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THETA GOLD MINES

20 April 2020

ASX ANNOUNCEMENT

OPTIMISED MINE SCHEDULE FOR THETA OPEN PIT STARTER PROJECT DELIVERS SIGNIFICANT IMPROVEMENTS
(New Mine schedule adds 40 000 gold Ounces to May 2019 Feasibility Study for Theta Project)

Theta Gold Mines Limited ("Theta Gold" or "Company") (ASX: TGM, TGMO | OTCQB: TGMGF) is pleased to announce a new optimised mine schedule for its Theta Open Pit Starter Project that adds 40,000 oz of gold over the Feasibility Study released in May 2019. The new Mine schedule significantly improves the metrics of the project (see Table 1) over the May 2019 Feasibility Study (May '19 FS), has a reduced environmental footprint, reflects an increase in the production rate from 500 ktpa to 600 ktpa, includes the mining of several old mine waste rock dumps and increases the overall mine operational flexibility.

HIGHLIGHTS

(All numbers in **USD** and financials based on **USD 1 500/oz gold price and 16.00 ZAR/USD**)

- **Pay-back period reduced to 8 months** (May '19 FS: 14 months payback period)
- **260 koz delivered to plant over Life of Mine** ("LoM") (May '19 FS: 219 koz Au)
- **First year production of 49.5 koz** (May '19 FS: 46.3 koz)
- **Life of Mine (LoM) 6.5 years** (May '19 FS: 5 years)
- **US$150.2 million EBITDA over LoM** (May '19 FS: $99.6 million LoM)
- **Internal Rate of Return 123%** (May '19 FS: 65.1%)
- **US$85 million Net Present Value** (May '19 FS: $50 million NPV)
- **US$855/oz all-in sustaining cost (AISC) LoM**, bottom quartile for South Africa producers (May '19 FS: $760/oz cost ("AISC") over the 5-year LoM)
- **Total Capital Cost US$31.4 million includes 20% plant throughput increase** and at 16.00 ZAR/USD (May '19 FS: $34.3 million at 14.01 ZAR/USD)
- There remains significant resource development upside from the contiguous southerly extension of the Theta Hill mineralisation into Mining Right 341 and other open cut resources nearby – this is no change from the May '19 FS and, for clarity, these additional resources have not been included in the May '19 FS or this Optimised Study.

The Theta Open-pit Starter Project includes the Columbia Hill deposit and part of the Theta Hill deposit within Mining Right 83 ("MR83") (Figure 1) in the Pilgrims Rest area of South Africa. Waste Rock dumps of various sizes and from four main areas which were sampled by Rand Mines in the 1990's are now included in the new mine schedule and add easy gold ounces for the planned mine operations. The bulk of the waste rock dumps (75%) have been scheduled to be processed in the last year of Mine Schedule and as such have limited effect on the payback period. The payback period has been reduced from 14 months in the May '19 FS to 8 months.

The optimized mine schedule has reduced initial overburden removal by mining smaller pits and also has improved revenue streams as a result of increased ZAR gold prices.

The Optimised Study reflects strong project economics and commercial viability across a range of gold prices. The new mine schedule significantly enhances all the project economics despite a reduction in the LoM grade.

Table 1 below sets out the comparison of the initial May '19 FS to the Optimised Study at various gold price scenarios. Salient details between the Optimised Study run at $1 500/oz vs the May'19 FS base case at $1 257/oz include:

1. The IRR nearly doubling from 65% to 123%;
2. Mine life increases from 5 years to over 6.5 years;
3. EBITDA increases by $50 million over the LoM to $150 million; and
4. NPV increases by $35 million to $85 million.

Table 1 : Optimised Study compared May '19 FS

Real Discount Rate	**Unit**	**Lower Case $1 369/oz**	**Base Case $1 500/oz**	**Stretch Case $1 600/oz**	**May '19 FS $1 257/oz**
NPV @ 5%	**USDm**	**61**	**85**	**104**	**50**
Internal Rate of Return (IRR)	%	92.7%	**123.0%**	157.2%	65.1%
Total ounces in Mine plan	oz	259 607	**259 607**	259 607	219 425
Total Oz Recovered	oz	234 063	**234 063**	234 063	200 905
Average Payback Period (From Start of Production)	Month	9	**8**	6	14
Total Capital Requirement	USDm	31.4	**31.4**	31.4	34.3
All In Sustaining Cost (AISC)	USD/oz	911	**855**	822	760
Return on investment	USDm	206%	**350%**	476%	182%
EBITDA over LOM	USDm	108.5	**150.2**	181.4	99.6
Gold Price	USD/oz	1 369	**1 500**	1 600	1 257
Exchange Rate	ZAR/USD	14.64	**16.00**	17.00	14.01

The company continuous to honor its commitment to improving the project economics and expansion of the production profile. The team has delivered a new optimized mine schedule, completed a draft mining contract, delivered the mill to site and has initiated and received initial feedback as part of the plant construction contract which is all a clear demonstration that the project is moving forward.

The company has a five-year plan which targets 4 mine developments, Theta open-pit Starter Project (MR83 only), Theta open pit extension (MR341) and the Rietfontein and Beta

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underground mines. This 4-mine strategy provides the company with a clear growth strategy at a combined open pit and underground resource of over 2.75 Moz with only the Theta Project Starter Pit portion of this resource included in the Optimised Study. All ore is planned to be processed within the permitted TGME plant footprint area with the new 600 ktpa CIL plant designed to be readily expanded to cater for 1.2 Mtpa of oxide ore with a modest capital expenditure and minimal operational down time. Expansions for the processing of underground ore can also be readily achieved within the footprint and tied into the new 600 ktpa plant.

Chairman Mr Bill Guy stated, "The new optimised mine schedule is a credit to the team and the work and energy put into the Theta Open pit Starter project has been rewarded. The new mine schedule demonstrates clear robust project economics, with more gold extracted and greater value for the shareholders.

At Theta Gold the resource pipeline into the future is strong, and the grandeur of resources and geology in South Africa should not be underestimated. As gold is now finding favor again, the Company is keen to be part of the South African mining industry that has produced in tonnage terms of gold bullion more tons of gold than any other country. Over 40% of world gold has come from the small corner of South Africa, we call home.

During this quarter, and while the team is restricted in movements due to the coronavirus lock down, we will continue to progress the mining contract through to a final document with a preferred contractor, amend the EIA and resubmit it so we can readily implement the expanded mine schedule, progress discussion with five engineering firms tendering for the TGME gold plant construction.

The Board's eye is firmly on the near-term development into gold production and in the medium term to grow the production profile as we develop and bring more mines on stream. We are building a sustainable business for long term benefits for all shareholders and our local community. "

Optimised Study Mine Schedule Summary

The optimized schedule allows for a life of mine ("LOM") of 6.5 years and design takes into consideration the company's commitment to be an environmentally responsible miner.

The Ore Reserves estimated for the Theta Project represent the Iota section of Columbia Hill, and approximately 35% of the Theta Hill and Browns Hill deposits within the MR83 boundary. The Theta Hill and Browns Hill deposits extend to the south and into Mining Right 341 ("MR341") (Figure1). MR83 is fully permitted for underground mining and an amendment to include open pit mining is in progress. There is an inclusion of a portion of historical waste rock dumps (inferred resources) in the schedule, albeit that 75% of this material is processed at the end of the mining schedule. The dumps are within a short trucking distances of the gold plant (average ~4 km). Further expansion opportunity exists to extend the project to the south into MR341 and this will be considered in future development work.

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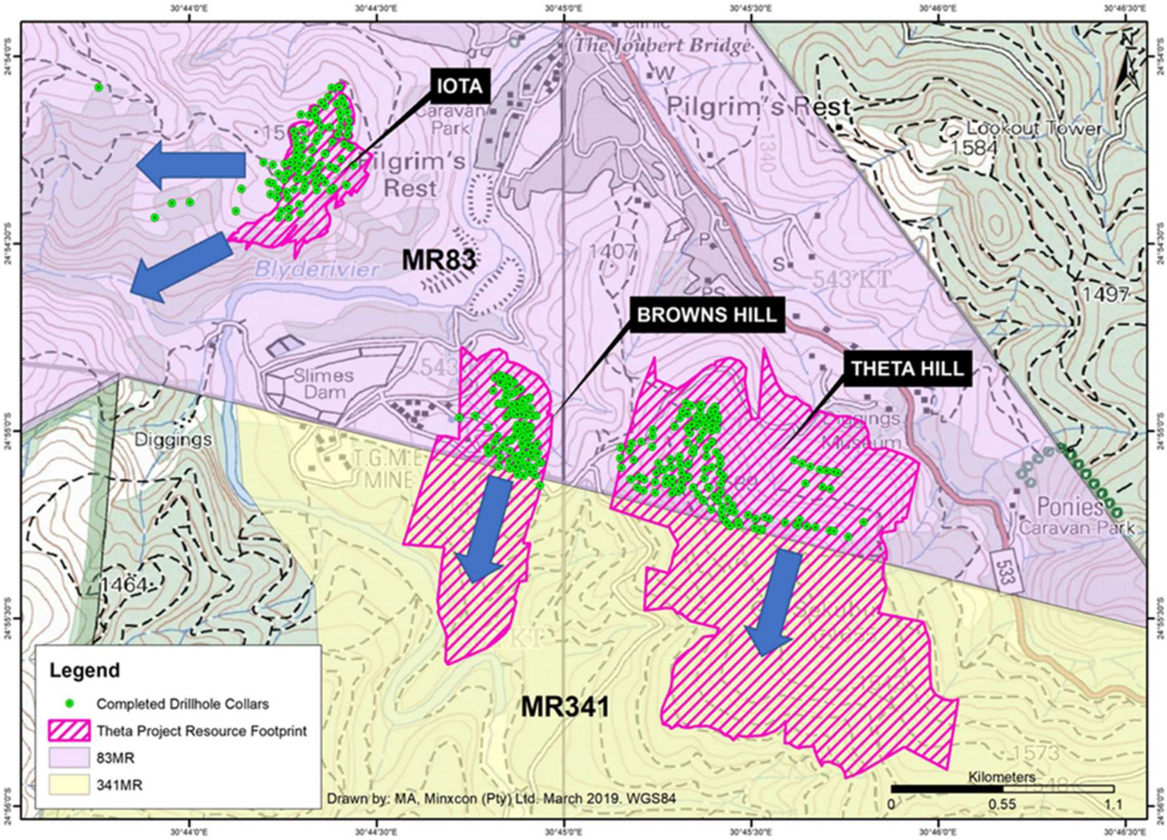

Figure 1 : MR83 Drilling and Upside Potential Expansion to MR341

A whole new CIL Plant has been planned and recently redesigned to treat ore at a rate of 600 ktpa and increased by 20% from the May '19 FS (see ASX release 28 Jan 2020 "Results of the Independent Plant Design Optimisation Study"). Annual plant throughput and total deposition volume is constrained by the current approved Tailings Storage Facility ("TSF") at 600 ktpa and 2.5 Mt respectively. Future tailings dam expansions have also been considered in the study and will require design and approvals before implementation.

All processing layouts were configured in and around the existing CIL Plant infrastructure to allow for potential future plant expansions. The plant capital has allowed for all new equipment, except for the mill (see ASX release 2 Oct 2019 : "Theta Agrees to Purchase Mill Operated by Glencore") An opportunity therefore exists to make use of further high-quality refurbished equipment which may lead to further capital cost savings.

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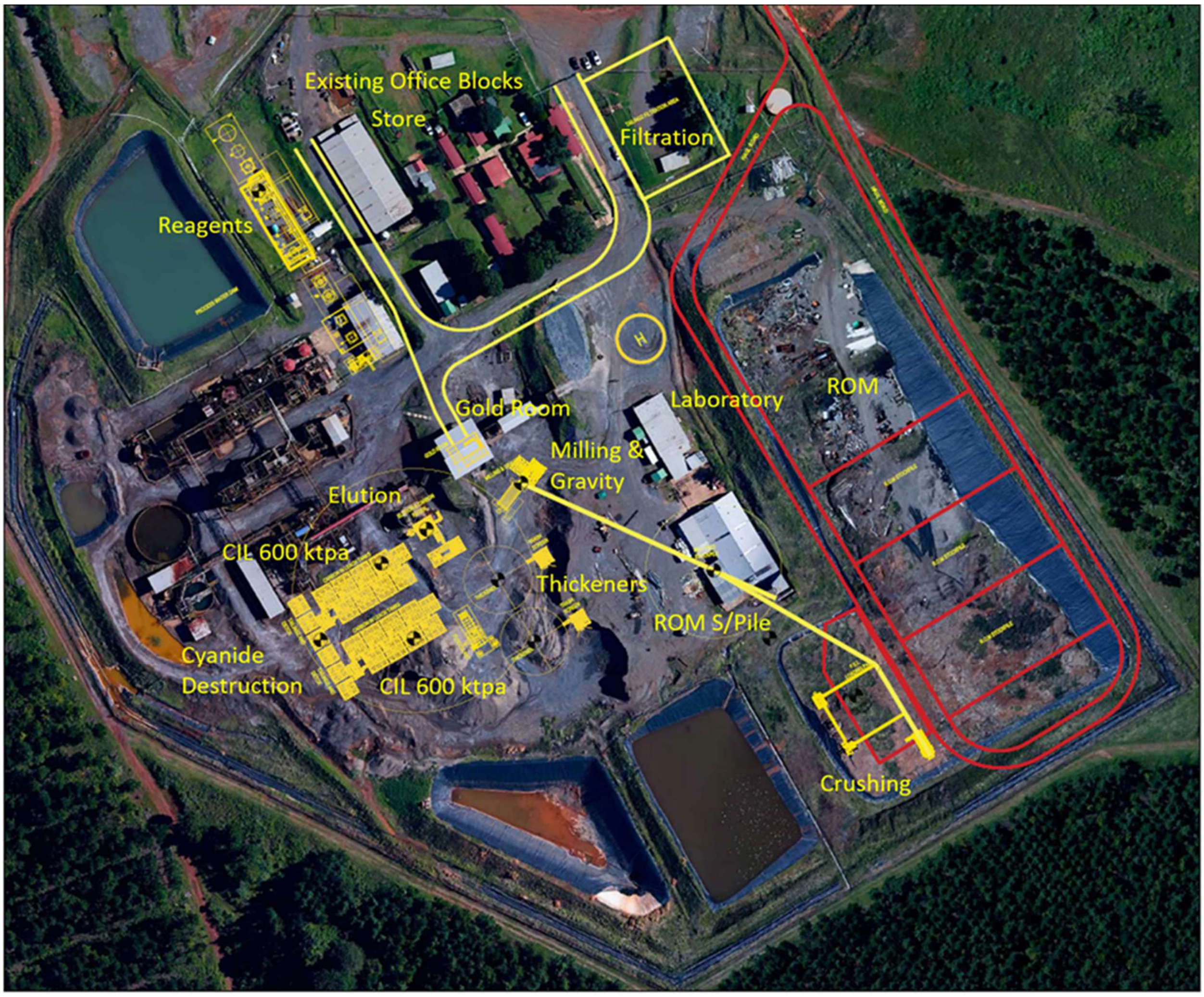

Figure 2 : TGME Plant Layout Showing 600 ktpa CIL Plant & Expansion to 1.2 Mtpa

Financial Summary

Financial modelling was completed over a range of gold and exchange rates to reflect low, mid and high gold and exchange rate scenarios and are labelled Lower Case, Base Case and Stretch case respectively. Unless otherwise stated, the company has considered the Base Case as its primary financial model as it still reflects a conservative approach in the current market environment. All the financial metrics are improved over the feasibility study released in May 2019 and at all scenarios modelled, and clearly demonstrate that modern mining methods being applied to this field for the first time are certainly economically feasible.

