FINAL REPORT

Program:	**Sandover Passive Seismic**
Tenements:	**EL 32374, EL 32421**
1:250,000 Sheets:	**Alcoota**
1:100,000 Sheets:	**Woodgreen**

Title Holder:	**Baudin Resources Pty Ltd**
	(100% owned subsidiary of Encounter Resources Ltd)

Compiled by:	**Kate Woodall & Vincent Crombez**
Date:	**April 2026**
Datum/Zone:	**GDA94/Zone 53**

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1. Abstract

Encounter Resources Sandover Project is located in a locally preserved Neoproterozoic sub-basin within a major structural corridor on the southern margin of the Georgina Basin. Major elements of a sediment-hosted copper system are present within this area, including evidence of copper mobilisation and precipitation within the sediment package. Encounter Resources' exploration is focused on understanding and predicting the spatial relationship between concealed reduced strata present in the sub-basin and their intersection with interpreted deep-tapping basin structures to identify drill targets prospective for economic copper mineralisation.

A work program was designed to trial a passive seismic acquisition survey over EL 32374 and EL 32421. The work program was granted co-funding in Round 18 of the Geophysics and Drilling Collaborations program. For phase 1, a total of 54 geophones were installed at Sandover along a 11 km line, spaced 200 m apart, and collected data was processed by CSIRO. Phase 2 was not completed due to inclement weather.

Data produced enabled the imaging of depth to basement, depth of transported cover/weathering, and major structures. This new data provides confidence in passive seismic as an analytical technique, which can be applied in other areas, to enable better targeting of reducing strata intersecting inverted structures. This will subsequently be used to generate targets for sediment-hosted base metal exploration.

2. Content

3. Introduction

The Sandover Project is located approximately 170km north of Alice Springs (Figure 1). The project sits within a locally preserved Neoproterozoic sub-basin within a major structural corridor on the southern margin of the Georgina Basin. The Sandover tenure consists of 6 granted ELs (EL32374, 32421, 32694, 32695, 32696, 33060) granted to Baudin Resources Pty Ltd (a fully owned subsidiary of Encounter Resources). The Sandover Project tenure is considered prospective for sediment-hosted copper, zinc and lead mineral systems.

