RNS Number : 3128W
Thor Energy PLC
11 December 2023

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Thor Energy PLC

("Thor" or the "Company")

Copper Recoveries Advance In-Situ Recovery Assessment

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 announce positive metallurgical copper recovery results, advancing Thor's In-Situ recovery ("ISR") assessment of the Alford East Copper-REE Project, South Australia.

Highlights:

- Copper recoveries of up to 72.2% using a benign environmentally friendly glycine lixiviant - GlyLeach™. This is an excellent result for ISR-style copper recovery.
- Four mini-column leach tests ("MCLT's") were conducted to give an accurate determination of the leaching performance and the recovery of copper from drill core samples from 21AEDD005, Alford East **(Figure 1)** with actual copper recovered shown in **Photo 1.**
- Alford East's saline groundwater was used in column testing to replicate potential ISR conditions and provide a more accurate leaching performance. The groundwater had no significant impact on recoveries.

Photo 1: Week 3 - Pregnant Liquor Solution ("PLS") containers and copper-loaded Ion Exchange Resin

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

"The successful completion of the hydrometallurgical mini-column tests; returning favourable copper recoveries of up to 72.2% are above the standard range of 60-70% for an ISR operation. These results are highly encouraging, as Thor advances the ISR assessment of the Alford East Copper-REE-Gold Project.

"As part of Thor's commitment to sustainable exploration activities, we are pleased to be using Glyleach™ as a lixiviant during the ISR process. Compared to the conventional sulphuric acid that is often used, Glyleach™ is an economical and environmentally friendly alternative, helping Thor to develop a low-cost, low-environmental footprint ISR copper operation.

"Thor continues to work with Fleet Space Technologies to merge the Ambient Noise Tomography ("ANT") 3D model with Thor's 3D geological model. The resultant 3D model highlights low-velocity drill targets, which potentially represent higher grade copper-REE-Gold targets, associated with deep structurally controlled

troughs. As part of a future drilling program, Thor will be including additional water bores for pump testing, and push/pull test work as it continues to advance ISR assessment at Alford East towards in-ground lixiviant trials (Site Environmental Lixiviant Trials). These are currently underway at EnviroCopper's Kapunda Project, in which Thor holds 30% equity. We look forward to updating the market with further developments."