Table 2 : Key Aspects of Optimised Study - Theta Project

Item	Unit	Lower Case $1 369/oz	Base Case $1 500/oz	Stretch Case $1 600/oz	May '19 FS $1 257/oz
NPV @ 0%	USDm	74	**104**	125	66
NPV @ 5%	**USDm**	**61**	**85**	**104**	**50**
NPV @ 7.5%	USDm	50	**71**	87	38
NPV @ 10%	USDm	41	**60**	74	29
NPV @ 15%	USDm	35	**51**	63	22
Internal Rate of Return (IRR)	%	92.7%	**123.0%**	157.2%	65.1%
Total ounces in Mine plan (2)	oz	259 607	**259 607**	259 607	219 425
Total Oz Recovered (2)	oz	234 063	**234 063**	234 063	200 905
Average ounces recovered per month (2)	oz	3 040	**3 040**	3 040	3 348
Average Grade to Plant (2)	g/t	2.09	**2.09**	2.09	2.71
Benefit-Cost Ratio/Money on Investment$_{5.0}$	**Ratio**	**3.1**	**4.5**	**5.8**	**2.8**
Return on Investment$_{5.0}$	%	206%	**350%**	476%	182%
Average Payback Period (From Start of Production)	Month	9	**8**	6	14
Total Capital	USDm	31.4	**31.4**	31.4	34.3
Peak Funding Requirement (3)	USDm	28.5	**26.7**	25.1	29.2
Peak Funding Month	Month	9	**9**	9	21
Revenue over LoM (Undiscounted)	USDm	321.7	**350.4**	373.8	252.6
EBITDA over LOM (Undiscounted)	USDm	108.5	**150.2**	181.4	99.6
Net Cash Flow over LoM (Undiscounted)	USDm	74.3	**103.7**	125.4	65.7
Break-even Milled Grade (Excluding Capex)	g/t	1.4	**1.2**	1.1	1.6
Break-even Milled Grade (Including Capex)	g/t	1.6	**1.4**	1.2	2.0
Break-even Gold Price (Excluding Capex - AISC)	USD/oz	911	**855**	822	760
Break-even Gold Price (Including Capex)	USD/oz	1 058	**989**	948	933
Gold Price	USD/oz	1 369	**1 500**	1 600	1 257
Exchange Rate (1)	ZAR/USD	14.64	**16.00**	17.00	14.01

Note:

- Money On Investment (MOI) calculated as present value of income flow over present value of investment (5% discount rate); calculated in USD terms.
- EBITDA = Earnings before interest, tax, depreciation and amortisation (excludes Capital)
- C1 represents the cash cost incurred at each processing stage, from mining through to recoverable metal delivered to market

Notes:

1. All values converted from ZAR to USD at relevant exchange rate
2. Including 25% Inferred Mineral Resources (Au content) in Optimised Study only
3. Capital costs in Optimised Study were converted from ZAR

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The project also demonstrates a robust NPV across a wide range of gold prices as can be seen in the graph below.

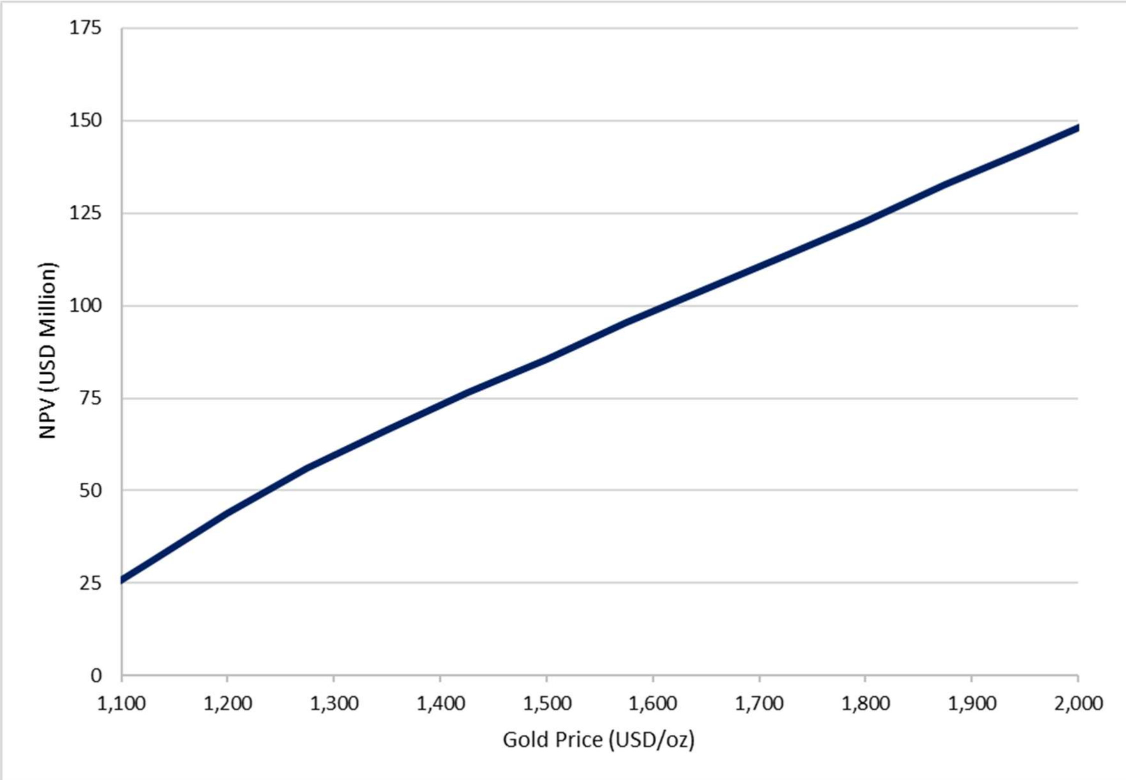

Figure 3 : NPV Sensitivity to Gold Price

The AISC costs for the Optimised Study continue to reflect a project that is at the bottom quartile when compared to South African peer mines

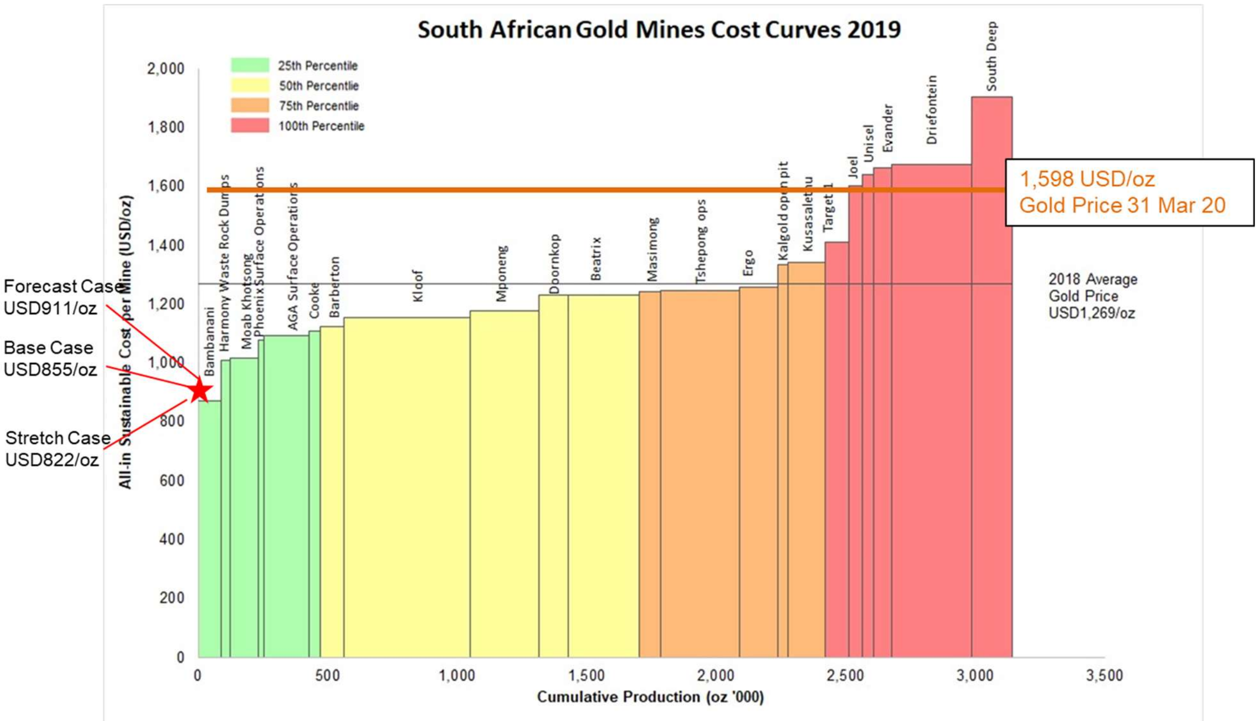

Figure 4 : South African Miners AISC Costs 2018: Minxcon 2018

The optimised schedule has been developed to ensure higher volumes of ounces produced in the early months to ensure further de-risking of the project

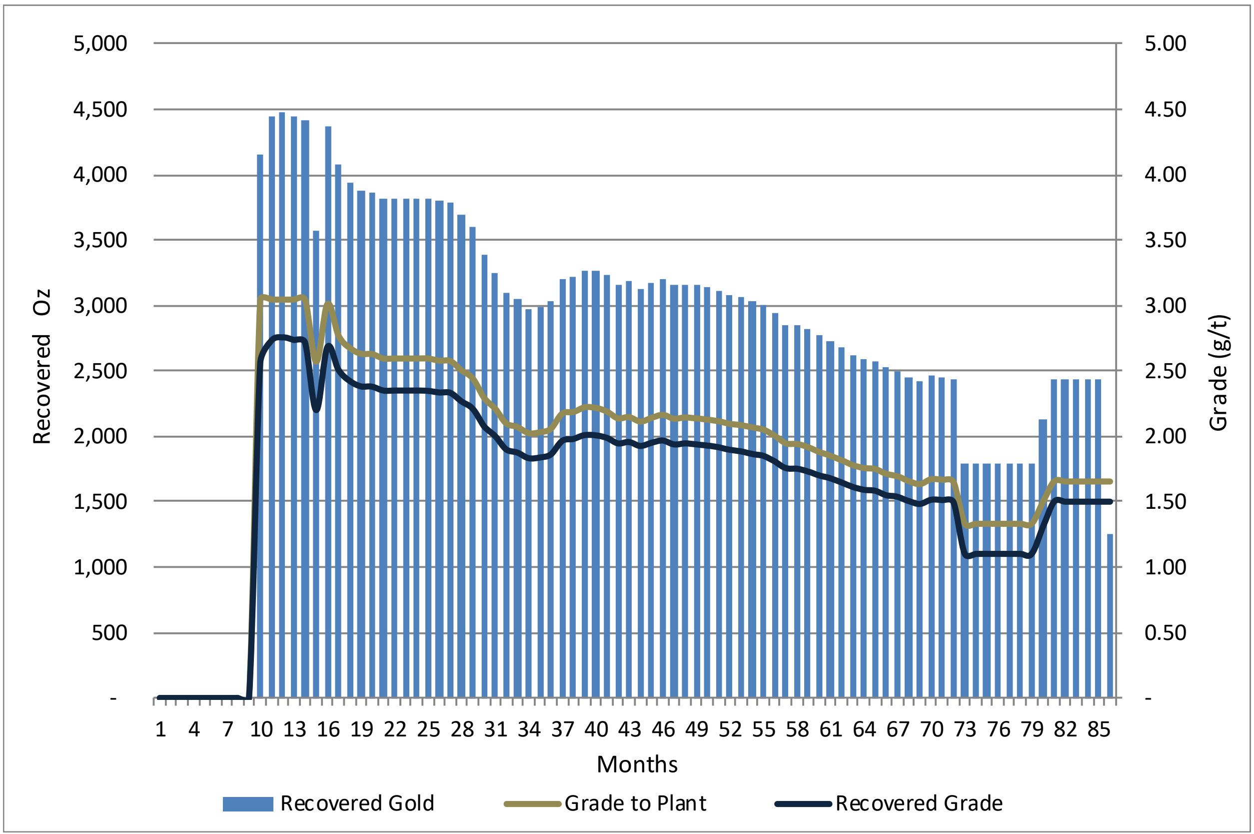

Figure 5 : Optimised Study Monthly Gold Production (oz)

NEW PRODUCTION TARGET

The Optimised Study mine schedule for the Theta Open Pit Starter Project considers the following Mineral Resources in the LoM plan. Appropriate modifying factors were applied to various Mineral Resource categories as with a Reserve Calculation. Where Inferred Mineral Resources were included, more conservative modifying factors were applied to reflect the added risk of including Inferred Mineral Resources in the financial analysis.

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Table 3 : Production Target - Theta Project

Mineral Resource Category in LoM Plan	Pit	Grade	Reef Tonnes	Au Content	
		g/t	kt	kg	oz
Indicated	Browns Hill	2.30	489	1 124	36 135
Inferred		2.03	181	368	11 831
Subtotal		**2.23**	**670**	**1 492**	**47 967**
Indicated	Iota section of Columbia Hill	2.38	1 696	4 033	129 673
Inferred		5.53	83	457	14 694
Subtotal		**2.53**	**1 778**	**4 490**	**144 367**
Indicated	Theta Hill	1.60	557	891	28 662
Inferred		1.32	438	579	18 604
Subtotal		**1.48**	**995**	**1 470**	**47 266**
Indicated	Dumps	-	-	-	-
Inferred		1.49	418	622	20 007
Subtotal		**1.49**	**418**	**622**	**20 007**
Total Indicated		**2.21**	**2 741**	**6 049**	**194 470**
Total Inferred		**1.81**	**1 119**	**2 026**	**65 137**
Total		**2.09**	**3 861**	**8 075**	**259 607**

The production target includes 25% of Inferred ounces.

ORE RESERVE

The Ore Reserve statement from the May '19 FS is presented below. The Ore Reserve calculation considered Mineral Resources in the Indicated category as the Theta Project does not contain any Measured Mineral Resources (Table 4). The graph below (Figure 3) illustrates the effect of the modifying factors on the diluted scheduled tonnes for the Theta Project. Pit designs are provided in Appendix A.

Table 4 : Ore Reserves – Theta Project

Ore Reserve Category in LoM Plan	Pit	Grade	Reef Tonnes	Au Content	
		g/t	kt	kg	oz
Probable	Browns Hill	3.24	564	1 826	58 699
Probable	Iota section of Columbia Hill	2.54	1 253	3 189	102 513
Probable	Theta Hill	2.76	493	1 362	43 798
Total		**2.76**	**2 310**	**6 377**	**205 010**

Notes:

- The Ore Reserve cut-off grade is 0.4 g/t.
- Totals in the Ore Reserve may not add-up due to rounding.
- No Inferred Mineral Resources have been included in the Ore Reserve.
- Gold price of USD 1 300/oz used to provide the LoM optimised pits converting 61% of the 358 koz Indicated Mineral Resource to Probable Ore Reserves.
- All Ore Reserves reported are delivered to the plant.

