

**ASX:** THR



### **Thor Energy Plc**

("Thor" or the "Company")

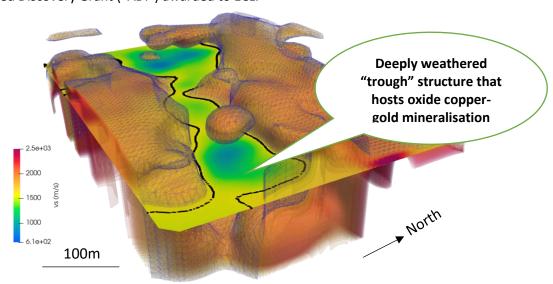
## Geophysics Delineates Structures that host Copper-Gold Mineralisation

Alford West Copper-Gold Project, South Australia

The directors of Thor Energy Plc ("Thor" or the "Company") (AIM, ASX: THR, OTCQB: THORF) are pleased to announce the results from the Ambient Noise Tomography ("ANT") survey at the Alford West Project, South Australia, by 30% owned EnviroCopper Limited ("ECL").

#### Highlights:

- ANT survey using Exosphere by Fleet® successfully delineates the weathered "trough" like structures that host oxide copper-gold mineralisation within the Alford Copper Belt (Figure 1 4).
- The subsurface ANT results will be integrated with historical drilling data to generate a new drilling program, targeting higher-grade oxide copper-gold mineralisation.
- Future drilling will be focused on areas with low-density contrast which have been shown to host oxidised copper mineralisation, amenable to potential In-Situ Copper Recovery ("ISCR").
- The geophysical survey was partially funded (up to A\$30,000) by the South Australian Government Accelerated Discovery Grant ("ADI") awarded to ECL.



**Figure 1:** 3D model showing the deeply weathered "trough" structure, host to oxide copper-gold mineralisation in the Alford Copper Belt.

Thor Energy Plc Registered Numbers: United Kingdom 05276 414 Australia 121 117 673

www.thorenergyplc.com

@thorenergyplc

Thor Energy Plc

Registered Office:

6 The Parade Norwood, SA, 5067 Australia

Ph: +61 8 7324 1935

Email:

corporate@thorenergyplc.com

Enquiries:

Nicole Galloway Warland Managing Director Thor Energy Plc +61 8 7324 1935

Nominated Advisor Antonio Bossi

Antonio Bossi WH Ireland Ltd +44 (0) 20 7220 1666 AIM & ASX Listings

Shares: THR

OTCQB Listing Shares: THORF

Directors:

Nicole Galloway Warland Alastair Clayton Mark McGeough Key Projects: USA

Uranium / Vanadium Wedding Bell, Colorado Radium Mountain, Colorado Vanadium King, Utah

Australia

Gold

Ragged Range, Pilbara, WA Copper Alford East, SA



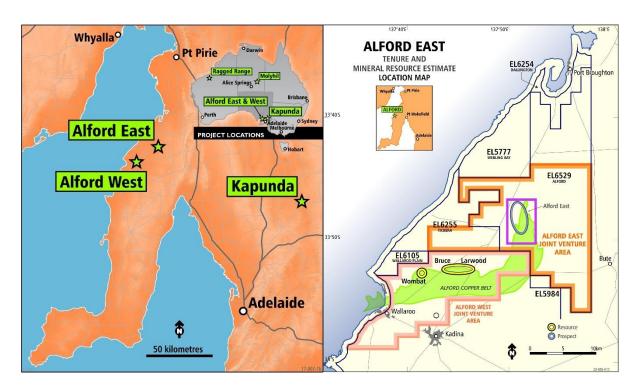


#### Nicole Galloway Warland, Managing Director of Thor Energy, commented:

"This low-impact ANT survey was extremely successful in subsurface mapping, in particular delineating the weathered "trough" structures which host the oxide copper-gold mineralisation within the Alford Copper Belt; with further processing and modelling, it will potentially highlight the higher-grade mineralised zones within these structures.

"The use of the ExoSphere by Fleet ® has enabled ECL to be more efficient in exploration, minimising the environmental impact and improving drilling targeting.

"We look forward to updating the market as the subsurface maps are further refined with drill targets."



**Figure 2:** Alford West Project (ECL) Location Map (Left) and Tenement Map (right) with Thor's Alford East Project.

#### **Geophysics Survey**

As part of its South Australian Government Accelerated Discovery Initiative grant, ECL carried out an ANT survey over a portion of the Alford West project using ExoSphere by Fleet® (Figure 2). This technology is a particularly low-impact form of exploration and uses environmental vibrations in the ground, caused by ocean waves, weather or traffic, to analyse the earth's make-up down to 2000m depth.

The technology uses compact, battery-powered smart sensors called Geodes collecting raw data. It can pre-process that data and deliver it directly via Fleet's satellite connectivity. This technology means fewer drill holes, much lower environmental impact and less time on the land, which fits with ECL's corporate objectives of minimising the impact of recovering metals necessary to aid the green energy transition.



