THOR ENERGY PLC

ASX: THR

ASX Announcement
6 March 2024

New 3D Model Highlights Structural Controls on Copper Mineralisation
Alford East Copper-REE Project, South Australia

The directors of Thor Energy PLC ("Thor" or the "Company") (AIM, ASX: THR, OTCQB: THORF) are pleased to share Thor's updated 3D Geological Model, incorporating the recently completed Ambient Noise Tomography ("ANT") surveys by Fleet Space Technologies ("Fleet") for the **Alford East Copper - Rare Earth Element ("REE") Project** in South Australia.

Highlights:

- Fleet's ANT survey results provided valuable insights into the lithological and structural setting of the **Alford East Copper oxide and REE Project**.
- Deeply weathered troughs in areas of unaltered metamorphic rocks were found to be associated with zones of faulting, deep oxidation and intrusives at depth.
- The ANT surveys confirm the significance of the prominent north-northeast (NNE) structure associated with copper oxide mineralisation (**Figure 1**).
- The combined resultant 3D Model provides targeted criteria for extensions to existing mineralisation and potential for new discoveries of oxide copper-REE mineralisation.

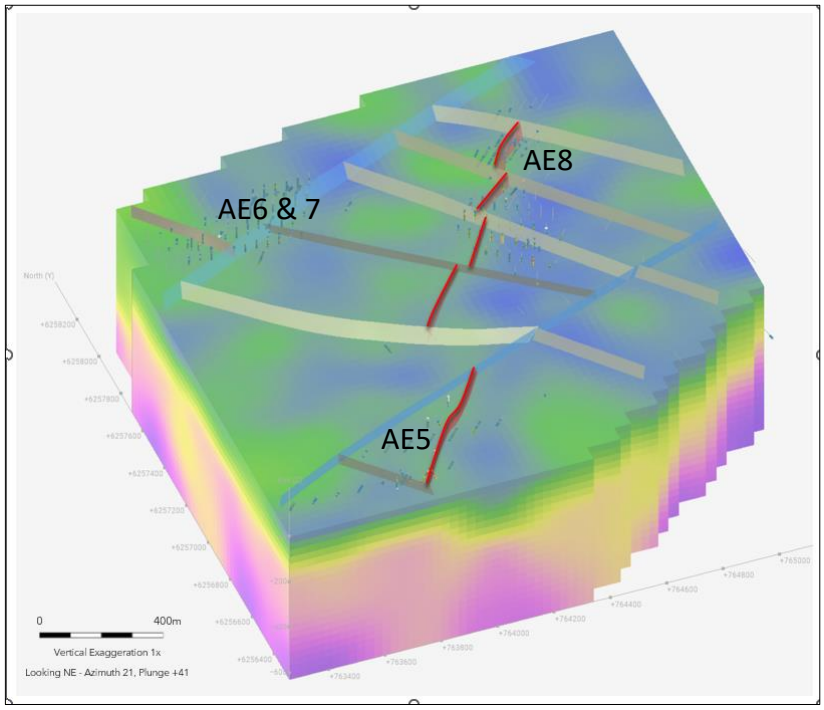

Figure 1: *Alford East 3D ANT and Structural Model highlighting the NNE trending fault zone (red) commonly associated with copper oxide mineralisation as seen at prospect AE5 to AE8*

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OTCQB Listing
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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:

"The 3D ANT Modelling has provided significant lithological and structural insights into the Alford East Project area. Combining this information with Thor's dataset has led to an exciting new 3D Model, with a newfound understanding of the Alford East structural setting and mineralisation controls. This has provided the Company with a refined targeted strategy, focusing future drilling on areas with potential high-grade oxide copper-gold and REE mineralisation.

"The model also provides greater insight into historical, negative drill results that led to major explorers leaving the area."

