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- **Tungsten**
  Molyhil NT
  Pilot Mountain USA
- **Copper**
  Kapunda SA
  Moonta SA

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MOLYHIL MINERAL RESOURCE ESTIMATE ENHANCED

The Board of Thor Mining Plc ("Thor") (AIM, ASX: THR) is pleased to advise of an update to the Mineral Resource Estimate for the Company's flagship Molyhil project in the Northern Territory of Australia.

Highlights

- The Molyhil Mineral Resource now comprises Indicated and Inferred Mineral Resources of **4.7 million tonnes at 0.28% WO_3** (Tungsten trioxide), **0.14% Mo** (Molybdenum), **0.05% Cu** (Copper), and 18.0% Fe (Iron) (above a cut-off grade of 0.12% WO_3 equivalent) (Refer to Table A below);
- The revised resource estimate increases contained WO_3 by 1.5% , and contained Mo by 9.3% compared with the previous estimate;
- The Mineral Resource, is further boosted with the inclusion of copper in the resource inventory, contributing an additional potential by-product stream for the project;
- Metallurgical process test work has demonstrated the capacity to produce a separate copper concentrate from Molyhil ore with minimal additional cost.

Mr Mick Billing, Executive Chairman, commented:

"This revised Mineral Resource Estimate is a welcome boost for the Molyhil project with a 1.5% increment in contained tungsten metal along with a very impressive 9.3% increase in contained molybdenum."

"The inclusion of copper in the Molyhil Mineral Resource further enhances the potential of this project as we work toward a project financing package for Molyhil".

"While the copper grades in the Molyhil Mineral Resource are modest, the copper minerals are extracted as a by-product of the molybdenum and other sulphide products flotation stage without additional reagent addition, and virtually therefore at no additional cost".

In recognition of consistent recoveries of copper in process testwork on Molyhil ore samples, Thor Mining commissioned mining consultants RPM Global to review the Mineral resource Estimate for Molyhil to establish if the resource estimate could be augmented accordingly. The revised estimate is based upon no new sample data other than for these historical copper intersections.

The Mineral Resource for the Molyhil deposit is reported at a cut-off grade of 0.12% tungsten equivalent and above an elevation of 200m RL as at 18th September 2019. Readers should note that the Mineral Resource has an applied grade adjustment factor for the RC drilling assays. The adjustment factor is supported by review of RC tungsten and molybdenum assays compared to underground bulk samples, diamond core samples and recent metallurgical hole core samples.

Although the adjustment factor has been applied, the reader should note there are a number of risks associated with it that should be further investigated and their impact reduced or mitigated before proceeding with classification of confidence categories higher than an Indicated Mineral Resource, any higher confidence economic evaluation of the deposit or progression to a feasibility study.

Table A: Molyhil Summary JORC (2012) Mineral Resource Estimate As At 18th September, 2019

Classification	Resource '000 Tonnes	WO_3		Mo		Cu		Fe
		Grade %	Tonnes	Grade %	Tonnes	Grade %	Tonnes	Grade %
Indicated	3,780	0.29	11,000	0.14	5,400	0.05	1,800	18.7
Inferred	930	0.25	2,300	0.15	1,400	0.04	300	15.2
Total	4,710	0.28	13,300	0.14	6,800	0.05	2,200	18.0

Notes:

- *Thor Mining PLC holds 100% equity interest in this project.*
- *The Mineral Resource is reported at 0.12% WO_3 equivalent cut-off and above 200mRL only on a dry, in-situ basis*
- *The Statement of Estimates of Mineral Resources has been compiled by Mr. David Allmark who is a full-time employee of RPM and a Member of the AIG. Mr. Allmark has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).*
- *All Mineral Resource figures reported in the table above represent estimates as at 18th September 2019. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results.*
- *Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).*
- *The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.*
- *The Mineral Resource was reported by a WO_3 equivalence defined by the following formula:* $WO_3\ eq = WO_3 + 0.952658 * Mo + 0.298054 * Cu$
- *Reporting cut-off grade was selected by RPM based on parameters defined by an Ore Reserve update in 2017 and RPM's experience in these types of deposits.*
- *To satisfy the criteria of reasonable prospects for eventual economic extraction, the Mineral Resources have been reported down to 200m RL which defines material that could be potentially extracted using open pit mining methods.*
- *The Company is not aware of any information or data which would materially affect the Mineral Resource, and all assumptions and key technical parameters relevant to the previous estimate remain unchanged, with the exception of the addition of copper to the current Mineral Resource.*

Summary of Mineral Resource Estimate and Reporting Criteria

The Molyhil resource area extends over a strike length of 250m and includes 410m of vertical extent from 410mRL to 0mRL. Cross-sectional geological interpretations have been undertaken on a 15 to 25m section spacing to match drilling lines. The deposit consists of two adjacent outcropping iron rich skarn bodies, marginal to a granite intrusion, that contain scheelite (tungsten mineralisation as $CaWO_4$) and molybdenite (molybdenum as MoS_2) mineralogy. Both the outlines of, and the banding within the skarn bodies, strike approximately north-south and dip steeply to the east. The bodies are arranged in an en-echelon manner, the northeast body being named the Yacht Club and the southwest body the Southern.

Drill holes used in the resource estimate included 82 surface RC holes (11,947m), 15 surface diamond holes (1,816m) and three underground exploration shafts and cross-cuts (198m). Prospect drilling prior to 2004, water bores and RAB holes were not used in the estimation of the Mineral Resource.

