Market Announcement

For Immediate Release



UPDATED ORE RESERVE STATEMENT AND PRE-FEASIBILITY STUDY RESULTS

New Talisman Gold Mines Limited

Responsible, Environmentally Sustainable Mining

ASX/NZX Code

NTL

Commodity Exposure GOLD and SILVER

Board and Management

Charbei Nader Chairman/Independent Director Matthew Hill Chief Executive/ Managing Director Murray Stevens Non Executive Director Tony Haworth Independent Director Jane Bell Company Secretary Wayne Chowles Chief Operating Officer Ash Clarke Chief Financial Officer

Capital Structure Ordinary Shares at 20/06/2018 2.157m

Share Price

Share Price at 20/06/2018 (NZX) Share Price at 20/06/2018 (ASX) 1.7cps 1.5cps



New Talisman Gold Mines Limited

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HIGHLIGHTS

- Value of Talisman project more than doubles on results of updated Pre-Feasibility Study, NPV9% increases from \$15m to \$36m;
- Recovered gold increases by 50% to 51,000 Gold Equivalent **Ounces**;
- Direct operating costs to produce an ounce reduced to \$710 NZD per ounce (\$490 USD/oz)
- Ore Reserves increase by more than 40% from 30,500 to 44,100 Gold Equivalent Ounces.

New Talisman Gold Mines Limited is pleased to announce the results of the updated Pre-Feasibility Study on the Talisman Gold Project. The results of the study, as set out in this announcement, reaffirm that the establishment of a highly profitable, small-scale operation, focused on extraction of the higher confidence Measured and Indicated Resources accessible from 8 Level, should provide for an excellent return on investment.

CEO Matthew Hill stated "The updated study demonstrates the robustness of the project economics, showing an IRR of 118% demonstrating the significant value to investors of this world class mine. With a scoping study on Talisman Deeps being finalised in the coming days on the high grade resources and activity at the mine ramping up we are starting to see the results of the teams hard efforts. "

In summary, revision of the 2013 Pre-Feasibility study in light of new information has demonstrated an increase in the Net Present Value, (NPV) from NZD15.4m to NZD35.9m at a 9% Discount Rate. The key drivers for this increase in value are discussed below:

- 1. Increased ounces available for extraction this is a result of the 2017 (JORC 2012 compliant) Mineral Resource Estimate which saw gold equivalent ounces in the Measured and Indicated categories increase by some 18,000 ounces. These are included in the mining plan which has seen an increase in expected gold production of some 18,800 Oz AuEq.
- 2. Increased mine life on the back of the increased ounces life of mine is extended by a year giving a current expectation of 6 years for this first stage of the larger project;
- 3. Grade Run of Mine grade, on a gold equivalent basis, has increased from 11.2g/t to more than 27 g/t.
- 4. Breakeven gold price reduced substantially to \$820 NZD per ounce.
- 5. Unit operating costs significantly reduced with costs to extract the ore and bring it to surface (C1 cost) of NZD 583 per ounce and cost to produce an economic ounce of gold (C2 cost) being NZD710 per ounce. With the NZD gold price currently sitting at NZD1882 per ounce this demonstrates the robust nature of the project.

6. Independently sourced long term nominal annual average forecasts for gold range from US\$1,334/oz in 2018 to US\$1,374/oz in 2022, with longer-term (2023-2027) averaging US\$1,440/oz.

7. NZ\$:US\$ exchange rates used in the financial model were based on forecast rates obtained from the National Australia Bank and the Economy Forecast Agency these point towards a general decline in the exchange rate which is expected in a range from 0.69:1 to 0.60:1

		Unit	2013	2018	Variance
	Life of Mine	Years	5	6	1
Production	Tonnes Milled	ktpa	107	64	-43
	Gold Recovered	Oz Total	32,200	51,000	18,800
	Total Revenue	NZD(m)	68	109	41
Cost	Total Opex (C3)	NZD(m)	34	42	8
	Total Capex	NZD(m)	11	12	1
	Cash Surplus	NZD(m)	23	55	32
Financial	NPV @9% (Pre-Tax)	NZD(m)	15	36	21
	IRR	%	83%	118%	35%
	Payback period	Yrs	3	2	-1
	C1 cash Cost	NZD/Oz	692	583	-109
Unit Costs	C2 Cost	NZD/Oz	904	710	-194
	C3 Cost	NZD/Oz	1,041	985	-56
	Breakeven Gold Price	NZD/Oz	1,075	820	-255

Other key project metrics, in comparison with the previous PFS results, are tabulated below

The outcome of this study supports a 50% increase in the Ore Reserve attributable to the Talisman Mine. Ore Reserves, based on an average in-situ cut-off grade of 2.6 g/t, are 45,000 tonnes at 30.6 grams per tonne gold equivalent. Reserves are quoted at the point of delivery to the gold processing plant and are derived from and contained within, not additional to, the Measured and Indicated portions of the Mineral Resource.

The study was reviewed by independent experts who found that the proposed mining plan is appropriate for the style of deposit at Talisman, and that determination of Ore Reserves has been attained through reasonable evaluation of mining costs and process recoveries.

Chief Operating Officer Wayne Chowles stated "the revised plan is the culmination of several years of refinement and presents a very solid technical case for development of this world class asset. The robust economics and low environmental impact of the project make it an absolute winner!"

Supporting Mineral Resource Estimate

In late 2016 the Company began a programme to upgrade the Mineral Resource estimate to be compliant with JORC 2012 reporting standards. This exercise was prompted by the acquisition of a large database of historic geological and geochemical information relating the deeper extents of the Maria Vein. Information on this estimate was released to the market in three modules covering the Dubbo, Woodstock and Talisman Bonanza zones of the Maria vein.

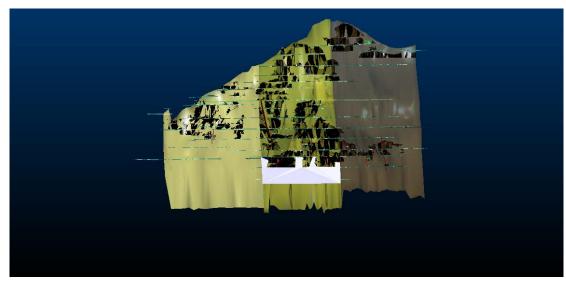


Figure 1 - Long Section of the Maria vein showing the Woodstock Zone on the left, Dubbo on the right and Talisman/Bonanza in the middle.

The net result of this exercise was to revise the estimate of mineral resources available to the Talisman Project from 917,000 tonnes at 6.9g/t Au for 204,000 Oz Au to 950,000 tonnes at 15.1g/t AuEq for 469,000 Oz AuEq. Full details of the methodology can be found in the individual company releases of 12 July 2017, 25 July 2017 and 05 September 2017. Final results are tabulated below:

Mineral Resources	Talisman Mine			
Category	Tonnes	AuEq g/t	AuEq Ounces	
Measured	102,800	17.4	57,480	
Indicated	97,700	7.4	23,100	
Inferred	750,000	15.9	389,200	
Total Resources	950,500	15.1	469,800	

Completion of this process considerably enhanced the company's understanding of the geometry and grade distribution within the orebody and it was considered necessary to revisit and update the Prefeasibility study on the Talisman Project, which was previously completed in 2013 (PFS13), in order to examine the design and modifying factors incorporated in that study. The Company further elected to commission a scoping study on the Talisman Deeps project which will be the subject of a separate release.