Photo 2: Mini Columns setup

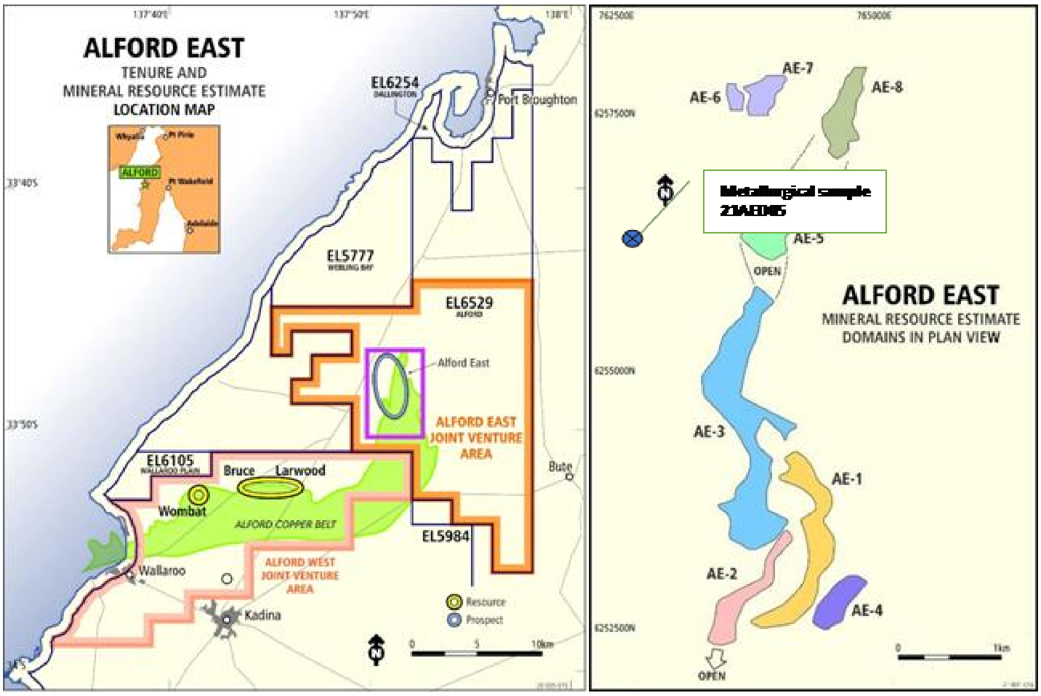


Figure 1: Alford East Location Map showing the lateral extent of the Alford Copper Belt (left), and the Alford East Mineral Resource Domains showing the area for initial ANT Surveys (right)

Next Steps:

1. Modelling of ANT results incorporating Thor's 3D model and using artificial intelligence to extrapolate controlling structures along the Alford Copper Belt - in progress
2. Target generation from the final 3D Model

3. Drill preparations and drilling
4. REE samples to be submitted to ANSTO for recovery potential from kaolin clays
5. Pump testing and preparations for push/pull connectivity testing, followed by Site Environmental Lixiviant Trial

Mini Column Leach Testing (MCLT's)

Thor engaged Draslovka to undertake a *program of work* to evaluate Draslovka's GlyLeach^{TM} process, focusing on copper extraction from a 7.3m intersection selected from drillhole 21AED005 **(Figure 1)**. This sample was selected as representative of copper oxide mineralisation within Mineral Resource Estimate Domain Area 5 (MRE 5) from Thor's 2021 drill program (ASX/AIM: 26 April 2023):.

GlyLeach^{TM} is an environmentally benign, hydrometallurgical process that can leach copper, nickel, cobalt and zinc from oxide, mixed oxide and supergene ores, and even primary sulphide ores. In the right conditions, it can also leach gold.

Glycine is the simplest amino acid and is available in bulk quantities. Its unique properties can offer substantial advantages over conventional lixiviants:

- **Environment/safety:** Glycine is non-toxic to humans as well as wildlife
- **Selectivity:** Glycine will solubilise copper, nickel, cobalt, and zinc, while iron, manganese, silicates, and carbonates remain in the solid phase
- **Alkalinity:** Leach conditions are at high pH, allowing simple and inexpensive materials for construction
- **Mild conditions:** Leaching is typically at ambient temperature, with no heating cost or pressure vessels
- **Low consumption:** Glycine is non-volatile (unlike cyanide, ammonia, and hydrochloric acid) and stable under process conditions
- **Recycle:** Glycine is not chemically consumed in the overall process. It is easily recovered and recycled, and process losses can be minimised by good design

The metallurgical test work included a copper sequential analysis, diagnostic Leach Tests (DLTs) (ASX/AIM: 22 February 2022) and Mini Column Leach Tests (MCLT's) on the sample provided (**Table 1).** This testwork determines which copper species can be leached by different solutions. For instance, sulphuric acid (used in copper leaching projects) will easily leach most of the green and blue copper species; however, it will take time to leach native copper, chalcocite, and covellite. Copper sulphide species will eventually be taken into solution by sulphuric acid, but the time frame is considered too long for ISR-type operations.

Based on the copper sequential analysis by Australian Laboratory Services (**Table 2**), Drasloka anticipated the *GlyLeach^{TM}* process is likely to leach all the cyanide soluble copper, a portion (20-80%) of the acid soluble copper and minor amount (<10%) of silicate locked copper, depending on the mineralogy where **22% to 67%** would be expected to be leach from the supplied sample **(Table 2).**

