# Market Announcement

# **For Immediate Release**



### **RESULTS FROM MYSTERY VEIN EXTENSION**

### **New Talisman Gold Mines** Limited

### Responsible, Environmentally Sustainable Mining

ASX/NZX Code

NTL

**Commodity Exposure** GOLD and SILVER

### Board

Charbel Nader Chairman/Independent Director Matthew Hill Chief Executive/ Managing Director Murray Stevens Non-Executive Director Tony Haworth Independent Director Jane Bell Company Secretary

### Management

Wayne Chowles Chief Operating Officer

**Capital Structure** Ordinary Shares at 19/01/2019 2,157m

Share Price at 22/01/2019 (ASX)

Share Price Share Price at 24/01.2019 (NZX)

1.5cps 1.5cps



**New Talisman Gold Mines Limited** ACN

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# <u>HIGHLIGHTS</u>

- Mystery face advanced a further 6.1m;
- Sampling demonstrates extensions of the high grade gold and silver mineralisation

The board of New Talisman Gold Mines is delighted to announce the results of ongoing activity at the Talisman Mine Project.

Regular extraction activities are now in place on the northern extension of the Mystery Vein and the face of the drive has now been advanced a further 6.1m, exposing an extension of the vein which averages 0.9m in width.

Testing of the resue mining method, where the vein and associated waste material are extracted in separate cuts, is proving successful with the primary extraction of the vein achieving a clean break on the contact between the vein and host rock. This enables the vein material to be loaded separately from the waste and maximise the grade of ore trammed to the run of mine stockpile.

Eight tonnes of ore has been removed from the face and the results of regular in stream sampling have identified gold grades ranging from 6.2/t Au to 18.2g/t Au for an average of 11.9g/t Au. Silver ranges from 23.0g/t Ag to 37g/t Ag for an average of 28.3g/t Ag.



Figure 1 - the face of the Mystery Drive showing the extension of the vein before sidewall waste is removed



Figure 2 - Ore being loaded from the face of the Mystery Drive

The individual assay results are tabulated below:

Table 1 - Individual assay results

Sample No	Au (g/t)	Ag (g/t)
46253	8.9	23
46254	18.2	27
46255	15.0	32
46256	6.2	27
46257	11.0	24
46258	12.0	37

These results are above expectations and exceed current estimates of the average grade of the Mystery Vein. This is in the same area where recent check sampling of ore exposed at the drive face yielded grades of up to 40 g/t Au as announced to the market on 31 March 2018 (please see <a href="https://www.asx.com.au/asxpdf/20180508/pdf/43tvlpmv420f4f.pdf">https://www.asx.com.au/asxpdf/20180508/pdf/43tvlpmv420f4f.pdf</a> ) While considerably more work is required to understand the full extent of this highly prospective vein system these results are very encouraging.

The Mystery vein system occurs approximately midway between the substantial Maria and Crown veins. The vein was discovered in the 1980's while developing a cross cut to connect the Talisman No 8 Level with the adjacent Crown Mine No 5a Level. The vein has been exposed over a strike length of approximately 100m and its geological positioning suggests that it may be an extension of the vein mined in the historic Roderick Dhu workings some 500m away on strike. The current estimate of mineral resources in the Mystery vein, reported in compliance with the 2004 JORC Code are tabulated below. Further details are presented in the original resource estimate report at <a href="https://www.asx.com.au/asxpdf/20050511/pdf/3qtz8sdcqlll2.pdf">https://www.asx.com.au/asxpdf/20050511/pdf/3qtz8sdcqlll2.pdf</a>.

Upgrading of this mineral resource estimate to comply with JORC 2012 reporting standards is currently underway and will include new information gained from current activities.

Mystery			
Category	Tonnes	Aueq g/t	Ounces
Measured	9,200	6.4	1,900
indicated	12,100	6.5	2,530
inferred	30,900	6.4	6,420
Total resources	52,200	6.5	10,840

Table 2 - Estimated mineral resources attributable to the Mystery Vein

Should the Mystery prove to be as extensive as postulated it may prove to be similar to the Maria Vein, the main vein exploited at the historical Talisman Mine and from which more than 3 million ounces of bullion was produced over the mines 23-year life.

