

Geophysics and Drilling Collaborations Program 2021

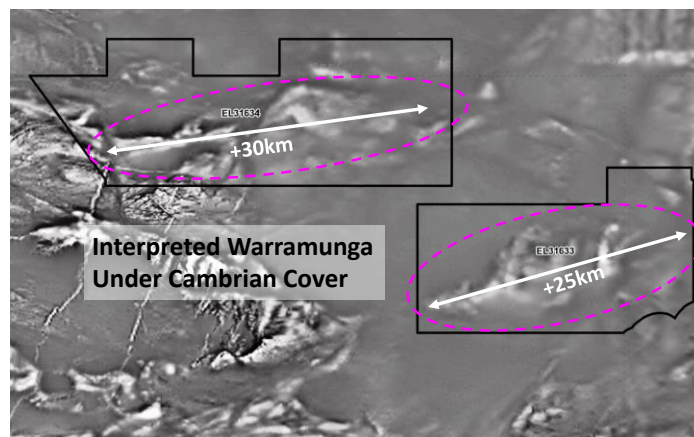
“Resourcing the Territory”

Geophysics Collaboration CONFIDENTIAL COMMERCIAL INFORMATION

KING RIVER RESOURCES LIMITED

Epenarra EL31634, Tennant East Project

FINAL REPORT



Large Untested Isolated Magnetic Bodies Under Cambrian Cover

Tenements: EL31634

Holder: Treasure Creek Pty Ltd

Map Sheets: 100K: Epenarra 5957; Oorradigee 5857, 5315 Coolibah 6057, Favenc 5958

250K: Frew River SF5303; Alroy SE5315, Bonney Well SF5302

Datum Zone: GDA94 MGA53

28 February 2021

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1. Abstract

King River Resources (KRR) applied for and was awarded in round 14 of the 2021 Geophysics and Drilling and Collaboration at its Epenarra Project on EL31634 within the Tennant East Region. The proposed programme involved a region scale (433km²) detailed airborne magnetic survey to assess the nature of basement and the nature of any targets beneath the basin sediments. The target mineralisation is for Iron oxide copper gold deposits with magnetic signatures associated with ironstone, most likely Tennant Creek style.

KRR tenements in the NT are held by Treasure Creek Pty Ltd which is a wholly owned subsidiary of King River Resources Limited ("Company"), an ASX listed public company (ASX: KRR).

The tenement is within the East Tennant Area of the recent government "Exploring For The Future" initiative. The tenement has only been covered by semi-regional geophysical surveys data which includes 200m line spaced air borne magnetics flown in 1999 and wide spaced 4km spaced gravity and regional AUSAEM and MT (AUSLAMP). There is no other exploration over the tenement except a RAB drill programme in the western most edge of EL31634 where only one hole penetrated the Cambrian cover. It is interpreted that the +25km magnetic bodies beneath the Cambrian cover are related to Palaeoproterozoic rocks equivalent in age to the Warramunga Formation which is the main hosting stratigraphy for IOCG deposits at Tennant Creek. The depth of Cambrian cover is expected to be between 80 and 200m.

The program was successfully completed with the detailed airborne magnetic survey over the whole of EL31634 (100m line spacing, 30m survey height) totalling 6,035 line km.

The detailed survey has identified numerous discrete high magnetic anomalies along structural and lithological trends. KRR is confident that these anomalies are associated with Warramunga equivalent rock units which are host to the IOCG gold deposits of the Tennant Creek Gold field. Fifteen historical holes were drilled at the western end of the tenement of which only one hole penetrated the cover (at 67m) intersecting a few metres of what was interpreted to be Warramunga Formation equivalent rocks before ending. Cover rocks are interpreted to range from only 67m to 100m across the tenement. These anomalies present quality IOCG targets within rocks shown to be Warramunga equivalent.

Comparison of the pre-100m survey images of magnetic bodies versus images of the new data can be seen in the two figures below. The nature and positions of the targets identified in the application document are much more defined and details within higher zones are now evident.

The airborne magnetic and passive seismic surveys have assisted with Regional geological understanding of the area – more understanding of the nature of the basement rock trends and structures – and King River Resources exploration/target prioritising on EL31633/31634 and our surrounding tenements. The detailed magnetics have confirmed and defined targets for prioritisation and further exploration.

Combined with 2020 collaboration work involving passive seismic to determine depth to basement this survey has provided excellent targeting opportunity's that will be pursued. Recommended further work would include gravity surveys and ground magnetics over priority targets and also VTEM Max over EL31633 and EL31634 with an aim to provide quality drillable IOCG and basinal stratiform copper targets.

2. Introduction

King River Resources (KRR) took part in the round 14 of the Geophysics and Drilling and Collaboration applications and was awarded a collaboration at its Epenarra Project within the Tennant East Region.

The programme was a detailed air magnetic survey to assess the nature of basement and the nature of any Iron Oxide Copper Gold (IOCG) targets beneath the basin sediments.

King River Resources tenements in the NT are held by Treasure Creek Pty Ltd which is a wholly owned subsidiary of King River Resources Limited ("Company"), an ASX listed public company (ASX: KRR).

EL31634 is part of King River Resources Epenarra Project and is located approximately 100 kilometres south east of Tennant Creek in the central part of the Northern Territory (Figure 1). EL31634 an area of 525.97 square kilometres (168 sub blocks).

Access to the area is by the sealed Stuart Highway south from Tennant Creek, and then by the Kurundi Road and unsealed station tracks. Kurundi Road leads to Epenarra station.

EL31634 is mostly over Crown Land (NT Por 4469)

Figure 2 and 3 shows the location of the Exploration License in relation to the main highways and cadastre.