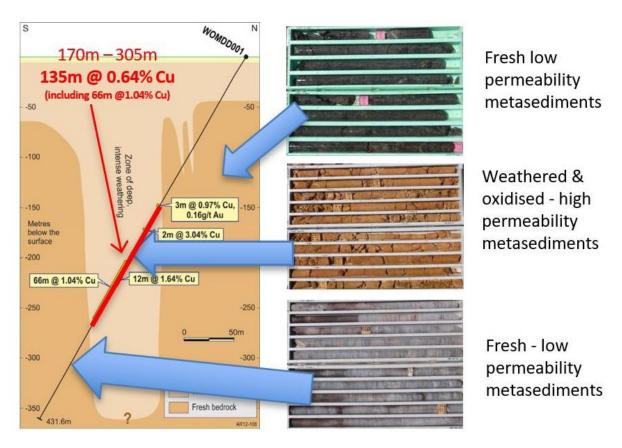


The survey delineated the deep weathered "trough" like structures in the survey area, that host the oxide copper-gold mineralisation within the Alford Copper Belt (Figure 2- 4). With further processing and modelling, it may be possible to highlight mineralised zones within these structures.

The subsurface ANT results will be integrated with information that has been historically gathered by traditional air core and diamond drilling. This will result in drill targets with potential for higher-grade oxide copper-gold mineralisation.

The speed and minimal impact of this technique compared with traditional drilling mean that exploration impacts for landowners are kept to an absolute minimum. ECL is currently combining the ANT data with other forms of low-impact, remotely sensed data to further improve the definition of these mineralised zones.

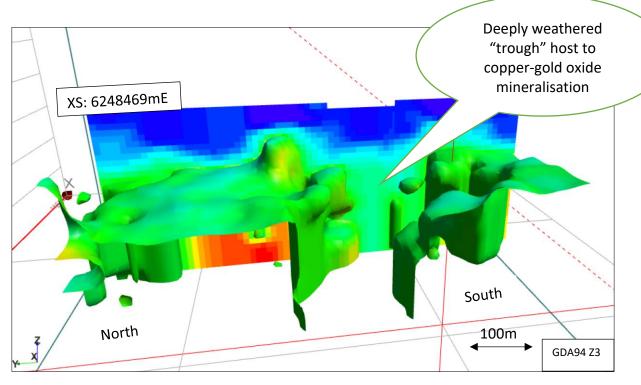
The ExoSphere program by Fleet Space Technologies consisted of laying an array of 40 lightweight, battery-powered surface sensors called Geodes over a paddock of 0.45km² to measure naturally occurring environmental seismic vibrations in the ground (caused by ocean waves, weather and traffic) in real-time over a 10-day period (Photo Plate 1). The Geodes collect and deliver information in near real-time to Fleet Space's satellite network.



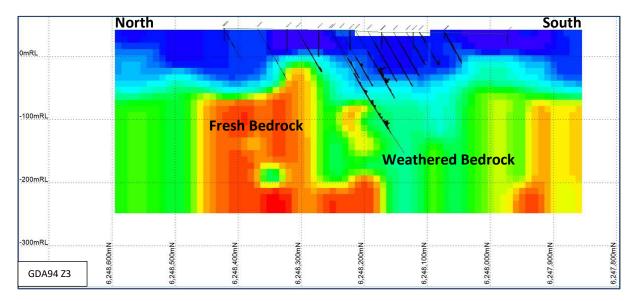
**Figure 3:** Historic drillhole at Wombat Prospect highlighting the deeply weathered "trough" structure hosting the oxide copper-gold mineralisationwith up to 66m @ 1.04% Cu from 135m (WOMDD001). Source: http://saemc.com.au/archive/2017/17drown.pdf







**Figure 4:** 3D model showing the deeply weathered "trough" structure (looking east).



**Figure 5**: Cross-Section 6248469mE looking east (red = high velocity & blue and green low velocity), showing deeply weathered trough.







Photo Plate 1: Deploying sensors (Geodes) at Alford West, note the minimum surface disturbance.

### Accelerated Discovery Initiative ("ADI")

The ANT survey is partially funded (up to A\$30,000) by the South Australian Government Accelerated Discovery Grant (ADI) geophysics grant, received by ECL in 2022.

The ADI aims to encourage innovation and collaboration to advance exploration activities in South Australia. It provides a government contribution towards exploration activities by supporting the potential discovery of new mineral and groundwater resources, while delivering a number of other economic and social benefits to the State.

#### **About EnviroCopper Limited ("ECL")**

Thor holds a 30% interest in ECL, which is a public, unlisted company, with In-Situ Recovery Copper projects at Kapunda and Alford West, South Australia (Figure 1). ECL manage the Alford West Project in a Joint Venture with the tenement holder Andromeda to earn up to a 75% interest in the mineral rights over metals recoverable via ISCR. (ASX/AIM announcement: 11 November 2020).

The Board of Thor Energy Plc has approved this announcement and authorised its release.

