological Losses – Indicated: % 5 Geological Losses – Inferred: % 10 Pillar Loss: % 8.0 Ore Loss: % 3 Stoping and Raise Dilution: cm 20 MCF: % 85 The stoping and raise dilution to consider an overbreak into the waste of 10 cm on either side of the reef contact.
	The mining recovery factors used.	A MCF of 85 % was applied to the four underground operations which was derived from similar operations using a similar mining layout and mining method.
	Any minimum mining widths used.	A minimum mining width of 60 cm was applied in the design of Beta, Frankfort and CDM. A 15 cm hangingwall and 15 cm footwall dilution is included in the 60 cm mining width that will be used in the development end resue mining and stoping operations. A 0.9 m minimum mining width for shrinkage operations at Rietfontein was applied. The SMU design blocks for Rietfontein was 2.5 m x 0.9 m with 1.0 m interval slices.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	The underground LoM designs and schedules of the Beta, Rietfontein, Frankfort and CDM mines includes a portion of Inferred Mineral Resources. The Inferred Mineral Resources have been excluded from the Ore Reserve estimate and the economic analysis. The Inferred Mineral Resources in the LoM plan for the underground operations are: • Beta Mine: 8.67%; • Rietfontein: 18.82%; • Frankfort Mine: 22.36% • CDM Mine: 26.17%
	Ore Reserve Estimation	Measured Mineral Resources have been converted to Proved Ore Reserves and Indicated Mineral Resources have been converted to Probable Ore Reserves. There is sufficient confidence in the modifying factors applied in the Mineral Resource to Ore Reserve conversion to convert diluted Measured Mineral Resources to Proved Ore Reserves. No Inferred Mineral Resources have been included in the Ore Reserve estimation. The Ore Reserve estimation for TGM is detailed in the table below.

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**

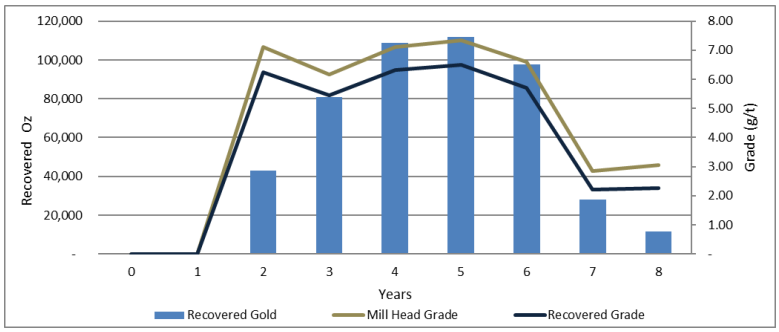
Notes:

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.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
		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
	The infrastructure requirements of the selected mining methods.	Infrastructure for the selected mining method includes:- • Mining contractor site – Earth Moving Vehicle workshops, stores, offices, changing facilities, fuel storage facility, wash bay and contractor's site power and water supply; • Administrative and other offices and facilities; • Underground trackless mining fleet and anciliray fleet; • Haul roads; • Waste rock dumps ("WRDs"); • Strategic ore stockpile; • RoM stockpile; • Surface water management infrastructure – Dirty and clean water separation and storage and dewatering system. • Underground water management infrastructure – Dewatering system and water storage facilities. • Water supply and distribution infrastructure; • Power supply and distribution infrastructure; • Underground ore transport (Conveyor systems and Incline Winding Plant); • Surface ore load out and storage facilities; and • Low level river crossing.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	Refractory Frankfort ore will be upgraded with DMS to reject some of the waste rock before the ore is trucked from the shaft to the plant. The plant will firstly remove the preg-robbing omponent and then with Ultrafine Grinding to liberate the sullphide locked gold. The liberated sulphide ore is processed in an oxidative leaching step and subsequent carbon adsorbsion, elution, elecrowinning and smelting. Free milling ore is processed using conventional CIL processing, with a sulphide flotation step to remove any sulphidic component.
	Whether the metallurgical process is well-tested technology or novel in nature.	Most of the gold ore in the world are cyanide leached and adsorbed onto activated carbon is eather a CIL or CIP configuration. DMS is frequently used to concentrate ores, including gold. Ultrafine grinding is widely used in gold and other commodities to extract metals from sulphides. Flotation is a well-known technology for carbon and sulphide flotation.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	A 10-tonne bulk sample was obtained from the Frankfort mine in late 2020 for DMS trails, mill modelling, carbon and sulphide flotation and oxidative laching testwork. Further optimisations of the Frankfort ore process flow was done with a 55.5kg sample for effect of grind, and flotation optimisation. Four 20 kg samples from Dukes in CDM was sent to MAK Analytical for sulphide flotation and leach testwork. Composite samples were made from RC Drilling chips to represent Upper Theta, Lower Theta and Beta. A master composite of these three was also tested. Tested done included diagnostic leach, kinetic leach and the effect of grind.
	Any assumptions or allowances made for deleterious elements.	The significant amounts of preg-robbers in the Frankfort ore will be removed by a flotation circuit. Additionally, the Frankfort ore will be treated in a intensive CIL which will further reduce the effect of the preg-robber. A cyanide destruction circuit was included in the plant design which will ensure that the weak acid dissociable ("WAD") cyanide concentration in the tailings fraction that will be pumped to the TSF does not exceed the stipulated maximum level of 50 ppm.
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.	No bulk sampling or pilot plant testing was completed.
	For minerals that are defined by a	Specifications are not applicable. The product will be sold as gold Doré to Rand Refinery with payability calculated based on the final gold content.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Waste rock from the TGM underground projects considered in the detailed studies will be placed on existing WRDes located at the CDM operation. Waste from the underground operations will be very limited as it will be placed in the stoping back areas and all development will be conducted on reef. Two options have been considered for the disposal of mine residue or tailings, and they will be used at the same time. There is an existing TSF that will be used for the initial deposition. This TSF will be brought up to the latest standards such as inclusion of an HDPE liner. Deposition on the surface TSF will be hydraulic placement and the underground deposition will be storage of tailings underground as a cemented paste backfill in the mined-out sections of the Beta Mine. Both these options will require relevant approvals which are still in progress.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	TGM has access to sufficient land for the development of required infrastructure and facilities. The TGM underground projects considered in the detailed studies are historical project with established access roads leading to the individual project areas. Road require some minor repairs and upgrades in areas. 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. Water supply will mainly consist of water sourced from dewatering the existing underground workings of the each operations, 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).