The Mineral Resource to Ore Reserve conversion requires application of appropriate factors which would account for any changes to the Mineral Resources (Figure 6) in the life of mine plan as a result of mining the ore. As part of the technical studies the potential ore loss and dilution to the Mineral Resources was determined and applied to the resources available for conversion to Ore Reserves. The ore loss reduces the tonnage and content, while the dilution would add

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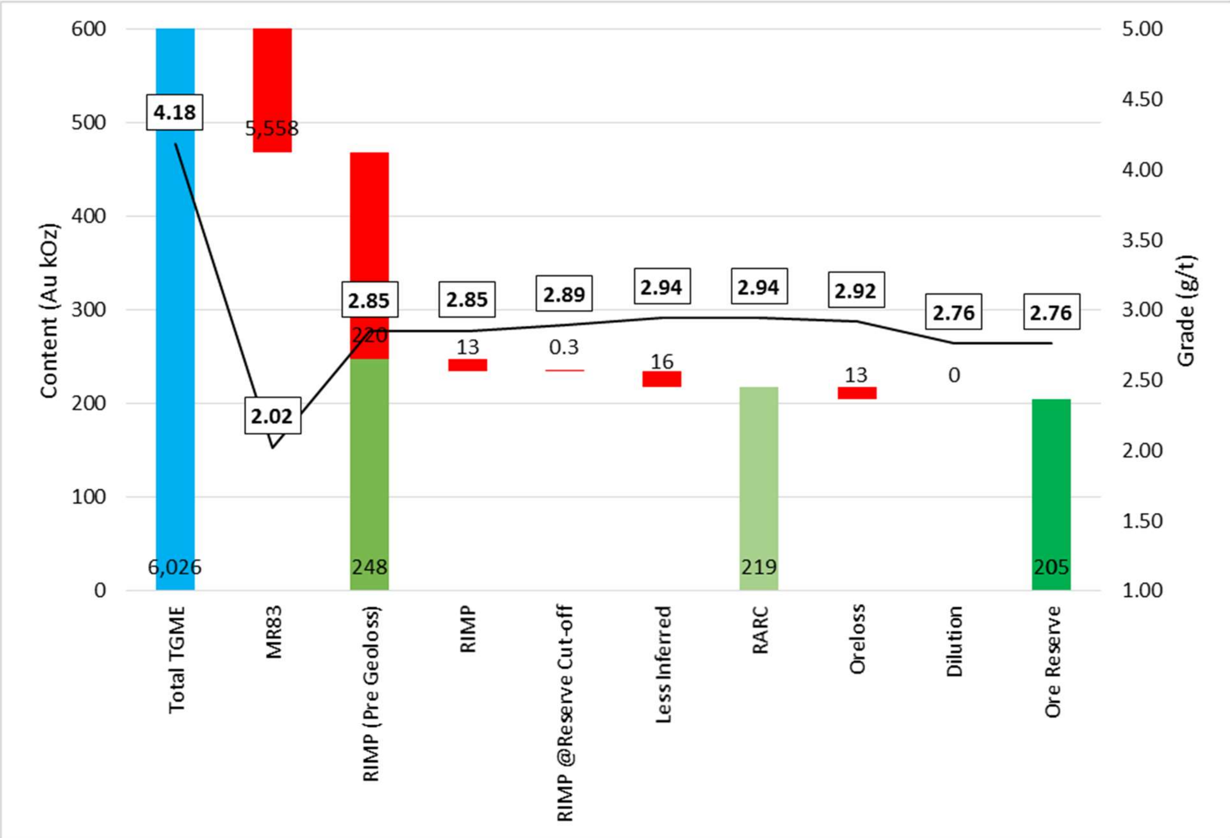
additional tonnage with no gold content. Note ore reserve included previously undiscovered reefs (Bevetts and Shale Reef).



Notes:

1. RIMP = Mineral Resources in Life of Mine Plan.
2. RARC = Mineral Resources available for Ore Reserve conversion.

Figure 6 : Mineral Resources to Ore Reserves

CAPITAL COSTS

Mining capital has taken into consideration best environmental practices in an effort to minimise the impact of operations. This has resulted in some additional capital expenditure which has been offset by the reduced price paid for the new mill. The mining capital also considers the construction of haul roads, site water management and site establishment of mining contractor.

Some additional capital has been allowed for to install shared infrastructure such as change houses and additional office space, albeit that this expenditure is small in the overall capex requirement.

The largest component of the project capital is the new processing plant and the numbers have been updated to reflect the increased throughput study which has also included the integration of the second hand mill purchased in October 2019 (see ASX release 28 Jan 2020 "Results of the Independent Plant Design Optimisation Study).

The plant cost includes the installation of a new crushing, milling (including integration of secondhand mill purchased), gravity, CIL, elution, gold room, cyanide destruction and tailings filtration circuits. 46% of the tailings will need to be filtered in order to produce a product to

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assist in constructing a stable tailings dam that can accommodate the deposition volumes on the dam. Without this tailings filtration circuit the tailings dam would not be able to accommodate the full volumes for the project.

Some additional capital has also been included to upgrade the incoming power supply system for the increased power requirement. The total available power supply at the main ESKOM substation is sufficient for the project requirements.

The positioning and design of the plant has been carefully considered to allow for future expansion opportunities and organic growth (Figure 7).

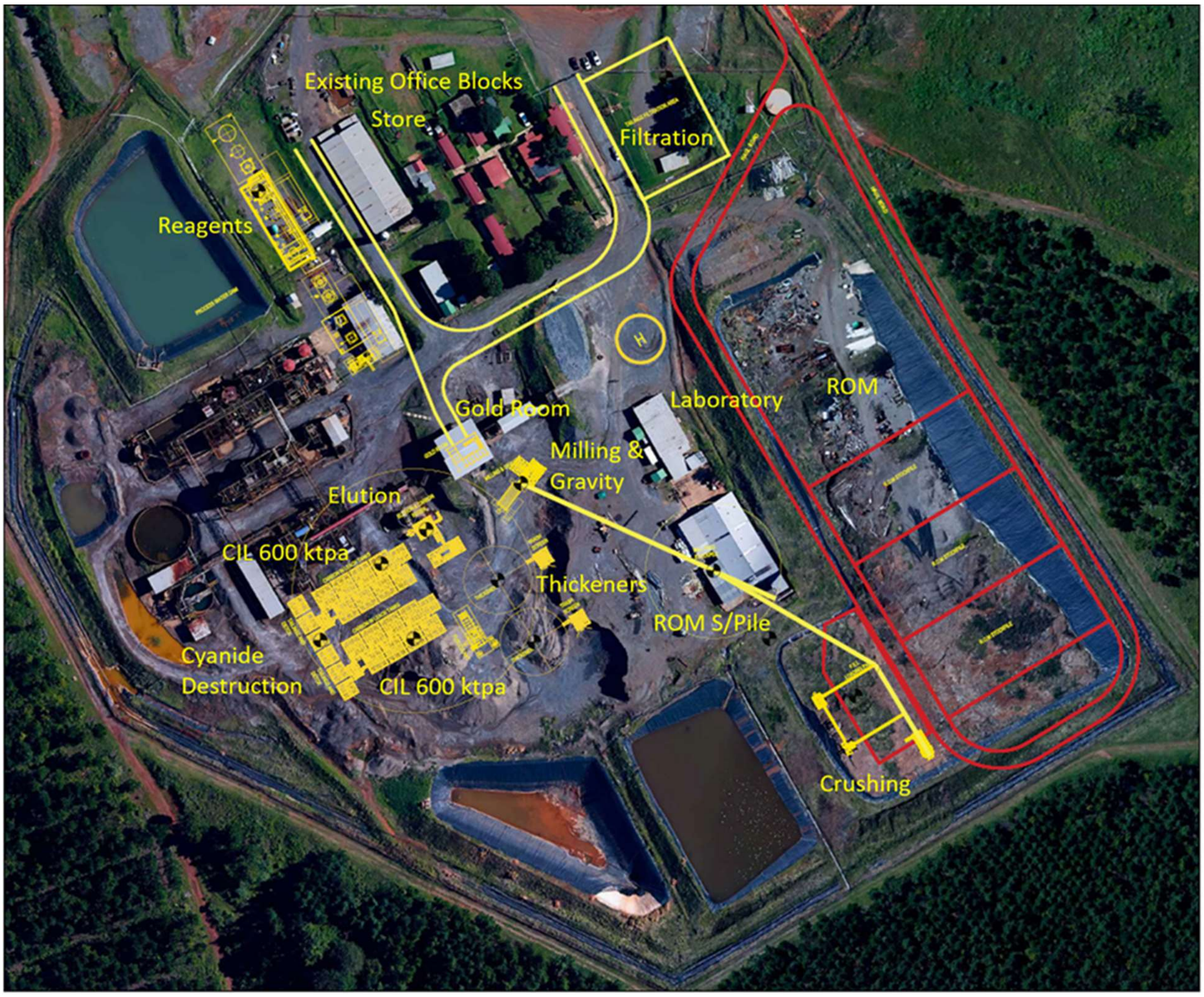

Figure 7 : TGME Plant Layout Showing 600 ktpa CIL Plant & Expansion to 1.2 Mtpa

The capital costs have all been developed in ZAR and then converted to USD at the exchange rate relative to the model. In the Base Case an exchange rate of 16.00 ZAR/USD was used and is reflected in the table below.

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Table 5 : Optimised Study Capital Summary

Capital Expenditure	Total Capital USDm	To Peak Funding USDm
Mining Capital		
Total Direct Mining Capital	4.8	2.7
Mining Capital Contingency	0.7	0.4
Total Mining Capital	***5.5***	***3.1***
Plant Capital		
Total Plant	20.0	20.0
TSF 1 Phase 1	2.3	0.9
Plant Capital Contingency	1.3	1.1
Total Plant Capital	***23.5***	***22.1***
Other Non-Direct Capital		
Total Other Non-Direct Capital	2.2	1.4
Other Capital Contingency	0.2	0.1
Total Other Non-Direct Capital	***2.4***	***1.5***
Total Capital (excl. Contingencies)	29.2	25.0
Total Capital Contingencies	2.2	1.7
Total Capital	**31.4**	**26.7**
Exchange Rate ZAR/USD	16.00	16.00

Notes:

- ZAR/USD exchange rate of 16.00 used for conversion.
- Financial Summary (LoM Average Gold Price of $1 500/oz)
- Total capital requirement $31.4 million
- Peak Funding is defined as capital required to first gold being produced and sold (i.e. first revenue)

The capital schedule over the life of the project is illustrated below and reflects the exchange rate used in the Base Case scenario at 16.00 ZAR/USD. The capital in ZAR terms has increased slightly over the May '19 FS due to increases in plant and mine throughput however this has been mitigated by the weaker ZAR/USD exchange rate.

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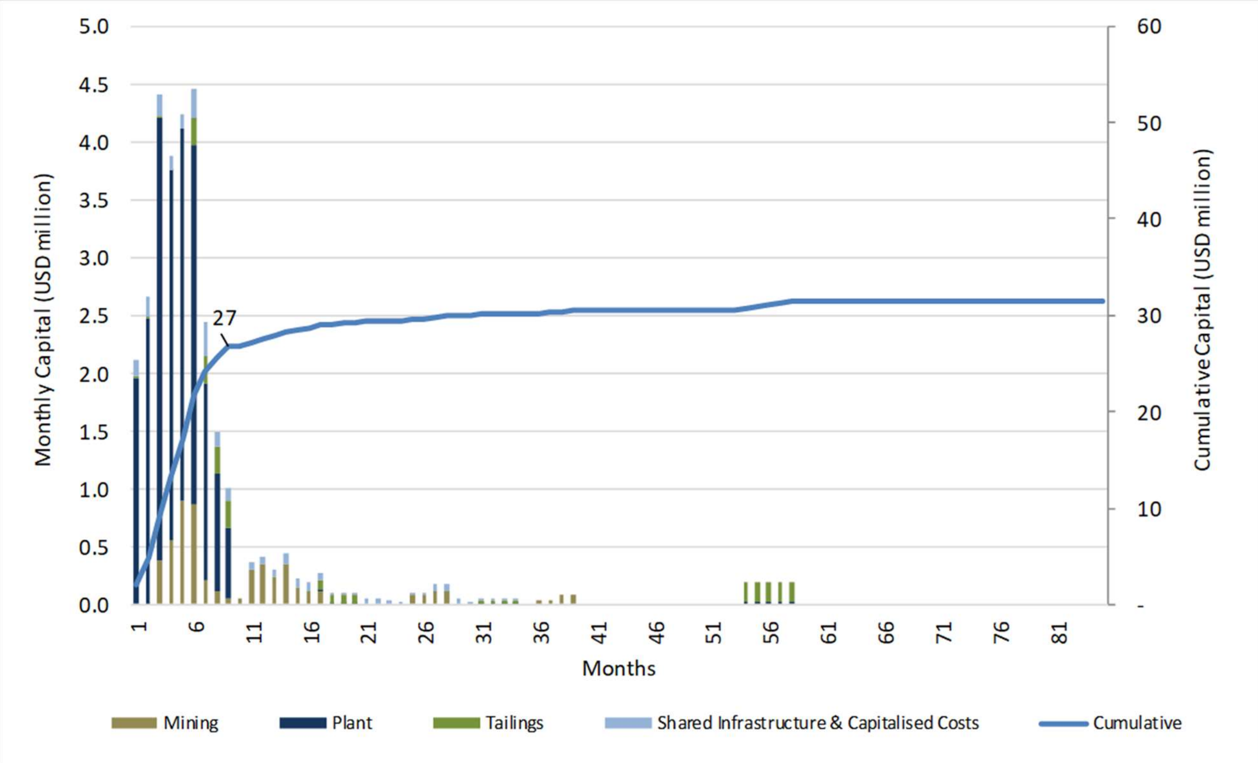

Figure 8 : Monthly Capital Schedule (USD)

ECONOMIC ANALYSIS

Minxcon performed an independent economic analysis on the Project's Mineral Resources and at three gold price and exchange rate scenarios; low, mid and high and labelled as Lower Case, Base Case and Stretch Case respectively. The financial results all show significant improvements over the May '19 FS and continue demonstrate a robust mining project.

The Lower Case scenario used price and exchange rate forecasts based on the median of various banks, brokers and analyst forecasts, converted to real terms and based on a forecast in February 2020. Given the rapid increase in gold price and exchange rates (ZAR/USD), it was considered prudent to use a forecast developed during a reasonably stable period.

Beyond 2024, a constant long-term forecast is applied for the remaining LoM. The inflation rate was sourced from Investec.

The table below illustrates the forecasts for the first five years as well as the long-term forecast used in the financial model.

Table 6 : Macro-economic Forecasts & Commodity Prices Used in Lower Case Scenario

Item	Unit	2020	2021	2022	2023	2024	Long-term
Gold Price (Real)	USD/oz	1 514	1 456	1 420	1 341	1 308	1 350
Exchange Rate (Real)	ZAR:USD	14.96	15.17	14.81	14.48	14.48	14.48
Gold Price	ZAR/oz	22 649	22 088	21 030	19 418	18 940	19 548
Gold Price	ZAR/kg	728 196	710 130	676 136	624 292	608 930	628 482

Source: Median of various Banks and Broker forecasts (Minxcon), Investec as at February 2020.

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For the Base and Stretch Cases scenarios, the company and Minxcon took a view on reasonable gold and exchange rates that were not too conservative, in the Base Case scenario, and not too aggressive in the Stretch Case Scenario.

The NPV is derived from post-royalties and tax, pre-debt real cash flows, after taking into account operating costs, capital expenditures for the mining operations and the processing plant and using forecast macro-economic parameters. The DCF valuation was set up in months, but also subsequently converted to calendar years ending December. The annual ZAR cash flow was converted to USD using the relevant exchange rates determined for each scenario.

The mine plan includes predominantly Probable Mineral Reserve with a portion of Inferred Mineral Resources (approximately 25% on gold content basis), which will be practically required to be mined in order to extract the Indicated Mineral Resources, except for the waste rock dump material which has been scheduled as a small up front volume and the remainder at the back end of the processing schedule.

The Project NPVs are shown in Table 7 below and continue to reflect a financially robust project.

Table 7 : NPVs at Various Discount Rates (Real Terms)

Item	Unit	Lower Case $1 369/oz	Base Case $1 500/oz	Stretch Case $1 600/oz	May '19 FS $1 257/oz
NPV @ 0%	USDm	74	104	125	66
NPV @ 5%	**USDm**	**61**	**85**	**104**	**50**
NPV @ 7.5%	USDm	50	71	87	38
NPV @ 10%	USDm	41	60	74	29
NPV @ 15%	USDm	35	51	63	22
Internal Rate of Return (IRR)	%	92.7%	123.0%	157.2%	65.1%

The monthly and cumulative cash flow over the life of mine for the Base Case Scenario is shown in the figure below in USD terms. The operation has a peak funding requirement of $27.0 million and a payback period from start of production is 8 months.

