

MUNDI MAGNETOTELLURIC SURVEY REVEALS SIGNIFICANT IOCG POTENTIAL

HIGHLIGHTS

- Magnetotelluric (MT) survey detects intense conductive anomaly between ~700m and ~2500m depth within Proterozoic basement
- 2D- and 3D-modelling completed by Professor Graham Heinson (University of Adelaide) indicates the anomaly is associated with the Curnamona Conductor
- Exploration Licence area expanded to cover southern extension

Strategic Energy Resources Limited ("**SER**" or "**the Company**") is excited to announce modelling from the recent Magnetotelluric (MT) survey at the 100% held Mundi Project in New South Wales. The Mundi Project is a large-area, conceptual greenfield exploration project spanning over 1300 square kilometres of the Curnamona Province, located approximately 115km NNW of Broken Hill. The Curnamona Province is a known iron oxide copper-gold (IOCG) mineral province with the potential for other mineral systems, such as Broken Hill Type Pb-Zn-Ag. The Project area has no known basement outcrop and very limited previous exploration.

Commenting on the results of the MT program, SER Managing Director, Dr David DeTata said:

'The results of the MT survey have exceeded our expectations. The identification of an intensely conductive anomaly at explorable depths within Proterozoic rocks confirms our belief that the Project represents a convincing new IOCG exploration opportunity. With further geophysical work now planned for early 2024, SER expects to define a target or multiple targets for follow-up drill testing within the next 12 months.'

MAGNETOTELLURIC SURVEY DESIGN AND EXECUTION

The Mundi Project area targets the shallowest portion of the Curnamona Conductor (CC), a crustal-scale conductivity anomaly that has strong similarities to MT conductivity anomalies that have been interpreted to be associated with IOCG mineralisation in South Australia's Gawler Craton¹.

The recent 95-station MT survey covered the shallowest portion of the interpreted CC anomaly, with stations spaced 400m apart along four east-west oriented lines 4km to 5.7km apart. All four lines were designed to cross both the Stanley Fault and interpreted CC anomaly, to resolve the relationship between the two features. Tensor MT data were recorded at all sites using four channel receivers recording two orthogonal electric field and two orthogonal magnetic field measurements per site. Broadband MT data were recorded overnight, resulting in 12 to 24 hours duration records with a frequency range of 10000Hz to 1000 seconds.

The MT survey was partially supported by a \$50,000 grant from Round 5 of the NSW Government's New Frontiers Exploration Program.

¹ SER ASX Announcement 21 September 2023

MODELLING REVEALS SIGNIFICANT CONDUCTIVE BODY

Advanced modelling of the MT data was conducted by Professor Graham Heinson from the Electrical Earth Imaging Group at the University of Adelaide, a global leader in the use and interpretation of MT data for mineral exploration. Modelling revealed a large, high-intensity conductive anomaly, which appears to be centred on Lines C and D of the survey. Modelled resistivities in the core of the anomaly reach values of less than 0.1 ohm.m (Fig. 1), which is mapping an unusually highly conductive feature.

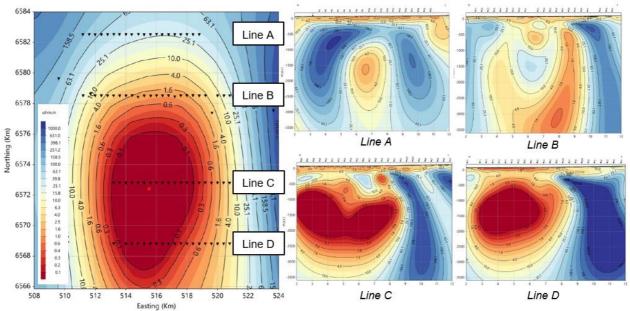


Figure 1: 2000m modelled resistivity depth slice and 2D line profiles from the MT survey.

The defined conductor is elongate in a north-south direction, at least 8km in length, and remains open to the south. The width of the conductor increases from ~5km at 1000m depth to more than 10km at 2000m, with a modelled base at ~2500m depth. The conductor shows a sharp north-south trending, near-vertical eastern boundary, interpreted to suggest a clear structural control, which approximately corresponds to an interpreted basement fault (Fig. 2).

A MAJOR CRUSTAL-SCALE SYSTEM

The MT data from this survey was then modelled by Professor Heinson alongside the 125km long Curnamona Crustal MT Transect (CCMT), which was the main data source that first attracted SER to the Mundi Project area. This modelling shows that the shallow conductive features detected in this survey are clearly linked to the crustal-scale Curnamona Conductor, and closely resemble the conductivity signatures of IOCG mineralisation in the Gawler Craton, including the supergiant Olympic Dam deposit (Fig. 3).

