ASX Code: "THR"

7 December 2021

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Key Projects:
- **Gold**
  Ragged Range Pilbara WA
- **Copper**
  Alford East SA
- **Uranium / Vanadium**
  Colorado / Utah USA
- **Tungsten**
  Molyhil NT

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Molyhil Continues to Grow with Third Drillhole Intercepting Mineralisation
Molyhil Project, Northern Territory

The Directors of Thor Mining Plc ("Thor") (AIM, ASX: THR, OTCQB: THORF) are pleased to announce that the third follow up diamond drillhole (21MHDD003) at the Molyhil Critical Minerals Project, Northern Territory, reinforces the newly discovered extension of scheelite-molybdenite-chalcopyrite mineralisation within a magnetite skarn.

Project highlights:

- 21MHDD003 intercepts disseminated scheelite-molybdenite-chalcopyrite mineralisation in magnetite skarn, confirming the south-east plunging high-grade 3D mineralisation model.
- 21MHDD002 intercepted over 45m of disseminated scheelite-molybdenite-chalcopyrite mineralisation in a massive magnetite-rich skarn and the third drill hole was designed to target the projection of 21MHDD002 mineralisation down plunge.
- Three diamond drillholes totalling 995.4m have been completed and confirms that the newly identified magnetic target to the south of the Molyhil deposit is a continuation (possibly offset) of tungsten-molybdenum-copper mineralisation.
- The new critical minerals discovery resulting from the 3D modelling of the magnetics highlights the potential to grow the Molyhil resource.
- Extrapolation of the 3D model along strike has identified further high priority targets for drill testing.

Photo 1: 21MHDD03 – 276m; scheelite-molybdenite-chalcopyrite disseminated mineralisation within magnetite skarn

Nicole Galloway Warland, Managing Director of Thor Mining, commented:
"We are excited to announce that the third drillhole, 21MHDD003, intercepted further disseminated tungsten-molybdenum-copper mineralisation within magnetite skarn, confirming our new critical minerals discovery at the Molyhil project.

This extension of mineralisation, directly south of the deposit, has significant positive implications for the overall Molyhil Critical Minerals project. We look forward to further updating the market when all geological data and assays are available."

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Diamond Drilling Program

Three diamond drillholes (21MHDD001 - 21MHDD003) totalling 995.4m have been successfully tested, and confirmed the newly identified magnetic target, which represents a massive magnetite skarn hosting disseminated tungsten-molybdenum-copper mineralisation, located to the south of the Molyhil Critical Minerals Project (Table A and B and Figure 1 and 2).

Both 21MHDD002 and 21MHDD003 intercepted disseminated mineralisation, consisting of scheelite-molybdenite and chalcopyrite within massive magnetite skarn. Drillhole 21MHDD002 intercepted over 45m of disseminated mineralisation (Photo 2 and 4), whilst 21MHDD003 intercepted two zones over 29m of disseminated mineralisation (Photo 1 and 3). It appears 21MHDD001 intersected the edges of the magnetite skarn drilling over the top of the magnetite skarn lode, with negligible mineralisation. Initial interpretation of data highlights a potential south-east plunging lode extending southeast of the Southern lode with a possible offset (yet to be determined) (Figure 2). Drilling data is now being compiled in order to revise the 3D model.

Previous 3D geological modelling of the Molyhil deposit identified two prominent structures – the Yacht Club fault and South Offset fault (Figure 1 and 2). Based on the geological timing of these faults, they appear to have had a significant impact on mineralisation, such as offsetting the Yacht Club mineralisation from the Southern Lode, hence creating targets for potential extensions. Modelling of the South Offset Fault, relative to the magnetics, strongly implies an offset of the now confirmed magnetite skarn, host to the tungsten-molybdenum-copper mineralisation, south of the South Offset fault.

Diamond drill core is currently being prepared for submission to the laboratory, with Thor anticipating assay results in the first quarter of 2022.

The drilling program is co-funded by the Geophysics and Drilling Collaborations (GDC) program as part of the Resourcing the Territory initiative, with Thor Mining granted A$110,000 (ASX: THR 4 June 2021).

Photo 2: 21MHDD002 (272.2 – 275.7m) – massive magnetite skarn with disseminated scheelite and molybdenite (metallic silver) mineralisation and bands of chalcopyrite (yellow).