The most recent site visit was conducted by Mr Craig Allison and Mr Joe McDiarmid of RPM in October 2011. The site visit was undertaken with Mr Richard Bradey, Exploration Manager for Thor. Historical mining areas and drill holes were inspected and are spatially similar to localities plotted on company maps. The site visit review concluded current geological models are supported by drilling and that drill data collection to the date of the site visit has been undertaken to industry standards. RPM and its CP understand through communication with Thor that no additional mining activities have occurred with only limited exploration since the previously reported Mineral Resource. As such, no site visit was considered necessary for this Mineral Resource update.

Hole collars were accurately surveyed by DGPS by qualified surveyors during the 2011 drill campaign. Down hole re-surveying of previous drilling has also been undertaken using a north-seeking gyro instrument and identified that a minor azimuth correction of +8 degrees should be applied to non-surveyed holes.

Samples were collected mainly at 1m intervals with some variation to account for barren hanging-wall zones and geological boundaries. Samples were assayed for iron (Fe), molybdenum (Mo), tungsten (W) and copper (Cu) using the XRF assay method.

Quality control data was available for the drilling programs by Thor and included a comprehensive program of certified standards, blanks and duplicates. The combined diamond/ RC quality assurance results are within acceptable limits for iron, however some widely scattered field duplicate results for molybdenum, tungsten and copper can be observed. Of significance when the QAQC data is separated by drilling type, the RC field duplicates show higher repeatability than the diamond core samples, which would be expected for the mineralisation style and the smaller sample size of the diamond core. While this shows suitable repeatability of the sample from the cyclone of the RC sample, the twin holes completed with diamond core show significant variation which questions the precision accuracy of the RC sample assays. It is noted that the diamond core holes have >95% recovery within the mineralised zones whereas recovery was not recorded for all RC samples and previous reports have commented on some low recoveries within the mineralised zones.

Given the issues noted, a further review was undertaken of the grade adjustment factor applied to the molybdenum and tungsten RC drill samples in the previous Mineral Resource reported. It is noted that this review was completed by comparing the sample data from the 2005 near-surface underground workings, 2011 twin diamond drill holes and metallurgical diamond core holes. This updated review (including a complete review of the QAQC samples) interpreted that the coarse-grained, brittle and heterogeneous nature of the mineralisation, as confirmed by underground mapping, could result in a likely sample bias for the RC assays of tungsten and molybdenum compared to the interpreted more representative underground bulk and diamond core samples. It is considered this bias is due to excessive partitioning of both scheelite and molybdenite material into the outside return air stream during the RC drilling procedure, which could result in an excessive loss (>15%) of fine particles and a corresponding reduction in grade of tungsten and molybdenum of the sample. It was also noted from the 1,000 tonne bulk sampling program that higher grade molybdenum material was softer and produced more fine material than harder, barren material when crushed as would be the case during RC drilling. Pilot holes drilled by RAB drilling rigs also noted poor sample quality and low recoveries.

The analysis concluded the previous adjustment factor of 114% molybdenum and 144% tungsten was still applicable from surface down to 350mRL pending further information. Below the 350mRL an adjustment factor of 144% for molybdenum and no change to tungsten was applied. The adjustment factor was applied to tungsten and molybdenum RC assays only and no other changes were applied to the assays.

It is noted there are a number of risks associated with the use of a grade adjustment factor which include that the analysis may not be representative of all areas of the deposit and that the number of twin drill holes chosen (six) was insufficient or not representative. Additionally, the metallurgical test holes, although of imprecise location, appear to indicate limited support for the Mo adjustment factor but strong support for the WO_3 adjustment factor. The January 2012 Mineral Resource acknowledged these risks as being a major factor in applying the Indicated confidence category to the more well-informed portion of the deposit. This is re-confirmed in the current estimate.

Following the amendments to the database, assay grade, lithology and structure were used to define the margins of the mineralised zones. Wireframes of the mineralisation were constructed using cross sectional interpretations based on a nominal 10 to 15% iron oxide cut-off grade with a minimum downhole length of 2m. This iron cut-off grade broadly corresponds to the skarn boundary within which the majority of the scheelite and molybdenite mineralisation is located. Minor mineralisation adjacent to the skarn bodies was also incorporated into the mineralisation wireframe which did not correspond to the iron cut off. It was not considered necessary to include an additional domain given the immateriality of the mineralisation outside of this Fe boundary and metallurgical differences with this material.

Samples within the wireframes were composited to 1m intervals based on analysis of the sample lengths in the database and the width of mineralisation zones. Tungsten (W) assays were converted to WO_3 for the purpose of estimation and reporting. High grade element cuts of 2% for Mo, between 6% and 9% for WO_3 and 0.4% for Cu were applied to the corresponding composites within the mineralisation domain after statistical analysis. No high grade cut was applied to the iron assay grades.

A Surpac block model was used for the estimate with a block size of 10m N by 5m E and 5m in elevation with sub-cells of 2.5m by 1.25m by 1.25m. No rotation was applied to the block model as the overall strike of mineralisation is north-south. Ordinary Kriging interpolation with an oriented 'ellipsoid' search was used for the estimate of each element. The ellipse was oriented to match mineralisation trends and is based on the variogram models.

For the iron (Fe) estimate, a first pass search radius of 40m and a second pass search radius of 100m were used with a minimum number of samples of 20 and a maximum of 26 for all objects in the first pass. Approximately 45% of the blocks were filled in the first estimation pass and 53% of the blocks were filled in the second estimation pass. A third estimation pass of 200m search radius was used to fill remaining un-estimated model blocks.