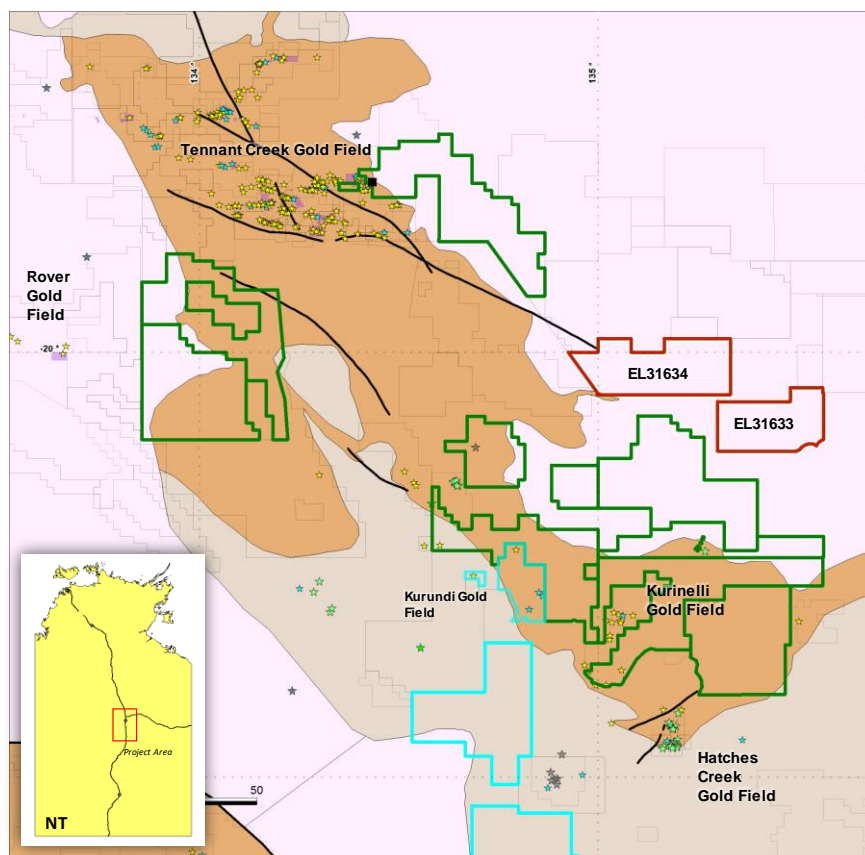


Figure 1: Project Location Plan

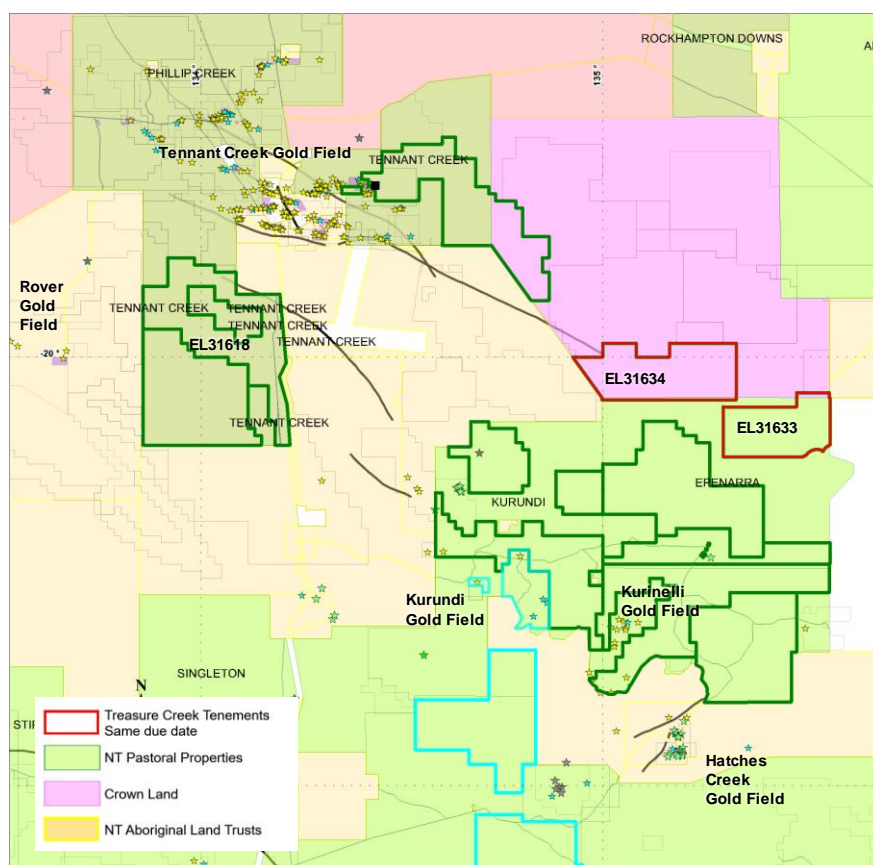


Figure 2: Tenement Location and cadastre

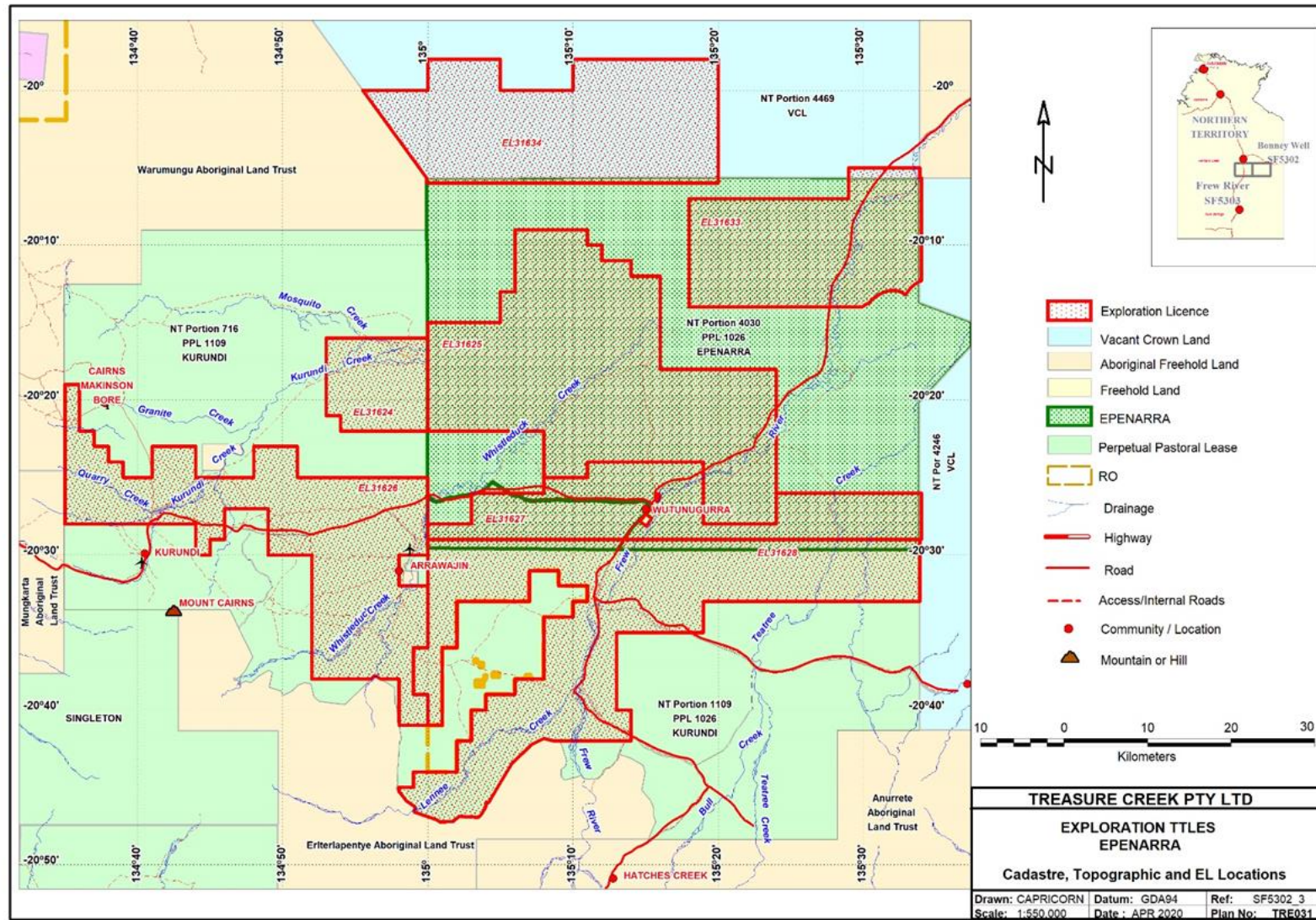


Figure 3: Tenement Location and cadastre

3. Regional Context

Regional geology

The area is located within the Tennant Creek Inlier which consists of a gneissic basement unconformably overlain by Proterozoic sediments, intruded by Proterozoic (syn-post tectonic) granites (the 1850Ma Tennant Creek Supersuite and the 1820-1810Ma Treasure Creek rocks) and subsequently overlain by Cambrian sediments. The Cambrian Georgina and Wiso Basins flank the Inlier to the east and west respectively (Figure below).

The Warramunga Formation (1860Ma) hosts the gold-copper-bismuth mineralisation of the Tennant Creek goldfield. The mineralisation is associated with ironstone. Gold mineralisation is still known to occur in younger units of the Ooragadigee Group but it is less common.