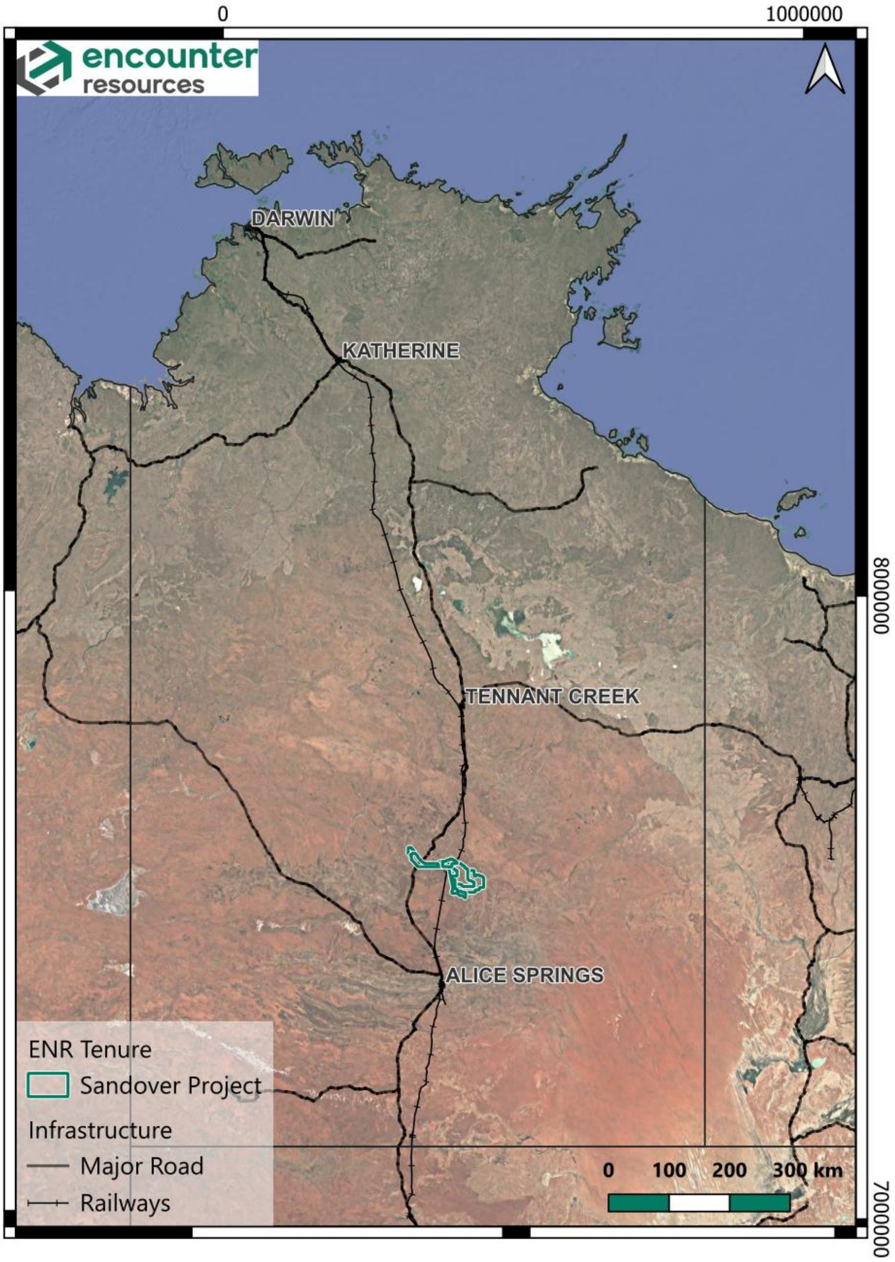

Figure 1: Location of the Sandover Project.

4. Location, physiography, and access

The Sandover Project tenure is located approximately 170 km north of Alice Springs and 290 km south of Tennant Creek.

The Sandover tenure consists of 6 granted ELs (EL32374, 32421, 32694, 32695, 32696, 33060) and covers a large part of the Mount Skinner and Stirling Pastoral stations, with minor areas on Anningie and Woodgreen stations. Access is excellent with the Stuart Highway extending through the western half of the project, and the Sandover Highway facilitating access from the south (Figure 2). A network of pastoral tracks exist on the stations and the Ghan Railway runs through the project area. The proposed work program extends on EL32374 and EL32421.

The climate in the area is arid, sub desert with flat sandy plains and low-level hills. Occasionally rounded rocky outcrops are observed, particularly in the southern part of the Sandover project areas.

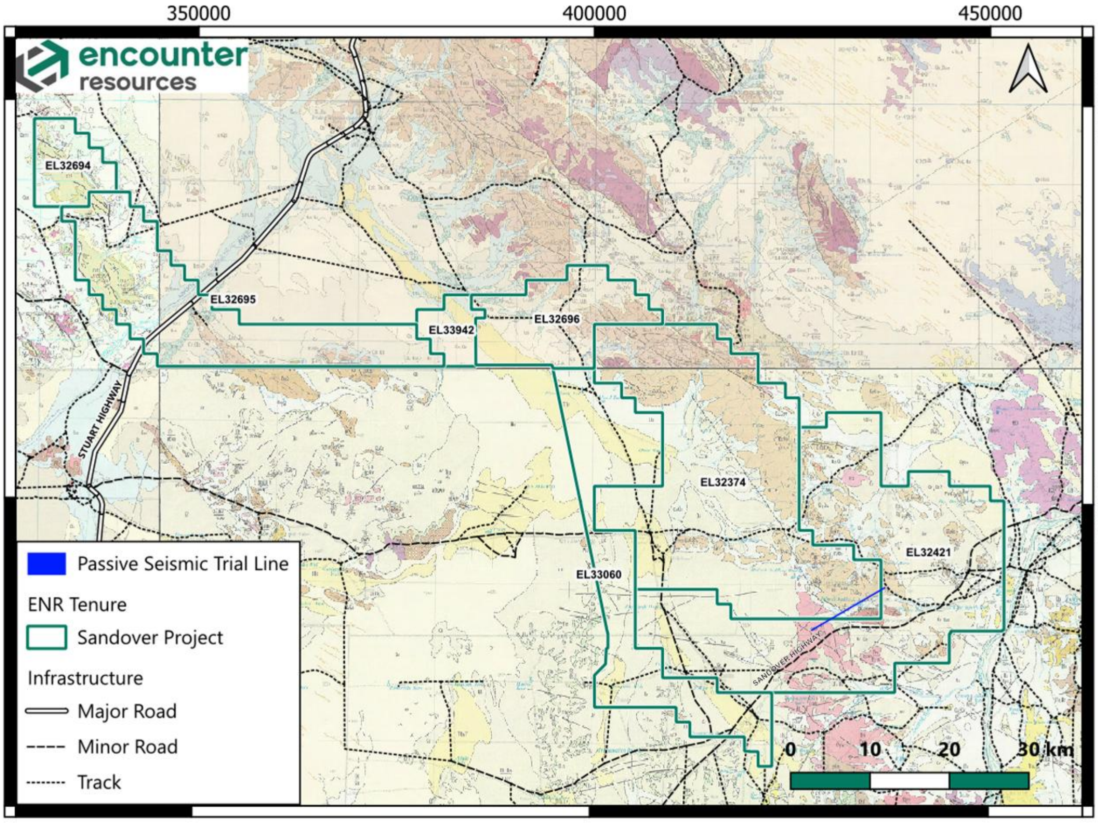

Figure 2: Sandover Project with access roads and the location of the passive seismic trial line over surface 1:250k NTGS geology mosaic.