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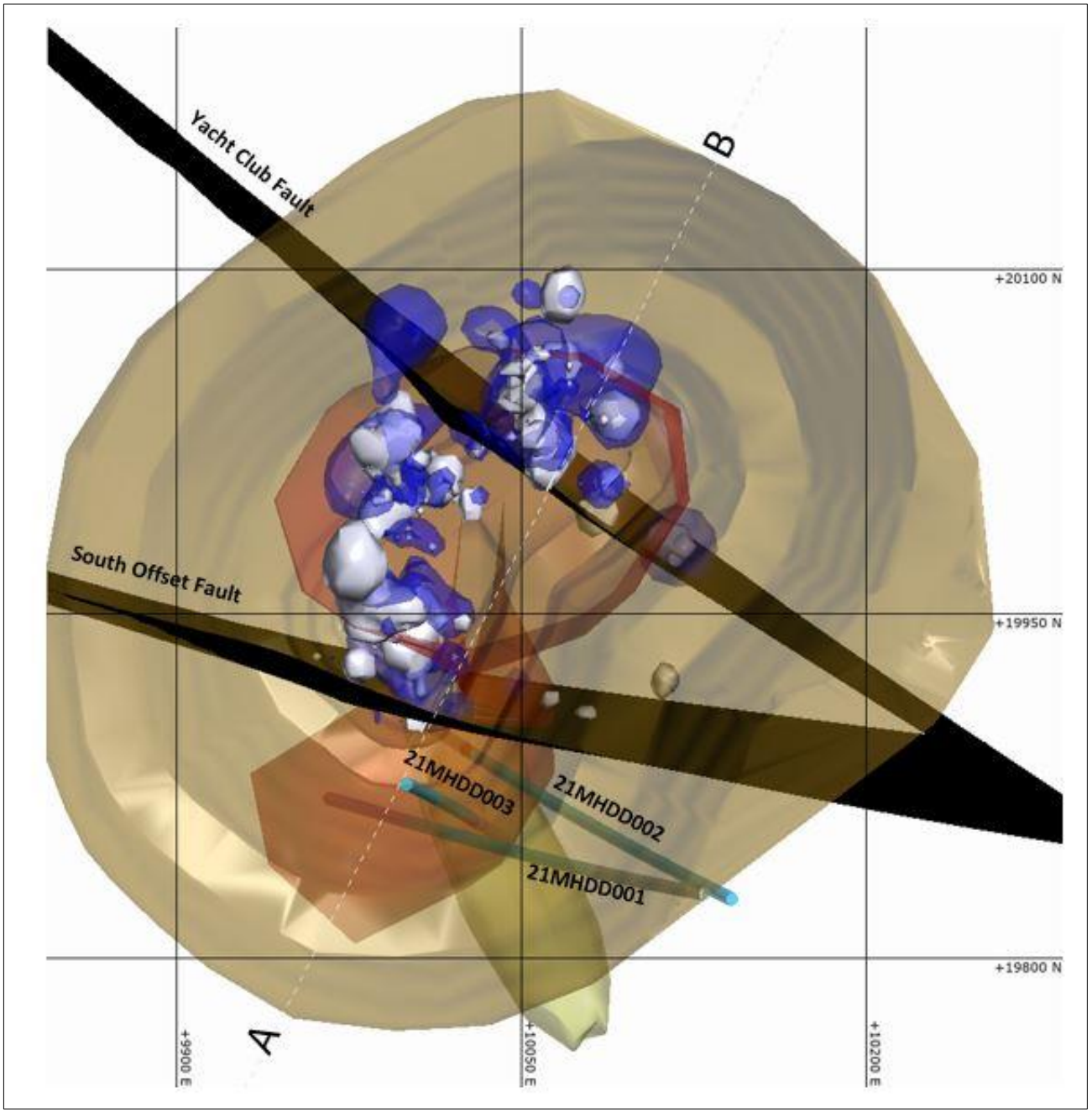

Figure 1: Plan view, looking down at the conceptual pit shell (brown), with the 0.3% WO_3 isosurface in blue, 0.15% Mo isosurface in silver, and modelled 3D magnetics in transparent red. The yellow dashed line shows the location of the long section (Figure 3). Interpreted mineralisation model shown in yellow. 21MHDD001, 21MHDD002 and 21MHDD003 hole traces