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
		Estimations indicate that the operation will be water-postitive 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 Gold from the TGM projects considered in the detailed studies, will be transported from site to Rand Refineries via helicopter. Allowance has been made for the construction of a Helistop on site for this purpose. Well established roads are in place in the project areas that allows for easy access and transport of material and equipment to and from the projects. The TGM projects considered in the detailed studies are located in an area of Mpumalanga which has long been associated with mining. Skilled labour can be sourced from nearby towns such as Lydenburg, Nelspruit and Steelpoort. Towns such as Lydenburg, Graskop and Sabie are well developed with facilities such as hospitals, police stations, schools and churches. These towns are located within 57 km of the Theta project and can thus provide accommodation to employees of the project.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital costs were estimated from first principles and engineering designs. Bills of quantities were utilised to obtain quotations for the capital cost estimation. The project capital has a base date of April 2022 and an exchange rate of ZAR/USD 15.00 were utilised where applicable to convert to USD terms.
	The methodology used to estimate operating costs.	The mining and central services operating costs for the underground operations were derived from first principles cost estimations with some factoring. The plant operating costs were completed from first principles with consumable supplier quotes utilised were necessary. The corporate overheads were provided by TGM. Environmental and Social costs were calculated using the quatums provided by the Client as part of the Environmental Authorisation process.
	Allowances made for the content of deleterious elements.	Allowance has been made for the costs associated with removal of deleterious elements (WAD cyanide) prior to deposition onto the TSF.
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	The price forecasts are based on forecasts from Consensus Economics which considers various brokers and analyst forecasts; the long-term price was derived using an in-house model based on the real historic price trends.
	The source of exchange rates used in the study.	The exchange rate forecasts are based on forecasts sourced from various South African banks (Investec, First National Bank and Nedbank) with the long-term exchange rate calculated using an in-house model based on the historic purchasing price parity of the Rand to the Dollar.
	Derivation of transportation charges.	Transport costs were provided by Client based on current actuals of similar mine
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	Gold specification, refining charges and penalties are as per refining offer from Rand Refinery.
	The allowances made for royalties payable, both Government and private.	The refined Mineral and Petroleum Resources Royalty Act formula was used for this Project.
	The derivation of, or assumptions	The head-grade is based on an Ore Reserve LoM plan.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
Revenue factors	made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	***Saleable Product (Reserve Plan) - Annual***  The price forecasts are based on forecasts from Consensus Economics which considers various brokers and analyst forecasts; the long-term price was derived using an in-house model based on the real historic price trends. The exchange rate forecasts are based on forecasts sourced from various South African banks (Investec, First National Bank and Nedbank) with the long-term exchange rate calculated using an in-house model based on the historic purchasing price parity of the Rand to the Dollar. Transport costs were provided by Client based on current actuals of similar mine. Gold specification, refining charges, penalties and payabilities as per refining offer from Rand Refinery. Macro-economic forecasts and commodity prices as displayed in the table below were used in the discounted cash flow. ***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

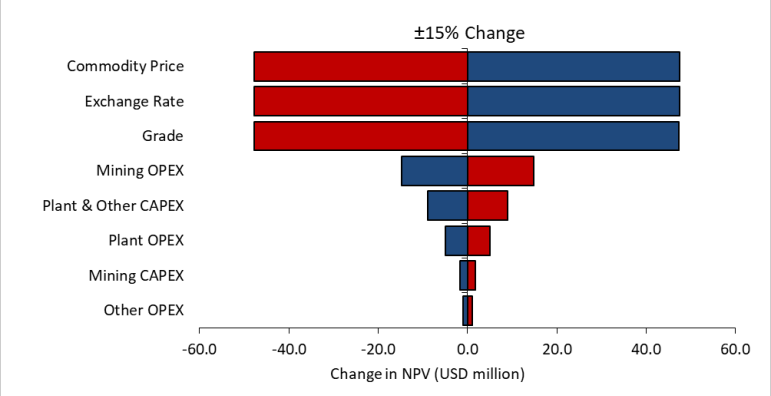
***Source*:** Median of various Banks and Broker forecasts (Minxcon), IMF.

The figure below illustrates the 20-year real-terms historic gold price. For the past ten years, the gold price has been staying in a band between USD1,300/oz and USD2,000/oz. The long-term gold price was estimated as the real term average between the high and low gold price trading range over the past 10 years, USD1,650/oz.