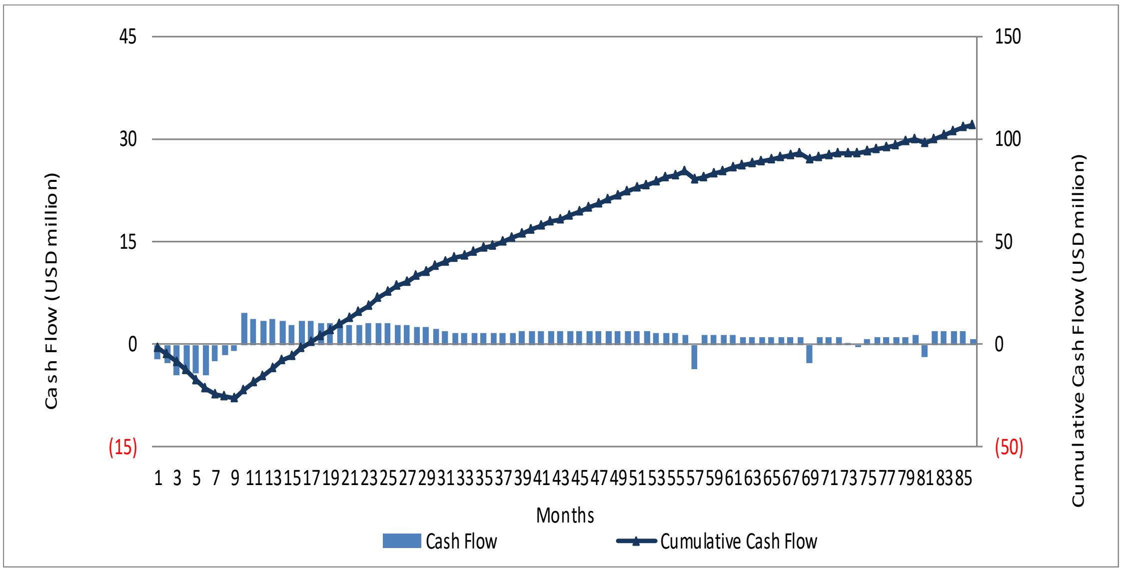

Figure 9 : Monthly and Cumulative Cash Flow USD (Undiscounted) Base Case 16.00 ZAR/USD

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Minxcon performed single-parameter sensitivity analyses based on the real cash flow to ascertain the impact on the NPV. For the DCF, the commodity prices, exchange rate and grade have the most significant impact on the sensitivity of the project followed by the mining and plant operating cost. The project is least sensitive to capital non-direct costs.

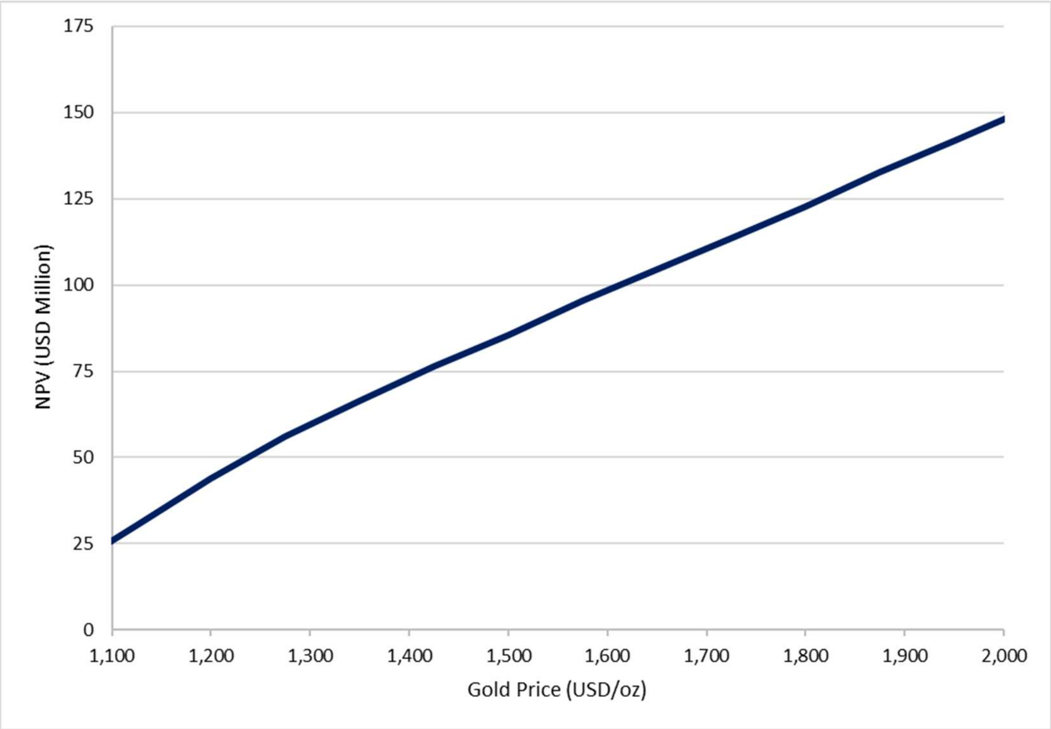

Figure 10 : NPV Sensitivity to Gold Price (Base Case $1 500/oz and 16.00 ZAR/USD)

The graph below reflects the project sensitives to various input costs

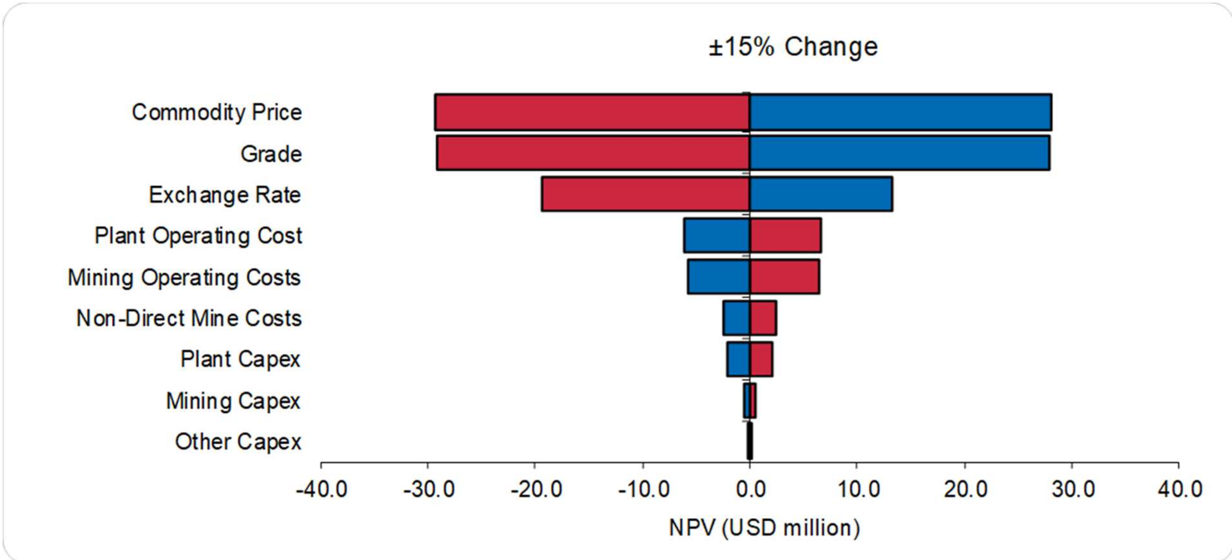

Figure 11 : Project Sensitivity USD (NPV5.0%) at Base Case of $1 500/oz and 16.00 ZAR/USD

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The Optimised Study has allowed for the lower AISC material to be mined and processed at the start of the schedule and has resulted in further de-risking of the project.

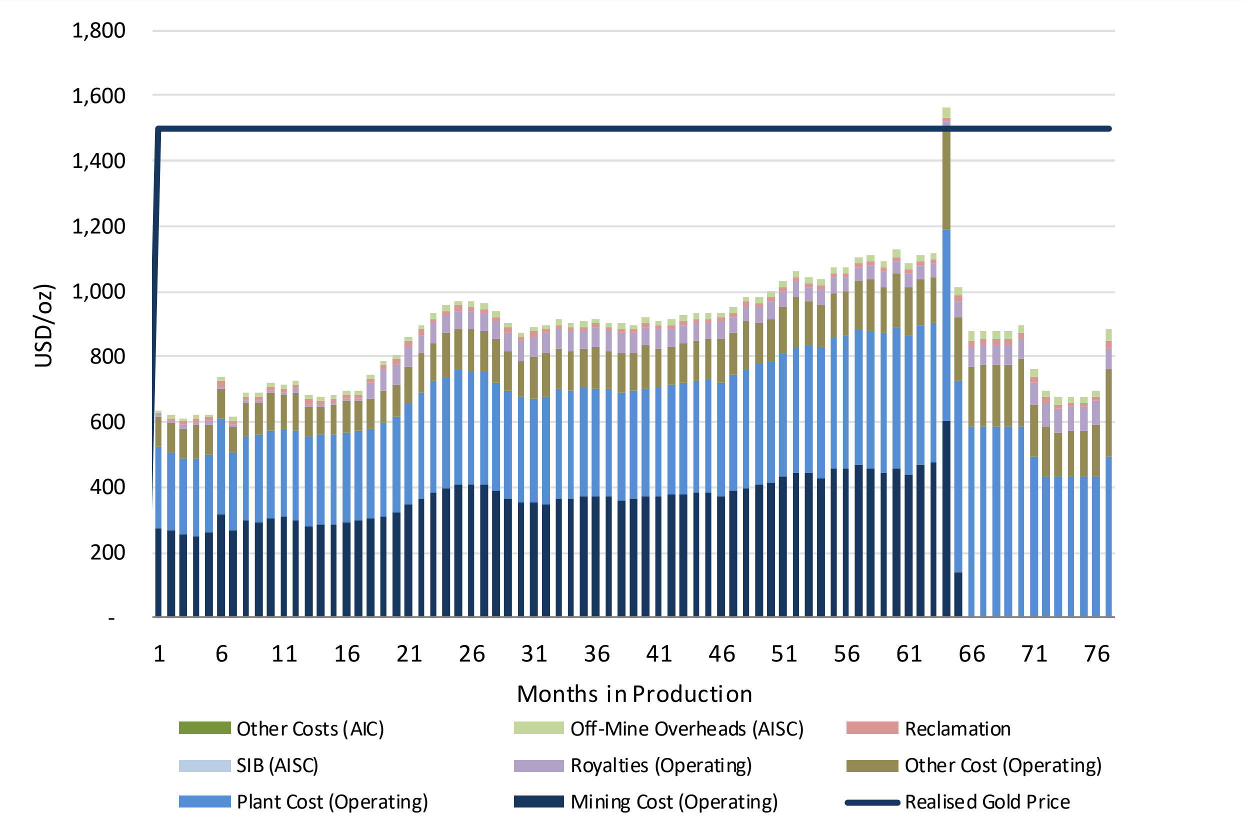

Figure 12 : AISC cost on Monthly Basis

The table below reflects the operating data for the project and the improvements in several areas as a result of increasing the annual throughput by 20% from 500 ktpa to 600 ktpa in the plant. In addition, by optimizing the mine schedule and starting the mining on a smaller pit with pushbacks throughout the LOM and further optimization of mining benches in the lower sections of the pits, the economic metrics are significantly improved.

The decrease in grade in the mine schedule is a reflection of the company making adjustments to the mining areas to take into consideration environmental improvements to the project. These improvement opportunities have been identified through the comprehensive reviews by the environmental specialists as part of the environmental authorization amendment process.

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Table 8 : Production Data

Description	unit	Base Case $1 500/oz	May '19 FS $1 257/oz
Monthly Mining Production Rate (Average)	tonnes/month	**50 802**	42 215
Monthly Plant Feed Production Rate (Max)	tonnes/month	**50 000**	42 028
Total Ore Tonnes Mined	kt	**3 861**	2 520
Waste Tonnes Mined	kt	**45 750**	33 677
Total Tonnes Mined	kt	**49 611**	36 198
Strip Ratio	Tonnes w: tonnes ore	**11.8**	13.4
Backfill Ratio	Tonnes w: tonnes ore	**8.2**	
Total Ore Indicated Resource Tonnes Mined	kt	**2 741**	2 310
Total Ore Indicated Resource Content	oz	**194 470**	205 010
Total Inferred Mineral Resources Mined	kt	**1 119**	211
Total Inferred Mineral Resources Content	oz	**65 137**	14 414
Average Mined Grade	g/t	**2.09**	2.71
Total Oz in Mine Plan	oz	**259 607**	219 425
Gold Recovered	oz	**234 063**	200 905
Average ounces recovered per month	oz	**3 080**	3 348
Average ounces recovered per annum	oz	**36 957**	40 176
Grade Delivered to Plant	g/t	**2.09**	2.71
Recovered grade	g/t	**1.88**	2.48
Yield/Recovery	%	**90.2%**	91.6%
All in Sustaining Costs ("AISC" base case)	USD per oz	**855**	760
All in Costs ("AIC" base case)[1]	USD per oz	**989**	933
Life of Mine	Months	**76**	57
Life of Project (Processing)	Months	**80**	60

Notes:

1. AISC + non-sustaining capital expenditure.

The recoveries used in the Optimised Study are a continuation of the work completed for the FS. Over 200 laboratory bottle rolls were done on the Reverse Circulation chip samples during the drilling campaign to ensure that the material being sampled would continue to demonstrate the oxidised nature of the ore and return > 90% leach recoveries.

For the feasibility study a selection of samples were identified by Minxcon that provided a fair representation of the various reefs. These samples were then composited and sent to SGS Laboratories for a metallurgical test work campaign. The results from this campaign were used for the process plant design as well as for the gold production model that flowed through into the financial model.

All the results continue to support a metallurgical recovery in a standard CIL plant of > 90%.

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STRESS TEST FOR PRODUCTION TARGET

The Optimised Study has included a portion of Inferred Mineral Resources as summarized in the table below. See Production Target in Table 3 for more detail. In order to provide a stress test to the project economics a model was run which excluded all the inferred resources from the schedule. The results are shown below

Table 9 : Production Target Summary

LoM Production Summary	Grade	Reef Tonnes	Au Content	
	g/t	kt	kg	oz
Total Indicated Ore	2.21	2 741	6 049	194 470
Total Inferred Ore	1.81	1 119	2 026	65 137
Total Ore	2.09	3 861	8 075	259 607
Total Waste Tonnes (kt)				45 750
Stripping Ratio Including Dumps				11.8
Stripping Ratio Excluding Dumps				13.3

The company has also completed an economic evaluation of the optimized mine schedule without the inferred resources and the project continues to demonstrate strong economic performance.

Table 10 : Stress Test Financials - Optimised Study Mine Schedule Exc. Inferred Resources

Item	Unit	Base Case $1 500/oz	May '19 FS $1 257/oz
NPV @ 0%	USDm	73	66
NPV @ 5%	**USDm**	**62**	**50**
NPV @ 7.5%	USDm	52	38
NPV @ 10%	USDm	45	29
NPV @ 15%	USDm	38	22
Internal Rate of Return (IRR)	%	106.4%	65.1%
Total ounces in Mine plan	oz	194 470	219 425
Total Oz Recovered	oz	177 049	200 905
Average ounces recovered per month	oz	2 766	3 348
Average Grade to Plant	g/t	2.21	2.71
Benefit-Cost Ratio/Money on Investment$_{5.0}$	**Ratio**	**3.4**	**2.8**
Return on Investment$_{5.0}$	%	237%	182%
Average Payback Period (From Start of Production)	Month	9	14
Total Capital Requirement	USDm	31.4	34.3
Peak Funding Requirement	USDm	26.7	29.2
Peak Funding Month	Month	9	21
Revenue over LoM (Undiscounted)	USDm	265.0	252.6
EBITDA over LOM (Undiscounted)	USDm	108.1	99.6
Net Cash Flow over LoM (Undiscounted)	USDm	73.0	65.7
Break-even Milled Grade (Excluding Capex)	g/t	1.3	1.6
Break-even Milled Grade (Including Capex)	g/t	1.6	2.0
Break-even Gold Price (Excluding Capex)	USD/oz	886	760
Break-even Gold Price (Including Capex)	USD/oz	1 064	933
Exchange Rate	ZAR/USD	16.00	14.01

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Table 11 : Stress Test Cost per Ton - Optimised Study Mine Schedule Exc. Inferred Resources

Item	ZAR/Milled tonne	USD/Milled tonne
Net Turnover	1 547	96.7
Mine Cost	364	22.7
Processing Costs	342	21.4
On-Site Other Costs	138	8.6
Royalties	37	2.3
Operating Costs	881	55.1
SIB Capex	0	0.0
Reclamation	17	1.1
Off-Mine Overheads	18	1.1
All-in Sustainable Costs (AISC)	916	57.2
Capital	183	11.5
All-in Costs (AIC)	1 099	68.7
All-in Cost Margin	29%	29%
EBITDA*	631	39.4
EBITDA Margin	41%	41%
Exchange Rate (ZAR/USD)	16.00	16.00

Table 12 : Stress Test Cost per Ounce - Optimised Study Mine Schedule Exc. Inferred Resources

Item	ZAR/Gold oz	USD/Gold oz
Net Turnover	23 952	1 497
Mine Cost	5 631	352
Processing Costs	5 296	331
On-Site Other Costs	2 137	134
Royalties	580	36
Operating Costs	13 645	853
SIB Capex	0	0
Reclamation	263	16
Off-Mine Overheads	272	17
All-in Sustainable Costs (AISC)	14 179	886
Capital	2 841	178
All-in Costs (AIC)	17 019	1 064
EBITDA*	9 773	611
Exchange Rate (ZAR/USD)	16.00	16.00

Note: * Excludes Capex

MINING METHOD

The mining method selected for this project is modified terrace mining (Figure 13) and is suited to the mountainous profile of the current topography.