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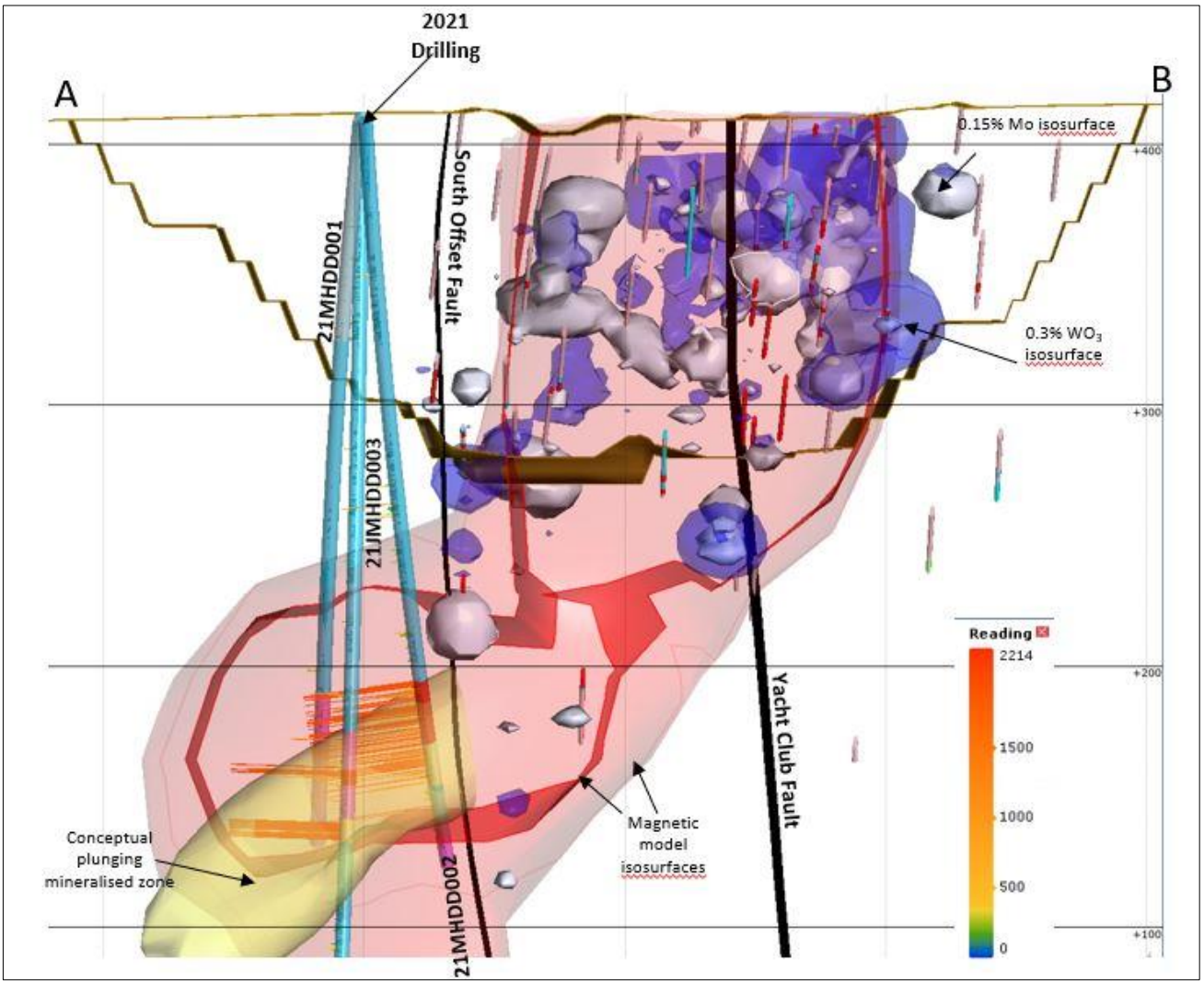

Figure 2. Long section of the Molyhil project looking west-northwest, showing the three holes drilled in 2021 (21MHDD001 – 21MHDD003). Drilled holes 21MHDD002 and 21MHDD003 intercepted tungsten-molybdenum-copper mineralisation within magnetite skarn, whilst 21MHDD001 is interpreted to have drilled just over the top of the mineralised zone. Bar graph to the left of the drillholes shows Fe in magnetic susceptibility readings, indicating magnetite-rich skarn. Mineralisation remains open at depth. The conceptual pit shell is shown in brown, 0.3% WO_3 isosurface in blue, 0.15% Mo isosurface in silver, and modelled 3D magnetics in red (0.175 SI), and as a transparent red envelope (0.15 SI) and a conceptual shape representing the down-plunge mineralised zone in yellow.