Of note is the fact that in the historical data no individual grades for gold and silver are reported and for consistency, data integrity and comparison with modern sampling it was decided to carry out the resource estimates using gold equivalents.

During the period of historical mining the gold price stayed constant at £4-6s-0d per oz, (USD20.47) while silver ranged from USD0.49 to USD1.03 per oz. Metallurgical recoveries once cyanidation was used were in the 95% plus range.

In order to make the comparisons between modern channel and drill hole sampling and historical sampling the ratio calculated used the formula Au equivalent = Au g/t +(Ag g/t *0.031609).

An independent third party reviewed the data and modelling used by NTGM for the Talisman mine Mineral Resource estimates and Ore Reserves. They completed sufficient checks to ensure that the databases used for the resource modelling are accurate and consider that the modelling and resource estimation processes were undertaken in a professional manner to acceptable industry standards and with due consideration of the validity and quality of the historical data.

They further consider that the 2017 MRE Report and the Appended JORC Code Table 1 contain the majority of relevant information that investors and their professional advisers would reasonably require for the purpose of making a reasoned and balanced judgement regarding the Mineral Resources being reported and is compliant with JORC 2012 reporting standards.

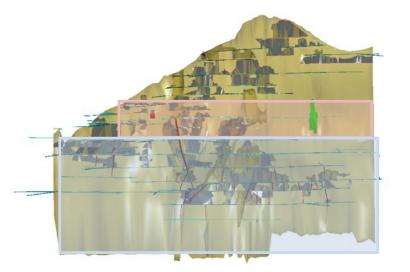


Figure 2 - Long section of the Maria lode showing the location of the Talisman Project area (pink) and the Talisman Deeps Project Area (Light Blue)

Pre-Feasibility Study Overview

A Preliminary Feasibility Study (Pre-Feasibility Study) is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, is established and an effective method of mineral processing is determined. It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors that are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resources may be converted to an Ore Reserve at the time of reporting. A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.

The Pre-Feasibility Study on which conversion of Mineral Resources to Ore Reserves is based, has been carried out and has determined a mine plan that is technically achievable and economically viable, material Modifying Factors have been considered.

The first step of re-evaluating PFS13 took the form of revisiting the mine design for the Dubbo and Woodstock Zones where new information was likely to affect the initial parameters. Examination of the geological model revealed that significant changes were required to the mining infrastructure to allow meaningful extraction of the very high grade measured and indicated resources. Particularly the highly mineralised portion of the Dubbo Zone indicated a shortened strike length while the dip extent was longer than previously thought which necessitates additional legs of the decline and incline system.

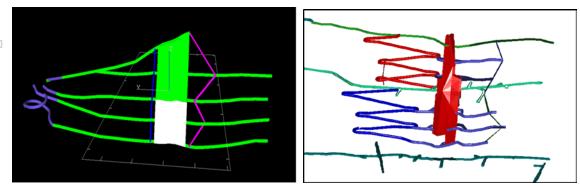


Figure 3 - Diagram showing previous and revised layouts for Dubbo Zone. The revised layout includes two additional sub levels.

Sublevel open stoping remains the mining method of choice as it offers the greatest flexibility and can accommodate a range of drilling techniques dependent on the variability of the orebody. Development of the access ramps and sub levels is maintained on reef as far as possible to offset the cost of development.

These drives are, of necessity, placed in the low-grade portions of the orebody which are unlikely to present an economic target

Stope and access development design was carried out in Mine24D and DatamineRM based on the orebody model with allowance being made for mining dilution which is dependent on the geometry of the orebody. Access development, inclusive of primary incline and decline systems, sub levels, mucking drives and ore and ventilation passes was designed and scheduled in Mine24D before being exported to Excel for final manipulation. Tunnel development is scheduled at a rate of no more than 30m per month per development end while overall development rates amount to approximately 600m per year.

The overall production target on which the financial forecast information is derived, inclusive of ore sourced from on reef development, amounts to 61,000 tonnes over the life of mine with an average rate of 12,300 RoM tonnes per year once steady state is achieved.

In determining the economic viability of the mine plan, the following modifying factors were considered:

Mining Factors

Cut off grades - these were based on a preliminary assessment of the likely direct mining costs. A grade/tonnage curve was used to estimate the likely applicable cut-off grade to achieve the required Run of Mine, (ROM) grade. These cut off grades have been calculated for each portion of the resource depending on the individual grade/tonnage relationship of the block.

Mining Method - An option analysis identified sub-level stoping as the most appropriate mining method which offers the flexibility to adapt to both mechanised and traditional drill and blast techniques. Excavations required to access each zone, appropriate to the intended method, have been designed inclusive of drives, traveling ways and ventilation passes. A 15m interlevel spacing has been selected as this is suitable for long hole stoping and allows for adequate control of blast holes.

Geotechnical Parameters - Maximum stope span has been limited to 35m. Strike and dip pillars have been designed to a hydraulic radius, (HR) of 1.4 which is well above the existing HR of 0.9 observed in stable pillars immediately adjacent to the planned stopes.

Dilution – Planned dilution of between 9% and 15%, dependent on orebody geometry, has been included in the modelled stope wireframes. An additional 6% of total stope tonnage has been allowed as "unplanned dilution" to allow for scaling etc.

Mine Recovery – a 10% loss of metal has been allowed for in the calculations to account for ore permanently locked up in stopes.

Minimum Mining Widths - No minimum mining widths have been applied as all veins modelled are equal to or exceed 1.0m in width which is acceptable for removal by the envisaged mining method. Visual inspection of existing stopes indicates that stope widths of <0.6m are attainable within this environment.

Utilisation of Inferred Mineral Resources - The study has focused primarily on extracting ore contained within the identified Measured and Indicated Resources. Some 13% of total tonnage mined in the plan is extracted from Inferred Resources and is derived from development for exploration purposes. This tonnage is mined in the last 2 years of the plan. Further to this a portion of ore reporting to the plant is obtained from on reef development conducted in blocks not classified as mineral resources as the grade falls below the cut-off grade. This ore does defray costs of development and contributes positively to project economics.

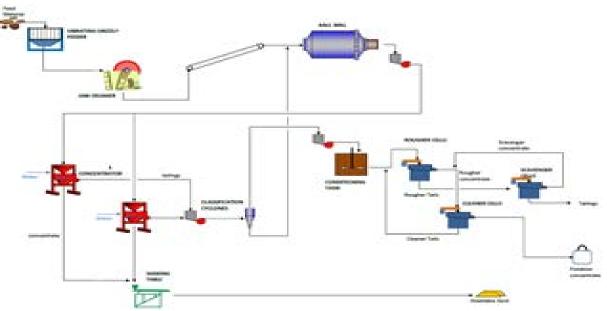
There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Categories of Reserves utilized – the production target draws primarily on measured and indicated resources which are converted to proven and probable reserves. The overall production target constitutes approximately 58% Proven reserves and 29% Probable reserves with the balance made up of NIR sources as set out in the preceding paragraph. Overall resource to reserve conversion amounts to 55% which is in line with the expectations from this type of deposit.

Infrastructure requirements - Preliminary design of all supporting infrastructure including power supply, compressed air and water reticulation, ventilation and ore transport is considered and quantified in the study.