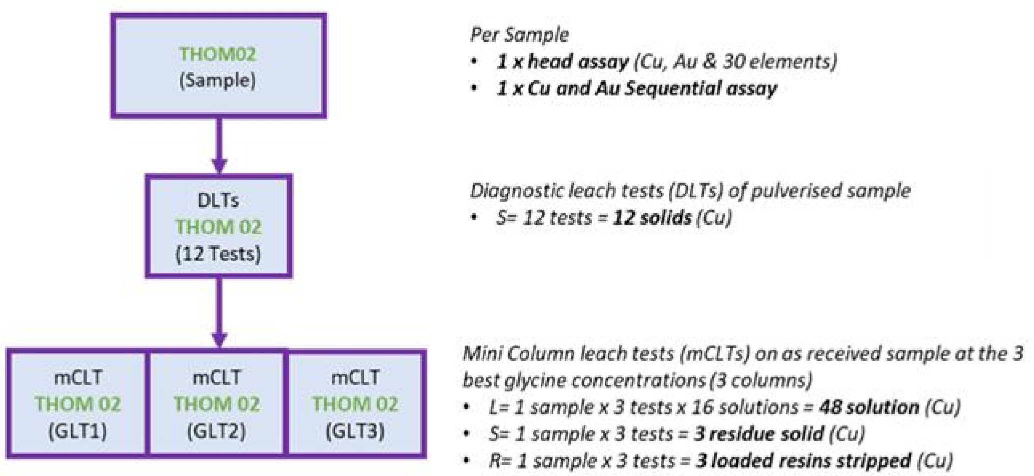


Figure 2: Draslovka Testwork Flow-wheel

Table 1: Head Grade - Gold (fire assay) and Copper (4 acid digest)- 21AED005 20-27.3m

Sample	Au (ppm)	Cu (%)
THOM-02-001	0.34	2.81

Table 2: Copper Sequential Analysis

Sample	Acid Soluble (%)	Cyanide Soluble Locked (%)	Silicate Locked (%)	Total (%)
Minerals	Malachite; Azurite; Tenorite; Cuprite; Neotocite; Dioptase; Atacamite; Brochantite; Chalcanthite; $CuCl_2$; Goethite; Chrysocolla (silicates)	Chalcocite; Native Cu; Covellite; Digenite; Djurleite	Chalcopyrite; Bornite; Silicates; Goethite	
THOM-02	2.28	0.127	0.393	2.8
	81.4%	4.5%	14.1%	100%

Mini Column Leach Tests were undertaken by Drasloka, designed to give a preliminary indication of extractions for typical heap or ISR conditions at Alford East. Small acrylic columns (ID: 45mm) were used to allow visual observation of the sample charge as the leach solution percolates. Each column is around 1m high and held 1.3kg per column of agglomerated sample percolated at 10 L/m^2/hr in close circuit, where the PLS was sampled and then put through resin before returning to feed tank.

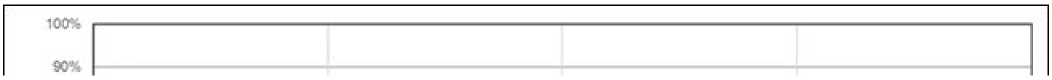
Four MCLT's were carried out with conditions given below:

- **Test 1**: Agglomerated with 10.0 kg/t of Normal Portland Cement ("NPC") and leached with *GlyLeachTM* using 36.78 g/L of glycine in total, column was started with Gly:Cu molar ratio of 2:1
- **Test 2:** Agglomerated with 10.0 kg/t of NPC and leached with *GlyLeachTM* using 55.15 g/L of glycine in total, column was started with Gly:Cu molar ratio of 3:1
- **Test 3:** Agglomerated with 10.0 kg/t of NPC and leached with *GlyLeachTM* using 55.15 g/L of glycine in total, column was started with Gly:Cu molar ratio of 3:1, column was also heated to 40°C using heating strips
- **Test 4:** Agglomerated with 10.0 kg/t of NPC and leached with*GlyLeachTM* using 55.15 g/L of glycine in total, column was started with Gly:Cu molar ratio of 3:1 and converted to *GlyCatTM* after two weeks by adding 1.92 g/L of cyanide

Overall, the highest copper extraction was observed in column 2 at **72.2% copper recovery** (**Figure 3**). Column 1 achieved 69.3%, column 3 achieved 71.7% and column 4 achieved 66.8% based on the residue analysis.