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Photo 3: 21MHDD003 (273.5– 283.5m) – massive magnetite skarn with disseminated scheelite and molybdenite (metallic silver) mineralisation and bands of chalcopyrite (yellow).

NEXT STEP:

The newly discovered extension of the tungsten-molybdenum-chalcopyrite mineralisation to the south of the Molyhil deposit, has validated the successful 3D modelling of the geology, magnetics and mineralisation. The newly acquired data will be used to finesse the 3D model prior to follow up potential resource drilling.

This 3D modelling has identified further high priority targets for drill testing along strike (Figure 3).

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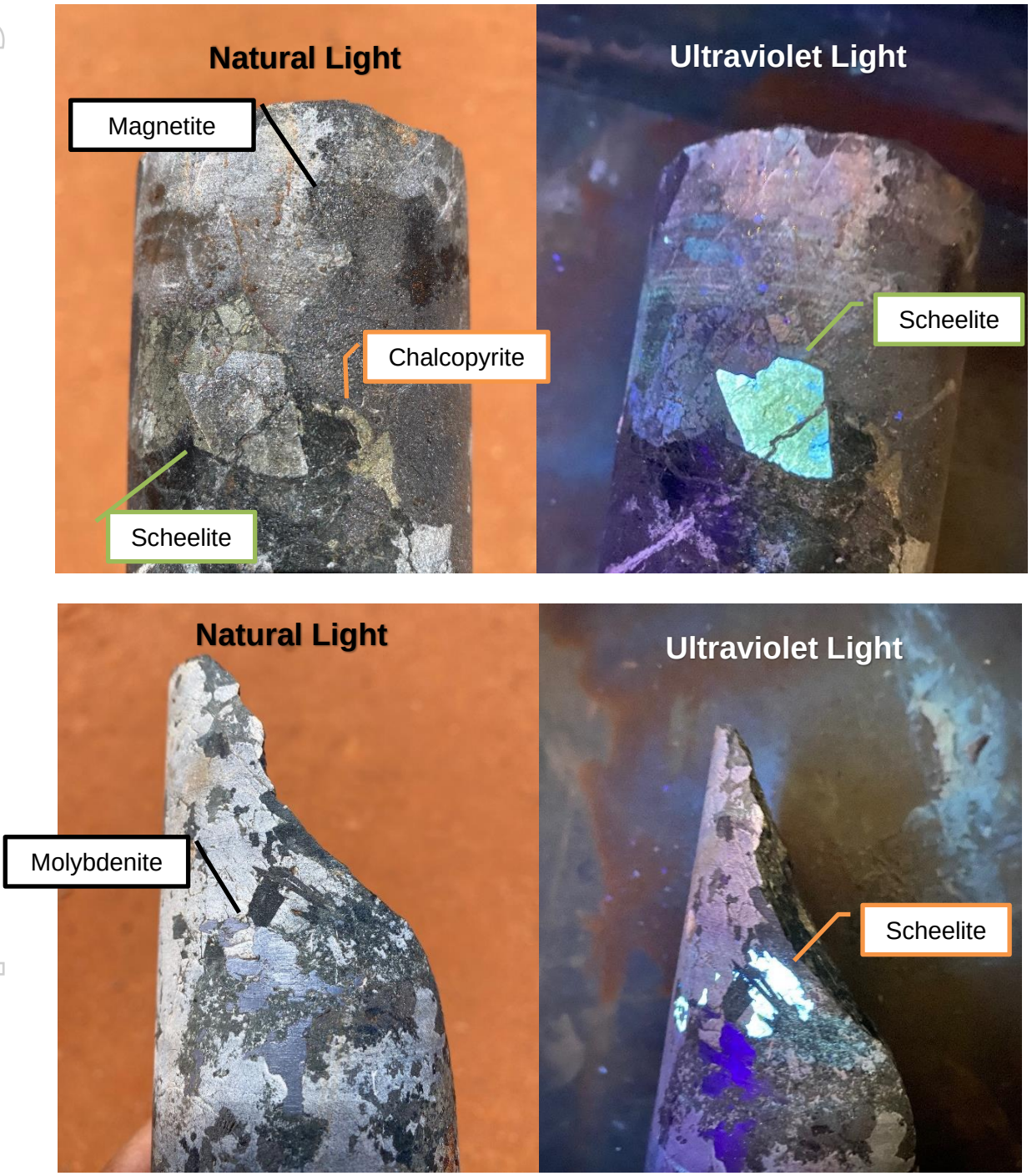