5. Regional context

The Sandover Project is located within the Sandover sub-basin which is interpreted as a locally preserved Neoproterozoic depocenter within a major structural corridor on the southern margin of the Georgina Basin (Figure 3). Outcropping Neoproterozoic rocks of the Central Mount Stuart Formation form a prominent topographic ridge running along the northeastern margin of the project tenure. A thick pile of Neoproterozoic sediments as evidenced by isolated historical and recent diamond drilling extend undercover to the southwest where they are variably covered by Phanerozoic sediments.

The Sandover sub-basin consists of a series of structurally compartmentalised sedimentary depocenters at the southern margin of the Georgina Basin. This architecture is interpreted to be a result of basin inversion of horst and graben blocks. Additionally, there are interpreted oblique (approximately NE-SW) orientated cross cutting lineaments through the sub-basin. The stratigraphic column in the vicinity of the project spans from the Neoproterozoic to the Palaeozoic under a

Mesozoic cover. The targeted package is part of an Ediacaran succession of the Mopunga group and contains the Elyuah, the Grant Bluff, the Elkera, and the Central Mount Stuart formations (Figure 4). In detail, this stratigraphic package presents a regressive trend starting with the deposition of the Elyuah Formation in a deep water setting to the deposition of the Adnera member of Central Mount Stuart Formation in a continental setting.

Recent investigations on the stratigraphic architecture of this interval by Encounter Resources Ltd suggests a complex interfingering of these formations at the project scale resulting from the interplay of the sediment supply, accommodation creation and eustatic variations at the time of deposition. This high frequency variation is considered beneficial for the formation of sediment-hosted copper systems, as it creates sedimentary porosity, permeability and geochemical heterogeneities that encourage mineralising fluid movement from regional structures into the targeted reductant package in the Elyuah Formation.