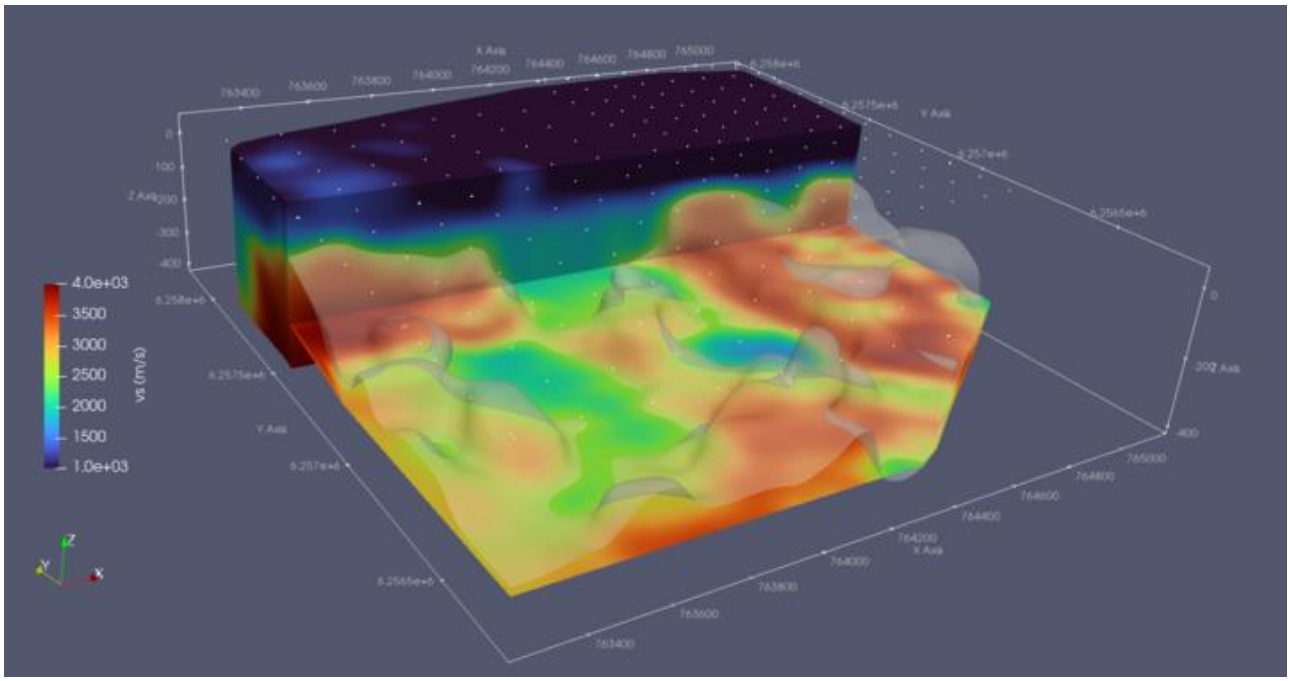

Figure 2: *3D ANT model showing low velocity weathered troughs that host oxide copper mineralisation*

Next Steps:

1. Drill preparations and drilling
2. Pump testing for ISR assessment push-pull work
3. Continue quarterly groundwater testing

3D ANT and Structural Model

After the acquisition of ANT data by Fleet across the northern part of the **Alford East project** in 2023 (**Figure 6**), Thor engaged with the consultant, Doreen Mikitiuk, DXplorer to review and update the current Alford East structural model and geological interpretation of the survey areas.

In preparation for the new structural interpretation, historic logging codes were simplified and grouped using information acquired from reports, core photos and Hylogger data. Lithology groups were based on the lithogeochemical assessment of multi-element assays of the 2021 diamond core drillholes and reassay of selected historic core, which was completed in 2023.

The 3D ANT survey provided clearer understanding of the structural setting of the Alford East area (**Figure 2**). With improved knowledge of geology and weathering through the review of lithological information, the ANT

results mapped localising faults and intrusives at depth. Deeply weathered troughs in areas of sedimentary rocks were found to be associated with zones of faulting, deep oxidation and intrusives at depth.