For the molybdenum (Mo) estimate, a first pass search radius of 40m and a second pass search radius of 90m were used with a minimum number of samples of 20 and a maximum of 32 for all domains in the first pass. Approximately 27% of the blocks were filled in the first estimation pass and 66% of the blocks were filled in the second estimation pass. A third estimation pass of 300m search radius was used to fill remaining un-estimated model blocks.

For the tungsten oxide (WO_3) estimate, a first pass search radius of 30m and a second pass search radius of 60m were used with a minimum number of samples of 20 and a maximum of 32 for all objects in the first pass. Approximately 33% of the blocks were filled in the first estimation pass and 60% of the blocks were filled in the second estimation pass. A third estimation pass of 250m search radius was used to fill remaining un-estimated model blocks.

A bulk density value for the block model was derived from an iron (Fe) - bulk density regression equation. A total of 69 bulk density measurements have been taken from the 2004 drilling campaign and a strong association between increasing iron grade and bulk density is recognised. The equation of the regression line was applied to the mineralisation domain only. An average bulk density value of 2.75t/m^3 was used for the barren background domain. A bulk density of 2.0 t/m3 was used for the historical stockpile material adjacent to the mined area.

The reader should note that a grade adjustment factor was applied to the data which underpins the Mineral Resource as the review indicated there was evidence of a sampling bias caused by unsuitable RC drilling methods for the mineralisation style. RPM and its CP recommends work should be undertaken to further confirm and accurately quantify the grade adjustment factor and to reduce or mitigate the associated risks. This work would consist of duplication of selected RC holes with additional equipment to settle and collect the material in the outside return for assay, and drilling of a set of around thirty diamond holes in locations spread evenly throughout the deposit; to be used to more representatively investigate and quantify the grade adjustment factor prior to improving the Mineral Resource classification to the Measured category in the more well-informed areas, or proceeding to higher confidence economic evaluation of the deposit or feasibility studies for development of the Project.

The Mineral Resource was classified on the basis of sample spacing, continuity of the interpreted zones and geostatistical measurement of estimation errors and potential risks associated with the application of the grade adjustment factor. In general, zones where drill hole spacing was in the order of 30m by 40m or less and reasonable continuity was apparent, supported by bulk samples and twin holes were classified as Indicated Mineral Resource. Those zones, where drill hole spacing was greater than 30m by 40m, or where the continuity and/or geometry were uncertain were classified as Inferred Mineral Resource. No areas were classified as Measured after considering the precision of the molybdenum and tungsten adjustment factor analysis and drill spacing. Mineralised areas below the 200m RL were not classified as further work is required to determine economic grade cut-offs below this level.

The Mineral Resource has been reported at a tungsten equivalent cut-off grade of 0.12% WO_3 equivalent and above an elevation of 200m RL to report potentially economic material. The tungsten equivalent was determined using the prices and recoveries of tungsten, molybdenum and copper as determined from RPM’s review and from test work. The WO_3 equivalent was determined by the following formula:

WO_3 equivalent = WO_3 + 0.952658*Mo + 0.298054*Cu

Prices and recoveries of USD22,400/t and 79% for WO_3, USD23744/t and 71% for Mo and USD7644/t and 69% for Cu respectively, were used to determine the WO_3 metal equivalent formula.

To report material that has reasonable prospects for economic extraction by open pit mining methods, RPM used a cut-off grade of 0.12% WO_3 equivalent. The cut-off grade was determined using 10% ore loss and 5% dilution, tungsten recovery of 79% and a tungsten concentrate grade of 62%. The Mineral Resource was reported above this WO_3 equivalent cut-off grade and above the 200m RL level.

For further information, please contact:

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Updates on the Company's activities are regularly posted on Thor's website www.thormining.com, which includes a facility to register to receive these updates by email, and on the Company's twitter page @ThorMining.

Competent Person's Report

The estimates of Mineral Resources presented in this release have been carried out in accordance with the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code – 2012 Edition).
The information in this release that relates to Mineral Resources is based on information compiled by Mr David Allmark who is a Member of the Australian Institute of Geoscientists and a full-time employee of RPM. Mr Allmark is the Competent Person for this Mineral Resource estimate and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'.
Mr Allmark has no economic, financial or pecuniary interest in Thor and is not aware of any potential for a conflict of interest in relation to this work for Thor.

About Thor Mining PLC

Thor Mining PLC (AIM, ASX: THR) is a resources company quoted on the AIM Market of the London Stock Exchange and on ASX in Australia.

Thor holds 100% of the advanced Molyhil tungsten project in the Northern Territory of Australia, for which an updated feasibility study in August 2018[1] suggested attractive returns.

Adjacent to Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including an Inferred Resource for the Bonya copper deposit[2].

Thor also holds 100% of the Pilot Mountain tungsten project in Nevada USA which has a JORC 2012 Indicated and Inferred Resources Estimate[3] on 2 of the 4 known deposits. The US Department of the Interior has confirmed that tungsten, the primary resource mineral at Pilot Mountain, has been included in the final list of Critical Minerals [6]2018.

Thor is also acquiring up to a 30% interest Australian copper development company EnviroCopper Limited, which in turn holds rights to earn up to a 75% interest in the mineral rights and claims over the resource on the portion of the historic Kapunda copper mine in South Australia recoverable by way of in situ recovery[4], and also holds rights to earn a 75% interest in portion of the Moonta Copper project also in South Australia, and is considered amenable to recovery by way of in situ recovery[5].

Thor has an interest in Hawkstone Mining Limited, an Australian ASX listed company with a 100% Interest in a Lithium project in Arizona, USA.