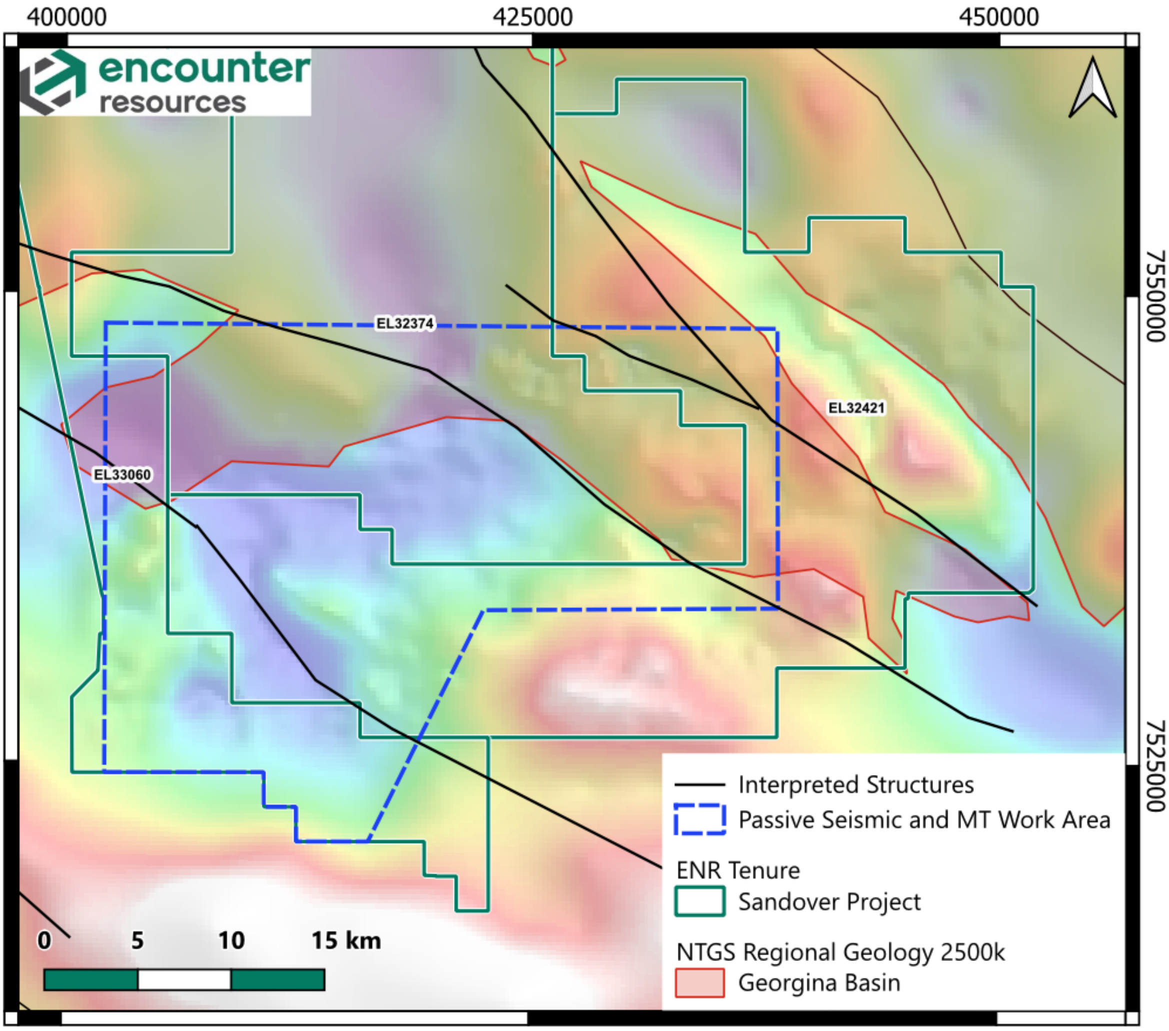

Figure 3: Location of the passive seismic and MT work area in relation to the Georgina Basin and major structural elements, overlying 5km residual gravity.