Referring to **Figure 3**, the best gold recovery was achieved in column 4 at 25.0%, column 1 achieved 21.5%, column 2 achieved 20.5%, and column 3 achieved 22.7% gold extraction based on residue analysis. Given the extraction had plateaued after 42 days, an additional 15% more glycine was added into the feed solution of each test to see if this would increase copper recovery, but the results indicated no further change. Column 3, which was heated, showed no benefit over column 2 as it performed under ambient temperature. It was found that adding cyanide (Test 4) improved the gold extraction by approximately 5%.

The test work demonstrates *GlyLeach*^{TM} ability to recover copper with excellent recoveries, up to 72.2%. The temperature had negligible impact and whilst the addition of cyanide improved the gold extraction, it was considered a marginal improvement. Under these leach conditions, it was determined that a copper extraction of 72.2% is achievable. It is recommended that a larger sample is tested to validate what extraction can be achieved at a coarser crush or in-situ recovery environment. With further optimisation, recoveries ranging from 70 - 75% might be attainable.



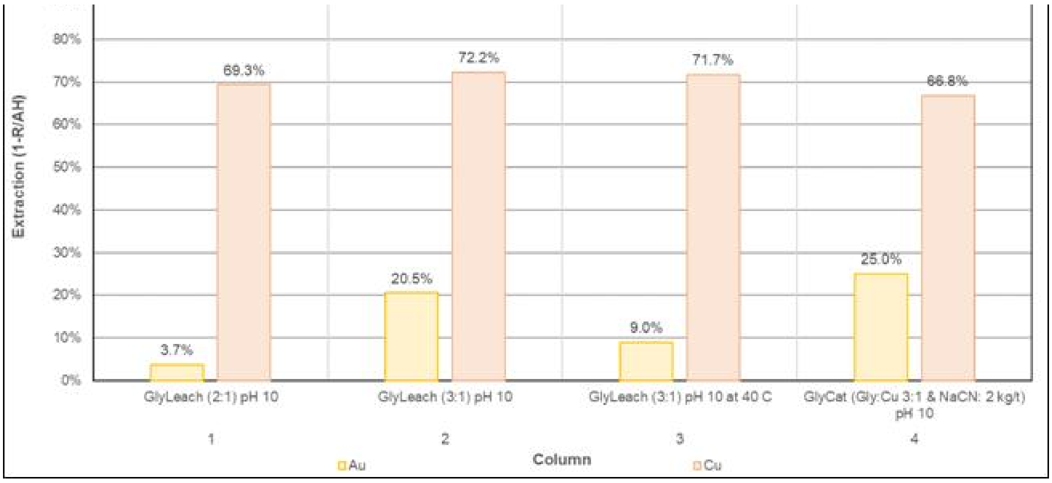


Figure 3: THOM-02 Metal Extraction - Mini Columns Summary (A-1-Residual (R) /Assayed Head(AH))

GlyLeach^{TM} ability to recover copper with good recoveries, up to 72.2%, supersedes the accepted range of 60-70% for ISR operations**(Figure 4).** Based on CAPEX and OPEX costs, recovering metal in an ISR operation in comparison to conventional mining (open cut or underground operation) enables lower metal recoveries whilst maintaining equal or similar profit margins.