The Davenport Province, to the southeast, is a sub-tectonic unit of Tennant Creek Inlier and comprises of highly folded Proterozoic sediments and volcanics rocks of the Hatches Creek Group intruded by late Proterozoic granites.

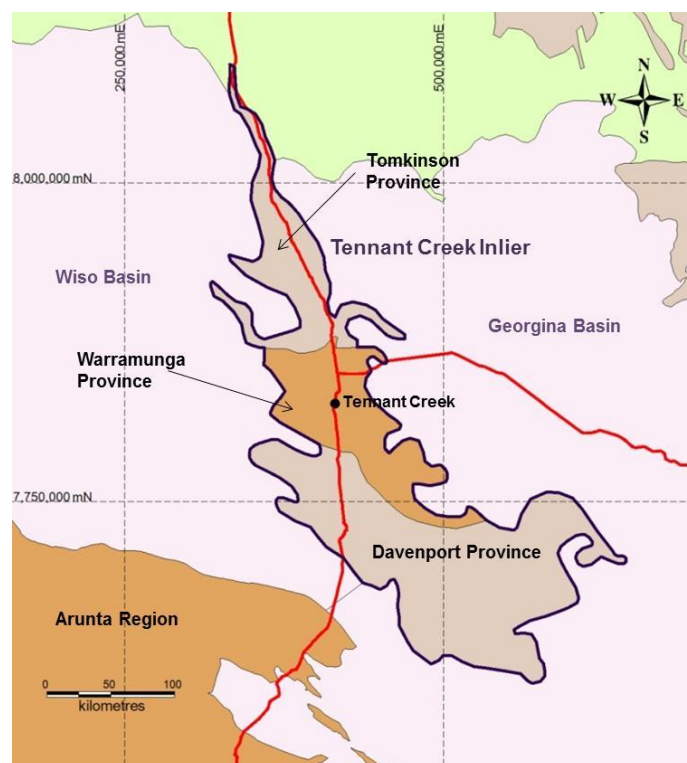


Figure 4 Tennant Inlier Provinces and Basins.

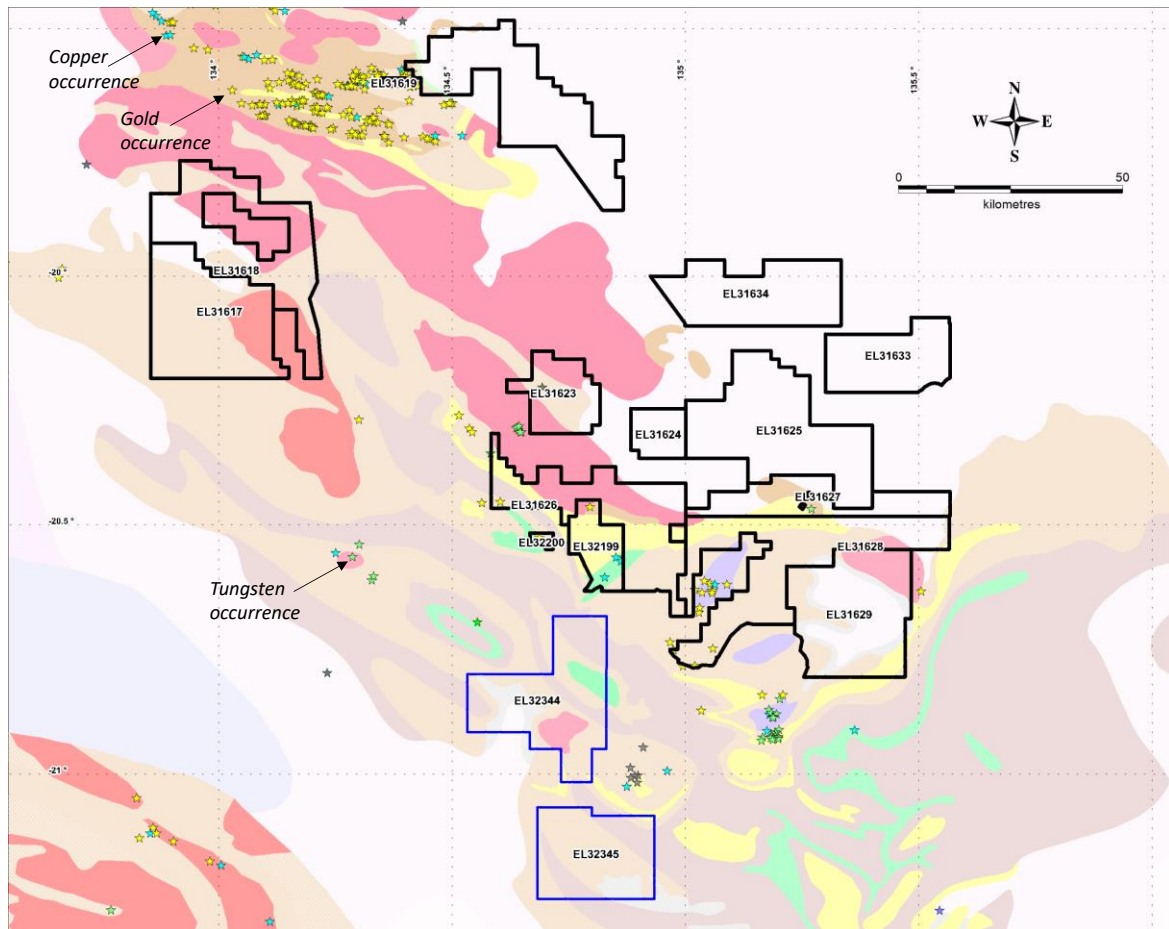


Figure 6 Regional Geology, KRR tenements and Mineral Occurrences

EL31634 is situated within the Tennant Creek to Mount Isa focused integrated study area (Figure 6) defined by an approximately northeast-trending corridor extending for 350 km and to the Queensland border (Figures 6 and 7). The area is almost completely covered by the Georgina Basin which obscures its potential to host mineral systems. The East Tennant area has been selected as an area for ongoing detailed geoscientific investigation through integration of new multi-disciplinary and multi-scale geoscience data (Australian Government Geoscience Australia, Exploring the future website <https://www.ga.gov.au/eftf/minerals/fis/east-tennant>).