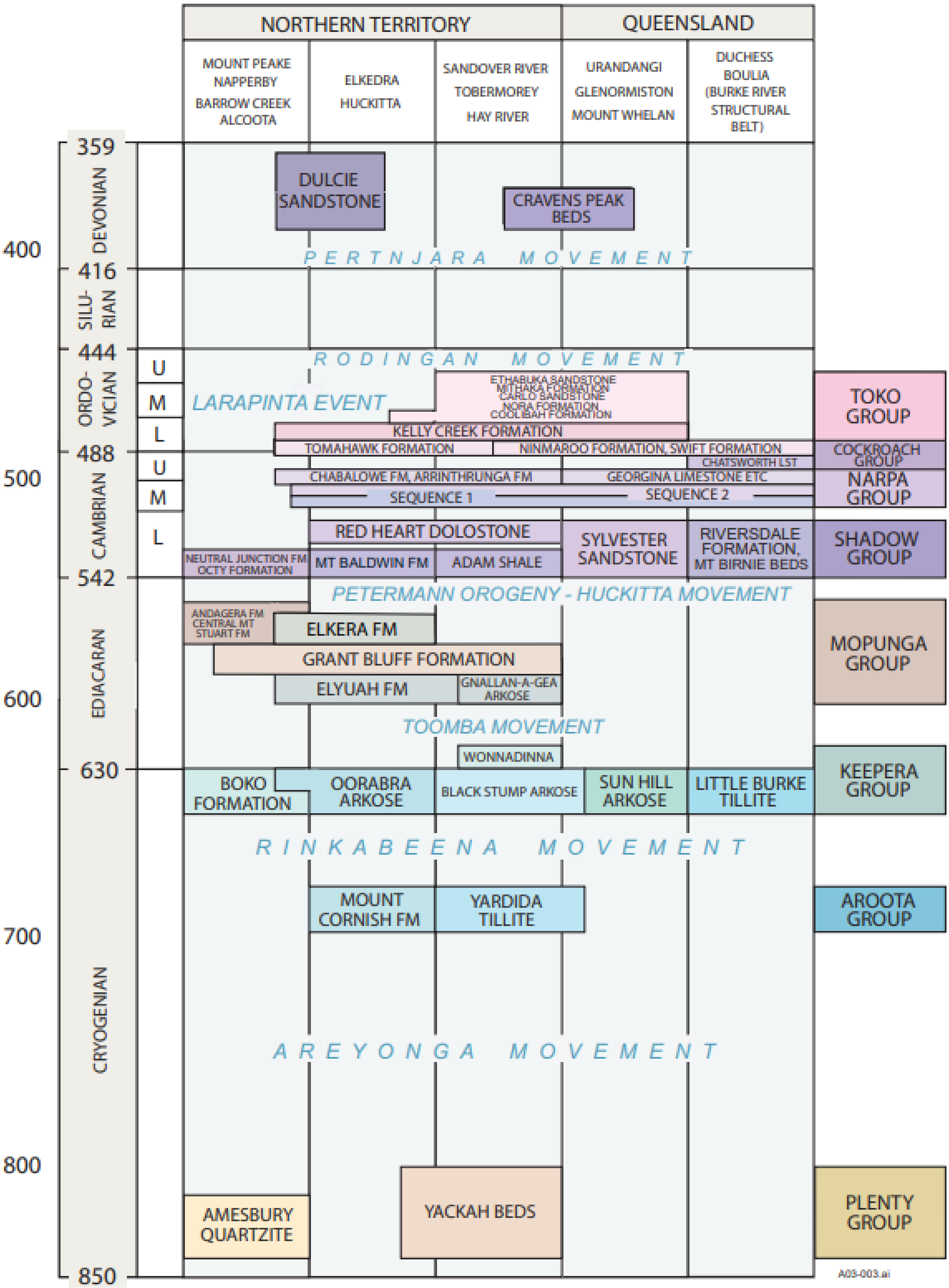

Figure 4: Stratigraphic column of the Georgina Basin (Dunster, 2007).

6. Previous exploration

Most historical exploration drilling activity at Sandover was completed during the late 1960s to the early 1970s exploring for copper. A comprehensive summary of this work can be found in Dunster, 2007.

In 1965, prospectors found widespread malachite- and azurite-stained grey-green siltstone and loose nodules containing chalcocite north of Mount Skinner. In 1966 Kennecott completed a 3 holes percussion program (BH1-3) for a total of 610m together with seven costeans over a strike length of 9.5 km (systematically chip sampled). In 1968, a program of 4 diamond holes for 662m (Mt Skinner 1-4) was drilled by the Mines and Water Resource Branch, NT. During 1969–1970, Utah completed petrography and mineralogy of 74 samples from Mount Skinner drill cores. they mapped the Central Mount Stuart beds and conducted a geochemical survey. In 1970–1971, Centamin undertook 158 km of resistivity and 31 300 m-spaced electrical readings. In 1970 they drilled 4 DD holes (CMS1-4) for 1781m to test 4 targets identified. 3 of the 4 holes intersected crystalline basement. The holes established the existence of reduced strata below the Central Mount Stuart beds.

From 1981 Alcoa Australia Ltd completed surface mapping and flew a small 500 m-spaced magnetic survey attempting to determine depth to basement. Selected intervals of the Centamin cores were relogged and resampled. During the early to mid-1990s CRA inspected known secondary Cu mineralisation at Mount Skinner and assayed the open file core for 25 elements (the results were not released). In 1994 CRA completed two DD holes further to the NW in the Sandover sub-Basin (DD94MG001 & DD94MG002) focused on correlative units to the northwest.

Recent exploration for sed-hosted copper systems by Encounter Resources Ltd, included the acquisition of a regional ground gravity survey and the drilling of a two deep diamond holes (ESA001 and ESA002) for a total of 1307.7m

7. Exploration concept

The Sandover sub-basin is interpreted to present all the elements required to form an economic sediment-hosted copper deposit. The failed rift Neoproterozoic sediments of the Georgina Basin are onlapping onto the crystalline basement of the Arunta block where fluid pathways have direct access to targeted reducing units. Copper mineralisation within the sub-basin occurs where historical exploration has mapped copper (malachite) at surface within the Central Mount Stuart Fm in the Mount Skinner area, which continues down dip into the sub-basin with highly anomalous copper values where hydrothermal fluids have interacted with a moderately reducing grey shale horizon. Encounter Resources’ exploration is focused on understanding and predicting the spatial relationship between concealed reduced strata present in the sub-basin and their intersection with interpreted deep tapping basin structures, in order to identify areas prospective for economic copper mineralisation.

Interpretation and integration of drilling data with gravity and magnetics indicates that the targeted reducing unit Elyuah Fm present the SE part of the project is the most prospective reductant for a sediment-hosted copper system. The exploration work program is focused on where this unit may intersect interpreted inverted structures and provide a pathway for copper-rich basin fluids to interact with the reducing strata. The work program was designed to acquire and process passive seismic and MT data in the SE area of interest and enable more accurate prediction of these locations to enable drill target generation within explorable depths. The Elyuah Formation is located near the basement/basin interface. It was hypothesised that the difference in acoustic properties between the basement and the sediments will allow for the mapping of this interface along passive seismic lines. The organic content of the Elyuah Formation suggests this reductant will present electric properties thus being observable on MT data.