With the newly gained understanding of the geological and structural setting, targeting criteria for primary copper and oxide mineralisation were developed providing excellent opportunities for the discovery of new copper and REE mineralisation, which may have been missed by previous explorers.

Key observations from the 3D Modelling include:

1) The highest-grade copper oxide mineralisation is commonly hosted in pelitic and carbonaceous sediments, with faults facilitating deeper weathering and alteration. For example, MRE Domain Area 6, 7 and 8 (**Figure 1, 4** and **5**).

2) Mineralisation in Area 5 is predominantly adjacent to fault zones within dioritic and/or felsic intrusives and pelitic sediments. Host rocks are more competent and brittle and may have concentrated oxide mineralisation to brecciated zones along faults/shears. Lower grade intersected towards the base of drillholes is found within shears in more competent diorite.

3) Psammites seem to be less favourable host rocks for copper oxide mineralisation.

4) Mineralised features are subsequently offset by regional scale east-northeast (ENE) dextral strike slip faults and associated northwest (NW) trending faults.

5) Zones of low velocity at shallow depths (approx. 70m) correlate with pelitic sediments in trough-like structures which are in closely related to higher velocity intrusives at depth (**Figure 4** and **5**). These higher velocities suggest intermediate, rather than felsic composition.

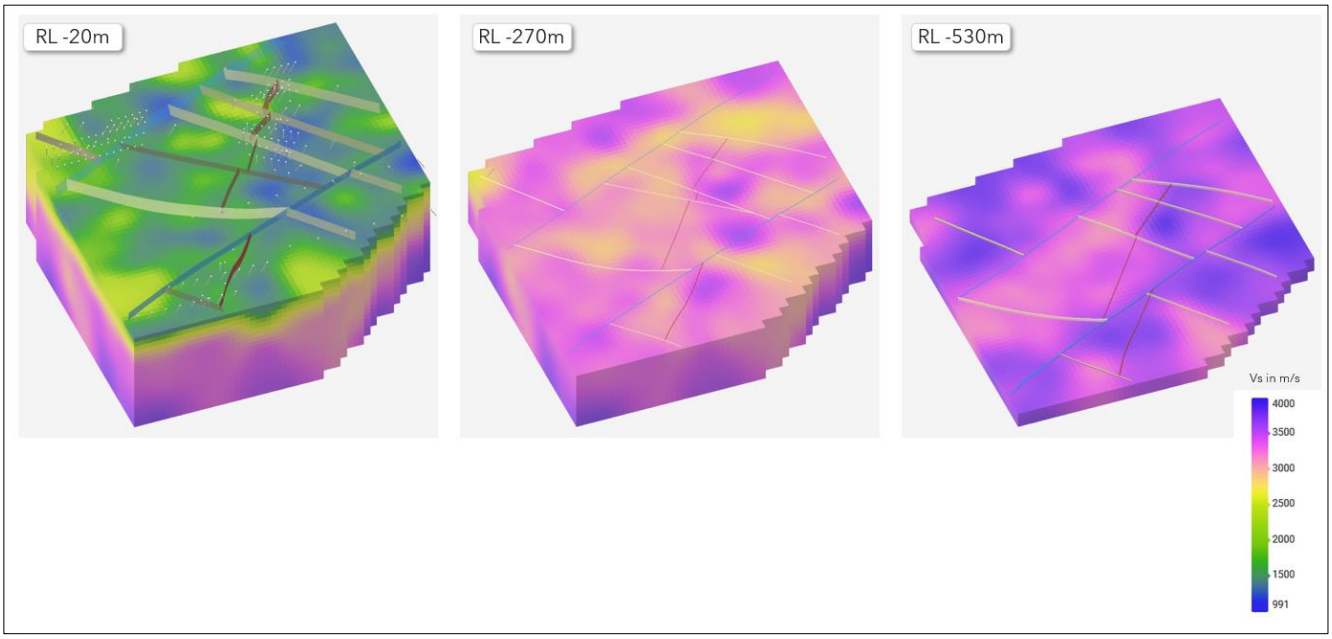

Figure 3: *New 3D ANT and Structural model showing the prominent NNE faults at depth*