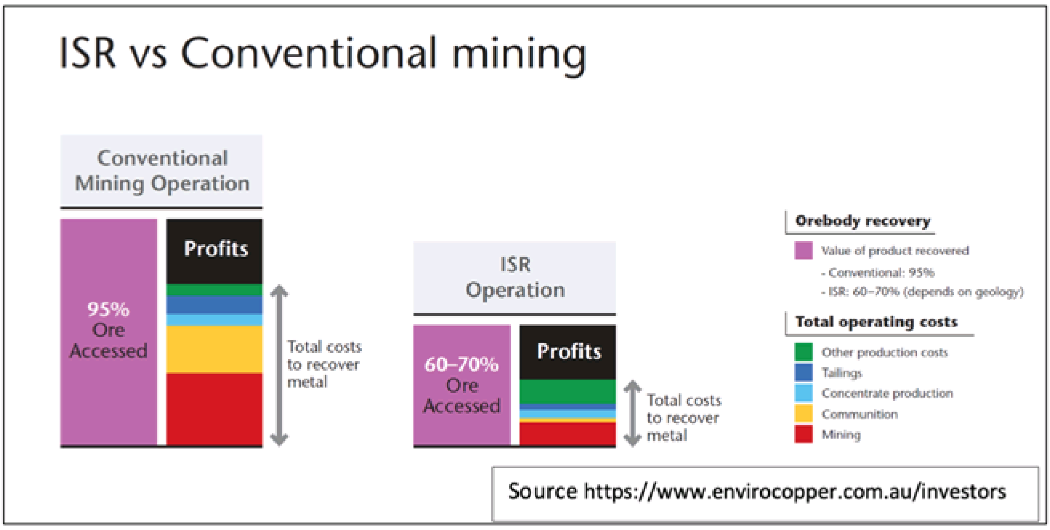


Figure 4: Comparison of ISR and Conventional Mining *after Chris du Plessis, AMIRA presentation 2014*

Alford East Project Background

The Alford East Copper-Ree Project is located on EL6529, where Thor is earning up to 80% interest from unlisted Australian explorer Spencer Metals Pty Ltd, covering portions of EL6255 and EL6529 (Figure 2) (ASX/AIM: 20 November 2020).

The Alford East Project covers the northern extension of the Alford Copper Belt, located on the Yorke Peninsula, SA. 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 2**), Gawler Craton, SA.

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 reported from the 2021 diamond drilling program, with significant drill intercepts (>500ppm TREO[1]) including (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, and***
  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**

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 https://thorenergyplc.com 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 Colorado and Utah, USA with historical high-grade uranium and vanadium drilling and production results.

At Alford East in South Australia, Thor holds 80% interest in oxide copper deposits considered amenable to extraction via In Situ Recovery techniques (ISR). In January 2021, Thor announced an Inferred Mineral extraction via In Situ Recovery techniques (ISR). In January 2021, Thor announced an Inferred Mineral Resource Estimate[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 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.

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]

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

1 JORC Code, 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.*	Diamond drilling program with half core sampled for Au fire assay FA001 and Aqua Regia 48 element suite AR001. Samples submitted to Bureau Veritas (BV), SA. Standard blank and duplicate inserted every 30 samples pXRF readings taken very 0.5m down the hole. Vanta C Series 800427 XRF - 40sec reading time. Instrument calibrated externally annually and with QA/QC at start prior to sampling and calibration disc every 30 readings All co-ordinates are in UTM grid (GDA94 Z53) and drill hole collars have been surveyed by DGPS to an accuracy of 0.1m. Down holes surveys using Truman with readings every 6m. Diamond samples were collected at geologically defined intervals (minimum sample length 0.1m, maximum sample length 1.5m) for all drill holes in the current program Samples are

		cut using an automated diamond saw and half core is submitted for analysis at Bureau Veritas, SA. The sample size is deemed appropriate for the grain size of the material being sampled. Mineralisation is determined by descriptive geological logs for diamond hole as well as the incorporation of assay results and pXRF readings
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 - GMP drilling Pty Ltd. B&D Multi 35 Rig 0-6m open hammer - transported cover sequence. HQ standard tube diamond drilling
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.*	Core recovery assessed and measured relative to drill rod measurements into laptop computer. HQ single tube drilling through weathered zone to maximise sample recovery. The sample recovery and condition is recorded every meter. Generally, core recovery is 98-100%, but occasionally drops to 70% in friable clays zones due to compaction and/or broken ground. No relationship is known to exist between 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 core is qualitative geologically logged (lithology, structure, alteration, veining, mineralization weathering, colour and other features of the core). Core photography completed prior to core cutting and after Core (and intersections) logged based on geological, lithological and structural boundaries. All drill samples are measured for magnetic susceptibility at 1m intervals, and XRF readings taken every 0.5m.
Criteria	**JORC Code explanation**	**Commentary**
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.*	Half core samples submitted for laboratory analysis. Diamond core was given up to two weeks to dry out, prior to cutting and sample prep. Sampling is carried out using standard protocols and QAQC procedures as per industry practice. Field QAQC procedures involved the use of certified standards, blanks and duplicate sample submitted every 25 samples. These are routinely checked against originals. Handheld pXRF readings reported. pXRF readings taken on whole (HQ) core at 0.5m intervals prior to cutting. Vanta Series C 40 second reading time. Instrument calibrated at