8. Sandover Passive Seismic collaborative program details

The Sandover project area geophysical datasets only include regional magnetic and gravity data. In 2022, Encounter Resources Ltd collected ground gravity data to infill the regional grid to 1 km per 1km as part of the Geophysics and Drilling Collaborations Program. In addition to geophysical data, subsurface information mainly derives for historical drilling (e.g., Mines and Water Resource Branch, Centamin, CRA holes) and two recent deep diamond drillholes by Encounter Resources Ltd, one of them drilled as part of the Geophysics and Drilling Collaborations Program. To the best of our knowledge, no seismic data (active or passive), nor MT data had been previously acquired in the vicinity of the work program.

The passive seismic program aimed at collecting and processing both passive seismic and MT data in the SE part of the Sandover project. For phase 1, a trial of 54 geophones were installed by Encounter Resources, spaced 200 m apart on a 11 km line for a two-week period, the location of which are shown in Figure 5. The acquired data was processed by CSIRO using advanced inverse modelling of the Horizontal-to-Vertical Spectral Ratios (HVSR).

Phase 2 of the work program was not completed, largely due to inclement weather impacting exploration efforts.

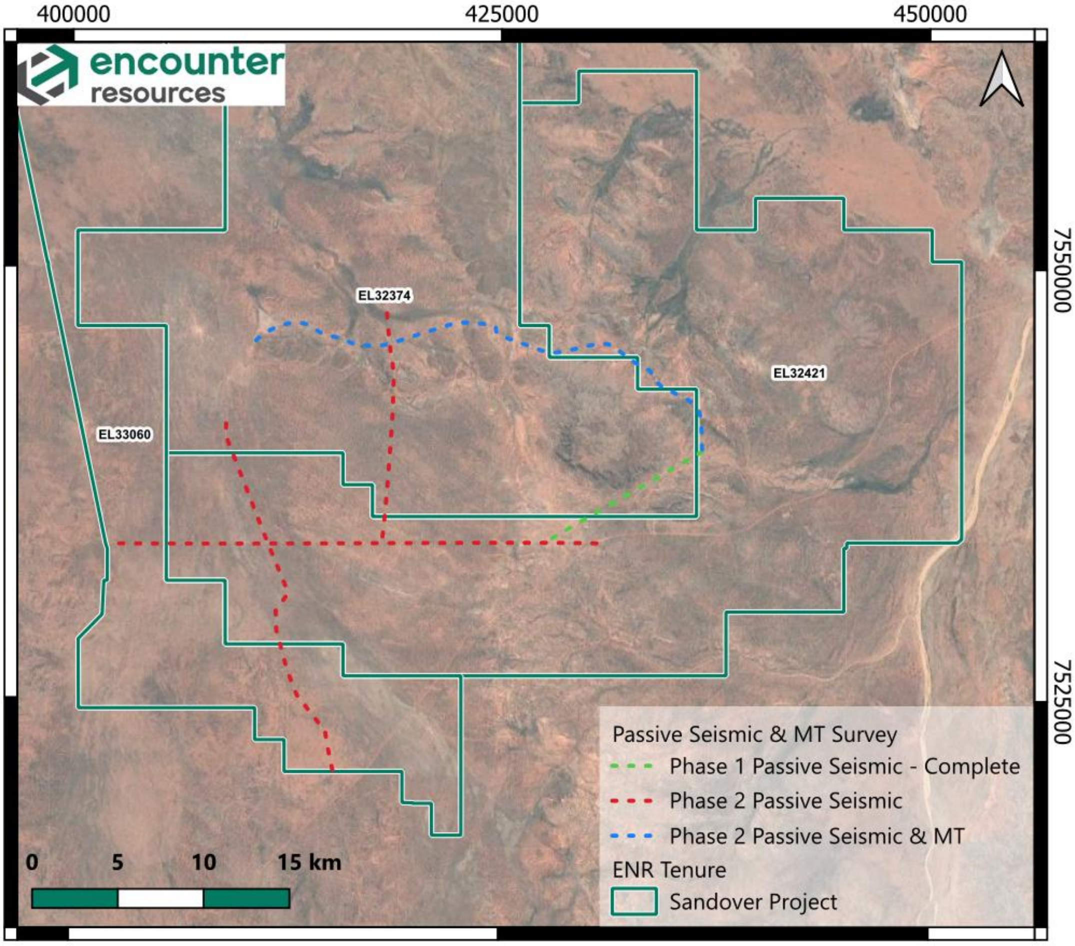

Figure 5. Location of Passive Seismic and MT Surveys, with completed passive seismic test line, and outstanding passive seismic and MT lines.