Finally, Thor also holds a production royalty entitlement from the Spring Hill Gold project[6] of:

- *A$6 per ounce of gold produced from the Spring Hill tenements, sold for up to A$1,500 per ounce; and*
- *A$14 per ounce of gold produced from the Spring Hill tenements, sold for amounts over A$1,500 per ounce.*

Notes

[1] Refer ASX and AIM announcement of 23 August 2018

[2] Refer ASX and AIM announcement of 26 November 2018

[3] Refer AIM announcement of 13 December 2018 and ASX announcement of 14 December 2018

[4] Refer AIM announcement of 10 February 2016 and ASX announcement of 12 February 2018

[5] Refer AIM announcement of 5 March 2019 and ASX announcement of 6 March 2019

[6] Refer AIM announcement of 26 February 2016 and ASX announcement of 29 February 2016

Mr Richard Bradey, Exploration Manager for Thor compiled the information in Section 1 and Section 2 of JORC Table 1 in this Mineral Resource report and is the Competent Person for those sections. David Allmark is the Competent Person for Section 3. RPM has included these sections in their entirety to ensure that all relevant sections of Table 1 are included in this report. RPM has added some additional commentary associated with the grade adjustment factor applied to the Mineral Resource.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
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.*	• The mineralised lodes at the Molyhil deposit were sampled using surface diamond drill holes, percussion holes, and underground shaft and cross-cut bulk sampling. Drilling was conducted primarily on nominal 25m by 25m line spacing, reduced in areas to 12.5m by 12.5m and drilled on the GDA94 National Grid system. • Three winzes (2m x 1.2m) totalling 96m and three cross-cuts (2.1m x 1.2m) totalling 102m were sunk into the orebody. The winzes and cross-cuts were all sampled at 2m intervals. • Drill holes used in the resource estimate included 15 diamond holes, 89 percussion holes, and 3 underground shafts with associated cross-cuts for a total of 14,906.9m within the resource wireframes. The supplied database contained a total of 162 drill hole records for a total of 19,163.25m of drilling. Holes were generally angled at -60° towards the west (average of 252° azimuth) to optimally intersect the mineralised zones. • All accessible drill hole collars and starting azimuths and downhole deviations were accurately re-surveyed by Direct Systems surveyors in 2011. Dip and azimuth values were measured at 10m intervals down hole using North Seeking Gyro equipment. • Drilling was conducted by Petrocarb, Tennant Creek Gold and by Thor. Petrocarb drilling prior to 2005 was not included in the data used for the Mineral Resource Estimate. Diamond drilling used a 63.5mm core diameter (HQ) with sampling at varying intervals based on geological boundaries. Half-split core was sampled and sent for analysis. RC drilling used a 5" face sampling bit, a cyclone and an industry standard riffle splitter. All samples were sent for preparation (crushing and pulverising) and analysed using the XRF method at various laboratories including ALS Perth, Amdel Adelaide and Genalysis Perth.
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).*	• Diamond or percussion drilling were the primary techniques used at Molyhil. Diamond holes make up 12% of the total metres drilled with a core diameter of 63.5mm. Hole depths ranged from 55m to 207m. Percussion drilling makes up 88% of the total holes drilled with depths ranging from 12m to 502m. Shaft or cross-cut sampling accounts for less than 1% of sample results in the

Criteria	JORC Code explanation	Commentary
		database.
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.*	• Recoveries from diamond core were only recorded when there was significant core loss, examination of the photographs of the core trays indicates that overall recovery was very good. All diamond core was oriented where possible. • Diamond core was reconstructed into continuous runs for orientation marking with depths checked against core blocks. • Most percussion samples were visually checked for recovery and moisture content and the data recorded. The recorded recovery figures averaged 84%, with most samples recorded as being dry. • No relationship was noted between recorded sample recovery and grade, however comparison of RC assays for tungsten and molybdenum with underground bulk sampling and diamond core indicates there may be a reduction in RC sample grades of tungsten and molybdenum due to excessive partitioning of both scheelite and molybdenite material into the outside return. It was also noted from the bulk sampling program completed by Thor in 2006 that higher grade molybdenum ore was softer and produced more fine material than harder, barren material. Pilot holes drilled by RAB drilling rigs also noted poor sample quality and low recoveries. This sampling bias due to preferential loss of fine material has likely resulted in a corresponding reduction in grade of tungsten and molybdenum of the sample.
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.*	• All holes were field logged by company geologists to a high level of detail. • Although the core was oriented it was not routinely logged for RQD, or number and type of defects. The supplied database contained tables with some information vein shearing and vein percent with observations but no alpha/beta angles, dips, azimuths, and true dips. • All drill samples were logged for lithology, rock type, colour, mineralisation, alteration, and texture. Logging is a mix of qualitative and quantitative observations. It has been standard practice by Thor (since 2005), that all diamond core be routinely photographed. • All drill holes were logged in full.
Sub-sampling techniques and sample preparation	• *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 sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation*	• Diamond core was cut in half using a core saw with half core submitted for assay. • Percussion drill samples were collected at 1m intervals. Samples were collected at the drilling rig and split with a riffle splitter at the drill site. Samples were predominantly dry. Drilling was through bedrock from surface. Sampling of diamond core and RC chips used industry standard techniques.