Metallurgical Factors and Assumptions

The study proposes gold recovery via a gravity concentration and flotation system. This is supported by testwork carried out on Talisman ore by Pocock and Simpson in December 2017 and announced to the



market on 22 March 2018. This testwork concluded that gold recovery exceeding 94% is achievable through this process. A recovery factor of 90% is applied in the study to reflect the likely lower silver recovery through the process.

Results from the testwork set out above will inform the design of a pilot plant layout which is expected to be similar to that set out in the process flow diagram alongside. It is expected that the plant will be modular and scalable allowing components to be added as production volumes increase.

Environmental

The company currently holds resource consent for a bulk sampling programme, this consent considers the likely environmental impact of the operation and concludes that the effects would be no more than minor. The effects of the larger operation are similar to those inherent in the bulk sampling project and no further adverse effects are likely.

Infrastructure

Talisman is situated within a well-developed area with sufficient accommodation available. The site has a reasonable infrastructure as a result of being an active mine for more than a century. The hard stand area is

connected to the main tarred road via a gravel road considered adequate for truck sizes up to 10t. 11kVa power is available to site but will need to be reconnected, sufficient water is available on site to support the mines requirements.

Costs

Costs associated with provision of capital infrastructure were derived from supplier quotes and costs available from other mining groups. Operating costs were estimated from first principles based on detailed costs for employment, personnel training, security, consumables, transport, administration, power, water and other services.

Commodity Prices

Forecast commodity prices have been taken from Consensus Economics Inc.'s Energy & Metals Consensus Forecasts, which surveys more than 40 energy and metals analysts every month for a range of commodity price forecasts. Long term nominal annual average forecasts for gold range from US\$1,334/oz in 2018 to US\$1,374/oz in 2022, with longer-term (2023-2027) averaging US\$1,440/oz.

A comparison was made with forecasts drawn from The Economy Forecast Agency, while there were variations in annual forecasts, overall, the two forecast sources resulted in insignificant difference to the financial model.

Exchange Rates

NZ\$:US\$ exchange rates used in the financial model were based on forecast rates obtained from the National Australia Bank and the Economy Forecast Agency these point towards a general decline in the exchange rate which is expected in a range from 0.697:1 to 0.601:1 over the coming years.

Sensitivity Analysis

In order to understand the sensitivity of the project to various inputs the items shown in the following table were varied in the ranges set out in *Table 1* below, the results are presented graphically in *Figure 4*.

Table 1 - Input ranges for sensitivity analysis

ltem	Low Range (relative to base case)	NPV NZ\$ million	High Range (relative to base case)	NPV NZ\$ million
Capital costs	+20%	33.8	-10%	36.9
Operating costs	+20%	29.7	-5%	37.4
Gold price	-12%	26.6	+12%	45.2
Gold (+silver) recovery	-10%	19.7	+5%	28.0
Consolidated		15.4		52

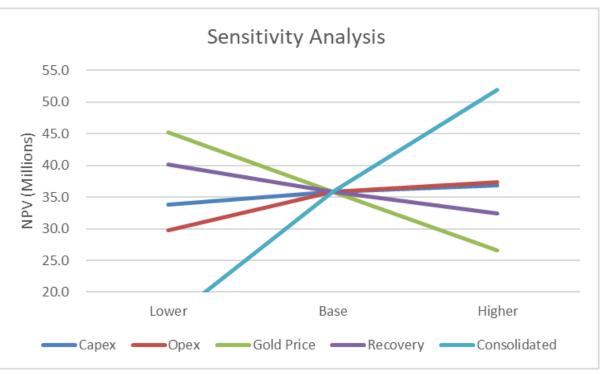


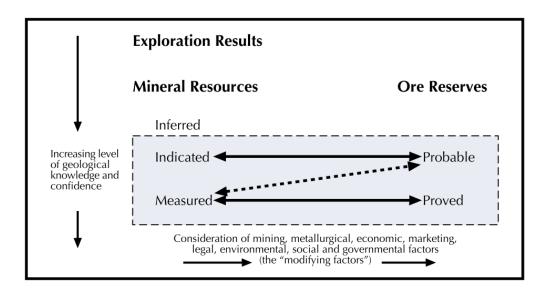
Figure 4 - Sensitivity analysis

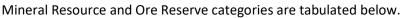
The consolidated line in the above graphic shows the effect of all items in table 1 occurring i.e. Capex and Opex exceed budget, the gold price is below forecast, and gold recovery is less than anticipated. This would be considered as an extreme alignment of circumstances and, demonstrates the robust nature of the project where an NPV of 15.4m is indicated.

Ore Reserves

Mineral Resources are converted to Ore Reserves via the application of a range of technical and economic factors (modifying factors) such as metal prices, dilution and estimated recovery, in order to assess project viability. The 2012 JORC code defines ore reserves as follows:

Ore Reserves are those portions of Mineral Resources which, after the application of all mining factors result in an estimated tonnage and grade which, in the opinion of the Competent Person making the estimates, can be the basis of a viable project, after taking account of all relevant Modifying Factors. The relationship between Mineral Resources and Ore Reserves is illustrated in the following graphic.





Mineral	Total NTL		Gold Equivalent	
Resources	Category	Tonnes	Grade	Ounces
	Measured	19,600	17.4	57,480
	Indicated	62,900	7.4	23,100
	Inferred	82,500	15.9	389,200
	Total Resources	165000	15.1	469,800

Ore	Total NTL		Gold Equivalent	
Reserves	Category	Tonnes	Grade	Ounces
	Proved	30,294	35.7	34,791
	Probable	14,632	20.1	9,470
	Total Reserves	44,926	30.6	44,260

An independent third party review of the PFS found that the mining plan proposed in the supporting techno-economic study is appropriate for the style of mineralisation found at the Talisman and that determination of Ore Reserves has been attained through reasonable evaluation of mining costs and process recoveries.

Competent Persons Statement

The information in this presentation that relates to Mine Planning and the Ore Reserve estimates were prepared by Mr Wayne J Chowles, a Mining Engineer and member of the AusIMM. Mr Chowles is a full time employee of New Talisman Gold Mines Limited and the author of the Talisman Prefeasibility Study referred to in this release. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Chowles consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to exploration results, exploration targets and mineral resources is based on information compiled by or supervised by Mr Murray Stevens and Mr Wayne Chowles. Mr Stevens is a consulting geologist and director of New Talisman Gold Mines Ltd, who is a corporate member of the AusIMM. Mr Stevens has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Both Mr Chowles and Mr Stevens consent to the inclusion in this report of the matters based on his information in the form and context in which it appears.

About New Talisman Gold Mines Ltd

New Talisman Gold is a dual listed (NZSX & ASX: NTL) with over 2250 shareholders who are mainly from Australia and New Zealand and has been listed since 1986. It is a leading New Zealand minerals development and exploration company with a mining permit encompassing the Talisman mine, one of New Zealand's historically most productive gold mines. The company has commenced prospecting and upgrading activities at the mine and advance the exploration project to increase its considerable global exploration target into JORC 2012 resources.

Its gold properties near Paeroa in the Hauraki District of New Zealand are a granted mining permit, including one of New Zealand's highest-grade underground gold mines, a JORC 2012 compliant mineral resource of over 469,000 ounces AuEq at an average above 15 g/t AuEq and a JORC compliant reserve statement. The Company owns 100% of the Rahu exploration permit, which lies along strike from the Talisman mine of which 80% was recently acquired from Newcrest Mining. The company will shortly commence exploration activities at Rahu.