Photo 4: Scheelite crystals ($CaW0_4$) under Ultra-Violet light surrounded by chalcopyrite (CuS_2) and molybdenite (MoS_2) within massive magnetite skarn - 21MHDD002

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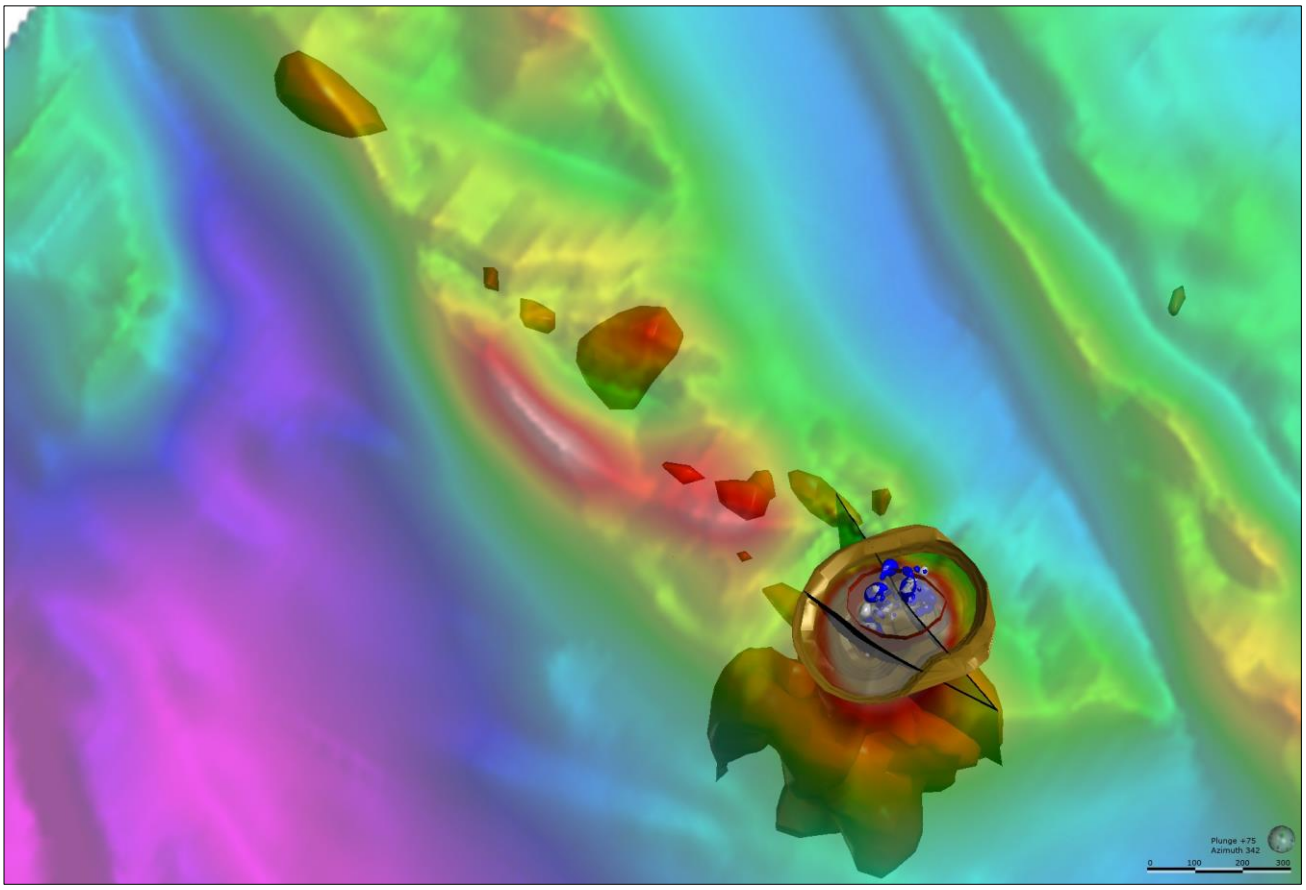

Figure 3. 3D modelling of magnetics (transparent red) highlights Molyhil deposit and the recently drilled southeast plunging extension, plus drill targets along strike.