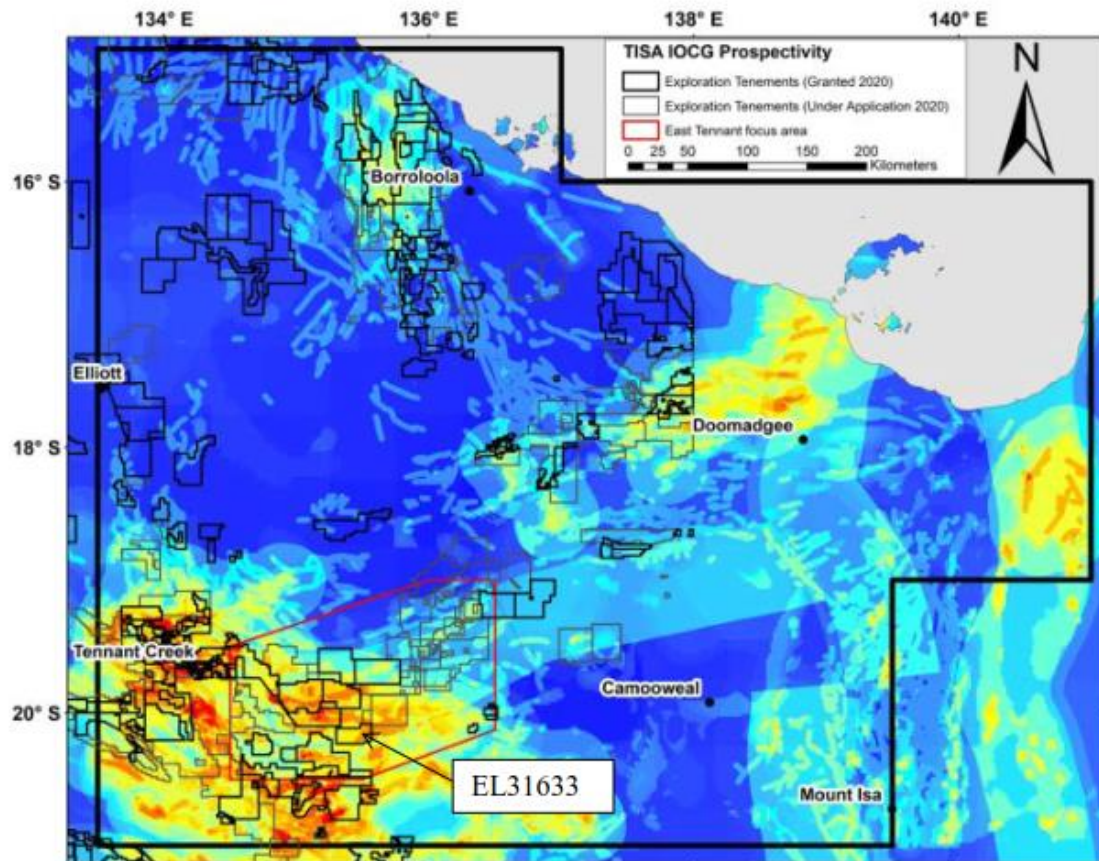


Figure 5: EFTF region IOCG mineral systems potential map with East Tennant Area shown in red (Hackney et al, 2020). EL31633 indicated.

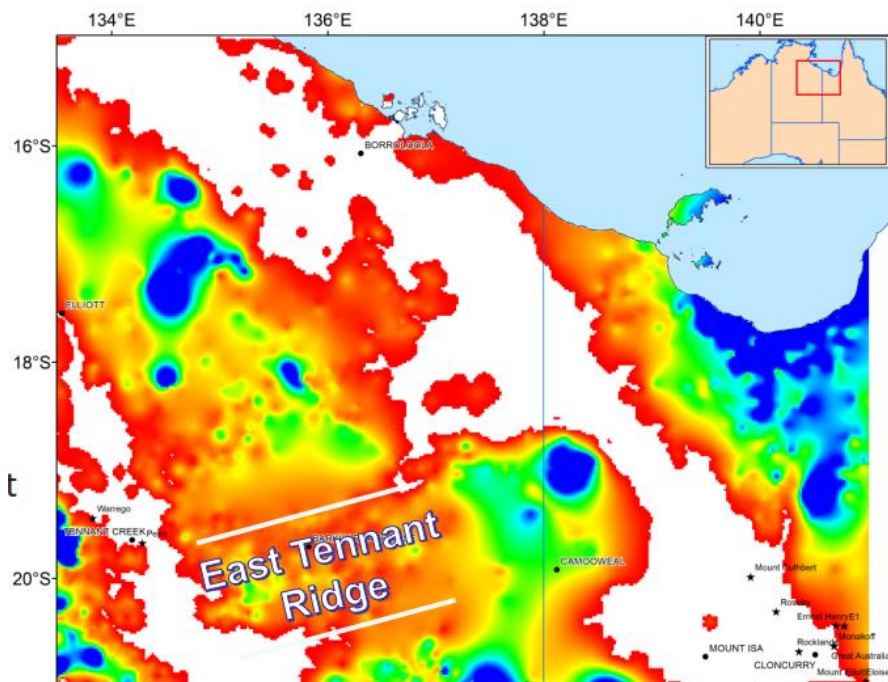


Figure 6 Tennant East Ridge undercover (Schofield 2019).

The prospectivity model was created using prioritised layers of input data (sources of ore metals, hydrothermal fluids, energy sources, crustal and mantle architecture, fluid/magma pathways and physiochemical gradients - figure 8), (Schofield 2019).

Igneous and sedimentary ages of the palaeo Proterozoic rocks under the Cambrian cover within the East Tennant area have been found to be of similar ages to Tennant Creek (Schofield 2109).