Cautionary Statement for Public Release

Certain information contained in this public release may be deemed "forward-looking" within the meaning of applicable securities laws. Forward-looking statements and information relate to future performance and reflect the Company's expectations regarding execution of business strategy, business prospects and opportunities of New Talisman Gold

Mines and its related subsidiaries. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance are not statements of historical fact and may be forward-looking statements. Forward-looking statements are subject to a variety of risks and uncertainties which could cause actual events or results to differ materially from those expressed in the forward-looking statements and information. They include, among others, the accuracy of mineral reserve and resource estimates and related assumptions and inherent operating risks. There are no assurances the Company can fulfil forward-looking statements and information. Such forward-looking statements and information available to management as of the date that such predictions are made; actual events or results may differ materially as a result of risks facing the Company, some of which are beyond the Company's control. Although the Company believes that any forward-looking statements and information contained in this press release is based on reasonable assumptions, readers cannot be assured that actual outcomes or results will be consistent with such statements. Accordingly, readers should not place undue reliance on forward-looking statements and information. The Company expressly disclaims any intention or obligation to update or revise any forward looking statements and information, whether as a result of new information, events or otherwise, except as required by applicable securities laws. The information contained in this release is not investment or financial product advice.

Section 1 Sampling Techniques and Data

	(Criteri	a in this section apply to all succeeding sections.)	
	Criteria	JORC Code explanation	Commentary
DETSONAI USE OF	Sampling techniques	 Nature and quality of sampling (eg 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	 Channel sampling of Levels 7, 7A, 8 and Woodstock of the Talisman Mine and 5A level of the Crown Mine was undertaken using handheld diamond saws. Channel samples were taken at a nominal 5m spacing along strike of veins where exposed. Sample widths across veins were determined by the geology of the vein width. Where vein width is less than 1 metre samples restricted actual vein width. Where greater than a metre sample widths generally are 1 metre and no more than 1.4 metre sample width. Channels were cut to nominal dimensions of 5cm by 10cm to resemble half HQ diamond drill core to provide similar sample support for resource estimation purposes. Sample size was generally 5kg and collected in bins by chipping out each sample with a small pneumatic drill and by hand with cold chisels. The bins were cleaned between each sample to reduce chance of contamination. To ensure representivity, care was taken to ensure equal-mass extraction along the entire channel. Diamond core sampling, based on determination of mineralization from logging, all core halved using diamond saw, mineralized intervals sampled on nominal 1m lengths or to geological boundaries. Remainder of non mineralised material sampled on 2m intervals.
	Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	 Underground Longyear LM55 electric wireline rig used with a LM75 power pack. Diamond core all HQTT to target depths. In rare instances where ground conditions dictated the drill diameter was reduced to NQ and core size was NQTT. All core was oriented using plasticine and holes surveyed with Eastman multi or single shot cameras every 25m and at end of hole.

	Criteria	JORC Code explanation	Commentary
			 Some 5 holes were drilled using a small conventional Kempe rig in the Woodstock section. Core size was LTK60 core which is larger than NQTT core and slightly less than HQTT drill core.
	Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 Diamond core was measured by drillers on site on a run by run basis and again by site geologist who recorded run length, measured core recovered and calculated recovery. These data then entered into spreadsheets and the drill database. Use of triple tube coring maximizes core recovery and ensures maximizing core integrity. In the case of the conventional core from the Kempe rig, core was carefully extracted from the core barrel to maximize core integrity. No known sample bias is likely to have occurred using the sample techniques employed. Core recovery for the Kempe rig holes averages 92.8% (55.55m total metres). Core recovery for the 18 wireline holes averages 96.43% (1058.55m total metres).
= () [[() () () () () () () () () () () () ()	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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 A comprehensive system of logging procedures were used to a level of detail to support appropriate Mineral Resource estimation. Core logging follows detailed regime of geological logging, noting core orientations of structures, lithology, mineralization, structure, core photography, geotechnical logging undertaken by experienced field geologists and senior geologists. All data were entered into spreadsheets using laptops producing descriptive and graphic logs. All ~1,100m of core was logged.
	Sub-sampling techniques	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether 	 Core was sawn in half, with one half taken for sampling, one half retained for reference logging, petrology, check logging, check sampling, metallurgy,

	Criteria	JORC Code explanation	Commentary
A USE ONIV		 sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 geotechnical studies. Representivity of sub-sampling was ensured by using a set of QA measures recommended by independent consultants RSG Global who reviewed the procedures. Quality control included field duplicates, (split from first coarse crush) which were taken every alternate 10th sample, and a preparation duplicate, (split from fine grind) taken every alternate 10th sample. Results show good correlation between core duplicates/originals and coarse crush duplicates/originals. HQ half core is considered to provide a suitable sample support for mineral resource estimation purposes for the type of material. No heterogeneity studies were carried out to investigate the optimal sample size. Underground channel samples were sub-sampled and prepared in the laboratory via industry standard methods (crushing using jaw/Boyd, followed by pulverizing to 75 microns in LM2/5).
For derson	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. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 All assays including the drill data used from past explorers were carried out by certified assay laboratories. NTL used SGS in Waihi, using their standard sample preparation and analytical procedures and internal quality control procedures. All gold assays used a 50g charge fire assay with AAS finish and a detection limit of 0.01ppm. This is a total assay technique and considered appropriate. The quality control procedures used include the following: Blanks of barren material were introduced every 30 samples, and certified reference materials, obtained from RockLabs were inserted every 10th sample. These showed that there were no issues (e.g. no contamination, and no statistically relevant bias between the certified mean of the CRMs and the laboratory mean of assays for those CRMs) Approximately 10% of the samples from mineralized intervals were sent as umpire samples to Amdel Laboratories at the Macraes site in Central Otago for check sampling against the original SGS samples. These showed that there were no issues (e.g. no statistically relevant bias

Criteria	JORC Code explanation	Commentary
Use only		 between the two sets of results) No QC was included for historic sample results from the raise sampling programmes of the early 20th century, which are recorded as value in pounds, shillings and pence and plotted on mine plans signed by the mine manager of the day. Not possible to know what validation process was used on historic data. However, plans are signed by the mine manager of the day. These samples are from the zones modelled and recorded on the mine plans Grades are consistent with those indicated in the Museum samples that are recorded by the then mine superintendent Mr Stanfield of the Talisman Gold Mining Company Ltd.
Verification of sampling and assaying	alternative company personnel	 Initially, significant intervals were calculated manually but subsequently checked and revised using the compositing functions in CAE software product Down Hole Explorer and also within Datamine Studio EM software. This has been carried out by company personnel and independently. With regard to the historic samples it is not possible to know what validation process was used at the time. However, plans are signed by the mine manager of the day. In addition, a series of samples from the deep levels of the Bonanza Zone are located in Auckland Museum. These samples are from the zones modelled and recorded on the mine plans. The historic channel samples all have sample widths recorded indicating they were collected as proper channel samples in a systematic manner. Grades are consistent with those indicated in the Museum samples that are recorded by the then mine superintendent Mr Stanfield of the Talisman Gold Mining Company Ltd. Moreover, the recorded production from those levels and the tonnages recorded are broadly consistent with the depletions modelled from NTL's assessment of the mined stopes. NTL have taken a conservative approach; while the data density of the