Project Background

The Molyhil deposit is located 220 kilometres north-east of Alice Springs (320 km by road) within the prospective polymetallic province of the Proterozoic Eastern Arunta Block, in the Northern Territory (Figure 4).

In April 2021 (THOR:ASX Announcement 8 April 2021) a revised Mineral Resource estimate comprising Measured, Indicated, and Inferred Mineral Resources, totalling 4.4 million tonnes at 0.27% WO_3 (Tungsten trioxide), 0.10% Mo (Molybdenum), and 0.05% Cu (Copper) using a 0.07% WO_3 cut-off.

https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210408-molyhil-mineral-resource-estimate-updated.pdf

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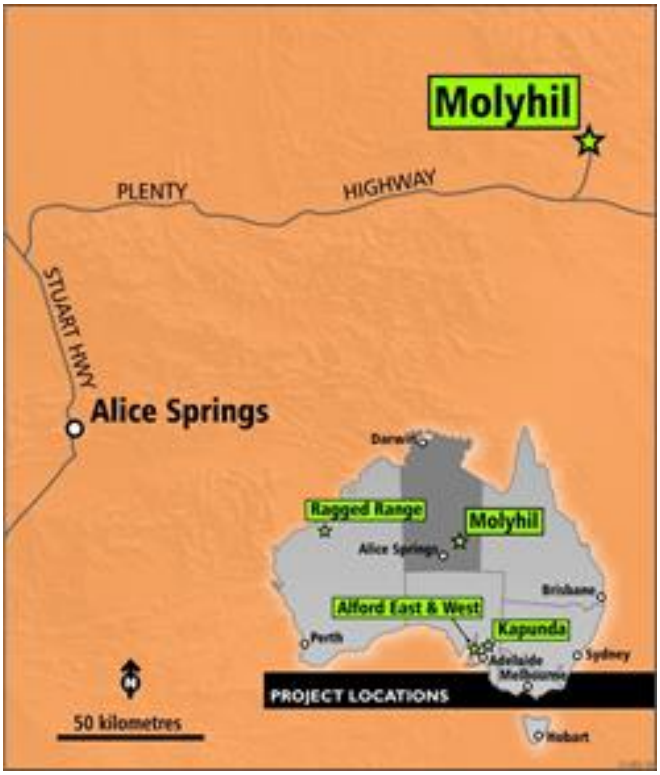

Figure 4: Tenement & Prospect Location Plan

Table A: Drill Hole Collar Summary

DRILLHOLE	EASTING	NORTHING	ELEVATION	AZIMUTH	DIP	End of Hole
21MHDD001	577207	7482773	409	262	60	324.5
21MHDD002	577220	7482774	409	278	60	334.2
21MHDD003	577069	7482780	412	082	87	336.7

Coordinates in GDA 94 Zone 53

Table B: Geology

DRILLHOLE	GEOLOGY	FROM (M)	TO (M)	DOWNHOLE INTERCEPT (M)
21MHDD001	Calc-Silicate	159.1	255.8	96.7
21MHDD002	Magnetite Skarn	249.7	296.6	46.9
21MHDD003	Magnetite Skarn	254	258	4
21MHDD003	Magnetite Skarn	274.5	283.5	9

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This announcement is authorised for release to the market by the Board of Directors.

For further information, please contact:

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Competent Persons Report

The information in this report that relates to Exploration Results and the Estimation and Reporting Molyhil Mineral Resource Estimation is based on information compiled by Nicole Galloway Warland, who holds a BSc Applied geology (HONS) and who is a Member of The Australian Institute of Geoscientists. Ms Galloway Warland is an employee of Thor Mining PLC. She has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking 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'. Nicole Galloway Warland consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

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.

About Thor Mining PLC

Thor Mining PLC (AIM, ASX: THR; OTCQB: THORF) is a diversified resource company quoted on the AIM Market of the London Stock Exchange, ASX in Australia and OTCQB Market in the United States.

The Company is advancing its diversified portfolio of precious, base, energy and strategic metal projects across USA and Australia. Its focus is on progressing its copper, gold, uranium and vanadium projects, while seeking investment/JV opportunities to develop its tungsten assets.