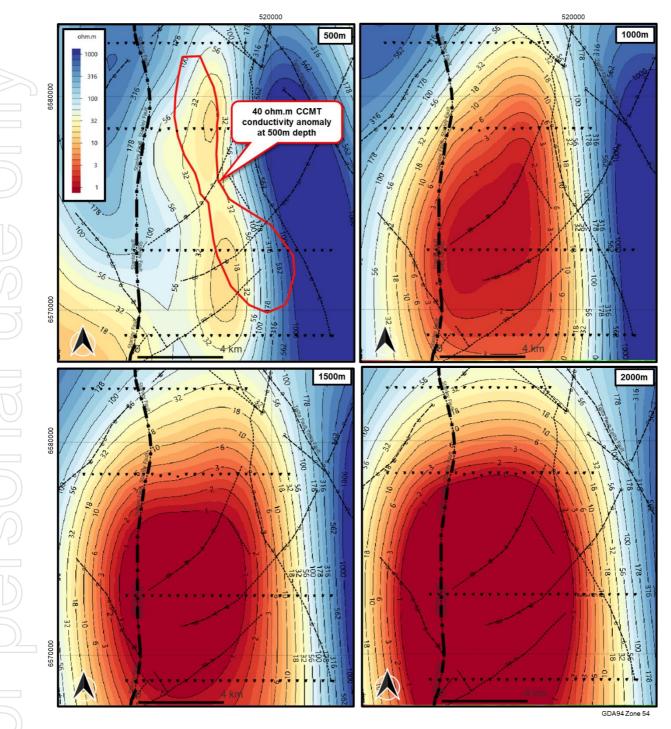


Figure 2: Modelled resistivity depth slices at 500m, 1000m, 1500m and 2000m from SER's Mundi MT survey. The locations of SER's MT recording stations and interpreted basement faults from the GSNSW NSW Seamless Geology are also shown. The location of the 40 ohm.m contour from the initial CCMT conductivity anomaly is shown on the 500m depth slice.

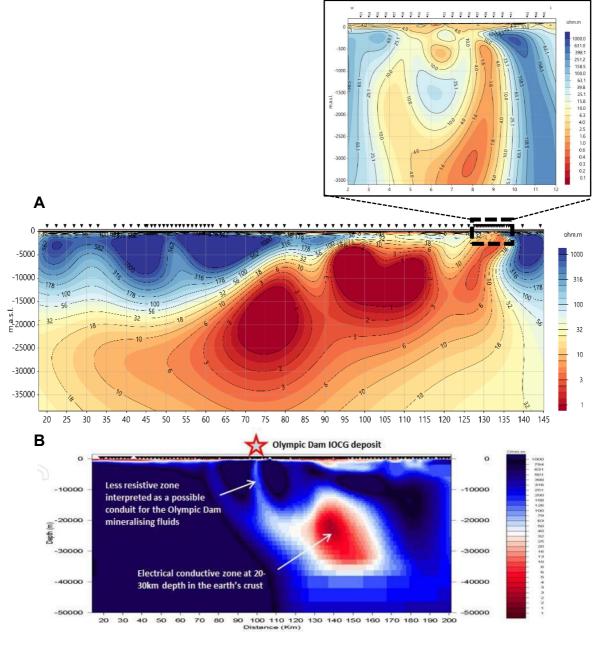


Figure 3: (A) 2D resistivity model to a depth of 35km across the Curnamona Province, incorporating data from the CCMT and SER's Mundi MT survey; and (B) 2D resistivity model to a depth of 50km across the Gawler Craton after Heinson et al. (2018)². Note the similarity between the conductive feature that extends to surface under the Mundi project and the Olympic Dam deposit. The detailed inset for the Curnamona model shows Line B, which lies along the path of the CCMT.

EXPLORATION AREA EXPANDED TO CAPTURE SOUTHERN EXTENSION

The results from the recent MT survey indicate that the intense conductive anomaly remains open to the south. Additionally, a recently released regional-scale resistivity model of the Curnamona Province and Delamerian Orogen (Jiang et al., 2023³) shows a strong (<1 ohm.m) mid-crustal conductivity anomaly extending south and

² Heinson, G., Didana, Y., Soeffky, P., Thiel, S., Wise, T., 2018, The crustal geophysical signature of a world-class magmatic mineral system. Scientific Reports, 8:10608. <u>https://doi.org/10.1038/s41598-018-29016-2</u>

³ Jiang, W., Duan, J., Kyi, D., Hitchman, A. 2023. Resistivity Model Derived from Magnetotelluric Data in the Curnamona and Delamerian Region. Geoscience Australia, Canberra. <u>https://dx.doi.org/10.26186/148623</u>

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southeast of the existing Exploration Licences at a depth of 5km (Fig. 4). This model is based on 20-km spaced MT data which have insufficient spatial resolution to detect shallow, relatively small conductive features such as the anomaly detected in SER's MT survey.