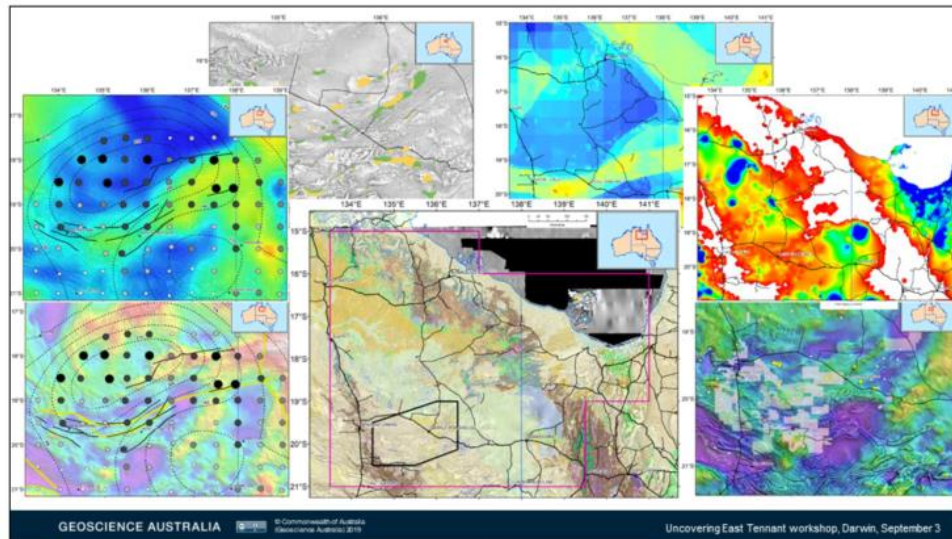


Figure 7 Tennant East Uncovering potential – combining layers of information (Schofield 2019).

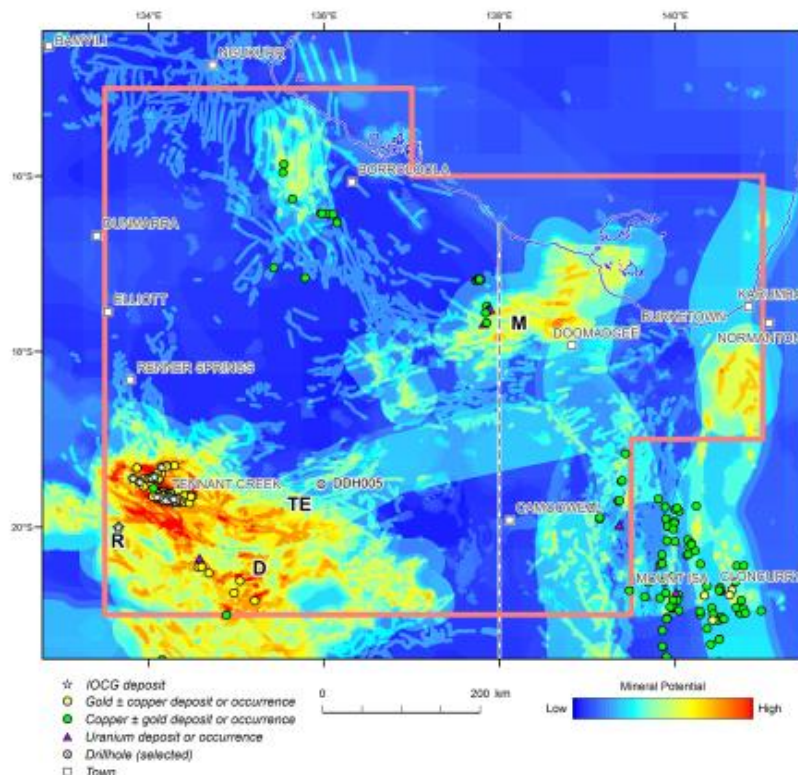


Fig. 10. Potential for pre-1800 Ma IOCG deposits in the Tennant Creek – Mt Isa study area (pink outline). Locations of significant IOCG deposits and Cu, Au and U mineral occurrences are shown to illustrate spatial correlations with the prospectivity results; deposits of other commodities such as Zn, Pb, not shown. Abbreviations: D – Davenport Province area; M – Murphy Inlier area; R – Rover area; TE – area east of Tennant Creek; DDH005 – location of studied drill hole. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Figure 8 IOCG Potential Map for Tennant Creek East (Skirrow et Al. 2019).

Project Area Geology

The project area lies in the Tennant East area. It is mapped to be entirely covered by Cambrian sediments (1:250K Frew River). The nearest exposed Palaeo-Proterozoic rocks are 25km to the south and 30km to the west of EL31633. These rocks are mapped as Warramunga Equivalent. Interpretation of depth of Cambrian cover suggests depths of up to 200m. This is based on 1:250k geological cross sections to the north of the project area (figure below), drilling at the western end of EL31634 (intersected the Paleo-Proterozoic at 67m). Government Regional EM sections suggests depths of less than 200m across both tenements (section 4, Figure 13).