		Instrument calibrated at start, QAQC with 2 standards and 1 blank every 30 readings. External instrument calibration completed annually. Readings taken every 0.5m down hole
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.*	Diamond core sampled through potential copper and gold zones. Samples submitted to Bureau Veritas for 50g fire assay and Aqua Regia multi-element analysis. Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards Handheld pXRF readings reported. Vanta Series C 40 second reading time. Instrument calibrated at start, QAQC with 2 standards and 1 blank every 30 readings. External instrument calibration completed annually. Readings taken every 0.5m 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.*	All drilling data is collected in a series of templates in excel including geological logging, sample information, collar and survey information, All data is digitally recorded in the company's electronic database. No adjustments have been made to the assay data. All significant intersections have been verified by an alternative company geologist. There are no twinned drillholes Rare earth element analyses were originally reported in elemental form but have been converted to relevant oxide concentrations as in the industry standard. TREO = La_2O_3 + CeO_2 + Pr_6O11 + 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
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.*	Collars picked up using DGPS - MGA94 zone 53 (GDA) used. Down hole survey readings taken every 6m with Boart Longyear Truman multi shot camera
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.*	Drillhole data spacing is considered appropriate to allow confident interpretation of exploration results. pXRF readings taken every 0.5m down the hole. No sample compositing has been applied
Orientation of data in	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit*	Drill holes were oriented vertical (090 degrees) or 070

relation to geological structure	*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.*	towards 090degrees which is perpendicular to strike of the geological trough. Orientational bias is not applicable this stage with half core samples taken across full mineralised zone and pXRF sampling every 0.5m downhole
Sample security	• *The measures taken to ensure sample security.*	Samples were trucked from Alford to Adelaide, to Challenger Geological Services for cutting and prep, prior to submission to Bureau Veritas, Adelaide for analysis.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No formal audits have been undertaken

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 licence to operate in the area.*	Alford East project: ▪ The JV area covers portions E6529 which are 100% owned by Spencer Metals Ltd. • PML 268 lies within E6529 • There are no non-government royalties, historical sites or environmental issues. • Underlying land title is Freehold land which extinguishes native title. • All tenure in good standing.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The general area of this report has been explored in the past by various companies including Jododex, Uranez, North Broken Hill, MIM, Hillgrove Resources, Argonaut Resources and Sandfire Resources. Activities include AC, RC, & Diamond drilling, and significant geophysical surveying. The Company has reviewed past exploration data generated by these companies.
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. Locally, the low-grade copper/gold oxide mineralisation that forms the basis for this Exploration results announcement, is hosted within variably weathered and sheared metasedimentary basement lithologies.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level - elevation*	Drillhole information is included in report. Plan and sections showing drillhole locations is included in report

	o above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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*	Weighted averaging technique is used for reporting exploration assay results, No metal equivalents are reported.
Criteria	**JORC Code explanation**	**Commentary**
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').*	The gold & REE's are associated with copper oxide mineralization within intense clay alteration. The alteration is interpreted to be similar to that found in the adjacent Alford West area. The drilling intersections quoted are downhole intercept lengths with an unknown orientation to dip and plunge of the target mineralisation
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.*	Appropriate maps and sections included in document.
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.*	All results have been 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.*	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.*	Additional work will be carried to define the known extent of the REE from historic drilling. Drilling, hydrogeological and metallurgical studies to continue. Refer to diagram in document for geological interpretation and potential extensions.

[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)

END

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