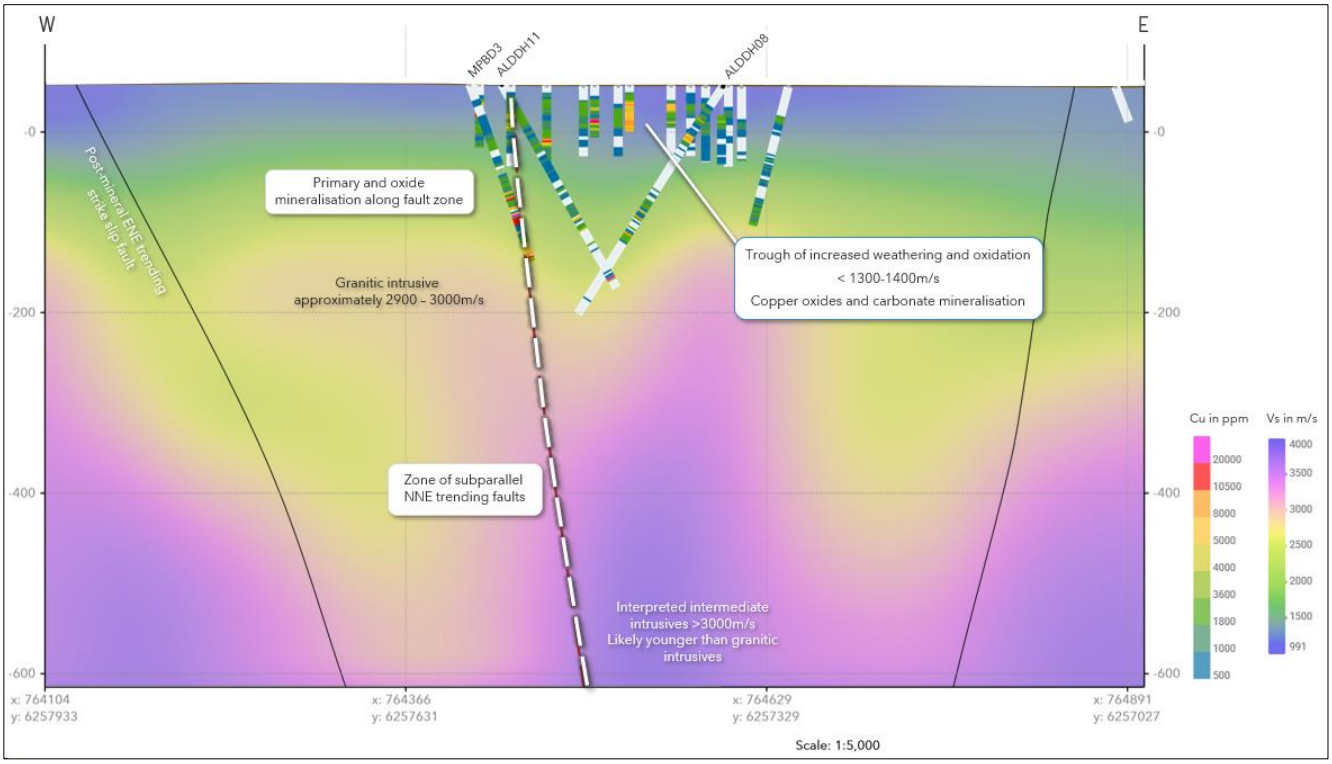

Figure 4: *Cross Section through MRE Domain AE8 highlighting the ANT defined trough of increased weathering and oxidation hosting copper mineralisation*