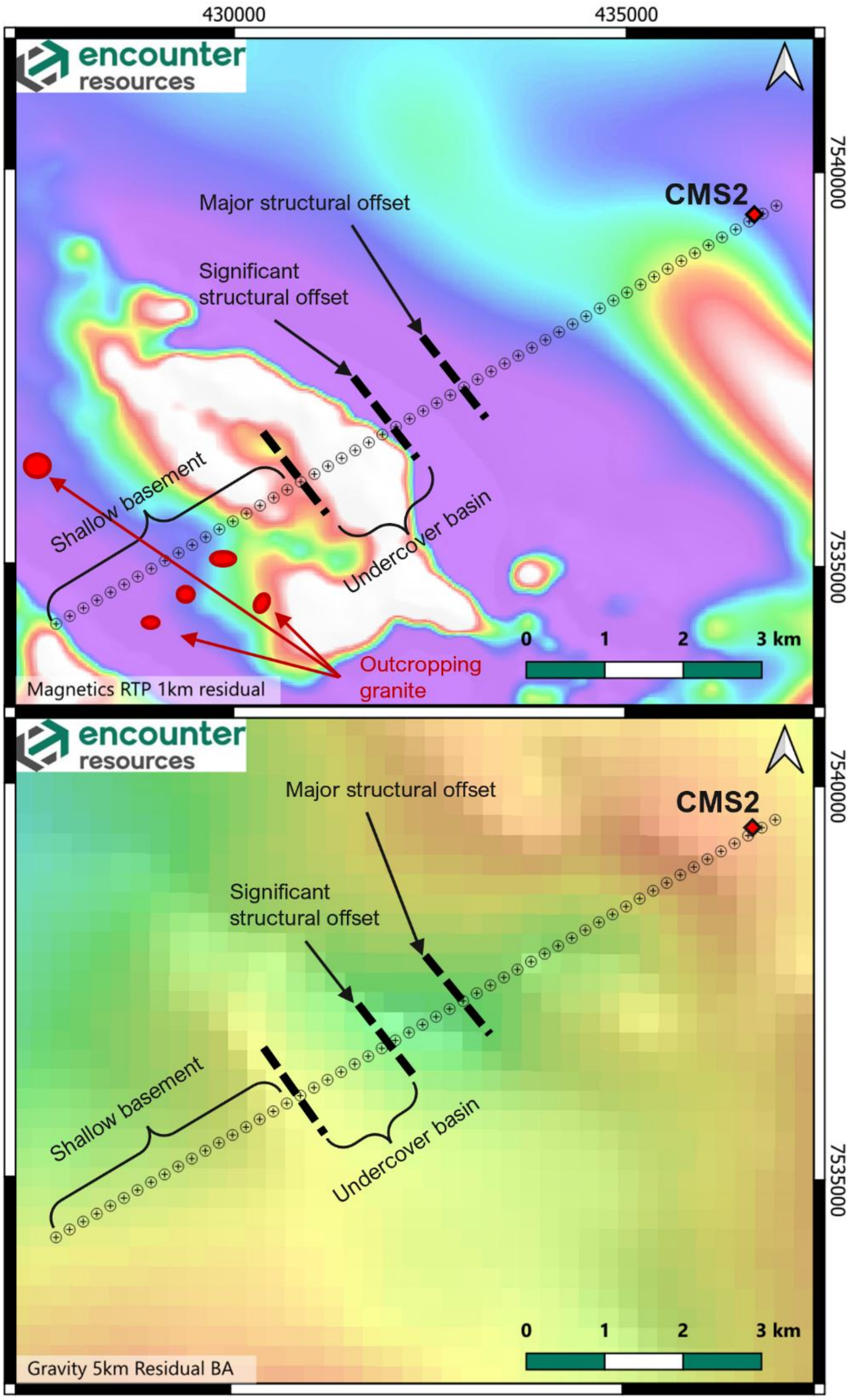

Figure 6: Passive seismic geophone locations over (a) magnetic RTP 1 km residual, and (b) 5 km residual gravity.

9. Results and interpretations

The Sandover passive seismic phase 1 had 54 geophones spaced 200 m apart along a 11 km trial line installed in the field. No geophones were damaged or lost during the two-week period they were in the field. The recorded data was then processed by CSIRO, using HVSR. The mean, Q2 and Q3 of the 2000 best models produced are plotted by depth and location along the line, and coloured by the mean, Q2 and Q3 of the S-wave velocity.