	Criteria	JORC Code explanation	Commentary
			historic sampling would be sufficient to allow classification as Measured Resources NTL have elected to classify them in the Inferred category.
UU ESUI IEUUSJE	Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 A levelling exercise was initially conducted in 8 Level for survey control with a datum established outside No8 Level. All samples were surveyed to ensure proper XYZ control for modelling purposes. All channel samples were surveyed using peg ledgers and offsets. Each sample recorded collar position, sample length and orientation to create drill hole data. These data are expected to be accurate to cm resolution. Each drill hole collar was surveyed and downhole surveys recorded at 25m intervals using Eastman single or multi-shot cameras. A full mine survey using a registered mine surveyor was completed and all sample point surveys adjusted accordingly on the basis of this survey. Historic samples that have been used in the resource estimate were captured from scanned historic mine plans and checked against existing databases. These were then georeferenced to match the geological model wireframe. In most cases collar positions were within 1 to 2 metres of the wireframe and were adjusted accordingly. Grid system used historically was Mt Eden Circuit. NTL used NZMG(1949) and converted all earlier data to this grid system. Topographic and survey control is considered adequate for the purpose that the data is being used.
	Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Channel samples were generally taken across the backs of exposed veins were available at 5m intervals. The spacing was determined by comparing earlier data taken by the previous mine owners at 2.5m intervals along strike. It was found that the 5m spacing was adequate and gave comparable results. Where there was no exposure in the roof cut, channels were taken along the side walls where oblique veins crossed the drives. Where possible both sides of the drives were sampled to give a 5m separation.

	Criteria	JORC Code explanation	Commentary
NALUSE ONIV			 A 25m grid drill pattern was designed in the Dubbo zone where NTL drilled the majority of its holes. The pattern was designed to extend beyond known assay data points in earlier drill holes and channel samples and to infill where appropriate to get the required density of data for resource estimation. The 2263 historic channel samples are generally close spaced ranging from less than a metre to around 1.5m apart. They are mostly taken up raises with raises generally around 40 to 80m apart. In the Dubbo Zone 767 historic channels range from 0.15m to 3.65m and average 1.03m wide. In the Talisman and Bonanza Zone 1374 historic channels range from 0.15m to 2.44m and average 1.29m wide as single value assay intervals averaging just over a metre and compositing was not deemed appropriate.
FOF DEFSOF	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. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 The Maria Vein trends north to northeast over its strike length and dips to the west ranging from 45 to 85 degrees. NTL channel samples where possible are oriented to be orthogonal to the strike of the vein being sampled. Where this is not possible the channels orientation is reflected in the survey information and is taken into account in the modelling software. Drill holes were designed to intersect mineralised structures orthogonal to strike and dip where possible. In some instances, access issues meant that holes had to be drilled from the hanging wall side and hence some intersections were oblique but again this is accounted for by the software to reflect true width. Historic channel sample data had no survey information other than collar coordinates and channel sample length. The Competent Persons take the view that standard mine sampling practice in the early 20th century was well-developed for grade control sampling and would have been taken across the backs of the veins from hanging wall to footwall at right angles to

Criteria	JORC Code explanation	Commentary
		 strike and dip. Hence, historic samples are oriented in the databases at an azimuth of 0950 and a dip of -200 reflecting the orientation of the main structures. Sampling bias based on the knowledge of the structure is considered unlikely.
Sample security	The measures taken to ensure sample security.	 Samples are collected on site by NTL personnel, either senior field technician or site geologist, transported to NTL's core and sample handling facility in Waihi. Here samples are prepared for dispatch to the assay laboratory. At night the facility is locked and during the drill programme security patrols used. Once samples are prepared they are transported the approx. 100m to the SGS assay facility for preparation and analysis. NTL has a system of order and dispatch numbering for sample tracking. Once delivered to SGS their protocols for security apply. Modern drill sampling in the resource areas prior to New Talisman was conducted by reputable mining companies such as Cyprus Mines Corporation, Australian Consolidated Minerals, (Waihi Gold) and Freeport MacRohan and assayed at ALS in Tauranga or SGS in Waihi. There is no evidence from the sample data recorded that there are any issues with data validity or security.
Audits reviews	• The results of any audits or reviews of sampling techniques and data.	 RSG Global reviewed the QAQC procedures for the Talisman project in 2005 and these same procedures. These procedures involve survey control, check sampling, use of standards and blanks and umpire sampling at independent laboratories. This is in addition to assay laboratories own internal QAQC.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The mine area is wholly owned by New Talisman Gold Mines Limited under Minerals Mining Permit 51326 which was granted on 03 December 2009 for a term of 25 years and expires on 02 December 2034. The permit area is 299.2 ha and lies within the Kaimai-Mamaku Forest Park which is Crown land administered by the Department of Conservation. The Company operates under an access arrangement with the Minister of Conservation with an authority to enter and operate. In addition, the Company holds a resource consent issued by the District Council to carry out bulk sampling of up to 20,000 m3 per annum. Tenure is secure at time of reporting.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Talisman permit area was held as a mining license by NZ Goldfields and predecessors from 1971 to 1992. During this time, they focused on small scale production from 8 level but also completed substantial surface and underground exploration in their own right. They had a number of joint venture partners during the term including, Homestake Mines, Cyprus Mines Corporation, ACM Minerals, and Waihi Gold. Cyprus Mines did the most extensive work driving around 300m further along 8 Level from historic workings and completing 51 drill holes. In 1991 NZ Goldfields went into voluntary liquidation and the mining license was bought by two former directors who formed a private company known as Southern Gold just prior to the mining license expiring.
Geology	• Deposit type, geological setting and style of mineralisation.	 The Karangahake mineral deposit is a low-sulphidation epithermal gold silver vein system with an overall strike length of around 4km of which approx. 1.5km lies within the NTL mining permit. The deposit comprises several major veins, the most significant of which are the Maria Vein in which the Talisman Mine is developed and the Welcome-Crown Veins. Historic mining has exploited the deposit for around 1km along strike and up to 700m from

Criteria	JORC Code explanation	Commentary
		surface outcrop to the deepest 16 level. Fluid inclusion studies suggest the current highest level of exposure has seen 300m of erosion from the paleosurface.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	 New Talisman Gold Mines Ltd has compiled an extensive database of geological and geochemical data for the project from historic data and newly acquired data based on geological mapping, geochemical sampling and surveying that has been used in the development of the resource model. There are a total of 2685 drill hole, recent channel and historic channel collar points in the database and 7117 assay data points. These include 109 drill hole collars and 4100 drill assays, 505 recent channel sample collars and 931 channel assays. Compiled in the following tables are some of the key drill hole sample information. Due to the large amount of data it is impractical to tabulate it all in this set of tables. A full list of the database is appended to the technical report entitled "TALISMAN DEEPS PROJECT, MINERAL RESOURCE POTENTIAL AND ESTIMATES, MINERALS MINING PERMIT 51326" Key representative drill hole information is tabulated in the following tables