Real-term Historic Gold Price

	The derivation of assumptions made of metal or commodity	No co-products.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	price(s), for the principal metals, minerals and co-products.	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	• Strong demand in Q4 2021 lifted overall demand (excluding over-the-counter ("OTC") demand) for 2021 by 10% year-on-year ("y-o-y"). • Gold demand for jewellery, technology, bar and coin and central banks and institutions were significantly higher than in 2020. • Demand for exchange traded funds ("ETFs") was negative with net annual outflows. • Global central bank reserves grew by 208 t. • Total gold supply declined by 1% y-o-y primarily attributed to a significant drop in recycling. • The gold price averaged USD1,800/oz in 2021 compared to USD1,770/oz in 2020, and in August 2020 broke the USD2,000/oz barrier for the first time driven largely by global uncertainty and investors looking for safe-haven assets. The gold price ended 2021 at USD1,790/oz. • The average global All-In Sustaining Costs ("AISC") rose to approximately USD1,068/oz over 2021, an increase of 7% y-o-y. The AISC in Q4 2021 was USD1,129/oz. High levels of uncertainty related to the COVID-19 pandemic and the low-interest rate environment supported strong investment in safe haven commodities such as gold in 2020 through 2021. Gold specifically benefited from investors' need to reduce risk. Gold demand is forecast to increase by approximately 1% in 2022, driven primarily by increased jewellery demand (forecast to increase 6%). Chinese jewellery demand is expected remain strong as consumer confidence and income increase, while India jewellery demand is expected to continue recovering as more of the population gets vaccinated against COVID-19 and the economy recovers. The official sector is also expected to keep gold demand higher as tensions between Russia and Ukraine persist in 2022. Central banks are forecast to increase holdings by 5%. Over the medium term, the Australian Office of the Chief Economist (2022) projects gold demand to increase at an annual average rate of 4% to 2027. Jewellery demand is projected to grow at an annual average rate of 4.6% on the back of improved consumer sentiment, rising income and lower prices. A lower price environment is also projected to drive a 2.6% average annual growth in bar and coin demand, while central bank demand is projected to increase by an annual average rate of 2.7% between 2023 and 2027. World gold supply is also forecast to increase in 2022 by 2.7%, as lower scrap supply (-2.0%) will be more than offset by increased mine production (3.7%). Scrap is expected to decrease on the back of the lower expected price environment and improved income. Mine production is forecast to increase from Australia, Canada, the US and Papua New Guinea. Gold supply is projected to fall at an average 0.7% annually (Australian Office of the Chief Economist, 2022). The scrap supply is expected to decrease by an annual average of 4.6% between 2023 and 2027, as lower prices discourage selling of gold for jewellery. Mine supply, in contrast, is projected to increase up to 2024, before falling slightly to 2027. A number of large mines in South Africa have recently been mothballed due to the deep nature of the orebodies and thus high running costs and increased risk. Other parts of the world are also seeing mines become unprofitable as rising costs and lower prices squeeze margins. Significantly less funds have been spent on gold exploration in recent years, and less major gold discoveries are being made. Notwithstanding, Australia, Canada, Chile, Brazil and Argentina have a number of pipeline projects set to come into operation over the period, offsetting mine closures in China due to stricter environmental and safety regulations. Supply from recycling is forecast to decline as gold prices fall. Between 2022 and 2024, prices are forecast to fall by an average of 5% annually to around the USD1,660 mark by 2024. As described by the Australian Office of the Chief Economist (2022), rising real bond yields will restrict institutional gold investment demand. However, uncertainties regarding new strains of COVID-19 may again show intermittent enhanced support of gold as a safe haven asset. Geopolitical tensions due to the Russian invasion of Ukraine may also continue to provide higher price support.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	A customer and competitor analysis along with the identification of likely market windows for the product.	Gold is a commodity freely traded on the open market. Gold dorè will be produced for sale. In the case of the TGME Projects, Rand Refinery shall refine the material and if requested - sell, on their behalf.
	Price and volume forecasts and the basis for these forecasts.	Volume forecasts based on reserve LoM plan. The price forecasts are based on forecasts from Consensus Economics which considers various brokers and analyst forecasts; the long-term price was derived using an in-house model based on the real historic price trends.
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	N/A
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	In generating the financial model and deriving the valuations, the following were considered:- • 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. • 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, 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 Ore Reserve Plan includes only Measured and Indicated Mineral Resources in the LoM, to determine the viability of the Ore Reserves.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	 The Project is most sensitive to the gold price, exchange rate, and grade, followed by mining operating costs. The project is least sensitive to capital and other operating costs.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