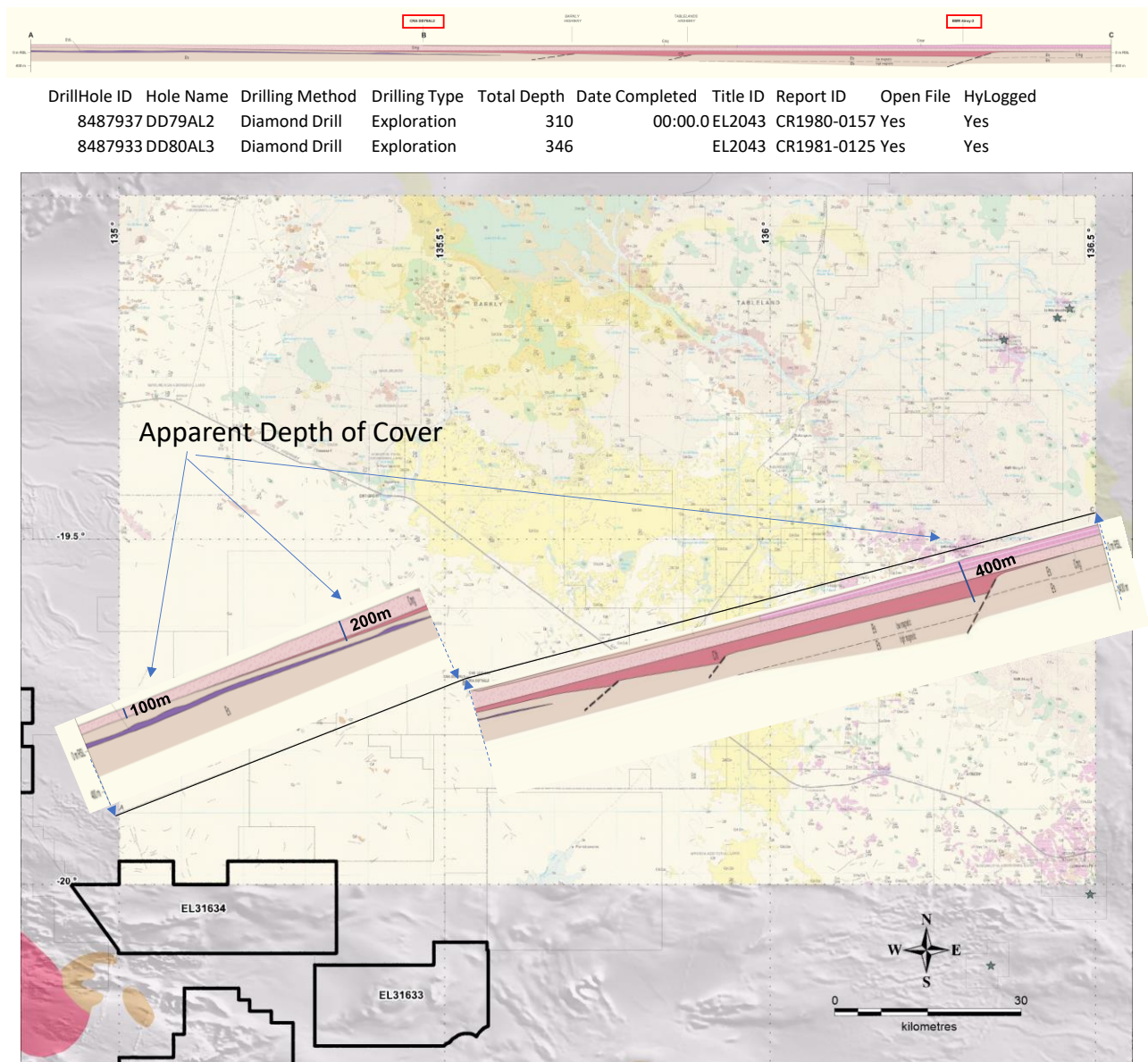


Figure 9 1:250K geological sections north of EL31633 and EL31634 suggest basin depth is approximately 100 to 200m deep.

Interpretation of magnetics and gravity data within EL31633 show a lensoidal magnetic complex and coincident gravity high region with a strike of +20km that strikes ENE through the centre of the tenement. This is likely to be a 'raft' of Palaeoproterozoic, Warramunga equivalent rocks between two felsic intrusives. The 'raft' is cut and bounded by NNE trending fault zones (Figure 10), that are along strike

of a major NE trending fault. Structural complexity is evident within the 'raft' with preferential rotation of magnetic bodies and also arcuate magnetic responses indicating intrusive bodies. EL31634 covers a magnetic body of +30km interpreted to be the continuation of Warramunga formation sediments outcropping to the west, under Cambrian Cover (Figure 10). There are no Modat mineral occurrences with 20km of the tenements (Figure 5).

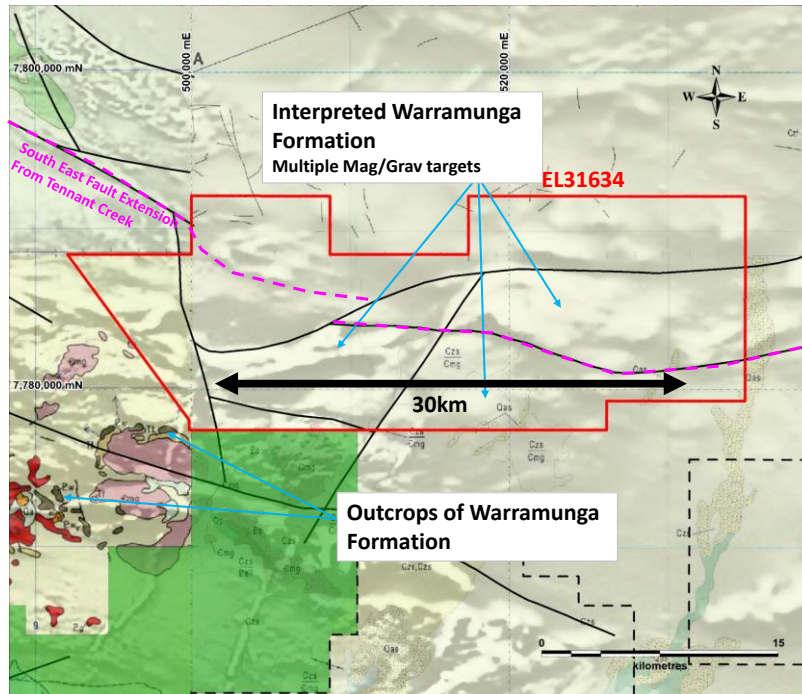


Figure 10 Magnetic high area within EL31634 interpreted to be Warramunga Formation equivalent stratigraphy under Cambrian cover

4. Previous Exploration

The tenements are within the East Tennant Area of the recent government “Exploring For The Future” initiative (Figure 5). The tenement has only been covered by semi-regional geophysical surveys data which includes 200m line spaced aeromagnetics flown in 1999, wide spaced 4km spaced gravity and regional AEM (AUSAEM) and MT (AUSLAMP).