Criteria	JORC Code explanation	Commentary									
		Hole No	East NZMG	North NZMG	RL (masl)	From (m) To	n (m)	Length (m)	Gold g/t	Silver g/t	Gold Equiv Area
		BH07	2751319.2	6414884.0	172.97	0.00	1.55	1.55	14.33		14.42 Bonanza
		BH08	2751378.4	6414905.3	172.75	6.55	8.00	1.45	2.12		2.35 Bonanza
		BH09	2751341.5	6414939.4	172.97	8.40	11.80	3.40	2.57	19.98	2.86 Bonanza
		BH10	2751341.5	6414939.4	172.97	9.15	10.50	1.35	3.85	55.20	5.59 Bonanza
		BM37	2751299.5	6414703.1	177.30	11.40	13.20	1.80	682.44	2094.00	748.63 Dubbo
		BM38	2751299.7	6414702.1	177.30	10.00	12.00	2.00	12.16	9.10	12.45 Dubbo
		BM38				16.00	17.00	1.00	21.70	718.00	44.40 Dubbo
		BM39	2751299.4	6414704.0	177.30	14.55	15.85	1.30	36.08	467.00	50.84 Dubbo
		BM40A	2751300.8	6414702.1	176.10	16.00	17.00	1.00	3.30	4.10	3.43 Dubbo
		BM40A				22.25	23.30	1.05	4.58		5.26 Dubbo
		BM43	2751320.0	6414686.4	179.00	25.50	26.90	1.40	2.06		7.34 Dubbo
		TM002	2751317.6	6414687.9	177.26	46.30	49.10	2.80	40.86	91.71	43.76 Dubbo
		TM006	2751310.3	6414686.4	177.19	35.90	36.80	0.90	3.98		10.30 Dubbo
		TM007A	2751324.0	6414686.4	176.55		62.00	1.00	3.94		8.18 Dubbo
		TM009	2751296.5	6414727.8	177.23	7.00	8.00	1.00	2.08	3.90	2.20 Dubbo
		TM010	2751309.1	6414723.0	176.35	32.80	37.05	4.25	1.62	18.83	2.22 Dubbo
		TM010				33.80	34.55	0.75	3.93		4.75 Dubbo
		TM011	2751309.1	6414723.0	175.65	56.50	58.00	1.50	8.95		13.11 Dubbo
		BH11	2751358.1	6414911.2	172.87	23.65	25.20	1.55	1.92	4.80	2.07 Woodst
		BH16	2751284.0	6415278.9	165.16	0.00	6.50	6.50	7.85		11.57 Woodst
		BH19	2751211.5	6415487.2	196.22	31.50 25.95	35.00	3.50 1.20	2.42	29.39	3.35 Woodst
		BH2	2751246.8	6415355.7	164.35		27.15		2.31	12.50	2.71 Woodst
		BH20 BH26	2751237.2	6415451.2 6415227.4	196.22 28.60	12.60 26.80	13.40 28.60	0.80	3.85	5.00	4.01 Woodst 4.91 Woodst
		BH26 BH4	2751279.8	6415227.4	164.53	11.90	12.85	0.95	4.20		4.91 Woodst 3.40 Woodst
		KP001	2751200.2	6415256.6	165.28	6.10	12.85	8.60	3.08		3.40 Woodst 1.65 Woodst
		KP001	2751288.7	6415278.7	165.16	4.50	5.10	0.60	3.20	74.00	5.54 Woodst
		KP002	2751283.7	6415278.7	165.54	4.50	7.80	2.85	13.35	103.75	16.63 Woodst
		KP0020	2751293.6	6415240.0	166.04	5.90	10.55	4.65	1.61	4.45	1.75 Woodst
		KP003	2751309.1	6415221.8	166.17	4.00	7.20	3.20	3.19		3.29 Woodst
			1								
Data aggregation	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high	 Channel samples are recorded as drillholes which along with drillhole da were length weighted down hole. 									
methods	grades) and cut-off grades are usually Material and should be stated.	• Al	ower cut	off of 0.5	g/t Au	was ap	plied	to deter	mine s	significa	nt
memous	• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for			ns. Occasi t result ir	-						corporated
	such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	• WI	nere high		mples	form pa	art of	an overa	all inte	rsectio	n of lower g

Criteria	JORC Code explanation	Commentary
	 The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 width of intersection of significant grade. For instance; Hole TM002 assayed 2.22g/t Au_equiv over 4.25m and included 0.75m at 4.75g/t Au_equiv.
		 It was decided to use gold equivalent grades and apply these to all samples taken in the modern era as well as the historic samples. This was due to the fact that the 2263 historic channel samples are all expressed in bullion values. We know that from production data gold silver ratios vary considerably and it was not possible to assign arbitrary silver grades to the bullion values with any degree of certainty. With respect to the modern samples that record both gold and silver values it was an easy matter to convert these to gold equivalents using the same gold and silver values that applied at the time of mining in the late 19th and early 20th centuries. The gold price remained constant during the period that recorded production data is available at £4-6s-0d, (£4.25)/oz or USD20.47/oz. Silver values ranged from USD0.49 to USD1.03. An average of USD 0.65 as chosen and a ratio of 0.031609 was factored to give gold equivalence based on the formula [Au g/t+(Ag g/t*0.031609).
Relationship between mineralisatio n widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 Only down hole lengths are reported. While generally holes transect the mineralized zones at right angles the downhole intervals can be slightly oblique. Differences in down hole intervals and true width are factored into the resource estimate based on the estimation methodology.
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 drill hole collar locations and appropriate sectional views. 	• These are presented in the Public Report that this table accompanies and in the full Talisman Deeps supporting documentation.

Criteria	JORC Code explanation	Commentary
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.	• All significant results above the cutoff grade of 0.5g/t Au are reported in the tables above and in the accompanying Public Report. All results can be foun in the spatial data package that accompanies this Report.
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; potential deleterious or contaminating substances.	 A comprehensive summary a previous exploration results, consultant reviews, geophysics, surface sampling, geological mapping is presented in the accompanying Report. Various metallurgical test work has been carried out that show the ore is amenable to cyanide extraction and not refractory. As the project moves into the bulk sampling phase more metallurgical work will be conducted and the results used to optimize recoveries.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	• Further drill testing and channel sampling to increase the resource is planned. This will involve underground drilling and sampling drives during the bulk sampling programme. This will be part of the feasibility programme that has been initiated with mine support and infrastructure being established currently.

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
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. Data validation procedures used. 	 Data was initially captured on paper logs and then entered into excel spreadsheets using standard logging templates to ensure consistency of data capture. Databases have been peer checked on a number of occasions over the duration of the permit. Data validation processes within Excel and in Datamine Studio EM were used during the estimation process.