Prior to the completion of the survey, an additional exploration licence was lodged (ELA6672) capturing the possible southern extension of the shallow conductivity anomaly already detected, as well as providing an opportunity to explore for potential additional shallow anomalies associated with the broad anomaly at 5km depth.

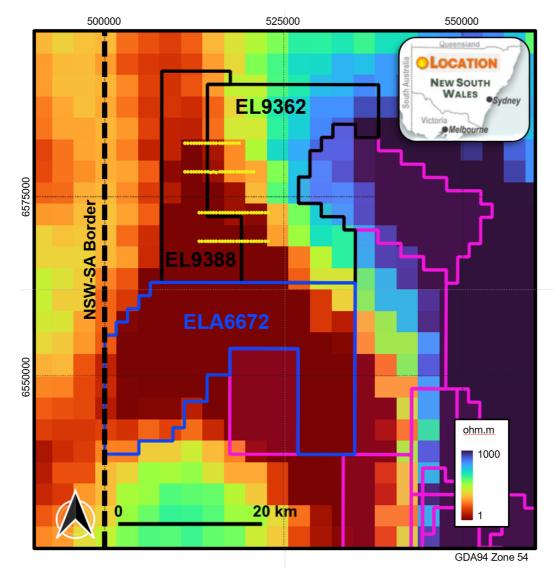


Figure 4: Location of SER's Mundi Exploration Licences (EL9362 and EL9388) and Exploration Licence Application ELA6672 shown relative to the NSW-SA Border, other NSW Exploration Licences (purple outlines) and the 5130m depth slice of the regional-scale Curnamona-Delamerian resistivity model of Jiang et al. (2023). The MT survey stations are also shown as yellow dots.

NEXT STEPS

This survey was successful in confirming the presence of a highly conductive body at depth which extended beyond the planned survey area. A follow-up MT survey is now required to infill and extend the current survey coverage as well as a gravity survey to better understand basement geology and the extent, geometry and nature of a potential IOCG mineral system. SER expects to generate one or more targets for drill testing within the next 12 months.

The information in this report that relates to Exploration Results is based on information compiled by Mr Stuart Rechner BSc (Geology) MAIG MAUSIMM, a Member of the Australian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy. Mr Rechner is a Director and shareholder of Strategic Energy Resources Ltd. Mr Rechner has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity being undertaken 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'. Mr Rechner consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

This announcement is authorised by the Strategic Energy Resources Limited Board.

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About Strategic Energy Resources

Strategic Energy Resources is a specialized undercover mineral explorer and project generator focused on discovery in the Greenfield frontiers of Australia. Our science driven, expert technical team leverage collaborations with government and private partners in our search for the next major mineral deposit.

JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Not applicable – this announcement concerns geophysical surveys.
Drilling techniques	Not applicable – no drilling undertaken.
Drill sample recovery	Not applicable – no drilling undertaken.
Logging	Not applicable – no drilling undertaken.
Sub-sampling techniques and sample preparation	Not applicable – no drilling undertaken.
Quality of assay data and laboratory tests (Equipment used)	The survey was undertaken by Zonge Engineering and Research Organization (Zonge).
	Zonge used eight Phoenix MTU-5C receivers for broadband magnetotelluric (BBMT) data acquisition. Seven of these instruments were deployed within the survey area, with the eighth receiver deployed as a remote base station for the duration of the survey to allow calibration of data collected across multiple days.
	MTU-5C are 5-channel receivers for collecting MT data over wide frequency band designed and manufactured by Phoenix Geophysics, Canada. These receivers are stand-alone, GPS synchronized modules designed to simultaneously record up to 5 channels in 2E3H configuration, meaning 2 electric orthogonal components and 3 magnetic orthogonal components of MT field can be read simultaneously with 24-bit resolution. Manufacturer specification sheets for the MTU-5C receivers can be read on the manufacturer's website (https://az659834.vo.msecnd.net/eventsairwesteuprod/production-eage- public/1eb322f070b44cf2be7ecb11350ecd3a).
	SER's survey utilised only 2 magnetic sensors and did not record the vertical magnetic component. Data were acquired using four channel receivers recording two orthogonal electric field and two orthogonal magnetic field measurements per site. Sensors were oriented to magnetic north and east. BBMT data were recorded overnight, resulting in 12-24 hours long records and providing a frequency range of 10000Hz to 1000 seconds.
	Each receiver sensed BBMT magnetic field data using two Phoenix MTC-150L coils and electric field data using single conductor wires and non-polarisable electrodes. Equipment was powered using 12V batteries that were recharged using solar panels during the day.
Verification of sampling and assaying	Not applicable – no drilling undertaken.
Location of data points	Coordinates were recorded using instrumental GPS in GDA 1994, MGA Zone 54.
Data spacing and distribution	Four E/W traverses of 400m spaced MT sites, traverses 4km to 5.7km apart. 95 sites completed in total see Fig 2. Traverses up to 10km long E/W.
Orientation of data in relation to geological structure	Four E/W traverses designed to cross the N/S striking geological structures
Sample security	Not applicable – no sampling undertaken.