Thor owns 100% of the Ragged Range Project, comprising 92 km^2 of exploration licences with highly encouraging early-stage gold and nickel results in the Pilbara region of Western Australia, for which drilling is currently underway.

At Alford East in South Australia, Thor is earning an 80% interest in copper-gold deposits considered amenable to extraction via In Situ Recovery techniques (ISR). In January 2021, Thor has announced an Inferred Mineral Resource Estimate of 177,000 tonnes contained copper & 71,000 oz gold[1].

Thor also holds a 30% interest in 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 and the Alford West copper project, both situated in South Australia, and both considered amenable to recovery by way of ISR.[2,3]

Thor holds 100% interest in two private companies with mineral claims in the US states of Colorado and Utah with historical high-grade uranium and vanadium drilling and production results.

Thor holds 100% of the advanced Molyhil tungsten project, including measured, indicated and inferred resources[4], in the Northern Territory of Australia, which was awarded Major Project Status by the Northern Territory government in July 2020.

Adjacent to Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including Inferred resource estimates for the Bonya copper deposit, and the White Violet and Samarkand tungsten deposits.[5]

Notes

[1] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf*

[2] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf*

[3] *www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf*

[4] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210408-molyhil-mineral-resource-estimate-updated.pdf*

[5] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf*

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Compliance with the JORC Code Assessment Criteria

The JORC Code (2012) describes a number of criteria, which must be addressed in the documentation of Mineral Resource estimates, prior to public release of the information. These criteria provide a means of assessing whether or not the data inventory used in the estimate is adequate for that purpose. The resource estimate stated in this document was based on the criteria set out in Table 1 of that Code. These criteria have been discussed in the main body of the document and are summarised below. Only sections relevant to the reported resource have been addressed. The JORC Code Assessment Criteria in the following table are italicised.

Section 1 Sampling Techniques and Data

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

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.*	• Report refers to visual geological logging only • Drilling was conducted by Durock Drilling Pty Ltd • Core to be cut for sample preparation • pXRF taken every 0.5m down hole • Magnetic susceptibility recorded every 1m down hole • UV light used for tungsten/scheelite visual estimates

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	Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
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 drilling • 21MH001 – HQ 0-20m followed by NQ2 • 21MHDD02 - HQ • 21MHDD003 - HQ • Oriented core
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Recovery from diamond core was recorded for all core runs, with overall recovery 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. • No relationship was noted between recorded sample recovery and grade.
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. • Core was oriented and routinely logged for RQD, alpha/beta angles, dips, azimuths, and true dips. • All drill samples were logged for lithology, rock type, colour, mineralisation, alteration, and texture. 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	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Diamond core to be cut in half using a core saw with half core submitted for assay.

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sample preparation	• *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 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.*	
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.Ba, Mo* • *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.*	• Core currently be prepared for cutting - half core – prior to submission to laboratory. • Magnetic susceptibility recorded every 1.0m down hole. • pXRF recording recorded every 1.0m down hole.
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.* • *Discuss any adjustment to assay data.*	• No assay data reported – samples being prepared for laboratory submission

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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 surveyed using GPS (-/+ 5m) – for later DGPS pick ups • Drill hole locations were positioned using the MGA Grid System. • The topographic surface is highly accurate with DPG (-/+1m)
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 to test a newly defined magnetic target to the south of the Molyhil lodes. • Drillhole spacing is sufficient to test geological target
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 drilled at an angle of -60° to the west which is approximately perpendicular to the orientation of the interpreted target.
Sample security	• *The measures taken to ensure sample security.*	• Core is onsite where it will be cut prior to sample submission with chain of custody measures implemented.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A review of sampling techniques and data has been carried out as Thor transition from inhouse based database to online hosted database with MaxGeo.

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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The 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.

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		• 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 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 $CaWO_4$) 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 échelon 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 understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth*	• A collar summary table is included in report • In the opinion of Thor, historic drill results have been adequately reported previously to the market as required under the reporting requirements of the ASX Listing Rules

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	○ *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.*	
Data aggregation methods	• *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.* • *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.*	• No data aggregation reported.
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 (eg 'down hole length, true width not known').*	• Drill holes were orientated predominantly to an azimuth of 270° 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.*	• Location, section and plans included in report.

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Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• 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.*	• 3D geological and magnetic modelled data included in report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Based on revised modelling of data additional drilling is planned. • Possible extensions are shown on diagrams