Criteria	JORC Code explanation	Commentary
	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.*	• Thor has used systematic standard and pulp duplicate sampling since 2005. Detailed data from the 2011 program indicates that a sequence of every 25th sample was submitted as a standard, a different sequence of every 25th sample was inserted as a field duplicate and a third sequence of every 25th sample was inserted as a blank. This resulted in 3 samples in every 25 being a QAQC sample (approximately 12% of all samples). • Sample sizes (3-5kg for core and 2-5kg for chips) are considered appropriate to correctly represent the W and Mo mineralisation based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for W and Mo.
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.*	• The assay method used for all drill samples was XRF. The lower detection limit is in the order of 0.01% to 0.005% for Fe or 0.005% to 0.0001% for Mo or W and well within the level of accuracy or grade cut-off required for the resource estimate. • No geophysical tools were used to determine any element concentrations used in this resource estimate. • The various programs of QAQC carried out by Thor over the years have produced results which support the sampling and assaying procedures used at the various deposits.. • A total of 6 different certified reference materials representing a variety of grades from 0.12% to 0.28% for W and 0.09% to 0.48% for Mo were inserted regularly during the 2011 drilling program for a total of 67 samples. Results highlighted that the sample assays are within accepted values, showing no obvious bias. • A total of 88 blank samples were submitted during the 2011 drill program and results show that sample contamination has been mostly contained. • Field duplicate analyses (a total of 68) mostly honour the original assay for Fe however show some widely scattered field duplicate results for W, Mo and Cu indicating a high natural grade variability.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• RPM has independently verified significant intersections of mineralisation. The 2011 site visit inspected 2011 drill core and noted similar identification of geological features. Resource mineralisation outlines were agreed upon by RPM and Thor geologists. • Analysis of twinned RC vs. diamond holes and RC vs. underground cross-cuts (bulk samples) has

Criteria	JORC Code explanation	Commentary
	• *Discuss any adjustment to assay data.*	identified there is a reduction in RC sample grade for W and Mo. RPM considers that excessive partitioning of both scheelite and molybdenite material into the outside return air stream during the RC drilling procedure could result in a reduction in grade of tungsten and molybdenum of the sample. It was also noted from the bulk sampling program that higher grade molybdenum ore was softer and produced more fine material than harder, barren material. Pilot holes drilled by RAB drilling rigs also noted poor sample quality and low recoveries. • RPM conducted reviews of all the available data that could be related to the application of a grade adjustment factor for the RC drill hole data. The adjustment factors used for the resource estimate were updated for the January 2012 Mineral Resource estimate. This was reviewed again for the 2019 update and additional recommendations to improve the number and coverage of twin diamond holes were made to be completed prior to any further economic evaluation of the deposit including more advanced feasibility studies. • Due to this reduction in grade RPM considered it appropriate that Mo and W grade adjustment factors should be applied. An adjustment factor of 114% for Mo and 144% for W above the 350m RL level and 144% for Mo and no change for W below the 350m RL level was applied prior to grade estimation. The grade adjustment factor was applied to tungsten and molybdenum RC assays only and no other changes were applied to the assays
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole collars and starting azimuths have been accurately re-surveyed by independent surveyors using a DGPS instrument. Down hole dip values and azimuths were recorded at 10m intervals using digital equipment such as a north-seeking gyro instrument. • Drill hole locations were positioned using the MGA Grid System. • The topographic surface over the Molyhil deposit was provided to RPM by Thor. Drill hole collars have been used to create a more accurate surface immediately above the mineralised lodes.
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.*	• Drill holes have been located at 25m by 25m throughout the mineralised lodes at Molyhil, and mainly drilled steeply westward to intersect steeply east-dipping, moderately south-plunging skarn bodies. Some broader spaced drilling has been undertaken away from near-surface mineralisation. • The main mineralised domains have

Criteria	JORC Code explanation	Commentary
		demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource, and the classifications applied under the 2012 JORC Code. • Data density is sufficient to define reasonably structured variograms for each element. • Samples have been composited to 1m lengths using 'best fit' techniques.
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.*	• Drill holes are orientated predominantly to an azimuth of 252° and drilled at an angle of -60° to the west which is approximately perpendicular to the orientation of the mineralised trends. • The orientation of the drilling is at a high angle to the strike and dip of the mineralisation and is unlikely to have introduced any sampling bias due to orientation.
Sample security	• *The measures taken to ensure sample security.*	• No information has been provided to RPM with respect to the sample security for historical drilling.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A review of sampling techniques and data was carried out during a site visit conducted in October 2011. The conclusion was that sampling and data capture was to industry standards.

Section 2 Reporting of Exploration Results

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 license to operate in the area.*	• The tenements at Molyhil comprise EL22349, ML23825, ML24429 and ML25721. For all tenements Thor Mining PLC hold 100% Project Equity. • Thor has completed the Public Environmental Report for the Molyhil Tungsten and Molybdenum Project. This report has been accepted by the Department of Regional Development, Primary Industry, Fisheries and Resources in the Northern Territory • This report was approved on the 15th July 2007 by the DRDPIFR (NT), who also confirmed in December 2011 that the approval remains current. The report is available on request. • Thor Mining PLC has also obtained all the required agreements between the Traditional Owners of the land, and Thor Mining PLC, to enable the Molyhil Operations to proceed with the recognition and support of the Traditional Owners. • The Tripartite Deed records the terms of the Agreement between the parties in accordance with the Native Title Act and is between the Arrapere People, the Central Land Council and Thor Mining PLC. • There are no known impediments to obtaining a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Tungsten and molybdenum mineralisation was originally discovered at Molyhil in 1973. The Molyhil deposit was initially drilled in 1977 with further drilling carried out in 1981. The work was carried out by Fama Mines Pty Ltd, Petrocarb NL, Nicron resources NL and Geopeko. Between 1975 and 1976 approximately 20kt of molybdenum and tungsten mineralisation were mined from the northern Yacht Club skarn body. Approximately 900kt of material was mined from the adjacent Southern skarn body during 1978 to 1982, to a depth of approximately 25m.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Molyhil deposit consists of two adjacent outcropping iron rich skarn bodies, marginal to a granite intrusion, that contain scheelite (tungsten mineralisation as CaWO4) and molybdenite (molybdenum as MoS2) mineralogy. Both the outlines of, and the banding within, the skarn bodies strike approximately north-south and dip steeply to the east. The bodies are arranged in an en-echelon manner, the northeast body being named the Yacht Club and the southwest body the Southern.
Drill hole information	• *A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:*	• A complete table of all relevant drill holes is attached to the Mineral Resource report as Appendix B. • Mining and drilling information prior to 2004,