Criteria	JORC Code explanation	Commentary
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 Mr Stevens has been involved with the project at several stages since 1992 and is familiar with surface geology, underground geology, historic core and NTL drill core. He managed the underground sampling programmes and geological modelling including the historic geology and sample data and is familiar with all aspects of the mine. Mr Chowles has been the General Manager of operations since 2012 and is the author of the reserves statements and prefeasibility studies He is currently implementing the bulk sampling programme at the mine and is very familiar with all aspects of the project.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 There is enough continuity based on drill hole geology, surface and underground mapping, geophysics and geochemistry to have confidence in the continuity of the geology for areas estimated. Geological interpretation of the Maria Vein and the ore zones within it have been determined by compiling all mapping and drill hole data completed by NTL and by detailed digitizing of georeferenced historic mine plans including vein positions and mapped widths, including faults on a level by level basis. The Competent Person has reviewed alternative geological interpretations and these are not considered to have any adverse impact on the MRE. The geology has formed the basis to create domains to constrain the MRE process. Vein positions and variability were checked against several of the levels where NTL had its own data to check consistency. This was used as the basis for constructing sections at 10m and 20m intervals along strike interpreting the position and vein thickness of the Maria Vein along its known strike length. These were then wireframed to and verified to form enclosed vein models suitable for estimation purposes. Historic data points had been previously captured by lan Brown and associates in the late 1980s. These data were converted to NZMG coordinates and imported into Datamine Studio EM software. Their

Criteria	JORC Code explanation	Commentary
		 positions were checked against digital stope plans and against historic long sections of stope plans showing the raise sample positions. Position adjustments were made to ensure data points lay on the raise positions within the model. This included re-projecting channel collar positions onto the vein wireframe The Competent Person has reviewed alternative geological interpretations and these are not considered to have any adverse impact on the MRE The geology has formed the basis to create domains to constrain the MRE process
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 Maria Vein model is over 1300m long and has been extended to depths ranging from 200 to over 300m below sea level. This is on the basis of locating and plotting drill hole data from the early 20th century where, although there is no assay data, there is detailed geology showing positions of the Maria Vein at least 100m below 15 Level.
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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. 	 The wireframe models of the Maria Vein were filled with 10m by 10m by vein width blocks utilizing sub-cell splitting. Variography determined that that an anisotropic semi variogram model with a range of 12m along strike and 36m on the dip of the vein was appropriate. Variography determined that the search ellipsoid was best oriented at -60 degrees +/- 20 degrees. This corresponds to visually determined trends in the orientation of known high grade shoots. An overall wireframe model for the Maria Vein was produced but, based on geology, has been subdivided into 3 separate geological domains that correlate with the Dubbo Zone, the Talisman-Bonanza Zone and the Woodstock Zone. These domains were constructed and estimated separately. These wireframes were then filled with block model cells orientated

Criteria	JORC Code explanation	Commentary			
	 Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the 	orthogonally. And the following estimation p	arameters applied.		
	 resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	Block Model And Estimation Parameters	Model And Estimation Parameter Values		
		Parent Block Block Cell Size	10m x 10m x vein width		
		Sub Cell Splitting	Auto fill to maximum of 5m x 5m x vein width		
	Estimation Method	Ordinary kriging and Inverse Distance Squared			
		Density	2.53 t/m3		
		Search radii (measured)	12 to 15m on strike, 36m on dip		
		Search radii (indicated)	2 x measured		
		Search radii (inferred)	3 x measured		
		Search ellipsoid	-60+/-20		
		Minimum no of samples (measured)	3		
		Search Volume	Range		
		Minimum no of samples (Inferred)	3		

Criteria	JORC Code explanation	Commentary			
			Maximum no of samples (Indicated and Inferred)	20	
			Search radii for geological potential	Limits of model	
			Top cut	None	
		•	Variography yielded an anisotropic structure w than along strike, this is supported by visual in distribution where variability is more apparent The estimation was initially carried out using C Inverse Distance Squared as a check estimate 2% of each other in terms of total ounces of go Historic mine plans give a detailed view of area of the stopes were produced and the gold con The estimated gold mined from these stopes w overall resource gold equivalent content.	spection of the grade along strike. Ordinary Kriging and then This was found to be within old. as stoped. Wireframe models tent in them interrogated.	
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	•	Estimates based on dry tonnages.		
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.		Cut off grades were based on a preliminary ass lirect mining costs.	sessment of the likely	
		•	A grade/tonnage curve was used to estimate t grade to achieve the required ROM grade. This was determined as a 3g/t Au-eq lower cut No upper cut has been applied		
Mining factors or assumptions	• 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	:	Preliminary stope design was carried out in Mi study in 2013 by constructing wireframe string model encompassing the economic portions o that time. Waste material necessary to the ext	s around the geological block f the Resource as known at	

Criteria	JORC Code explanation	Commentary			
	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.	 in the wireframes; the resultant wireframe was evaluated against the applicable block model to determine volume and metal content. An option analysis identified sub-level stoping as the most appropriate mining method which offers the flexibility to adapt to both mechanised at traditional drill and blast techniques. Excavations required to access each zone, appropriate to the intended method, has been designed inclusive of drives, traveling ways and ventilation passes. This deposit is a narrow vein gold deposit. Maximum stope span has been limited to 35m. Strike and dip pillars have been designed to a hydraulic radius of 1.4 which is well above the existing HR of 0.9 observed in stable pillars immediately adjacent to the planned stopes. The Mineral Resource model is described in the first section of this table. Dilution necessary to removal of ore has not been determined for this new resource estimate and will be as part of the feasibility study. The resource modelling process includes some dilution as some blocks include wall rock material. No minimum mining widths have been applied as all veins modelled are equal to, or exceed 1.0m in width which is acceptable for removal by the envisaged mining method. Visual inspection of existing stopes indicates that stope widths of <0.6m a attainable within this environment. 			
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 Detailed metallurgical studies to date show that expected recoveries are likely to equal or exceed 95%. The deposit is typical of the low sulphidation deposits in the Waihi Gold District which are by and large amenable to direct cyanidation, gravity separation of free gold and/or flotation concentrate cyanidation. There is no evidence at this stage of any deleterious minerals that would impact on processing. 			

Criteria	JORC Code explanation	Commentary
Environmen- tal factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	 The deposit lies on DOC land under MP51326 granted to New Talisman Gold Mines Ltd. Consents for bulk sampling up to 20,000m3/annum have been granted for an initial 2 year period once bulk sampling commences. The local authorities have consented small and large scale mining projects in the District over the last 25 years including NTL's Talisman project in 2013. Provided the Company prepares sufficient environmental data to back up any development proposal it will be dealt with by the authorities on its merits.
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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 The bulk dry density used in the estimate is 2.53g.cm-3. This is based on 211 determinations of vein and wall rock samples. These were sorted into 41 vein samples that had a dry density of 2.53g.cm3. All densities were determined on a wet, dry and particle density basis by the University of Auckland Geology Department and took into account voids and porosity.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 The models were run using the search parameters described in the preceding sections. Measured Resources were applied to the first pass search parameters, although it was decided to only apply the Measured and Indicated categories to areas where NTL's data only was used. While the data density for the historic data is sufficiently closely spaced to be considered measured, due to the uncertainty around QAQC it was decided to class this as Inferred. Indicated resources were determined a 2 times the search ellipsoid and Inferred at 3 times. The model was rerun using the extents of the wireframe to determine mineral inventory or geological potential beyond the measured, indicated and inferred resource extents.ie areas within the geological model that with

Criteria	JC	DRC Code explanation	Сс	ommentary
				further exploration could be upgraded to fall within an appropriate resource category. This geological potential constitutes an Exploration Target as defined in the JORC code 2012 and any resource potential may not be realized in part or in whole. In the view of the Competent person this fairly represents the data and is considered conservative.
Audits o reviews	or •	The results of any audits or reviews of Mineral Resource estimates.	•	The report and data has been peer reviewed by NTL and an independent geological consultancy.
Discussion c 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. 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. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	•	Primary assessment of the accuracy of this estimate has been quantified through applying the results of the estimate to the historically mined areas. The results indicate historic depletions at an average grade of 28.31 g/t Au which is consistent with results reported from the mines production results of 27.1g/t Au This estimate is a global estimate

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Section 4 Estimation and Reporting of Ore reserves