#### **Competent Persons Statement**

The information in this report that relates to exploration results, exploration targets and mineral resources is based on information compiled by Mr. Wayne Chowles. Mr. Chowles is the Chief Operating Officer of New Talisman Gold Mines Ltd, who is a corporate member of the AusIMM. Mr. Chowles 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.

#### 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.

### JORC CODE, 2012 EDITION - TABLE 1

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Regular samples are taken in stream as ore is loaded from the face. Sample density amounts to 1 sample per 1.1 tonne of ore loaded.</li> <li>To ensure representivity, care was taken to ensure equal-mass of the grab samples of approximately 5kg each.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Not applicable to this release</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential</li> </ul>	Not applicable to this release

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological mapping, of structures, lithology and mineralization, was undertaken by experienced field geologists and senior geologists.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples were dried, crushed and rotary split at SGS Waihi to ensure representivity.</li> <li>Samples were pulverized to 75 micron in an LM2 before subsampling for fire assay.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>NTL used SGS in Waihi, a certified assay laboratory, using their standard sample preparation and analytical procedures and internal quality control procedures. All gold assays used a 30g charge fire assay with AAS finish and a detection limit of 0.01ppm. This is a total assay technique and considered appropriate.</li> <li>SGS Waihi inserted blanks and certified standards, repeats of higher grade samples and screening to test pulverized sample met the size fraction requirements.</li> </ul>
Verification of sampling and	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data</li> </ul>	<ul> <li>SGS repeated assays on 2 of the 6 samples. The blank sample was inserted and came back below detection indicating no contamination and appropriate mill cleaning between samples.</li> </ul>

Criteria	JORC Code explanation	Commentary
assaying Location of data points	<ul> <li>verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>A levelling exercise was initially conducted in 8 Level for survey control with a datum established outside No8 Level.</li> <li>Grid system used historically was Mt Eden Circuit.</li> <li>NTL used NZMG(1949) and converted all earlier data to this grid system.</li> <li>Topographic and survey control is considered adequate for the purpose that the data is being used.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>NA</li> <li>NA</li> <li>NA</li> </ul>
Orientation of data in relation to geological structure	the deposit type.	<ul> <li>Samples were taken at regular intervals as ore is loaded from the face</li> <li>NA</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Samples were collected by NTL personnel, packed in site and transported directly to the SGS Laboratory in Waihi.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• NA

## 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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>The Company operates under an access arrangement with the Minister of Conservation with an authority to enter and operate.</li> <li>In addition, the Company holds a resource consent issued by the District Council to carry out bulk sampling of up to 20,000 m<sup>3</sup> per annum.</li> <li>Tenure is secure at time of reporting.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>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.</li> </ul>
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 surface outcrop to the deepest 16

Criteria	JORC Code explanation	Commentary
		level. Fluid inclusion studies suggest the current highest level of exposure has seen 300m of erosion from the paleosurface.
Drill hole Information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Not applicable to this release
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	Not applicable to this release
	<ul> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	Not applicable to this release

Criteria	JORC Code explanation	Commentary
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Not applicable to this release</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Not applicable to this release</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Not applicable to this release</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• 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.

# Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	Not applicable to this release
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>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</li> </ul>

Criteria	JORC Code explanation	Commentary
		mine and is very familiar with all aspects of the project.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Not Applicable to this release</li> </ul>
Dimensions	<ul> <li>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.</li> </ul>	<ul> <li>Not applicable to this release</li> </ul>
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if</li> </ul>	Not Applicable to this release

Criteria	JORC Code explanation	Commentary
	available.	
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	Not Applicable to this release
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	•
Mining factors or assumptions	<ul> <li>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.</li> </ul>	.Not Applicable to this release
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.	<ul> <li>Detailed metallurgical studies to date show that expected recoveries are likely to equal or exceed 94%.</li> <li>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.</li> <li>There is no evidence at this stage of any deleterious minerals that would impact on processing.</li> <li>The testwork in this release serves to confirm these assumptions</li> </ul>
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.	<ul> <li>granted for an initial 2 year period once bulk sampling commences.</li> <li>The local authorities have consented small and large scale mining projects in the District over the last 25 years including NTL's Talisman</li> </ul>

Criteria		JORC Code explanation	Commentary
Bulk density	ТУ	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	Not applicable to this release
Classificatio	on	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	Not applicable to this release
Audits reviews	or	<ul> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	Not applicable to this release
Discussion relative accuracy/ confidence	2	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	Not applicable to this release