Audits or reviews

BBMT data quality was monitored throughout the course of the survey by Zonge's field crew and Adelaide office. This allowed identification of stations that required repeat readings. Data were generally of high quality over the whole frequency range, with the exception of expected "dead bands" around 2kHz and1-10Hz. Due to the location of the survey, only a few minor cultural noise sources exist within the survey area (such as fences, tracks, water pipes) and these did not impact data quality.

JORC Code, 2012 Edition – Table 1 Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Work undertaken on two active exploration licences EL9388 and EL9362 which form part of the Mundi Project. Both tenements are held 100% by Strategic Energy Resources Limited
	Location: Mundi (115km NNW of Broken Hill).
	Tenements in good standing with no known impediments.
Exploration done by other parties	The Mundi Project has limited previous exploration activity.
	SER has identified eleven Group 11 (uranium) and fifteen Group 1 exploration licences and have been held over all or part of EL9388 and EL9362 since 1970. The Group 1 explorers have targeted a variety of commodities including iron ore, intrusion-related gold, Broken Hill Style and Mississippi Valley Style lead-zinc, and copper-gold mineralisation.
	There are only three drillholes that intersect basement within the 712 km ² area covered by EL9388 and EL9362, and only three surface geochemical samples (rock chips) are held in the GSNSW geochemical database.
	The MT survey discussed in this report was following up on crustal-scale conductivity anomaly, initially identified by the Geoscience Australia led Australian Lithospheric Architecture Magnetotelluric Project (AusLAMP - <u>https://www.ga.gov.au/about/projects/resources/auslamp</u>). This conductive anomaly, known as the Curnamona Conductor (CC), was further resolved by the Curnamona Crustal Magnetotelluric Transect (CCMT), an ~2km spaced, 56 station, ~east-west oriented broadband MT survey targeted at the anomaly defined by AusLAMP (Kay et al., 2022).
Geology (Target deposit type)	The project covers part of the northern portion of the Palaeo- to Neoproterozoic Curnamona Province, which straddles the border between NSW and SA.
	Basement geology within the proposed EL is entirely obscured by Mesozoic and Cenozoic cover, but is interpreted by GSNSW (Colquhoun et al., 2021) to comprise metasedimentary rocks of the Palaeoproterozoic Willyama Supergroup, unconformably overlain by and faulted against Neoproterozoic sedimentary and volcanic rocks, which correlate with Adelaidean sequences in South Australia. The area is cut by prominent N- to NNW-trending structures, as exemplified by the Stanley and Teilta Faults.
	As a result of the lack of basement exposure within EL9362 and EL9388, there are no recorded metallic mineral occurrences within the title area.
	The Curnamona Province has recognised potential for Iron Oxide Copper Gold (IOCG) mineralisation. Although not discounting the potential for other mineral systems, such as Broken Hill Type Pb-Zn-Ag, SER considers that EL9362 and EL9388 are primarily prospective for IOCG mineralisation.
Drill hole Information	Not applicable – no drilling undertaken.
Data aggregation methods	Not applicable – no drilling undertaken.
Relationship between mineralisation widths and intercept lengths	Not applicable – no drilling undertaken.

Diagrams	The reported images display results from the MT survey data modelling as well as a tenement location map over published regional MT modelling (Figure 4).
Balanced reporting	Not applicable – no drilling undertaken.
Other substantive exploration data	All relevant finalised exploration data has been included. Further details of geophysical data interpretation will be provided in due course.
Further work	Further work is outlined under "Next Steps"