The orebodies are considered stratified and on an inclined mountain. The ore will be extracted on a flat surface whereby all the ore is extracted on the horizontal plane via ripping, loading and hauling.

The modified terrace mining method incorporated at the Theta Project will consist of partial in pit waste (backfilling of the waste material) to reduce environmental footprint. Browns Hill open pit will not be backfilled as the pit will be used for stormwater management and then possibly

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for future tailings capacity. The waste will be dumped onto a waste rock dump situated nearby. Theta Hill and Iota Pit will be partially backfilled and the waste that is not backfilled will be dumped onto a waste rock dump situated at Theta Hill and Iota Pit respectively.

The overburden or waste material will be removed with a combination of excavators and trucks with the assistance of ripping via a dozer. The waste material will require some breakage prior to the loading and it is expected that this will be achieved by ripping with a dozer. The ripping of the waste material will increase the simplicity, safety and slope stability of the operation compared to conventional drill and blast methods.

The mining method is illustrated in the simplified diagram in Figure 13.

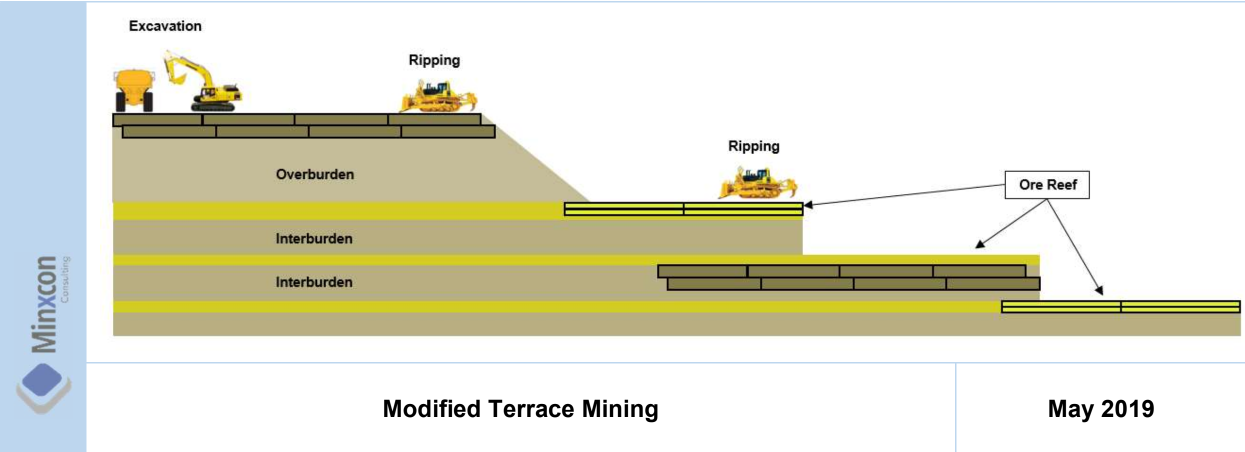

Figure 13 : Modified Terrace Mining

OPERATING COSTS

The development of the operating costs has advanced since the May ’19 FS. Further work has been done on refining the mining costs including the further definition of the scope of works for the mining contractors to provide quotes and these costs are now reflected in the models. The operating costs for the plant have been adjusted to reflect the increase in throughput to 600 ktpa. The deterioration of the ZAR/USD exchange rate has also allowed for improvements in operating cost on a USD/t basis.

Table 13 : Operating Costs (Steady State) USD/t milled

Area	Base Case $1 500/oz	May ’19 FS $1 257/oz
Plant (Labour, Reagents, Maintenance, Assays, Refinery, Power)	**20.80**	21.04
Royalties	**2.50**	1.16
Mining (Waste, Ore, Diesel)	**19.30**	22.98
Other (Site overheads, Tech Services, refining Other Support services, Audit etc., Social and Environmental)	**7.50**	9.45
Total	**50.10**	**54.63**
Exchange Rate (ZAR/USD)	**16.00**	14.01

Note:

- LoM stripping ratio of 19.0 total (including rollover ratio)

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Plant costs were developed from first principals.

- The labour component was calculated from a defined organizational structure.
- Reagents were determined from quoted pricing and applied to defined consumption rates determined through met test work and operating data.
- Power costs was determined from published power rates and a defined daily power draw based on operating time for each piece of equipment.
- Refinery costs were determined from data provided by Rand Refinery.
- Assay costs were determined from daily and weekly required sampling and calculated using a cost provided by an outsourced supplier.
- Maintenance costs are based on a factorized estimate based on capital equipment costs and as per standard estimate principles.

Tailings deposition costs were provided by the tailings design specialists and based on estimates from their current operational sites.

The development of the mining costs has followed a complete and detailed process including:

- Development of pit shells based on the resource model and then client selection of pits based on internal criteria such as grade and volume available on tailings dam.
- The selected pits were then scheduled in detail. The Geotechnical considerations for slope angles were done through an independent third party and included site visits, inspection of core and RC chips on site, a review of the geological model and modelling of geotechnical consideration.
- A detailed scope of work was developed and included a full mining schedule as well as all information considered to be relevant to mining contractors for the purposes of delivering a pricing structure that could be independently evaluated for use in a Feasibility Study.
- A site visit was arranged for all contractors and was led by Minxcon with representation from the client, geotechnical and mining engineers as well as client Geologist responsible for drilling of the resources.
- All pricing received from contractors was carefully evaluated and an independent consultant was brought in to evaluate the pricing based similar projects that he was operating. In addition, the consultant met with the various contractors to discuss their pricing structures and confirm their continued interest in the project as it progresses to the next phase of contract negotiations.
- Only once all of the above items were completed was the selected pricing inputted into the model

The general principle for the project was to avoid the use of drill and blast techniques due to proximity to the town of Pilgrim's Rest. The mine plan assumes mining will largely be done by dozer ripping.

Other costs were determined using the following principles:

- A detailed organizational structure was drawn up and a detailed site-specific Patterson Grading model was applied to determine the labour costs.
- The organizational structure accounts for mine management, finance and admin and other in-house support services.
- Outsourced services such as legal, technical services, IT, health monitoring and environmental auditing are all accounted for.
- The current social and labour plan projects are accounted for as well.

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Table 14 : Operating Costs USD/t milled

Item	Lower Case $1 369/oz	Base Case $1 500/oz	Stretch Case $1 600/oz
Net Turnover	83.6	**90.8**	96.8
Mine Cost	21.0	**19.3**	18.1
Processing Costs	22.8	**20.8**	19.6
On-Site Other Costs	8.1	**7.5**	7.2
Royalties	1.5	**2.5**	3.3
Operating Costs	53.3	**50.1**	48.2
SIB Capex	0.0	**0.0**	0.0
Reclamation	0.9	**0.8**	0.8
Off-Mine Overheads	1.0	**0.9**	0.9
All-in Sustainable Costs (AISC)	55.2	**51.8**	49.8
Capital	8.9	**8.1**	7.7
All-in Costs (AIC)	64.1	**60.0**	57.5
All-in Cost Margin	23%	**34%**	41%
EBITDA*	28.4	**38.9**	47.0
EBITDA Margin	34%	**43%**	49%
Gold in Mine Plan	259 607	**259,607**	259,607
Gold Recovered	234 063	**234 063**	234 063
Exchange Rate ZAR/USD	14.64	**16.00**	17.00

Note: * Excludes Capex

Table 15 : Operating Costs USD/oz milled

Item	Lower Case $1 369/oz	Base Case $1 500/oz	Stretch Case $1 600/oz
Gold in Mine Plan	259 607	**259 607**	259 607
Gold Recovered	234 063	**234 063**	234 063
Net Turnover	1 380	**1 497**	1 597
Mine Cost	347	**318**	299
Processing Costs	376	**344**	323
On-Site Other Costs	133	**124**	118
Royalties	24	**42**	54
Operating Costs	880	**827**	795
SIB Capex	0	**0**	0
Reclamation	14	**13**	12
Off-Mine Overheads	17	**15**	15
All-in Sustainable Costs (AISC)	911	**855**	822
Capital	147	**134**	126
All-in Costs (AIC)	1 058	**989**	948
EBITDA*	469	**642**	775
Exchange Rate ZAR/USD	14.64	**16.00**	17.00

Note: * Excludes Capex

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ENVIRONMENTAL AUTHORISATIONS

As part of the approval process for a mining right, the Mineral and Petroleum Resources Development Act, No. 28 of 2002 and in terms of the One Environmental System, an application for, and approval of, Environmental Authorisation is required. This EA comprises a complete Environmental Management Programme Report ("EMPR"), incorporating an Environmental Impact Assessment ("EIA") and Environmental Management Programme ("EMP"), which must be submitted and approved. The general process is described below.

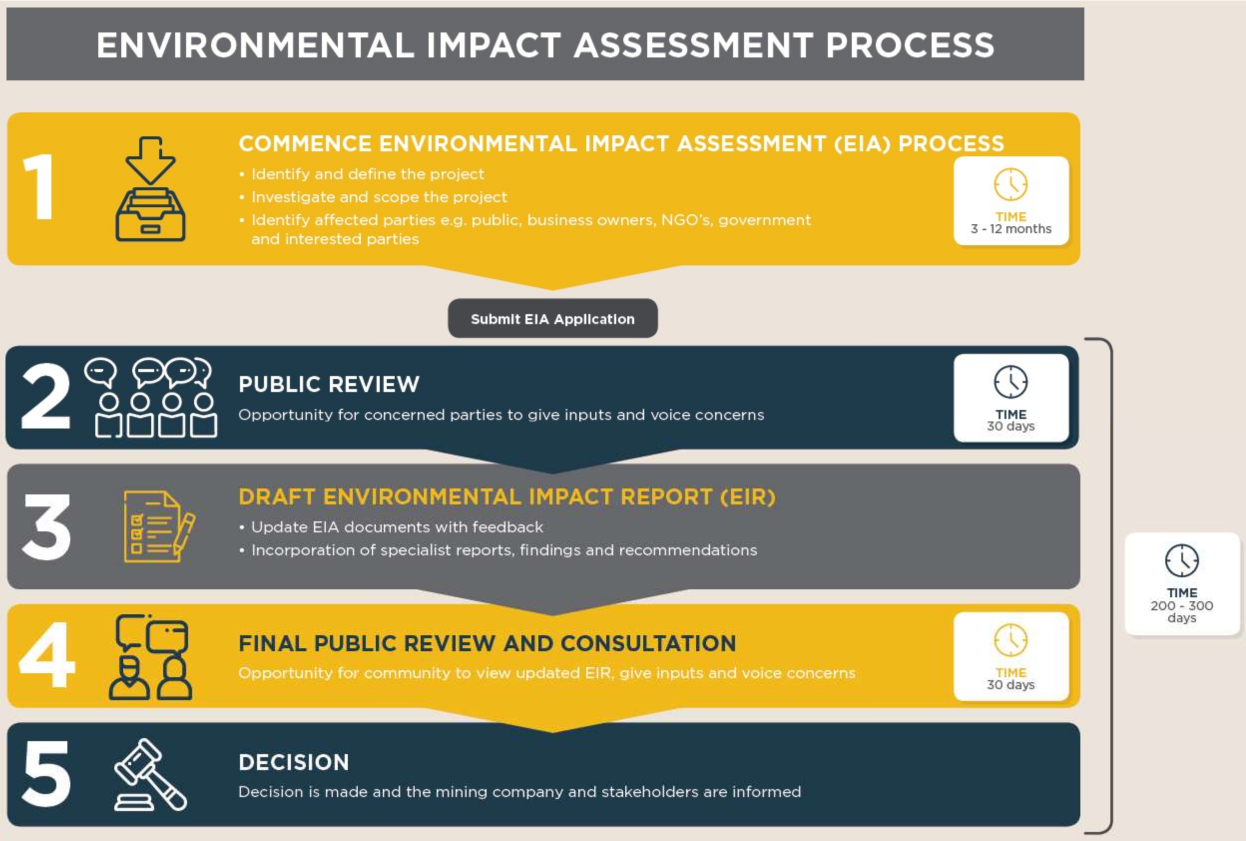

Figure 14 : Simplified Environmental Authorisations Process and Timeline

The Theta Project is situated on MR83 and has some additional resources in the adjacent MR341 to the south. MR83 is an approved and executed mining right and has an approved Environmental Authorisation for underground mining activities, as well as approval for processing of ore and deposition of residues onto an existing tailings dam.

In order to bring in open cut mining approvals, the Company is required to gain an approved amendment to MR83 and complete an EIA process. The company has advanced the environmental authorisation process and is currently finalising documentation to reflect the environmental improvements, including changes to the mining areas, as identified by the specialists and as part of step 4 in the simplified schematic above.

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STUDY INPUTS AND DERIVATION

The Theta Project Optimised Study is based on the following key input parameters:-

- The Mineral Resources were estimated and compiled by Minxcon (Johannesburg);
- The Project mine plan and detailed monthly mining and processing schedule, derived from primarily Indicated Mineral Resources and portion of Inferred Mineral Resources (25% of content) was produced by Minxcon after the application of mining parameters, mining and processing costs from in-country contractors, processing inputs and geotechnical pit design considerations.
- Maiden Probable Reserve has been stated by Minxcon after excluding the Inferred Mineral Resources and confirming the economic viability thereof and follow on from the FS completed in May 2019.
- Geotechnical inputs and parameters for pit designs from Open House Management Solutions (Pty) Ltd ("OHMS") (Rustenburg);
- Process engineering design, capital and operating costs by METS South Africa (Pty) Ltd ("METS") (Pretoria);
- Metallurgical recovery inputs based on test work by SGS South Africa and interpreted by ENC Minerals (Pty) Ltd ("ENC").
- Tailings storage facility design, capital and operating costs by Tailex Management Services (Pty) Ltd ("Tailex")
- Waste, residue and water storage designs by Minxcon;
- Rehabilitation provision by Globesight (Pty) Ltd;
- Other cost inputs, i.e. labour, overheads, outsources services and environmental and socio-economic costs by owner's team; and
- Financial Model compiled by Minxcon.

This announcement was authorised for release by the Board of Directors.

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ABOUT THETA GOLD MINES LIMITED

Theta Gold Mines Limited (ASX: TGM, TGMO | 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 focussing on the construction of a new gold processing plant within its approved footprint at the TGME plant, and for the processing of the Theta Open Pit oxide gold ore. Nearby surface and underground mines and prospects are expected to be further evaluated in the future.

The Company aims to build a solid production platform to over 150kozpa 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, Stonewall Mining (Pty) Ltd ("Stonewall"). Stonewall 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.

Competent Persons Statement

Mineral Resources (April 2020)

The information in this report relating to Mineral Resources (April 2020) is based on, and fairly reflect, the information and supporting documentation compiled by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, MGSSA), a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions.

Mr Engelmann 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 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Engelmann consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Mineral Resources (May 2019) and Ore Reserves

The information in this report relating to Mineral Resources (May 2019) is based on, and fairly reflects, the information and supporting documentation compiled by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, MGSSA), a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions.