Criteria	JORC Code explanation	Commentary
Mineral	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	 The Mineral Resource Estimate used as a basis for conversion to Ore Reserve is that compiled during the 2017 mineral resource update which

Criteria	JORC Code explanation	Commentary
Resource estimate for conversion to Ore Reserves	• Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	 was released to the market in the individual company releases of 12 July 2017, 25 July 2017 and 05 September 2017. Mineral Resources are reported inclusive of Ore Reserves
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	• Wayne Chowles is a full time employee of the company and has operational responsibility for execution of the project. Mr Chowles has visited the mine more than 200 times during the compilation of this report and is conversant with both the underground and surface infrastructure
Study status	 The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility 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. 	 Conversion of the Mineral Resources into Ore Reserves is based on the outcome of an updated Pre-feasibility Study which has investigated a number of options available for exploiting the Resource and determined a mine plan that is technically achievable and economically viable. All material Modifying Factors have been considered
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• Cut off grades were based on a preliminary assessment of the likely direct mining costs. A grade/tonnage curve was used to estimate the likely applicable cut-off grade to achieve the required ROM grade. These cut off grades have been calculated for each portion of the resource depending on the individual grade/tonnage relationship of the block.
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).	 Preliminary stope design was carried out in Mine 24D and Datamine RM by constructing wireframe strings around the geological block model encompassing the economic portions of the Resource. Waste material necessary to the extraction process was included in the wireframes; the resultant wireframe was evaluated against the applicable block model to determine volume and metal content.
	• The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-	 An option analysis identified sub-level open stoping as the most appropriate mining method which offers the flexibility to adapt to both mechanised and traditional drill and blast techniques. Excavations required to access each zone, appropriate to the intended method, have been designed, inclusive of

Criteria	JORC Code explanation	Commentary
	 strip, access, etc. The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling. 	 drives, traveling ways and ventilation passes This deposit is a narrow vein gold deposit. Maximum stope span has been limited to 35m. Strike and dip pillars have been designed to a hydraulic radius of 1.4 which is well above the existing HR of 0.9 observed in stable pillars immediately adjacent to the planned stopes The Mineral Resource model is described in the first section of this table. Dilution necessary to removal of ore is included in the stope wireframes. This varies dependant on the width and consistency of the vein, individual dilution figures are as follows:
	• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Resource Block Designed Dilution Woodstock 6.8%
	• The mining dilution factors used.	Dubbo 15.2% Mystery 28.2%
		Crown 31.7% An additional 6% of total stope tonnage has been allowed as "unplanned dilution" to allow for scaling etc.
		 Mining recovery of 90% has been allowed for in the calculations as metal unrecoverable from stopes No minimum mining widths have been applied as all veins modelled are equal to, or exceed 1.0m in width which is acceptable for removal by the envisaged mining method. Visual inspection of existing stopes indicates that stope widths of <0.6m are attainable within this environment.
	• The mining recovery factors used.	 The study has focused primarily on extracting ore contained within the identified Measured and Indicated Resources. 13% of total tonnage mined
	• Any minimum mining widths used.	in the plan is extracted from Inferred Resources and is derived from development for exploration purposes. This tonnage is mined in the last 2 years of the plan.
		• Preliminary design of all supporting infrastructure including power supply, compressed air and water reticulation, ventilation and ore transport is

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ersonal	

Criteria	JORC Code explanation	Commentary
	• The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	considered and quantified in the study.
Metallurgical factors or assumptions	 The infrastructure requirements of the selected mining methods. The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. 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. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	 A combination of gravity concentration and flotation is considered for gold recovery. This is appropriate for the style of mineralisation. The process is well understood, well tested technology Testwork carried out on Talisman ore by Pocock and Simpson in December 2017 and announced to the market on 22 March 2018. This testwork concluded that gold recovery exceeding 94% is achievable through this process. A recovery factor of 90% is applied in the study to reflect the likely lower silver recovery through the process. No assumptions have been made for deleterious elements A bulk sampling programme is planned for the next phase which will inform the development of a detailed flowsheet during the Feasibility Study. No specification required
Environmenta I	• 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.	 Areas of potential environmental impact have been identified and data collection to support the submission of an Assessment of Environmental Effects as supporting documentation for the various Resource Consents required is scheduled as part of the Feasibility Study.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	 Talisman is situated within a well-developed area with sufficient accommodation available. The site has a reasonable infrastructure as a result of being an active mine for more than a century. The hard stand area is connected to the main tarred road via a gravel road considered adequate for truck sizes up to 10t. 11kVa power is available to site but will need to be reconnected, no permit is required for water take or discharge and

Criteria	JORC Code explanation	Commentary
		sufficient water is available on site to meet operational requirements
Costs	 The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	 Capital costs were derived from supplier quotes and costs available from other mining groups Operating costs were compiled from first principles, labour and consumable costs were based on salary surveys and stores lists from local mining companies. None identified Metal prices were based on consensus forecasts Exchange rates were based on forecast rates obtained from the National Australia Bank and the Economy Forecast Agency Transport charges were based on hire of suitable trucks; distance travelled at prevailing speed limits and estimated I/hr consumption. Diesel price was the current market price Refining charges are included, there are no penalties applicable Government royalties at 1% of revenue are included in the financial model
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 derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	 Detailed calculations of mine ore flow, inclusive of all modifying factors, were carried out to support head grade estimates. Recovery rates are base on historical mine achievements using the same process as proposed. Forecast commodity prices have been taken from Consensus Economics Inc.'s Energy & Metals Consensus Forecasts, which surveys more than 40 energy and metals analysts every month for a range of commodity price forecasts. Long term nominal annual average forecasts for gold range from US\$1,334/oz in 2018 to US\$1,374/oz in 2022, with longer-term (2023-2027) averaging US\$1,440/oz
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. A customer and competitor analysis along with the identification of likely market windows for the product. 	 No demand limit is anticipated Not Applicable

Criteria	JORC Code explanation	Commentary
	 Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	Not applicable
Economic	 The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	 Inputs regarding metal prices, recovery etc. are described above. A 9% discount rate has been applied to determine project NPV Sensitivity analysis was carried out varying the Capital, Operating Cost and Metal Price in a ranges of -30% to +30%. The project maintains a positive NPV under these scenarios although it is most sensitive to gold price movements
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The company is in an advanced stage of negotiations with key stakeholders
Other	 To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	 A risk analysis has been carried out and is included in the Technical Report. Nil The mine is held under New Zealand Mining Permit no 51-326. The company holds resource consent from local government and is permitted to carry out bulk sampling activities which are similar in scope to those proposed in this study. The company holds an access agreement and authority to enter the land with the Department of Conservation
Classification	 The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	 Measured and Indicated Resources have been classified to Proved and Probable Reserves respectively This result reflects the Competent Persons view on the deposit. Measured resources are readily accessible with low capital requirements. The Reserve Estimates amount to a conversion of approximately 48% of the Measured and Indicated Resources which is considered acceptable for this type of deposit

	JORC Code explanation	Commentary
		• None
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	None carried out to date
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 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. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. 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. 	 The approach followed to convert the Mineral Resource to an Ore Reserve as discussed in the Public Report is a robust approach and technically soun for this type of deposit. The modifying factors applied in the conversion ar considered appropriate to the mining methods considered. The tonnages relevant to each category of Reserve are set out in the report