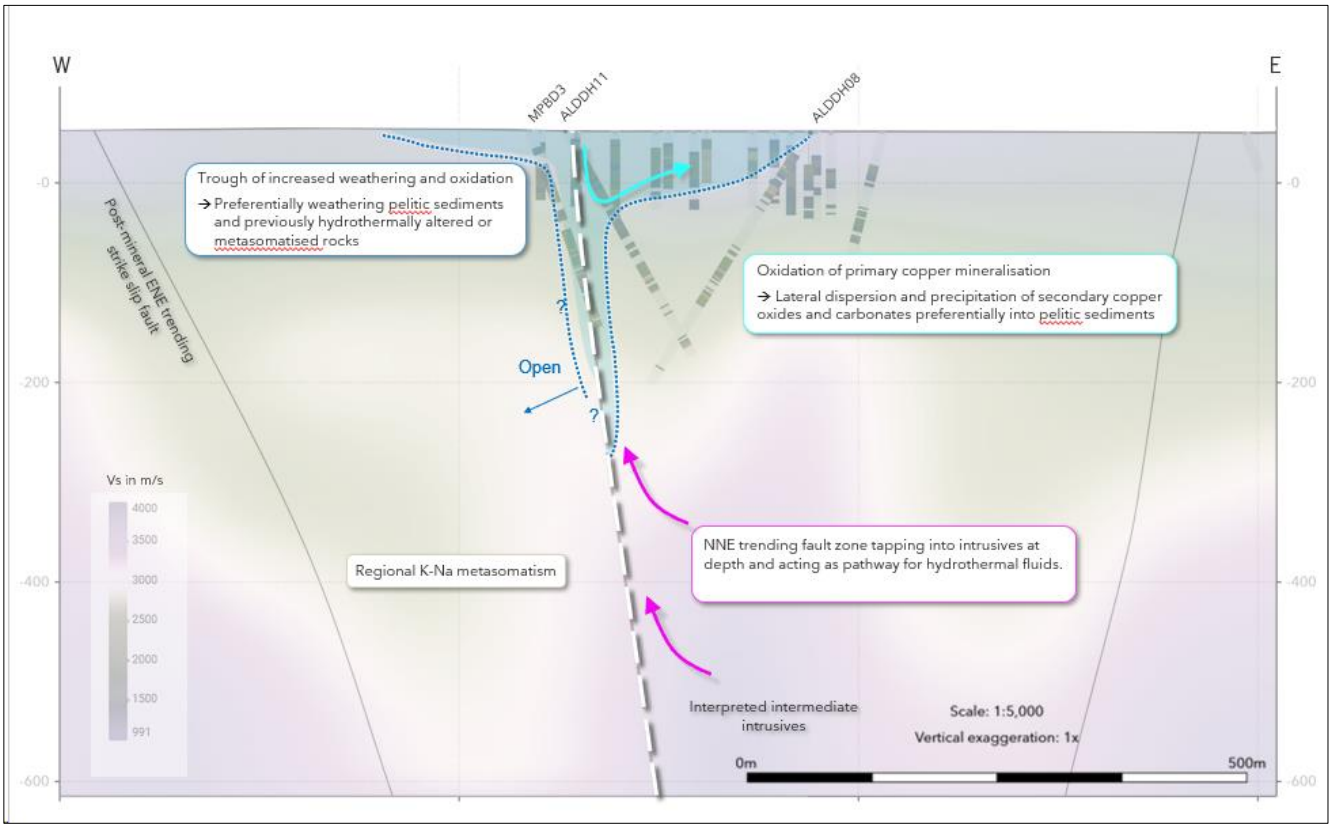

Figure 5: *Cross Section through MRE Domain AE8 highlighting controlling NNE fault and the associated weathered trough hosting oxide copper-REE mineralisation*

ANT Geophysics Surveys:

Two comprehensive ANT surveys were executed at the **Alford East Project**, covering the northern portion of the Mineral Resource Estimate Domains (**Figure 2** and **Figure 6**). The surveys were designed to delineate the low-velocity, weathered 'troughs' that are known to host the oxide copper-gold and REE mineralisation within the Alford Copper Belt (**Figure 5**). The oxide copper-gold and REE mineralisation within the Alford Copper Belt is associated with rocks that are significantly less dense with lower seismic velocity than the surrounding fresh units.