Cool colours represent higher velocities, which are interpreted to represent basement, with light blue shades interpreted as shallow basement. Warm colours represent slower velocities, which are interpreted as sediments. Darker shades represent transported cover and weathering, and lighter shades interpreted as Neoproterozoic strata. Depth to basement was confirmed to correlate at both ends of the line, with the southwest constrained by outcropping granite in the area, representing basement, and the northeast confirmed through comparisons with the depth of basement logged in drillhole CMS2. Both 3-layer and 4-layer parameterisation highlight the occurrence of shallow basal strata next to major structural elements, increasing confidence in their occurrence.

Newly acquired passive seismic data successfully images Neoproterozoic strata in the subsurface and maps the depth to basement with varying depths of transported cover and weathering. This process can be applied across other areas of exploration to improve understanding of basin-hosted mineral systems and generate drilling targets.

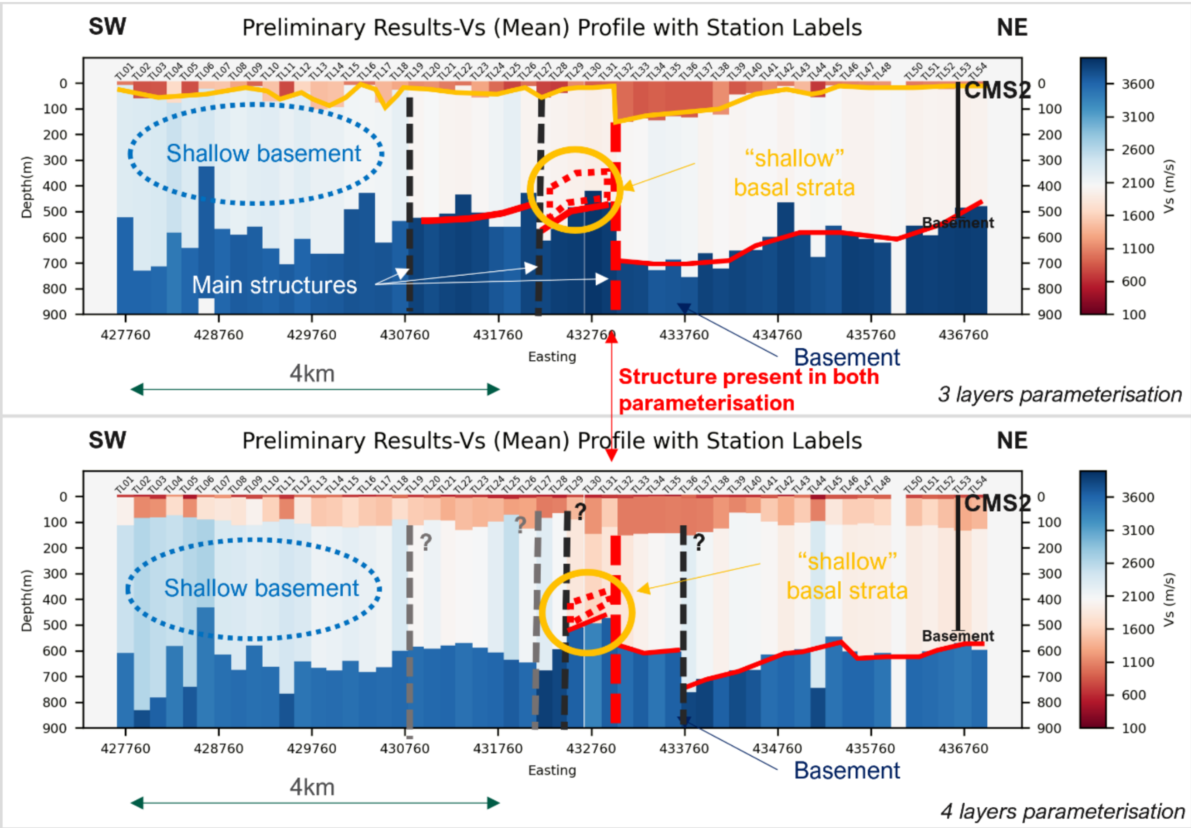

Figure 7: Passive seismic test line interpretation

10. Conclusions

The collection of passive seismic data as a part of a trial phase on the Sandover Project enabled the imaging of depth to basement, depth of transported cover/weathering, and major structures. This new data provides confidence in passive seismic as an analytical technique, which can be applied in other areas, to enable better targeting of reducing strata intersecting inverted structures. This will used to generate targets for exploration.

11. References

Dunster JN, Kruse PD, Duffett ML and Ambrose GJ. Geology and resource potential of the southern Georgina Basin. Northern Territory Geological Survey, Digital Information Package DIP007 (October 2007).

Appendix 1 – Geophones location
ENR_SA_Nodes location.xlsx

Appendix 2 – Test line raw data
ENR_SA_Test_Line_Data.zip