Criteria	JORC Code explanation	Commentary
	• *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.*	water bore and RAB drilling assay results were excluded from the resource estimate. This reflected concerns relating to the completeness and accuracy of historical information and the quality of RAB drill samples. • In the opinion of Thor, material drill results have been adequately reported previously to the market as required under the reporting requirements of the ASX Listing Rules.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration results are not being reported. • Not relevant. • A tungsten metal equivalent value was used as a cut-off grade for the reporting of potentially economic material. The tungsten equivalent was determined using the prices and recoveries of tungsten, molybdenum and copper as determined from RPM's review and from test work. • The WO_3 equivalent was determined by the following formula: WO_3 equivalent = WO_3 + 0.952658*Mo + 0.298054*Cu • Prices and recoveries of USD22,400/t and 79% for WO_3, USD23744/t and 71% for Mo and USD7644/t and 69% for Cu respectively were used to determine the WO_3 metal equivalent formula.
Relationship between mineralisation 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 (e.g.'down hole length, true width not known').*	• Drill holes were orientated predominantly to an azimuth of 252° and angled to a dip of -60°, which is approximately perpendicular to the orientation of the mineralised trends.
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.*	• A plan showing mineralisation wireframes and drilling is included in the body of the Mineral Resource report (Figure 12-1). A typical section through the main lodes is also included (Figure 12-3).

Criteria	JORC Code explanation	Commentary
Balanced Reporting	• *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.* • *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.*	• Drill hole collars and starting azimuths have been accurately re-surveyed by independent surveyors using a DGPS instrument. Down hole dip values and azimuths were recorded at 10m intervals using digital equipment including a north-seeking gyro survey instrument. Drill hole locations were positioned using the MGA Grid System. Exploration results are not being reported.
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.*	• Three winzes totalling 96m and three cross-cuts totalling 102m were excavated into the orebody. • Historically three trenches were excavated into the surface of the orebody.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Thor have recently completed a Feasibility Study and further metallurgical test work. • RPM recommends the RC grade adjustment factor be checked by duplication of selected RC holes with additional equipment to settle and collect the material in the outside return for assay. • RPM also recommends drilling a set of around thirty diamond holes in locations spread evenly throughout the deposit to be used to more representatively investigate and quantify the grade adjustment factor prior to improving the Mineral Resource classification to Measured category or proceeding to economic evaluation or further feasibility studies for development of the Project. • Increase confidence in the Inferred Resource with infill drilling down to and below the 200m RL and at the peripheries of current mineralised zones to allow the definition of additional Indicated Resource and a larger optimised pit shell for future open pit Ore Reserve and mining studies.

Section 3 Estimation and Reporting of Mineral Resources

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.*	• Drilling data was initially captured on paper logs and manually entered into a database. Thor carried out internal checks to ensure the transcription was error free. Laboratory assay results were loaded as electronic files direct from the laboratory so there was little potential for transcription errors. • The data base was systematically audited by Thor geologists. All drill logs were validated digitally by the database geologist once assay results were returned from the laboratory. • RPM also performed data audits in Surpac and checked collar coordinates, down hole surveys and assay data for errors. No errors were found.
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.*	• The most recent site visit was conducted by Mr Craig Allison and Mr Joe McDiarmid of RPM in October 2011. The site visit was undertaken with Mr Richard Bradey, Exploration Manager for Thor. Historical mining areas and drill holes were inspected and are spatially similar to localities plotted on company maps. The site visit review concluded current geological models are supported by drilling and that drill data collection to the date of the site visit has been undertaken to industry standards. RPM and its CP understand through communication with Thor that no additional mining activities have occurred with only limited exploration since the previously reported Mineral Resource. As such, no site visit was considered necessary for this Mineral Resource update.
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 Molyhil deposit consists of two adjacent outcropping iron rich skarn bodies, enclosed in granite, that contain scheelite and molybdenite mineralisation. Both the outlines of, and the banding within the bodies strike approximately north south and dip steeply to the east. The bodies are arranged in an en-echelon manner, the northeast body being named the Yacht Club and the southwest body the Southern. • The geology of the Molyhil deposit is well understood • Drill hole logging by Thor geologists, through direct observation of drill core and percussion samples have been used to interpret the geological setting. The bedrock is exposed by surface trenches and limited underground openings. • The continuity of the main mineralised lodes is clearly observed by relevant grades within the drill holes. The close spaced drilling and trench and underground sampling suggest the current interpretation is robust. The nature of the lodes