The data collected from these two surveys was subject to extensive processing, leading to the development of a high-resolution 3D seismic velocity model of the subsurface. This model has revealed key features, such as regions with lower velocity within a high-velocity basement, inferring a 3D geometry of the interpreted variably weathered trough and a sheared metasedimentary basement, which is expected to host mineralisation (**Figure 2**).

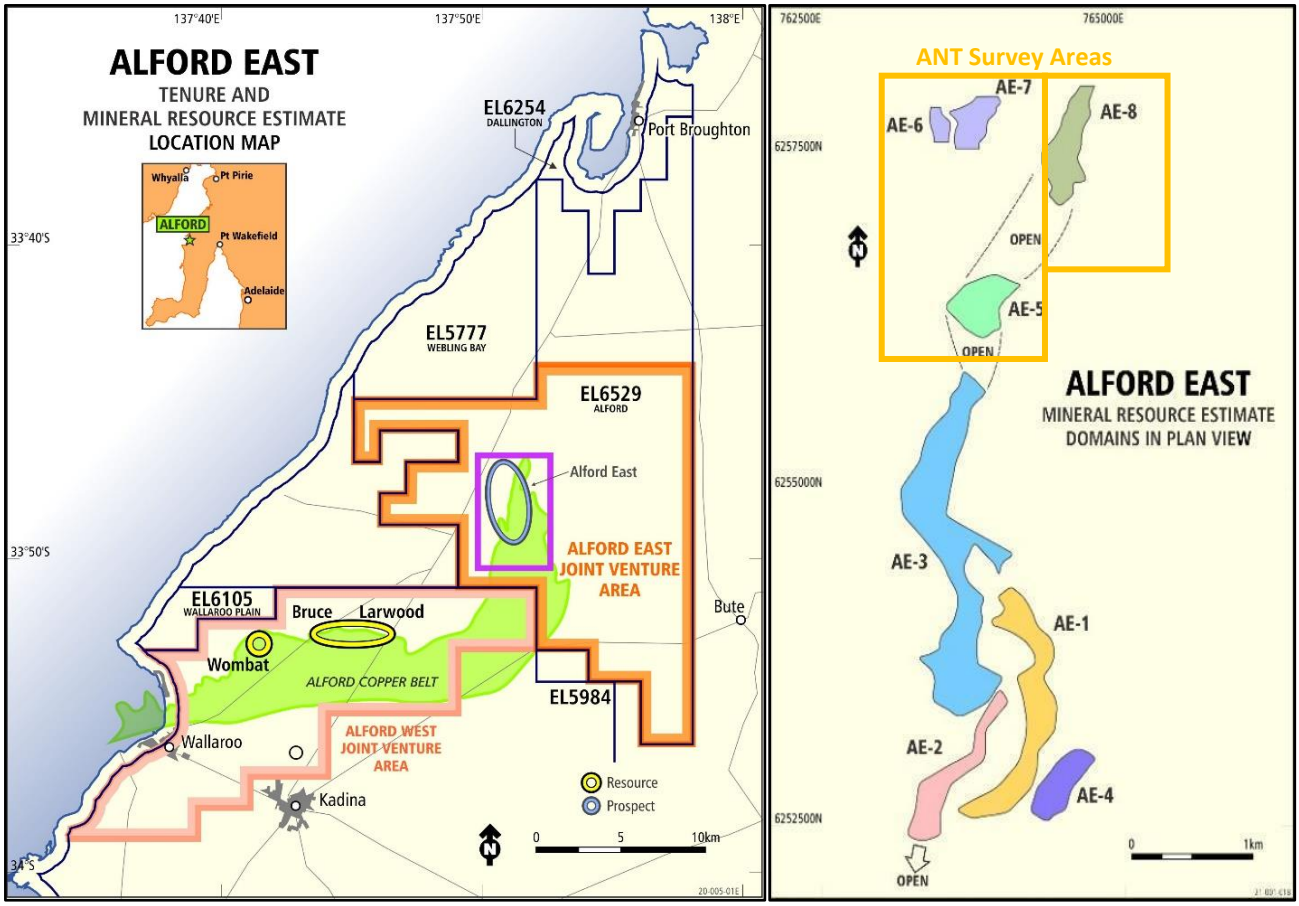

Figure 6: *Alford East Location Map showing the lateral extent of the Alford Copper Belt (left), and the Alford East Mineral Resource Domains showing the area for initial ANT Surveys (right)*