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 (Min.), MCom (Bus. Admin.), MMC, Pr.Eng. No. 20050318, FSAIMM, AMMSA), a director of Minxcon (Pty) Ltd and a member of the Engineering Council of South Africa.

The original reports titled "Theta Gold increases Mineral Resource to over 6Moz" and "Positive Feasibility Study for Theta Project" were dated 16 May 2019 and were released to the Australian Securities Exchange (ASX) on that date. The Company confirms that –

- it is not aware of any new information or data that materially affects the information included in the ASX announcements; and
- all material assumptions and technical parameters underpinning the estimates in the ASX announcements continue to apply and have not materially changed.

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.

FORWARD LOOKING AND CAUTIONARY STATEMENTS

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

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

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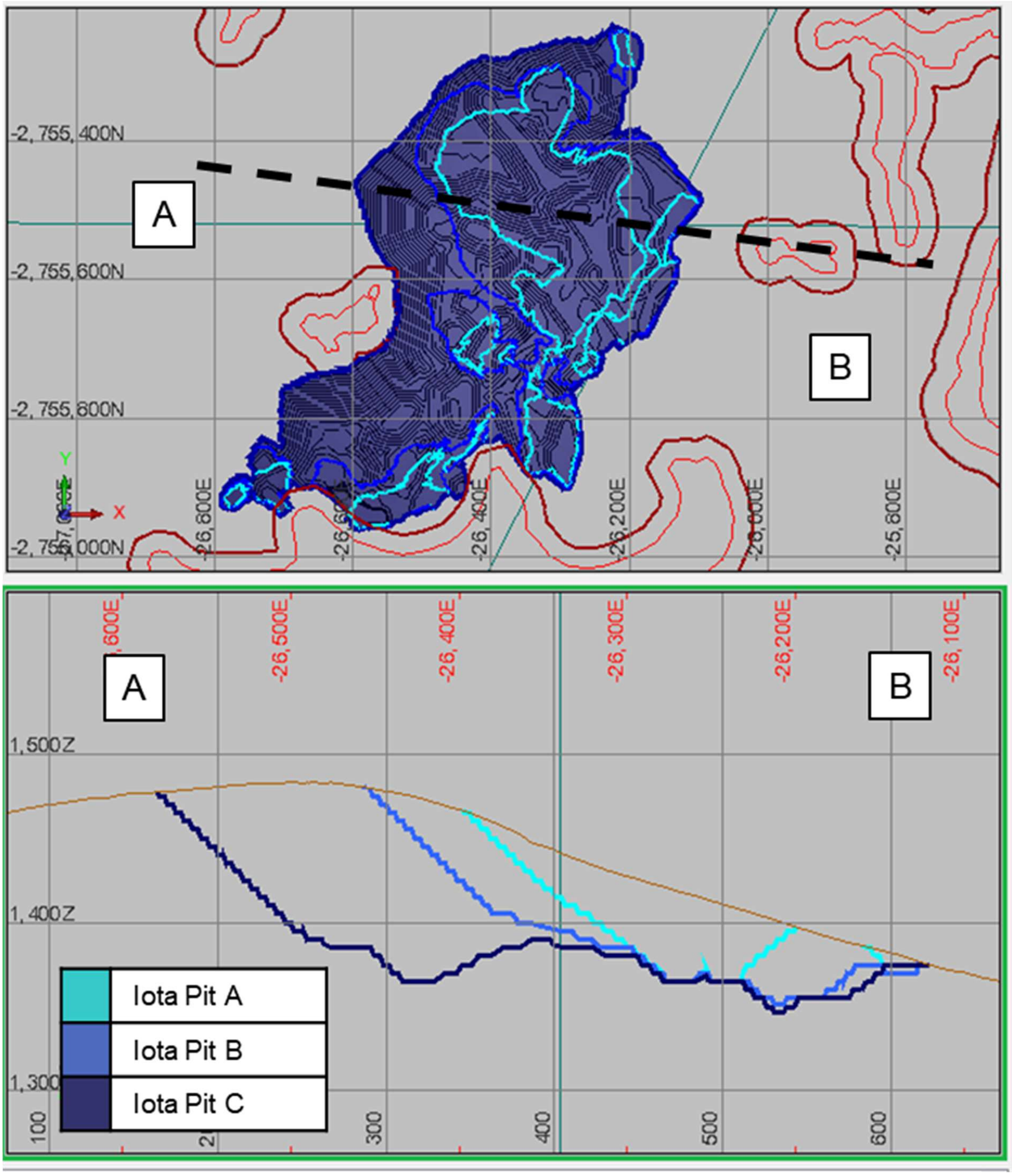
APPENDIX A

Theta Starter Project Pits (MR83 Only)

Iota Pit



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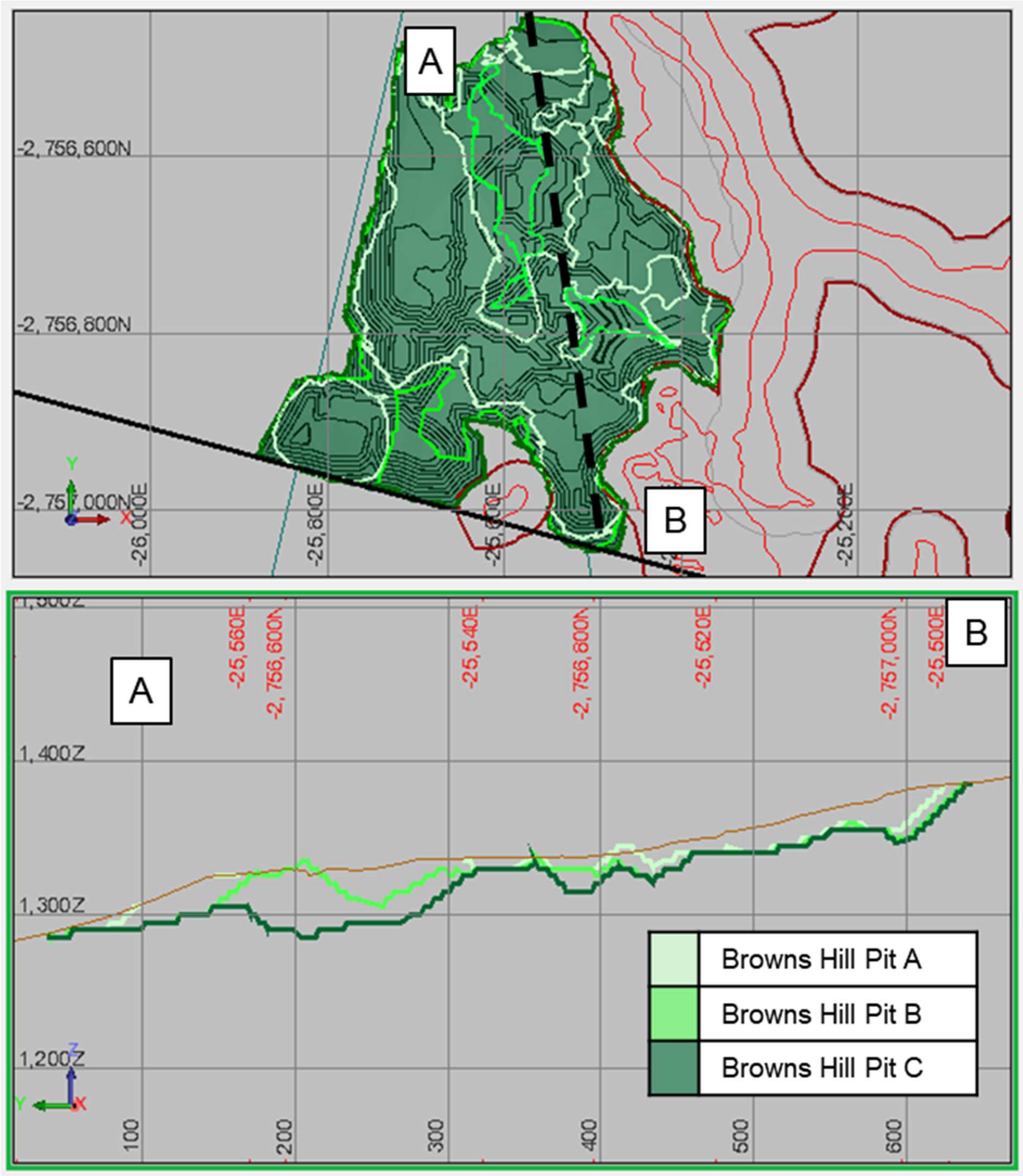
Browns Hill Pit



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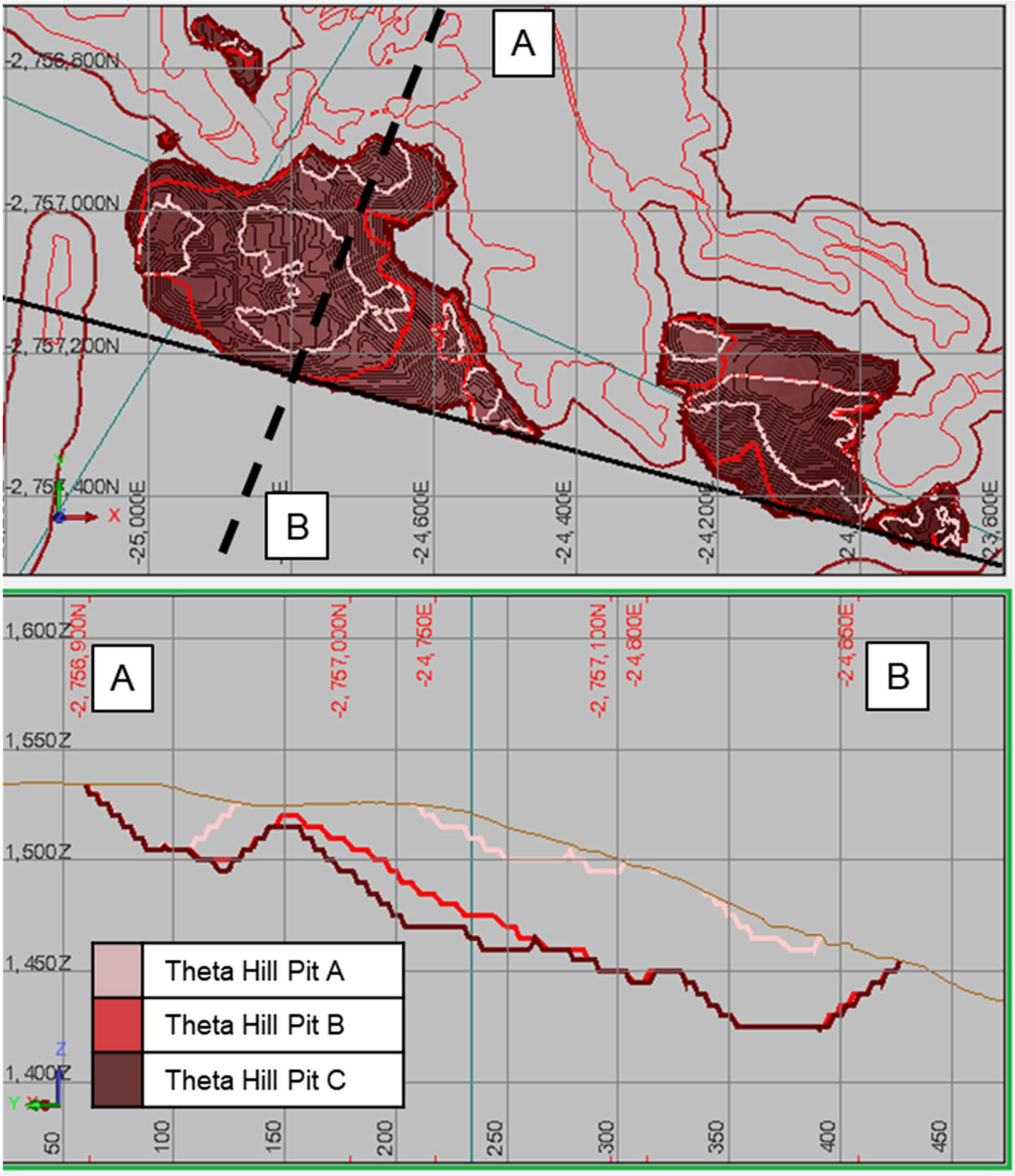
Theta Hill Pits



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APPENDIX B

JORC Mineral Resources for the Total Theta Project (as at May 2019)

Mineral Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Indicated	Theta Hill & Browns Hill	Shale	1.02	200	204	0.395	402	12.9
	Theta Hill & Browns Hill	Bevett's	1.10	221	244	0.802	886	28.5
	Theta Hill & Browns Hill	Upper Theta	2.41	100	241	0.652	1568	50.4
	Theta Hill & Browns Hill	Lower Theta	3.70	100	370	0.799	2956	95.0
	Theta Hill & Browns Hill	Beta	2.49	100	249	0.345	859	27.6
	Iota	Bevetts	2.89	114	330	0.105	303	9.7
	Iota	Upper Rho	2.43	393	956	0.808	1965	63.2
	Iota	Lower Rho	2.51	550	1381	0.815	2047	65.8
	Iota	Upper Theta	1.08	114	123	0.158	171	5.5
Total Indicated			**2.29**	**252**	**577**	**4.879**	**11 157**	**358.7**

Mineral Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Inferred	Theta Hill & Browns Hill	Shale	1.11	216	240	0.598	666	21.4
	Theta Hill & Browns Hill	Bevetts	1.07	213	227	0.551	589	19.0
	Theta Hill & Browns Hill	Upper Theta	1.86	100	186	0.910	1692	54.4
	Theta Hill & Browns Hill	Lower Theta	8.11	100	811	1.397	11329	364.3
	Theta Hill & Browns Hill	Beta	2.23	100	223	0.636	1417	45.6
	Iota	Upper Rho	5.13	106	544	0.099	507	16.3
Total Inferred			**3.87**	**131**	**508**	**4.190**	**16 202**	**520.9**

Mineral Resource Classification	Open Pit Mine	Reef	Reef Grade	Reef Width	Content	Reef Tonnes	Au Content	
			g/t	cm	cmgt	Mt	Kg	koz
Indicated	Total Theta Project	All	2.29	252	577	4.879	11157	358.7
Inferred	Total Theta Project	All	3.87	131	508	4.190	16202	520.9
Total Indicated and Inferred			**3.02**	**197**	**593**	**9.069**	**27 359**	**879.6**

Notes:

1. Theta Project (Theta Hill, Browns Hill and Iota) cut-off is 0.35 g/t;
2. The gold price used for the cut-off calculations is USD 1 500/oz;
3. Geological losses applied are 10% for inferred and 5% for Indicated;
4. Theta Hill and Browns Hill - Upper Theta Reef, Lower Theta Reef and Beta Reef are diluted grades over 100 cm;
5. Historical mine voids have been depleted from the Mineral Resource;
6. The inferred Mineral Resources have a high degree of uncertainty and it should not be assumed that all or a portion thereof will be converted to Ore Reserves;
7. Mineral Resource fall within the mining right 83MR and 341MR.