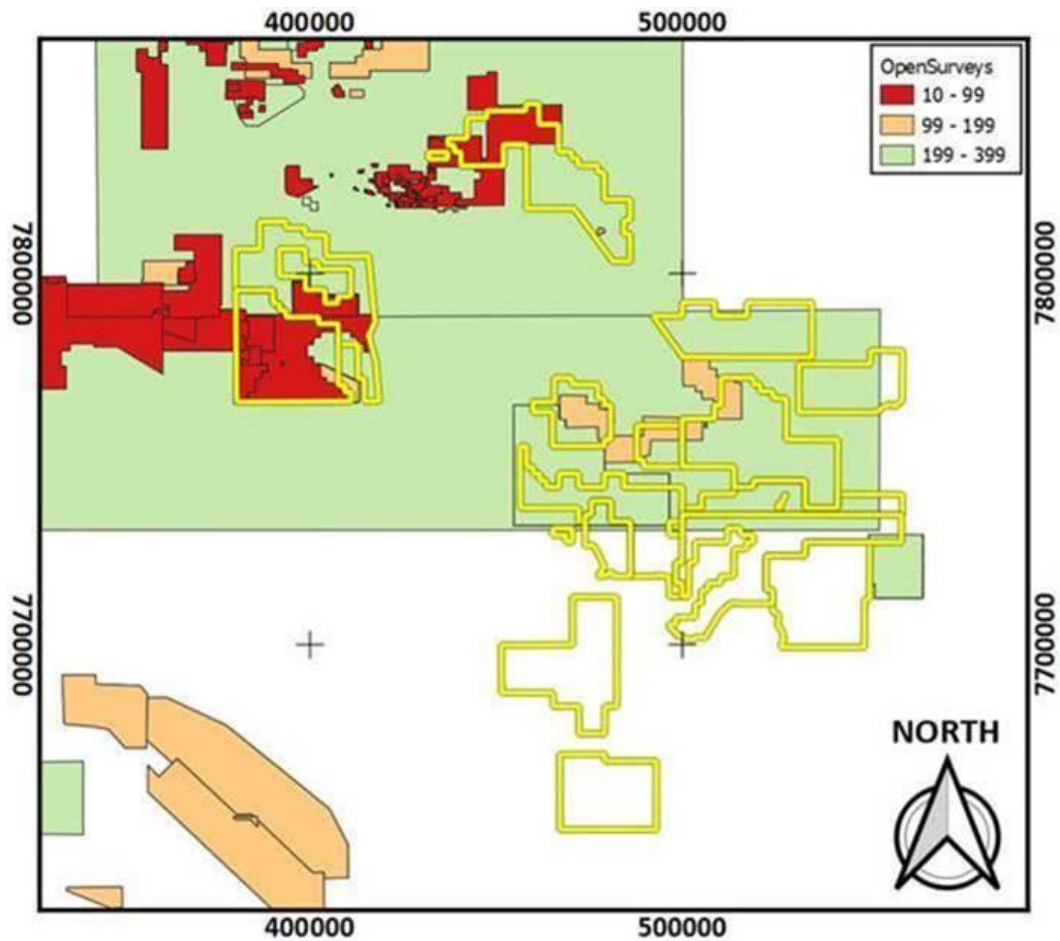


Figure 11 Geophysical Survey Line Spacing in Project Area

The tenement location is outside recently commissioned East Tennant 2km gravity and infill MT surveys, Figure below, with no higher resolution company airborne or ground survey data collected over the tenement.

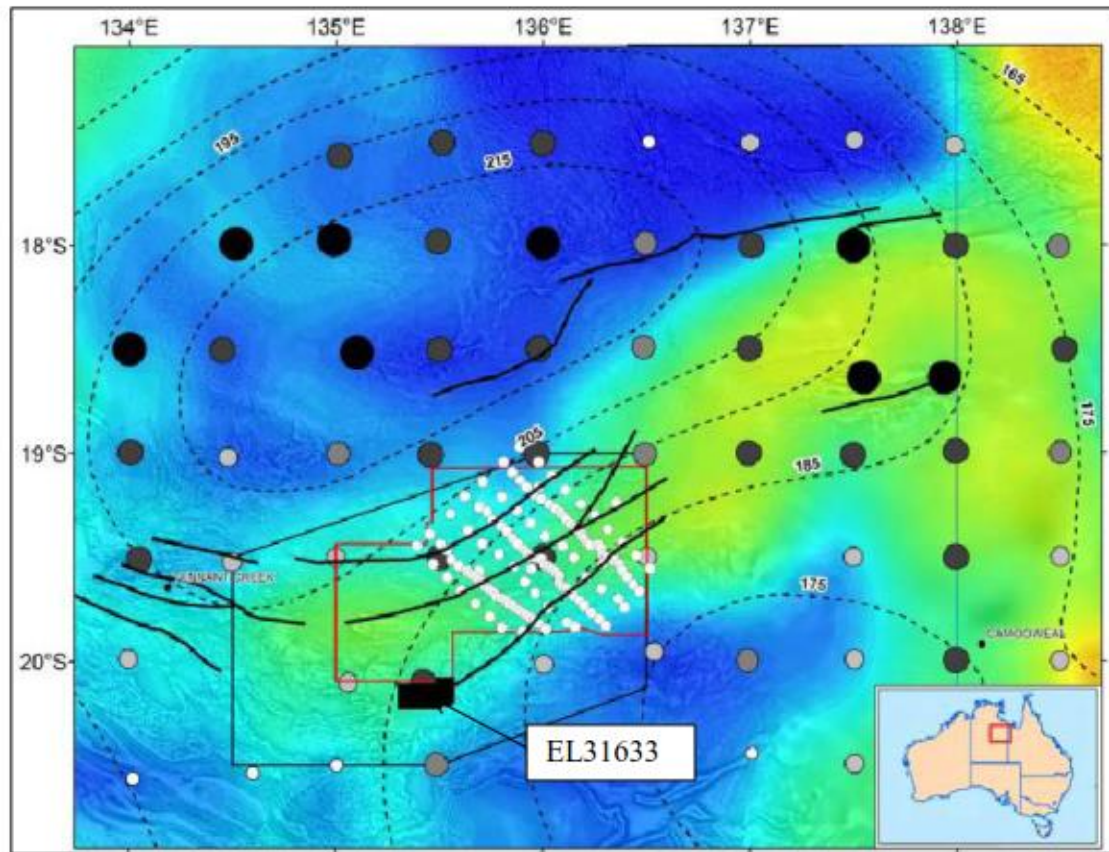


Figure 12 East Tennant Area infill gravity and MT survey locations (Hackney et al, 2020).

Government AusEM 2017-2018 Tempest Airborne EM surveys also cover the tenements and although it is not clear what is indicated by the conductivity highs, they suggest the depth of cover is less than 200m (Figure below).