		Project Value / **Reserve Plan** **ZAR Terms** / **ZARm** NPV @ 0% / 2,766 NPV @ 2.5% / 2,375 NPV @ 5% / 2,040 NPV @ 7.5% / 1,753 **NPV @ 10%** / **1,505** NPV @ 12.5% / 1,291 NPV @ 15% / 1,105 **IRR** / **49.7%** **USD Terms** / **USDm** NPV @ 0% / 179.2 NPV @ 2.5% / 154.0 NPV @ 5% / 132.3 NPV @ 7.5% / 113.8 **NPV @ 10%** / **97.8** NPV @ 12.5% / 83.9 NPV @ 15% / 71.9 IRR / 50.2%
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	A public participation process has taken place as part of the 83MR Section 102 amendment process to establish community views and potential project impacts and incorporate social upliftment measures into the social strategy. Social engagement is ongoing until such time as the EA has been approved. A revised SLP for the greater TGM portfolio has been submitted. A catchup plan for historical non-compliance with LED commitments is being developed. It is noted that as at the effective date, illegal mining operations are active at the CDM site. This may delay CDM project commencement and appropriate arrangement for the removal of these illegal miners should be initiated.
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	None
	Any identified material naturally occurring risks.	The exact extent of underground flooding and ground conditions is not yet known in all existing underground workings, and underground conditions may be worse than expected once access has been obtained. Development tunnel dimensions are potentially too narrow for the primary mining machines as they were designed on OEM specifications with a low degree of tolerance.
	The status of material legal agreements and marketing arrangements.	There are no legal or marketing agreements in place for the Project.
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the	Commissioning of the Project can only commence once all permits and authorisations have been approved. A Section 102 amendment application has been submitted to the DMRE for the addition of the 83MR underground redevelopment project areas. Currently, a WULA process is underway to authorise the anticipated water uses. An EA process is also underway.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	The Ore Reserve estimation for TGM has been conducted in accordance with the guidelines as set out in the JORC Code (2012). The appropriate category of Ore Reserve is determined primarily by the relevant level of confidence in the Mineral Resource. The Mineral Resource estimate, which includes all the underground project areas for TGM, was the basis of the Ore Reserve estimation. The level of confidence in the Indicated Mineral Resource is sufficient to convert to Probable Ore Reserves. The level of confidence in the Measured Mineral Resource is sufficient to convert to Proved Ore Reserves.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The results as presented appropriately reflect the CP's view of the deposit.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Any Measured Mineral Resources in the LoM plan have been converted to Proved Ore Reserves. No portion of Measured Mineral Resources were converted to Probable Ore Reserves. .
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	This Report includes a maiden Ore Reserve estimation for TGM. No external audits or reviews of the Beta, Rietfontein, Frankfort and CDM Ore Reserves have been conducted.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	A detailed mine design and monthly schedule has been completed for all four underground mines. The modifying factors applied in the Mineral Resource to Ore Reserve conversion have been derived from technical studies completed for TGM. The Ore Reserve conversion factors applied correlate well with operational values at similar operations. Diluted Measured Mineral Resources have been converted to Proved Ore Reserves and Indicated Mineral Resources have been converted to Probable Ore Reserves. There is sufficient confidence in the modifying factors applied in the Mineral Resource to Ore Reserve conversion to convert diluted Measured Mineral Resources to Proved Ore Reserves.
	The statement should specify whether it relates to global or local estimates, and, if	A global Mineral Resource estimate was completed all the project areas for TGM. The Mineral Resource estimate completed by Minxcon as at 1 February 2022 formed the basis of the Ore Reserve estimation. The Ore Reserve estimation considers Beta, Rietfontein, Frankfort and CDM underground operations, and is therefore a local Ore Reserve estimate for TGM.

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	The modifying factors applied were determined by technical studies at the appropriate level of confidence producing a mine plan and monthly production schedule that is technically achievable and economically viable. All relevant risks are included in the CPR Risk assessment table. It is Minxcon's view that the information provided to Minxcon is sound and no other undue material risks pertaining to mining, metallurgical, environmental, permitting, legal, title, taxation, socio-economic, marketing, political, and other relevant issues pose a material risk to the Ore Reserve estimates.
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No previous Ore Reserve statements are available. However, the modifying factors were determined by technical studies and based on current operations utilising the selected mining method and are at the appropriate level of confidence to produce a mine plan and production schedule that is technically achievable and economically viable.

End