JORC Mineral Resources for the Waste Rock Dumps (as at April 2020)

Mineral Resource Category	Surface Operation	Reef	Tonnage	Gold Grade	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**	**1059**	**34.0**

Notes:

1. Waste rock dump cut-off is 0.35 g/t;
2. The gold price used for the cut-off calculations is USD 1 500/oz;
3. No Geological losses applied;
4. The inferred Mineral Resources have a high degree of uncertainty and it should not be assumed that all or a portion thereof will be converted to Ore Reserves;

APPENDIX C

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)</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</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>
<tr><td>TGME Plant</td><td>Tailings</td><td>Auger Drillhole Data</td></tr>
<tr><td rowspan="3">Vaalhoek, South East (DG’s), Peach Tree, Ponieskrantz, Dukes Clewer</td><td rowspan="3">Rock Dump</td><td>Bulk Sampling Data</td></tr>
<tr><td>Trench Sampling Data</td></tr>
<tr><td>Sampling Pit Data</td></tr>
</table>
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:-
</td></tr>
</table>

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SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
		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. e) Bulk Sampling (South East (DG's), 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 2.1m. 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 2.1m. 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	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

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SECTION 1: SAMPLING TECHNIQUES AND DATA		
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	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 sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	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 test work 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 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 ("HBR") 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 TGME 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

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

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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 atomic absorption spectrometry ("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 analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No assay methods other than those conducted by laboratories as mentioned above were utilised in the generation of any of the TGME projects sampling database.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks)	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

SECTION 1: SAMPLING TECHNIQUES AND DATA		
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	and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	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 TGME. 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 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	TGME 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

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SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
	Resource estimation.	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.
	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 TGME 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.
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 TGME 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

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SECTION 1: SAMPLING TECHNIQUES AND DATA		
Criteria	**Explanation**	**Detail**
		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 <1m (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 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 TGME 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 (core) after inspecting the core against the reported drilled metres in acknowledgement of having received the core in good condition. On a weekly basis (or more often when required) samples were despatched directly to the analytical
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 practice 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"). The mineral rights 83MR, 340MR, 358MR and 433MR have been granted, registered and executed and are currently active, held over certain Mineral Resource areas. Their accompanying environmental and social permits are also executed. The mining rights 10161MR and 10167MR are pending execution. The mining rights 330MR, 341MR and 198MR are still in the approval process. A Section 102 amendment process for inclusion of Theta Project 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	TGME is required to comply with DMR 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 DMR communication on 330MR, 341MR and 198MR, and notes that the security of these rights may be at risk. The 83MR Section 102 application is following timelines as stipulated by applicable regulations.

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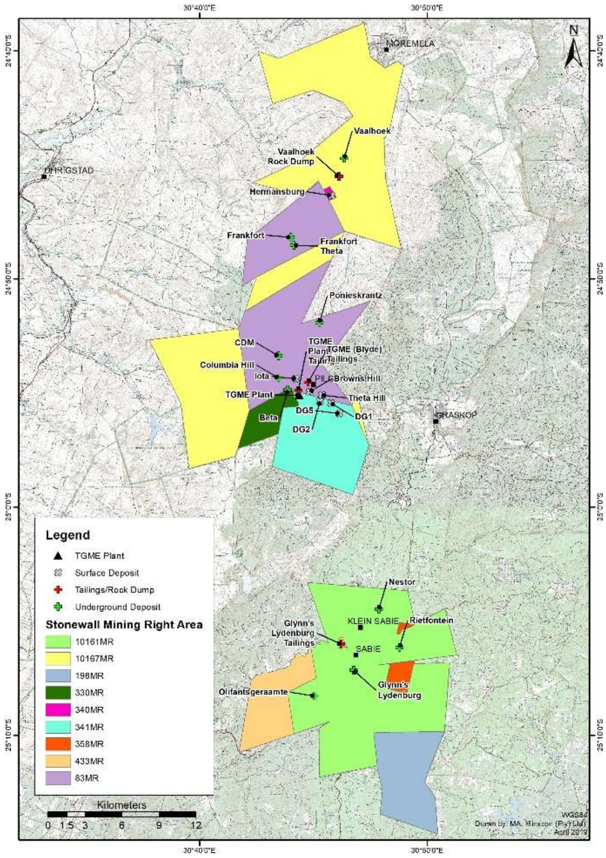
SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	licence to operate in the area.	The Mineral Resource is located within the above permit areas as per the figure to follow. 
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	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 TGME 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 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	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 numbers presented for drillholes in the table below represent all drillhole records, regardless of the status of the data concerned.

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<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>level in metres) of the drillhole collar
* dip and azimuth of the hole
* down hole length and interception depth
* hole length.</td><td>
<table>
<tr><th rowspan="2">Project Area</th><th rowspan="2">Sampling Data Types</th><th>Historical datasets (Pre - 2007/2008)</th><th>Recent Datasets</th></tr>
<tr><th>Quantity (Incl. Wedges)</th><th>Quantity</th></tr>
<tr><td rowspan="2">Rietfontein</td><td>Drillhole Data</td><td>8</td><td>-</td></tr>
<tr><td>Channel Chip Sample Data</td><td>2,265</td><td>-</td></tr>
<tr><td rowspan="2">Beta</td><td>Drillhole Data</td><td>7</td><td>20</td></tr>
<tr><td>Channel Chip Sample Data</td><td>4,553</td><td>-</td></tr>
<tr><td rowspan="2">Frankfort</td><td>Drillhole Data</td><td>15</td><td>59</td></tr>
<tr><td>Channel Chip Sample Data</td><td>3,187</td><td>864</td></tr>
<tr><td rowspan="2">CDM</td><td>Drillhole Data</td><td>115</td><td>-</td></tr>
<tr><td>Channel Chip Sample Data</td><td>24,483</td><td>-</td></tr>
<tr><td rowspan="2">Olifantsgeraamte</td><td>Drillhole Data</td><td>1</td><td>-</td></tr>
<tr><td>Channel Chip Sample Data</td><td>316</td><td>-</td></tr>
<tr><td rowspan="3">Vaalhoek</td><td>Drillhole Data</td><td>16</td><td>8</td></tr>
<tr><td>Channel Chip Sample Data</td><td>3,836</td><td>-</td></tr>
<tr><td>Stretch Values</td><td>1,472</td><td>-</td></tr>
<tr><td rowspan="3">Glynn’s Lydenburg</td><td>Drillhole Data</td><td>-</td><td>-</td></tr>
<tr><td>Channel Chip Sample Data</td><td>26,435</td><td>-</td></tr>
<tr><td>Stretch Values</td><td>872</td><td>-</td></tr>
<tr><td rowspan="3">Theta Project (Theta, Browns Hill & Iota)</td><td>Drillhole Data</td><td>263</td><td>371</td></tr>
<tr><td>Trench Sampling</td><td>-</td><td>10</td></tr>
<tr><td>Channel Chip Sample Data</td><td>7,472</td><td>-</td></tr>
<tr><td rowspan="2">Columbia Hill</td><td>Drillhole Data</td><td>26</td><td>-</td></tr>
<tr><td>Channel Chip Sample Data</td><td>14,478</td><td>-</td></tr>
<tr><td>Hermansburg</td><td>RC Drillhole Data</td><td>-</td><td>79</td></tr>
<tr><td>DG1</td><td>RC Drillhole Data</td><td>-</td><td>57</td></tr>
<tr><td>DG2</td><td>RC Drillhole Data</td><td>-</td><td>221</td></tr>
<tr><td rowspan="2">DG5</td><td>Grab Samples</td><td>-</td><td>≈100</td></tr>
<tr><td>RC Drillhole Data</td><td>-</td><td>19</td></tr>
<tr><td>Glynn’s Lydenburg TSF</td><td>Auger Drillhole Data</td><td>-</td><td>140</td></tr>
<tr><td>Blyde TSFs (1, 2, 3, 3a, 4, 5)</td><td>Auger Drillhole Data</td><td>-</td><td>86</td></tr>
<tr><td>TGME Plant</td><td>Auger Drillhole Data</td><td>-</td><td>34</td></tr>
<tr><td rowspan="3">Vaalhoek (Rock dump)</td><td>Bulk Sampling Data</td><td>-</td><td>1</td></tr>
<tr><td>Trench Sampling Data</td><td>-</td><td>13</td></tr>
<tr><td>Sampling Pit Data</td><td>-</td><td>57</td></tr>
<tr><td>South East (DG's) (Rock dump)</td><td>Bulk Sampling Data</td><td>50</td><td>-</td></tr>
<tr><td>Peach Tree (Rock dump)</td><td>Bulk Sampling Data</td><td>8</td><td>-</td></tr>
<tr><td>Ponieskrantz (Rock dump)</td><td>Bulk Sampling Data</td><td>10</td><td>-</td></tr>
<tr><td>Dukes Clewer (Rock dump)</td><td>Bulk Sampling Data</td><td>13</td><td>-</td></tr>
</table>
</td></tr>
<tr><td></td><td>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</td><td>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 was stopped due to budget constraints and the mineralised zones were never assayed.</td></tr>
<tr><td rowspan="2">Data aggregation methods</td><td>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.</td><td>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.</td></tr>
<tr><td>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low</td><td>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.</td></tr>
</table>

SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	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.
	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 TGME 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 TGME. This Mineral Resource Report contains summary information for all historic sampling and drilling campaigns within the Project Area, as well as new 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 test results; bulk density, groundwater, geotechnical and rock characteristics;	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. TGME has recently undertaken additional drilling at Columbia Hill (Iota), Theta Hill, Browns Hill and Iota (Theta Project). This data has been incorporated in the current Mineral Resource estimate. TGME has completed and is still in the process of completing metallurgical test work and studies for the recoveries of the various reefs. This testwork all forms part of the feasibility study that is being completed.

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SECTION 2: REPORTING OF EXPLORATION RESULTS		
Criteria	**Explanation**	**Detail**
	potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	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.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	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.

Project	Type of Potential	Comment
Rietfontein	Lateral and depth extensions	Lateral extension is possible to the south which is untested as well as at depth below the current historical mining areas
Beta	Lateral extension	Lateral extension of the main beta "Payshoot"
CDM	Lateral extension	Lateral extension to the south toward Dukes' Hill South
Theta	Lateral extension	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
Vaalhoek	Depth extensions and open-pit opportunities	Near surface potential (open pit) exists on the Vaalhoek Reef and Thelma Leaders Reef
Glynn's Lydenburg	Shallow lateral extensions	The new model has identified new high-grade exploration targets for possible near surface open pit opportunities
Columbia Hill	Shallow lateral extensions	The new geological interpretation has identified Columbia Hill as a potential open pit target that will be drilled in the near future

This table excludes all the other historical mines that have not been investigated yet.

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

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
		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. The most recent site visit by Mr Uwe Engelmann was on 21 January 2020 to investigate the additional waste rock dumps for which the historical data was supplied by Mr Phil Bentley.
	If no site visits have been undertaken indicate why this is the case.	Not applicable – refer to above.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	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 TGME 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:

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<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>
<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="17">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="7">Theta Project (Theta, Browns Hill & Iota) (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">Compound 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="9">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>
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<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 (DG’s), 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 TGME. Where this information did not exist, Minxcon digitised the development, stoping outlines, pillars, chip sample data, geological mapping and interpretation data (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 TGME. 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</td></tr>
</table>

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES

Criteria	Explanation	Detail
		with the Theta Project. The surficial or eluvial deposits utilised topographical control as opposed to geological control.
	The factors affecting continuity both of grade and geology.	The Mineral Resource estimation has been restricted to the hard boundaries defined in the geological interpretation in the form of faulting and outcrop lines. With regards Rietfontein a maximum depth below surface of 440 m restricts the depth extension.
Dimensions	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.	The block model extents for all the digital project models are shown in the table below. The block models cover all the structures modelled.

Geological Model Type	Project Area	Reef	Block Size X (m)	Block Size Y (m)	Block Size Z (m)	Block Model Dimension X (m)	Block Model Dimension Y (m)	Block Model Dimension Z (m)
Sub-vertical discordant (cross-reef) reef models	Rietfontein	Rietfontein	20	30	30	900	4020	1080
Sub-horizontal concordant (and leader) reef models	Beta	Beta	50	50	10	4350	4550	10
	Frankfort	Bevetts	20	20	10	2100	1580	10
	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	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
	DG5	Eluvial	20	20	3	623	355	89
	South East (DG's)	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
	South East (DG's)	Rock Dump	N/A	N/A	N/A	N/A	N/A	N/A
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
	TGME Plant	Tailings	10	10	1.5	720	450	51
	Vaalhoek	Rock Dump	10	10	1	280	300	40
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.*

Criteria	Explanation	Detail
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 TGME 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 Min	Vgram Range Max	Est no Samples Min	Est no Samples Max	Type Estimation
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
Vaalhoek	Vaalhoek	68.9	174.8	4	20	Ordinary Kriging
	Thelma Leaders	86.7	96.5	4	20	Ordinary Kriging
Theta & 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

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Criteria	Explanation	Detail

Iota	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	264	264	1	20	Simple Kriging
DG2	Eluvial	24.7	24.7	4	40	Ordinary Kriging
DG5	Eluvial	264	264	1	20	Simple 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
TGME Plant	Tailings	120	120	2	10	Inverse distance Squared
Vaalhoek	Rock Dump	18.2	32.9	2	40	Ordinary Kriging
South East (DG's)	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

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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 resour
	Thelma Leaders	No – not a complete electronic resour
Glynn's Lydenburg	Glynn's	No – not a complete electronic resour
Theta & Browns Hill	Beta	No
	Lower Theta	No
	Upper Theta	No
	Bevetts	No
	Shale	No
Iota	Upper Theta	No
	Lower Rho	No
	Upper Rho	No
	Bevetts	No
Hermansburg	Eluvial	Yes
DG1	Eluvial	Yes
DG2	Eluvial	Yes
DG5	Eluvial	Yes
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
TGME Plant	Tailings	No – not from drill sampling
Vaalhoek	Rock Dump	Yes
South East (DG's)	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

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Criteria	Explanation	Detail
	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.	(see table below)

Geological Model Type	Project Area	Reef	Block Size X	Block Size Y	Block Size Z	Block Model Dimension X	Block Model Dimension Y	Block Model Dimension Z	Sample Spacing
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
	Iota	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
	DG5	Eluvial	20	20	3	623	355	89	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
	TGME Plant	Tailings	10	10	1.5	720	450	51	50 m
	Vaalhoek	Rock Dump	10	10	1	280	300	40	25 m
	South East (DG's)	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	

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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.

Criteria	Explanation	Detail
	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 (continued)	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.
	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

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Criteria	**Explanation**	**Detail**
		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	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	4.0	784
	DG2	Eluvial	N/A	17.3	234
	DG5	Eluvial	N/A	4.0	Included in DG1
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
	TGME Plant	Tailings	N/A	2.6	288
	Vaalhoek	Rock Dump	N/A	4.1 - 16.1	80
	South East (DG's)	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.*

Criteria	Explanation	Detail
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	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.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The density is based on a dry rock mass.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	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.