Alford East Project Background:

The **Alford East Copper-REE Project** is located on EL6529, where Thor holds an 80% interest from unlisted Australian explorer Spencer Metals Pty Ltd, covering portions of EL6529 (**Figure 6**) (ASX/AIM: 20 November 2020).

The **Alford East Project** covers the northern extension of the Alford Copper Belt, located on the Yorke Peninsula, South Australia. The Alford Copper Belt is a semi-coherent zone of copper-gold oxide mineralisation, within a structurally controlled, north-south corridor consisting of deeply kaolinised and oxidised troughs within metamorphic units on the edge of the Tickera Granite (**Figure 6**), Gawler Craton, South Australia.

Thor completed an Inferred Mineral Resource Estimate ("MRE") by utilising historic drill hole information. **Table C** - (ASX/AIM: 27 January 2021):

- 125.6Mt @ 0.14% Cu containing 177,000t of contained copper
- 71, 500oz of contained gold

https://thorenergyplc.com/investor-updates/maiden-copper-gold-mineral-resource-estimate-alford-east-copper-gold-isr-project/

Table C: *Alford East Mineral Resource Estimate as of 22 January 2021 –* ***Figure 2*** (ASX/AIM: 27 January 2021)

Domain	Tonnes (Mt)	Cu %	Au g/t	Contained Cu (t)	Contained Au (oz)
AE_1	24.6	0.12	0.021	30,000	16,000
AE_2	6.8	0.13	0.004	9,000	1,000
AE_3	34.9	0.09	0.022	33,000	25,000
AE_4	8.0	0.11	0.016	8,000	4,000
AE_5	11.0	0.22	0.030	24,000	11,000
AE-8 (NP)	31.3	0.19	0.008	61,000	8,000
AE-7 (LW_E)	7.7	0.14	0.025	10,000	6,000
AE-6 (LW_W)	1.3	0.13	0.011	2,000	500
Total	125.6	0.14	0.018	177,000	71,500

Note: MRE reported on oxide material only, at a cut-off grade of 0.05% copper which is consistent with the assumed In-Situ Recovery technique.

REE results were later reported from the 2021 diamond drilling program, with significant drill intercepts (>500ppm TREO[1]) including (THR: ASX/AIM 26 April 2023):

- **21AED005:** **36.7m @ 1568ppm (0.16%) TREO & 1.2% Cu from 6.3m,**
  including ***11.8m @ 2095 ppm (0.21%) TREO and 1.2% Cu from 10m,***
  11m @ 2088ppm (0.21%) TREO and 0.8% Cu from 47m,
  including ***2m @ 5042ppm (0.5%) TREO from 47m***

- **21AED002:** **11.6m @ 1699ppm (0.17%) TREO and 0.26% Cu from 30.4m**
  including ***6.1m @ 2262ppm (0.22%) TREO from 34.0m***

- **21AED001:** **16.8m @ 1721ppm (0.17%) TREO and 0.5% Cu from 91.4m**

[1] *TREO = (Total Rare Earth Oxides)* = (La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 +Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3)

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

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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 which includes a facility to register to receive these updates by email, and on the Company's X page @thorenergyplc

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 in Colorado and Utah, USA with historical high-grade uranium and vanadium drilling and production results.

At Alford East in South Australia, Thor has earnt 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[1].