Criteria	JORC Code explanation	Commentary
	• *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	would indicate that alternate interpretations would have little impact on the overall Mineral Resource estimate. • Mineralisation is coarse-grained and its distribution is irregular. Two broad lithological variations are present within the skarn • "Black rock skarn": Mineralised, selectively mined on the basis of colour, a calc-silicate containing a high proportion of magnetite, pyrite, and iron-rich minerals such as andradite-garnet, actinolite, and ferro-amphibole. • Unmineralised skarn: Pale green coloured calc-silicate, containing diopsidic pyroxene and garnet. • The interpretations have been useful in predicting the continuity of the mineralisation for the Mineral Resource estimate
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 Molyhil resource area extends over a combined strike length of 300m from 19,850mN to 20,150mN, a width of 250m from 9,950mE to 10,200mE and includes the vertical extent of 290m from 410mRL to 120mRL.
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.* • *Any assumptions about correlation between variables.*	• Ordinary Kriging ("OK") interpolation with an oriented 'ellipsoid' search was used for the estimate. Surpac software was used for the estimation. • Three dimensional mineralised wireframes were used to domain the mineralised data. Sample data was composited to 1m down hole lengths using the 'best fit' method. Intervals with no assays were excluded from the estimate. • The influence of extreme grade values was addressed by reducing high outlier values by applying high grade cuts to the data. These cut values were determined through statistical analysis (histograms, log probability plots and summary multi-variate and bi-variate statistics) using Supervisor software. • RPM has not made assumptions regarding recovery of by-products from the mining and processing of the Molyhil resource with the exception of copper which reports to the molybdenum concentrate. • No estimation of deleterious elements was carried out. Fe, W, Mo and Cu were the major variables interpolated into the block model. • An orientated 'ellipsoid' search was used to select data and was based on the observed lode geometry. The search ellipse was orientated to the average strike, plunge, and dip of the main lodes. • Three passes were used in the estimation. For both skarn domains, the search radii differed for each element. For the iron (Fe) estimate, a first pass search radius of 40m and a second pass of

Criteria	JORC Code explanation	Commentary
	• *Description of how the geological interpretation was used to control the 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.*	100m were used with a minimum of 20 samples and a maximum of 26 samples for all objects in the first pass. Approximately 45% of the blocks were filled in the first estimation pass and 53% of the blocks were filled in the second estimation pass. An expanded third estimation pass of search radius 200m was used to fill remaining unestimated model blocks. • For the molybdenum (Mo) estimate, a first pass search radius of 40m and a second pass of 90m were used with a minimum of 20 samples and a maximum of 32 samples for all objects in the first pass. Approximately 27% of the blocks were filled in the first estimation pass and 66% of the blocks were filled in the second estimation pass. An expanded third estimation pass of search radius 300m was used to fill remaining unestimated model blocks. • For the tungsten (WO_3) estimate, a first pass search radius of 30m and a second pass of 60m were used with a minimum of 20 samples and a maximum of 32 samples for all objects in the first pass. Approximately 33% of the blocks were filled in the first estimation pass and 60% of the blocks were filled in the second estimation pass. An expanded third estimation pass of search radius 250m was used to fill remaining unestimated model blocks. • For the copper (Cu) estimate, a first pass search radius of 40m and a second pass of 100m were used with a minimum of 20 samples and a maximum of 26 samples for all objects in the first pass. Approximately 40% of the blocks were filled in the first estimation pass and 57% of the blocks were filled in the second estimation pass. An expanded third estimation pass of search radius 200m was used to fill remaining un-estimated model blocks. • In addition to the extraction of bulk samples from the winzes and cross-cuts historical mining has occurred at the Molyhil deposit. Between 1975 and 1976 approximately 20kt of molybdenum and tungsten mineralisation was mined from the northern Yacht Club skarn body. The adjacent Southern skarn body was mined during 1978 to 1982 when approximately 900kt of material (ore + waste) was extracted. A Mineral Resource estimate was reported by RPM in January 2012. • No assumptions were made regarding the recovery of by-products with the exception of limited test work results for the recovery of Cu from the molybdenum concentrate. • No non-grade deleterious elements were estimated. • The parent block dimensions used were 10m NS

Criteria	JORC Code explanation	Commentary
		by 5m EW by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m. The parent block size was selected on the basis of being approximately 40% of the average drill hole spacing. • No assumptions were made on selective mining units. • Due to the independent mineralogical distribution within each mineralised zone it was not seen as beneficial to carry out any correlation analysis. • The deposit mineralisation was constrained by wireframes constructed using a 10-15% Iron Oxide cut-off grade with a minimum intercept of 2m required. The wireframes were applied as hard boundaries in the estimate. • Statistical analysis was carried out on data from each domain. The high coefficient of variation within some main lodes, and the scattering of high grade outliers observed on the histograms, suggested that high grade cuts were required if linear grade interpolation was to be carried out. High grade element cuts of 2% to 3% for Mo, between 6% and 11.5% for WO_3 and 0.4% for Cu were based on statistical analysis and were applied to the corresponding composites within the mineralisation domain. No high grade cut was applied to the Fe assay grades. • A three step process was used to validate the model. A qualitative assessment was completed by slicing sections through the block model in positions coincident with drilling. A quantitative assessment of the estimate was completed by comparing the average grades of the composite file input against the block model output for all the resource objects. A trend analysis was completed by comparing the interpolated blocks to the sample composite data within the main lodes. This analysis was completed for intervals of northings and elevations across the deposit. Validation plots showed good correlation between the composite grades and the block model grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The nominal cut-off grade of 10-15% Fe was used to define the boundaries of the skarn zones, it was determined from analysis of log probability plots of all samples at the deposit. This cut-off was used to define the mineralised wireframes. • RPM determined a WO_3 equivalent cut-off grade at which to report the Mineral Resource above the 200m RL level. The WO_3 equivalent was determined by the following formula:

Criteria	JORC Code explanation	Commentary
		WO_3 eq = WO_3 + 0.952658*Mo + 0.298054*Cu The cut-off grade at which to report the potentially economic material was then determined using 10% ore loss and 5% dilution and a tungsten concentrate grade of 62% in addition to prices and recoveries of USD22,400/t and 79% for WO3, USD23744/t and 71% for Mo and USD7644/t and 69% for Cu respectively. Using the above parameters, RPM determined the economic cut-off grade of 0.12% WO_3 equivalent. The resulting Mineral Resource was reported above this WO_3 equivalent cut-off grade and above the 200m RL level.
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 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.*	• The results of an independent estimate of Open Cut Ore Reserves indicate that the deposit could potentially be mined using medium-scale open pit techniques.
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.*	• Metallurgical and mineralogical analysis has been conducted on drill samples taken from exploration programs. The metallurgical work has demonstrated successful molybdenum and tungsten recovery using a combination of gravity extraction and flotation processes. • Test work is currently in progress to produce a separate copper concentrate in addition to tungsten (as WO_3) and molybdenum (as MoS_2) concentrates. In the previous flowsheet, Cu reports to the molybdenum concentrate. Work is also in progress to optimise the flowsheet to produce cleaner concentrates such as by the reduction of calcite. The molybdenum cleaner tail would equate to the copper rougher concentrate (approximately 12% copper at a recovery of 69%) which would undergo a subsequent cleaner stage to produce a saleable concentrate. • The current flowsheet also incorporates optical ore sorting after the secondary screening stage.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a*	• No assumptions have been made by RPM regarding possible waste and process residue disposal options.

Criteria	JORC Code explanation	Commentary
	greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *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 density at Molyhil is mainly reflective of the magnetite content of the rock type. A regression plot of iron assay and bulk density test work shows a well correlated, generally linear relationship and covers a wide range of iron grades. The bulk density equation presented below was also used for this estimate. The minimum bulk density value possible from the equation is 2.78 which is considered reasonable. Bulk Density = (0.0152 x converted model value Fe2O3) + 2.7826 (after Baxter & Doepel, 2006). • The bulk density equation was applied to the mineralised lode domain as it was only this part of the model where iron was estimated. An average bulk density of 2.75 t/m3 was applied to the background domain.
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.*	• Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). The Mineral Resource was classified as Indicated and Inferred Mineral Resource on the basis of data quality, sample spacing, and lode continuity. • The Indicated portion of the Mineral Resource included the area where drill hole spacing was in the order of 30m by 40m or less and reasonable continuity was apparent. • Those zones where drill hole spacing was greater than 30m by 40m, or where the continuity and/or geometry ware uncertain were classified as Inferred Mineral Resource. • Mineralised areas below the 200m RL were not classified as further work is required to determine economic grade cut-offs below this level (the material is not potentially economic using open pit mining methods). • The mineralised lodes interpreted at Molyhil are based on a high level of geological understanding. The drilling and sampling processes used by Thor were 'best practice' and certified laboratories have been used for analyses of samples. The input data is considered reliable and suitable for use in the resource estimate. • Analysis of twinned RC vs. diamond holes and RC vs. underground cross-cuts (bulk samples) has

Criteria	JORC Code explanation	Commentary
		identified there is a reduction in RC sample grade for W and Mo. RPM considers that excessive partitioning of both scheelite and molybdenite material into the outside return stream during the RC drilling procedure could result in a reduction in grade of tungsten and molybdenum of the sample. It was also noted from the bulk sampling program that higher grade molybdenum ore was softer and produced more fine material than harder, barren material. Pilot holes drilled by RAB drilling rigs also noted poor sample quality and low recoveries. RPM conducted reviews of all the available data that could be related to the application of a grade adjustment factor for the RC drill hole data. The grade adjustment factors used for the Mineral Resource estimate were updated for the January 2012 Mineral Resource estimate and reviewed again for the 2019 update. Following the review, RPM considered it appropriate that Mo and W adjustment factors should be applied but restricted upper confidence in the closer sampled parts of the deposit to Indicated classification due to the uncertainties surrounding the grade adjustment factor. An adjustment factor of 114% for Mo and 144% for W above the 350m RL level and 144% for Mo and no change for W below the 350m RL level was applied prior to grade estimation. • RPM recommends the confidence in the RC grade adjustment factors be further increased by duplication of selected RC holes with additional equipment to settle and collect the material in the outside return air stream for assay. • RPM also recommends drilling a set of around thirty diamond holes in locations spread evenly throughout the deposit to be used to more representatively investigate and quantify the grade adjustment factors prior to improving the classification to the Measured category in the more well-informed areas or proceeding to economic evaluation or further feasibility studies for development of the Project. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Internal audits have been completed by RPM which verified the technical inputs, methodology, parameters and results of the estimate. • A review of the input data, estimation methods and results was conducted by RPM in December 2013 and September 2019, to ensure compliance with the JORC Code 2012.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For*	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code and the classification categories

Criteria	JORC Code explanation	Commentary
	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.*	applied. RPM has not classified any Measured Resources due to uncertainty around the accurate definition of the RC assay grade adjustment factor. As there is evidence for a grade adjustment factor, RPM has applied the factor to the underlying assay data and prior to reporting the Mineral Resource with the recommendation that further work be conducted to confirm and accurately quantify the grade adjustment factor. RPM recommends the RC grade adjustment factor be checked by duplication of selected RC holes with additional equipment to settle and collect the material in the outside return air stream for assay. In addition, RPM recommends drilling a set of around thirty diamond holes in locations spread evenly throughout the deposit to be used to more representatively investigate and quantify the grade adjustment factor prior to improving the classification to the Measured category in the more well-informed areas or proceeding to economic evaluation or further feasibility studies for development of the Project. • The Mineral Resource statement relates to global estimates of tonnes and grade. • No production data was available for comparison.