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<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>
<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></td></tr>
<tr><td>% MCF</td><td>%</td><td></td></tr>
<tr><td>Dilution</td><td>%</td><td></td></tr>
<tr><td>Plant Recovery Factor</td><td>%</td><td></td></tr>
<tr><td>Mining Costs</td><td>ZAR/t</td><td></td></tr>
<tr><td>Total Plant Cost</td><td>ZAR/t</td><td></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 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.</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>
<tr><td>Metallurgical factors or assumptions</td><td>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.</td><td>
For the Mineral Resource cut-off purpose, an average plant recovery of 90% was used for the various reefs for the underground pay limit calculation. This is an optimistic view and is based on the use of CIL and BIOX as part of the processing flow and is in line with current industry achievements.
However, in February 2018, TGME conducted sampling at the historical workings at the Neck Section, of the Vaalhoek Mine, to determine the possible recoveries for the potential open pit resources. They took four samples with the results averaging a 92 % theoretical recovery from the bottle roll test work. The four bottle roll results supplied to Minxcon are as follows:- 86.34%, 91.04%, 96.16% and 94.48%.
These samples were milled to a P80 of 80 microns and then subjected to bottle roll tests for a period of 24 hours. The Vaalhoek Reef returned an average gold recovery of 90.4% while the Thelma Leader returned an average gold recovery of 93.6%.
This recovery of 92% was therefore utilised in the cut-off parameters for the Mineral Resource cut-off for the open pit resource i.e. more oxidised material. The recent metallurgical test work being conducted currently, for the feasibility study, is returning similar recoveries.
A plant recovery of 50% was assumed for the tailings Mineral Resource which is in line with current industry achievements.
</td></tr>
<tr><td>Environmental factors or assumptions</td><td>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for</td><td>No environmental factors or assumptions were applied to this Mineral Resource estimation.</td></tr>
</table>

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SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
Criteria	**Explanation**	**Detail**
	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.	
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 the measurements, the nature, size and representativeness of the samples.	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 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/m^3 based on typical unconsolidated material densities. Minxcon used an SG of 1.4 t/m^3 for the modelling of all of the historical TSFs, with the exception of the TGME Plant TSF, where SG measurements were conducted utilising the "pipe method". The SG for this TSF was calculated at 1.54 t/m^3 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 TGME 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

SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
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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 (DG's), 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 and economic evaluation. Documentation should include assumptions made and the procedures used.	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.
	These statements of relative accuracy and confidence of	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

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SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES		
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	the estimate should be compared with production data, where available.	not readily available. At the Theta Project, a DFS 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 only investigated for the Theta Project (Theta Hill, Browns Hill and Iota Pit). The Ore Reserve estimation utilises the same Mineral Resource model used for Mineral Resource classification the Theta Project. These Mineral Resource models exclude grade cut-offs and geological losses. The conversion to Ore Reserves includes an Ore Reserve grade cut-off determined during the pit optimisation process with the relevant geological losses applied as part of the conversion factors.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are state 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 D. van Heerden conducted two separated site visits on January 2019 and March 2019. This was to become familiar with project location and state of the land. From this site visit, an understanding of the potential layouts of the pits, infrastructure and infrastructure routes was gained, as well as a general understanding of the practical design consideration. The second site visit was done along with potential contractors. The purpose of the site visit was to familiarise the potential contractors with the environment and rock characteristics to get an understanding of the Theta Project and to produce an accurate mining estimation quote for the Theta Project. Engineering and Infrastructure – Site visit conducted to evaluate topography, site layout and available infrastructure. Information and knowledge gained during site visit utilised in the placement of critical infrastructure. Visit to the processing facilities were completed by Mets (responsible for plant design and metallurgy) in July 2018. The site visits were completed by processing, structural, civil and electrical experts. The purpose was to complete detailed assessments of existing infrastructure and determine the refurbishment and upgrade requirements for the new TGME plant. Tailex (responsible for tailings dam design and detail) representatives visited the site on several occasions. Sufficient information was gathered in order to calculate the available TSF capacity. The TSF has good overall slope stability. Some of the existing infrastructure will need to be replaced.
	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.	The Theta Project did execute exploration activities complaint to a FS. Indicated and Inferred resources were classified.
	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 material Modifying Factors have been considered.	A life of mine plan to a feasibility level of detail was the basis of the reserve classification. The mine plan takes into consideration all relevant modifying factors, productivities. A financial valuation was conducted on the life of mine plan and was financially viable.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	The cut-off parameters was determined by completing a pit optimisation. The pit optimisation determines a range of economically viable pits from the pit optimisation inputs. A separate pit selection process followed where an economically viable pit shell was selected to be used as a template for mine design. The cut-off for the pit optimisation results determined in the optimisation software is 0.42 g/t. Understanding that all the tonnes in the pits will be mined an additional cut-off was calculated to determine the processing cut-off grade of 0.4 g/t which is applied as the Ore Reserve cut-off.

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SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
Mining factors or assumptions	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).	The Mineral Resources in the life of mine plan ("RIMP") was reported from the mineral resource models at the resource cut-off. The RIMP is reported before any geological losses. The tonnage and content is then then reduced by applying the geological losses as defined in the Mineral Resource estimation. This results in a 50% Mineral Resource depleted from the 83 MR Mineral Resource. Only the Indicated ore at the reserve cut-off can be converted to Ore Reserves and the Inferred ore have to be removed for economic analysis and inclusion in the Ore Reserve. The Mineral Resources to Reserve conversion is calculated before any other factors are applied to ensure it can be compared to the Mineral Resources, the Ore Reserve conversion for 83MR is 47%. The Resource to 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 potential oreloss and dilution to the resources was determined and applied to the resources available for conversion to reserves. The oreloss reduces the tonnage and content, while the dilution would add additional tonnage with no gold content reducing the overall grade.
	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.	The mining method selected for this Project is modified terrace mining and is suited to the mountainous profile of the current topography. The orebodies are considered stratified and on an inclined mountain. The steeply dipping nature of the mountain and relatively small scale of the operation eliminated the use of draglines and conventional strip mining. To overcome the steeply dipping orientation, the ore will be extracted on a flat surface whereby all the ore are extracted on the horizontal plane via ripping, loading and hauling.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.	A combined overall slope angle of 40° was selected to accommodate all the rock type in the Theta Project. The selected slope angle is well in the range of the recommended slope angles.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Geological Losses applied to Indicated Mineral Resources are 5.00%, as applied in the Mineral Resource estimation. Geological Losses applied to Inferred Mineral Resources are 10.00%, as applied in the Mineral Resource estimation.
	The mining dilution factors used.	The contamination is calculated as 10 cm on the floor of the reef and 10 cm in the top of the reef for operating pits.
	The mining recovery factors used.	An overall extraction of 100% was utilised as a MCF as all the gold will be accounted for.
	Any minimum mining widths used.	No minimum mining widths was used in the design of the Theta Project as the ripping of the dozers can rip the minimum orebody widths.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	A portion of the life of mine ("LoM") design and schedule was prepared within Inferred Mineral Resources that cannot be included as Ore Reserves. The Inferred Mineral Resources in the Theta Project contains 8.35% of the total 2,520 kt Mineral Resource which amounts to 211 kt.
	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; • Haul roads; • Waste rock dumps; • Strategic ore stockpile; • RoM stockpile; • Topsoil stockpile; • Clean water diversion trenches; • Dirty water collection trenches; • Pollution control dams; • Pit dewatering system; • Site water management system; and • Low level river crossing.
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	The TGME Plant has an overall design capacity of approximately 42 ktpm and will consist of conventional free-milling gold leaching technologies that is appropriate to the oxide mineralisation. The plant will achieve recoveries of between 86.5% and 95.3% depending on the ore type. 50% of the plant tailings slurry material will filtered with the filter cake used for TSF buttress walls. The other 50% of the tailings slurry will be deposited by means of conventional cycloning onto the TSF.
	Whether the metallurgical process is well-tested technology or novel in nature.	Metallurgical testwork was used as the basis for the plant design and flowsheet selection. The processing methodology and equipment for the treatment of the oxide ore body is well established and understood.
	The nature, amount and representativeness of metallurgical test work	Samples for metallurgical testwork were obtained from recent RC drilling. The samples were collected from envisaged mining areas.

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Criteria	**Explanation**	**Detail**
	undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	
	Any assumptions or allowances made for deleterious elements.	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. No other deleterious elements are anticipated which would affect economic extraction.
	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 was completed. Samples for the metallurgical testwork where obtained from RC drilling.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	Specifications are not applicable. The product will be sold as gold Doré to Rand Refinery with payability calculated based on the final gold content.
Environ mental	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.	Owing to topography and the environmentally sensitive nature of the Theta Project Area a number of locations have been considered for the placement of waste rock dumps ("WRDs") for the open pit mining operation. The Theta Project Area has been sub-divided into two main areas. The first being the Browns Hill and Theta Hill area and the second the Iota area. Two WRD locations has been considered for each of these areas. All options have been designed in CAD mine design software and a preferred option chosen from a mining and engineering perspective.
Infrastr ucture	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.	The Theta Project Area is well established. Access roads are available and in a serviceable condition. Power supply is available on site and with some expansion / upgrades on the power supply system power supply capacity to the project will be sufficient. Based on a total project static water balance (includes – mine, process plant and TSF) the project will be water positive during the wet season (October – March) and water negative during the dry months. Allowance has been made for the treatment of excess water as well as for a pumping system to supply any short falls of water. Additional make up water will be sourced from the Blyde River. Additional make up water sourced from the Blyde River is well within the allowable limits as stipulated in the existing water use licence ("WUL"). Gold 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. The Theta project is 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 where 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 2019 and an exchange rate of ZAR/USD 14.50 were utilised where applicable.
	The methodology used to estimate operating costs.	The mining operating costs are sourced form budget quotes received from reputable contactors. The overhead owner's cost were provided by TGME. The plant operating costs were completed from first principles with consumable supplier quotes utilised were necessary.
	Allowances made for the content of deleterious elements.	Allowance has been for the costs associated with removal of deleterious elements (WAD cyanide) prior to deposition onto the TSF.

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SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
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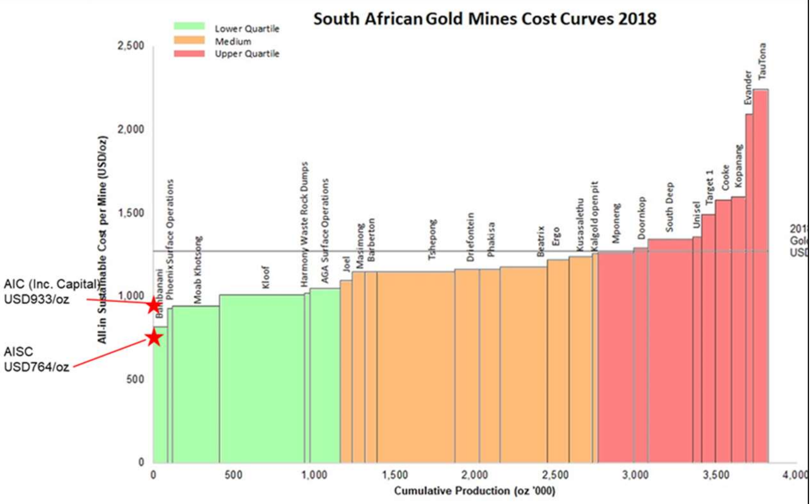
	The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products.	The price forecasts are based on forecasts from Consensus Economics which considers various brokers and analyst forecasts; the long-term price was derived using an in-house model based on the 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 (ABSA, 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 are based on indicative rates sourced from Rand Refinery; a conservative estimate has been used.
	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.
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	The head-grade is based on an Ore 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. The exchange rate forecasts are based on forecasts sourced from various South African banks (ABSA, 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 based on indicative rates sourced from Rand Refinery, conservative estimate used. Gold specification, refining charges, penalties and payabilities as per refining offer from Rand Refinery.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	No 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.	• Total supply of gold increased by 1% in 2018 to 4,490 t. • Mine production grew by 1% in 2018 to 3,347 t, making it the tenth consecutive year of growth. • Modest de-hedging of approximately 29 t saw the global hedgebook fall below 200 t by end 2018. • Recycling increased slightly in 2018 to approximately 1,173 t, more in-line with historic recycling after a dramatic jump in 2016. • The market was therefore in slight surplus, with supply exceeding demand by 75 t. • The average gold price for 2018 was 1,269, compared to 1,257 in 2017. Demand for defensive assets like gold is likely to pick up as the economic growth cycle nears its end, as concerns deepen around the widening US budget deficit and ongoing trade-war negatively affecting the country's economy. Factors that could increase interest in gold and drive the dollar lower include rising inflation, the interest rate-hiking trajectory nearing the end of its cycle and a stock-market correction. Structural economic reforms in India and China, could lead to a resurgence in gold demand in these countries as well as the wider emerging market.
	A customer and competitor analysis along with the identification of likely market windows for the product.	

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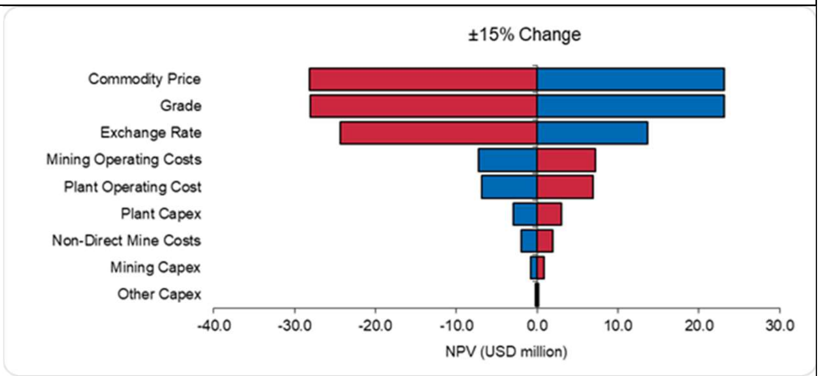
<table>
<tr><th colspan="3">SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES</th></tr>
<tr><th>Criteria</th><th>Explanation</th><th>Detail</th></tr>
<tr><td rowspan="3"></td><td></td><td>Gold dorè will be produced for sale. In the case of the Theta Project, Rand Refinery shall refine the material and if requested - sell, on their behalf. When compared to South African gold miners, Theta Project has a significant cost advantage with an AISC of USD764/oz and AIC of USD933/oz (inclusive of capital). This places Theta Project as potentially the lowest costs producer in South Africa on an AISC basis.</td></tr>
<tr><td>Price and volume forecasts and the basis for these forecasts.</td><td>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.</td></tr>
<tr><td>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</td><td>N/A</td></tr>
<tr><td rowspan="2">Economic</td><td>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.</td><td>In generating the financial model and deriving the valuations, the following were considered:-
• This Report details the optimised cash flow model with economic input parameters.
• The cash flow model is in constant money terms and completed in ZAR.
• The DCF valuation was set up in months, but also subsequently converted to financial years ending June.
• The annual ZAR cash flow was converted to USD using constant term forecast exchange rates (Median of bank forecasts) to provide real results in this currency.
• A hurdle rate of 7.5% (in real terms) was calculated 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 Theta Project.
• All results are inclusive of a small portion of Inferred Mineral Resources which forms part of the mine plan, unless indicated otherwise.</td></tr>
<tr><td>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</td><td>

The Project is most sensitive to the gold price, exchange rate, and grade, followed by mining and plant operating costs. The project is least sensitive to capital.
<table>
<tr><th>Ore Reserve Valuation</th><th>ZARm</th><th>USDm</th></tr>
<tr><td>NPV @ 0%</td><td>756</td><td>55</td></tr>
<tr><td>NPV @ 5%</td><td>557</td><td>40</td></tr>
<tr><td>NPV @ 7.5%</td><td>479</td><td>35</td></tr>
<tr><td>NPV @ 10%</td><td>411</td><td>30</td></tr>
<tr><td>NPV @ 15%</td><td>303</td><td>22</td></tr>
<tr><td>IRR</td><td>52%</td><td>53%</td></tr>
</table></td></tr>
<tr><td>Social</td><td>The status of agreements with key stakeholders and matters leading to social licence to operate.</td><td>A public participation process has initiated as part of the 83MR Section 102 amendment process for inclusion of the Theta Project to establish community views and potential project impacts, and incorporate social upliftment measures into the social strategy. The Draft Scoping Report is currently out for public review. Social engagement is ongoing until such time as the EA has been approved. A revised SLP is currently being drafted.</td></tr>
<tr><td rowspan="4">Other</td><td>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</td><td>-</td></tr>
<tr><td>Any identified material naturally occurring risks.</td><td>No material naturally occurring risks have been identified.</td></tr>
<tr><td>The status of material legal agreements and marketing arrangements.</td><td>There are no legal or marketing agreements in place for the Project.</td></tr>
<tr><td>The status of governmental agreements and</td><td>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 DMR for the addition of the Theta Project. Currently, a WULA process is underway to authorise the</td></tr>
</table>

SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	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 materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	anticipated water uses at the open pit project. An EA process is also underway. The approvals process in anticipated to be completed by November 2019, pending no delays from the DMR or DWA as the authorising authorities.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories.	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 project areas for TGME, was the basis of the Mineral Reserve estimation for the Theta Project. The level of confidence in the Indicated Mineral Resource is sufficient to convert to Probable 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).	No Measured Mineral Resources was converted to Probable Ore Reserves.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	No external audits or reviews of the Theta Project 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.	The appropriate category of Ore Reserve is determined primarily by the relevant level of confidence in the Mineral Resource. The global Mineral Resource estimate, which includes all the project areas for TGME, was the basis of the local Ore Reserve estimation for the Theta Project. The level of confidence in the Indicated Mineral Resource is sufficient to convert to Probable Ore Reserves.
	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 and economic evaluation. Documentation should include assumptions made and the procedures used.	The global Mineral Resource estimate, which includes all the project areas for TGME, was the basis of the local Ore Reserve estimation for the Theta Project.
	Accuracy and confidence discussions should extend to specific discussions of any	The modifying factors applied were determined by technical studies at the appropriate level of confidence producing a mine plan and production schedule that is technically achievable and economically viable.

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SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES		
Criteria	**Explanation**	**Detail**
	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 overall slope angles were determined with limited geotechnical information and requires additional technical work before project execution. A conservative approach was followed with the selection of the slope angles and any changes will have a minimal impact on the overall project.
	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.

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