For further information, please contact:

#### THOR ENERGY PLC

#### Nicole Galloway Warland,

Managing Director +61 8 7324 1935 nicole@thorenergyplc.com

#### Competent Person's Report





The information in this report that relates to exploration results 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 Energy 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 <a href="https://thorenergyplc.com">https://thorenergyplc.com</a> which includes a facility to register to receive these updates by email, and on the Company's twitter page <a href="https://thorenergyplc">@thorenergyplc</a>

#### **About Thor Energy Plc**

The Company is focused on uranium and energy metals that are crucial in the shift to a 'green' energy economy. Thor has a number of highly prospective projects that give shareholders exposure to uranium, nickel, copper, lithium and gold. Our projects are located in Australia and the USA.

Thor holds 100% interest in three uranium and vanadium projects (Wedding Bell, Radium Mountain and Vanadium King) in the Uravan Belt Colorado and Utah, USA with historical high-grade uranium and vanadium drilling and production results.

Thor owns 100% of the Ragged Range Project, comprising 92 km2 of exploration licences with highly encouraging early-stage gold and nickel results in the Pilbara region of Western Australia.

At Alford East in South Australia, Thor is earning an 80% interest in oxide copper deposits considered amenable to extraction via In Situ Recovery techniques (ISR). In January 2021, Thor announced an Inferred Mineral Resource Estimate<sup>1</sup>. 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.<sup>23</sup>

Thor holds 100% of the advanced Molyhil tungsten project, including measured, indicated and inferred resources<sup>4</sup>, in the Northern Territory of Australia, which was awarded Major Project Status by the Northern Territory government in July 2020. Thor executed a \$8m Farm-in and Funding Agreement with Investigator Resources Limited (ASX: IVR) to accelerate exploration at the Molyhil Project on 24th November 2022.<sup>6</sup>

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. Thor's interest in the Bonya tenement EL29701 is planned to be divested as part of the Farm-in and Funding agreement with Investigator Resources Limited. 6

#### Notes

- <sup>1</sup> https://thorenergyplc.com/investor-updates/maiden-copper-gold-mineral-resource-estimate-alford-east-copper-gold-isr-project/
- <sup>2</sup> www.thorenergyplc.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf





- <sup>3</sup> www.thorenergyplc.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf
- <sup>4</sup> https://thorenergyplc.com/investor-updates/molyhil-project-mineral-resource-estimate-updated/
- <sup>5</sup> www.thorenergyplc.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf
- $^6$  https://thorenergyplc.com/wp-content/uploads/2022/11/20221124-8M-Farm-in-Funding-Agreement.pdf





# 2012 Edition – Table 1 report template Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	No new drilling or surface sampling in this release.  • THR is reporting the results of an ambient noise tomography survey conducted by EnviroCopper Ltd. And Fleet Space Technologies which commenced on the 21 Feb 2023 and finished on the 24 Feb 2023  • The Ambient Noise Tomography data was acquired using Fleet Space Technology Geodes.  • The Geode specifications are as follows:  - 1-component (vertical) 2Hz geophones  - Sensitivity: 260 V/m/s  - Sampling rate: 20Hz  - Recording mode: continuous  - Preamplifier gain: 32 (linear)
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).	Not applicable – No drilling reported
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Not applicable- No drilling reported





Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Not applicable- No drilling reported
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/secondhalf sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Not applicable- No drilling reported
Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	No drilling reported. EnviroCopper Ltd. and Fleet Space Technologies conducted the ANT survey. • The ANT data was acquired using Fleet Space Technology Geodes • The Geode specifications are as follows: - 1-component (vertical) 2Hz geophones - Sensitivity: 260 V/m/s - Sampling rate: 20Hz - Recording mode: continuous - Preamplifier gain: 32 (linear)





Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	ANT - Data received is preliminary in nature and is being reviewed by Fleet Space Technologies.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	No drilling reported ANT - Data using a handheld GPS GDA94 Zone 53.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	ANT line spacing is appropriate for exploration purposes
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	ANT grid covers the roughly East-West trending weathered zone.
Sample security	The measures taken to ensure sample security.	No sampling reported
Audits or • reviews	The results of any audits or reviews of sampling techniques and data.	None undertaken
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	Exploration results are reported on EL 5984 in South Australia held 100% by Penninsula Resources Ltd. EnviroCopper Ltd is earning into a joint venture on the Alford West Project. The tenement is secure under SA legislation and is in good standing.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Alford West is a mature exploration with considerable work undertaken over the years by several groups including Red Metals,





		Western Mining and Adelaide Resources. The area has been subject to considerable historic drilling including RC, Diamond and Air Core drilling programs
Geology	Deposit type, geological setting and style of mineralisation.	Primary deposits in the region are considered to be of Iron Oxide Copper Gold (IOCG) affinity, related to the 1590Ma Hiltaba/GRV event. Cu-Au-Mo-Pb mineralisation is structurally controlled and associated with significant metasomatic alteration and deep weathering or kaolinisation of host rocks.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drilling has been undertaken or reported
Data aggregate n methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated</li> </ul>	Only field observations have been reported. There has been no data aggregation.





Relationship between mineralisaton widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	No drilling has been undertaken or reported
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	See body of report
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.	ANT data is reported for Alford West.
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.	All data have been reported
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	It is anticipated that the weathered zone identified from the ANT survey will be drill tested to evaluate hydrogeological parameters.