Thor also holds a 26.3% interest in Australian copper development company EnviroCopper Limited (ECL), 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] Alligator Energy recently invested A$0.9M for a 7.8% interest in ECL with the rights to gain a 50.1% interest by investing a further A$10.1m over four years.

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. Thor executed a A$8m Farm-in and Funding Agreement with Investigator Resources Limited (ASX: IVR) to accelerate exploration at the Molyhil Project on 24 November 2022.[6]

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] **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]

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.

Notes

[1] https://thorenergyplc.com/investor-updates/maiden-copper-gold-mineral-resource-estimate-alford-east-copper-gold-isr-project/
[2] www.thorenergyplc.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf
[3] www.thorenergyplc.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf
[4] https://thorenergyplc.com/investor-updates/molyhil-project-mineral-resource-estimate-updated/
[5] 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

About Fleet Space Technologies

Fleet Space Technologies, a leading Australian space company with a mission to connect Earth, Moon, and Mars, is revolutionising the mineral exploration, defence, and space exploration sectors through its ground-breaking products and connectivity solutions. Headquartered at a state-of-the-art facility in Adelaide, South Australia, Fleet has rapidly grown to over 100 employees and boasts a global presence, including a team in the US and offices in Canada, Luxembourg, and Chile.

Fleet created EXOSPHERE BY FLEET®, a solution for the mineral exploration industry providing lightning fast, 3D mapping of underground structures and providing increased accuracy in drilling targets. This cutting-edge technology is helping the world transition to clean-air mobility technologies by creating a faster, more sustainable, and less expensive route to finding critical mineral deposits. EXOSPHERE BY FLEET® is an end-to-end service offered to mineral exploration customers to decrease the time it takes to find a deposit. Fleet's sensors, the Geodes, are deployed in a survey area and leverage real-time passive seismic methods to 'scan' the subsurface. This is enabled through non-invasive Ambient Noise Tomography (ANT) which listens to seismic waves present on Earth. The data is rapidly processed and transmitted through Fleet's low power satellite network to create a 3D model of the area in near real time.

Since launching EXOSPHERE, Fleet Space has signed contracts with over 30 clients around the world including players such as Rio Tinto, Barrick Gold and Core Lithium. Fleet has conducted more than 150 ANT surveys on different commodity types and completed deployments in 5 continents. EXOSPHERE BY FLEET® is contributing to solve the pressing global priority to decarbonise mobility and find more than $13trillion USD worth of minerals required for the energy transition to help meet global net zero priorities.

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1. 2012 Edition – Table 1 report template

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.*	No new drilling or surface sampling in this release. • THR is reporting the results of an ambient noise tomography survey conducted by Thor Energy Plc and Fleet Space Technologies which commenced on the 28 Sep 2023 and finished on the 17 Oct 2023. • The Ambient Noise Tomography data was acquired using 96 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	• *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.*	Not applicable- No drilling reported
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.*	Not applicable- No drilling reported

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 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.*	Not applicable- No drilling reported
Criteria	**JORC Code explanation**	**Commentary**
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.*	No drilling reported. Fleet Space Technologies conducted the ANT survey. • The ANT data was acquired using 96 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	• *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.*	ANT - Data and model received is preliminary in nature and is being reviewed by Fleet Space Technologies.
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.*	No drilling reported ▪ ANT - Data using a handheld GPS ▪ GDA94 Zone 53.
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.*	ANT line spacing which is approximately 150 m and 130 m in the two surveys is appropriate for exploration purposes

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.*	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	• *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.*	Exploration results are reported on EL 6529 in South Australia held 100% by spencer Metals Pty ltd. Thor holds 80 % interest in the Alford East Project The tenement is secure under SA legislation and is in good standing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	
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	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		No drilling has been undertaken or reported

Data aggregate n 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*	Only field observations have been reported. There has been no data aggregation.
Relationship between mineralisaton 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').*	No drilling has been undertaken or reported
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.*	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 East.
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	• *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.*	It is anticipated that the weathered zone identified from the ANT survey will be drill tested to evaluate hydrogeological parameters.