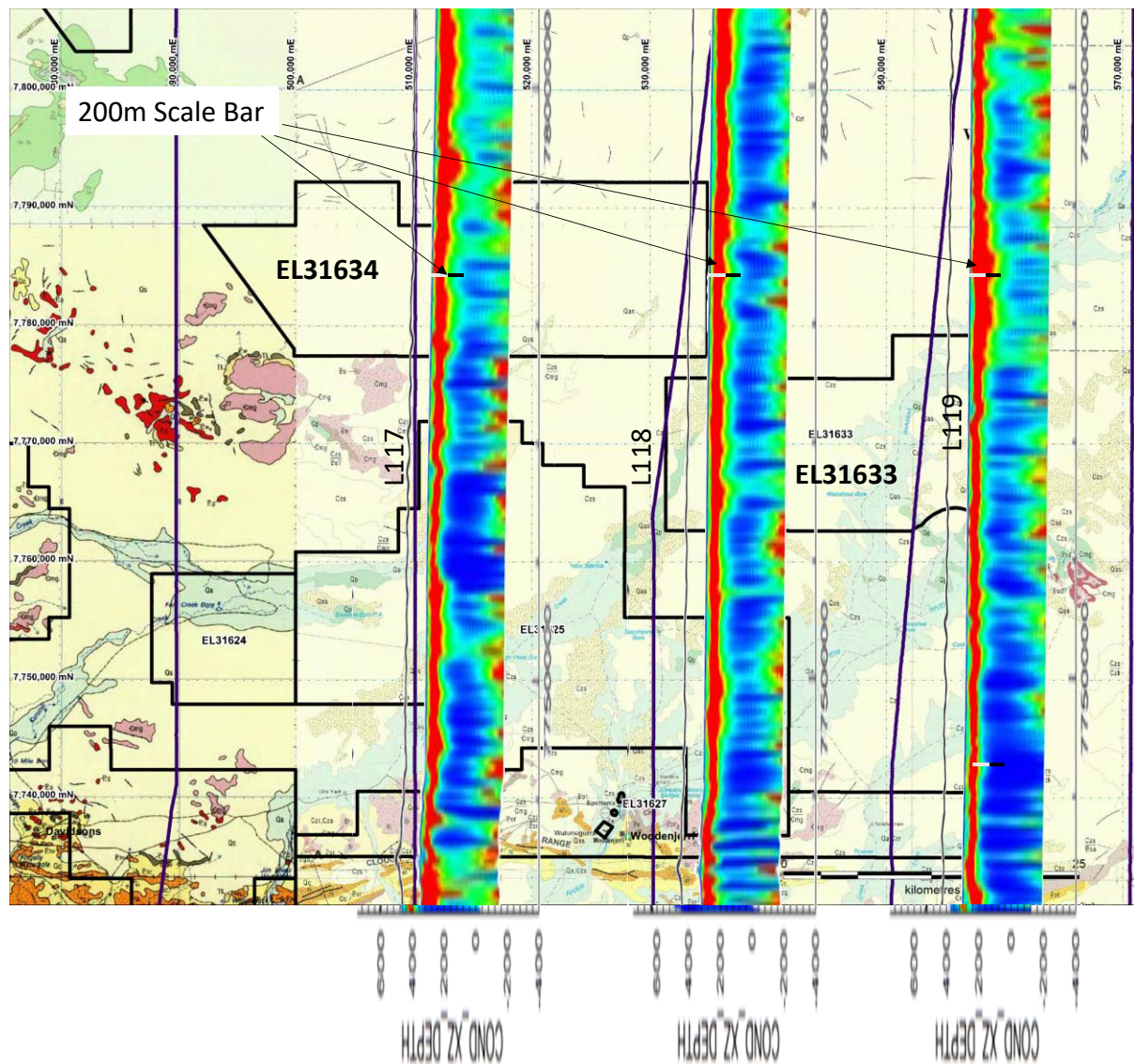


Figure 13 EM Surveys that cross EL31633 and EL31634 interpretation suggest cover depth is less than 200m.

Review of historic water bores in the area showed drilling failed to penetrate cover (figure below):

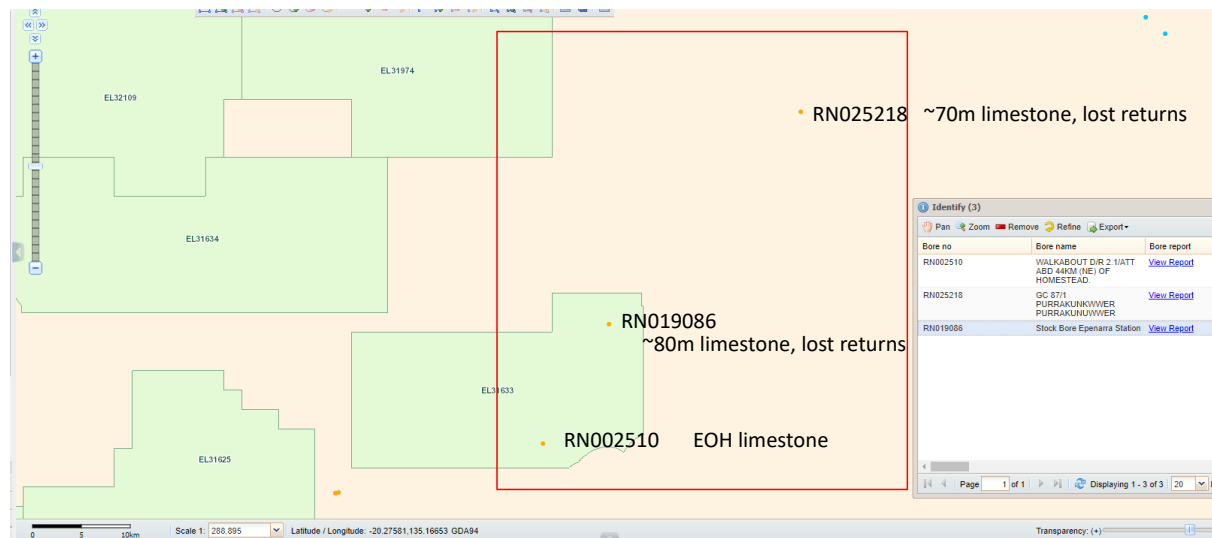


Figure 14 Map showing location of water bores, all ended in Cambrian cover units.

EL31634 has had 9 tenements granted between 1977 and 2013 (table below). Full exploration review revealed that a small RAB drill programme covered the western most corner of the tenement (EL8272, CR19980261). A single drill hole penetrated the Cambrian cover at 67m depth intersecting what is interpreted to be Warramunga equivalent sediments (Figure below).

Table 1 Historical Reports over EL31634

Title ID	Reports	Link to Report/s	Holder	Grant Date	Cessation Date	Title status
EL8272	CR1998-0570, CR1998-0261, CR1997-0178, CR1997-0033, CR1996-0335, CR1996-0121, CR1995-0131	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL8272	ANDROMEDA METALS LIMITED	15/12/1993	14/12/1999	Historical
EL8920	CR1998-0021	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL8920	ANDROMEDA METALS LIMITED	19/08/1996	30/07/1997	Historical
EL10178	CR2004-0239, CR2003-0012	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL10178	IMAGE RESOURCES NL	23/01/2002	12/01/2004	Historical
EL1184	CR1980-0233, CR1980-0028, CR1979-0062	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL1184	Not Recorded	19/12/1977	28/12/1980	Historical
EL5024	CR1990-0258, CR1989-0277, CR1989-0124, CR1988-0031	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL5024	Not Recorded	16/01/1987	17/01/1990	Historical
EL24887	CR2010-0986, CR2010-0669, CR2010-0437, CR2009-0748, CR2009-0529, CR2008-0380, CR2007-0363	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL24887	CASTLE RESOURCES LTD	08/08/2006	19/11/2010	Historical
EL24258	CR2005-0414	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL24258	RED METAL LIMITED	24/11/2004	21/10/2005	Historical
EL26818	CR2013-0001, CR2012-1194, CR2011-1169, CR2010-1052, CR2010-0052	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL26818	NORTHERN MINERALS LIMITED	06/02/2009	08/01/2013	Historical
EL26775	CR2013-0001, CR2012-1194, CR2011-1169, CR2010-1052, CR2010-0051	https://geoscience.nt.gov.au/gemis/ntgsjspui/simple-search?query=EL26775	NORTHERN MINERALS LIMITED	06/02/2009	08/01/2013	Historical

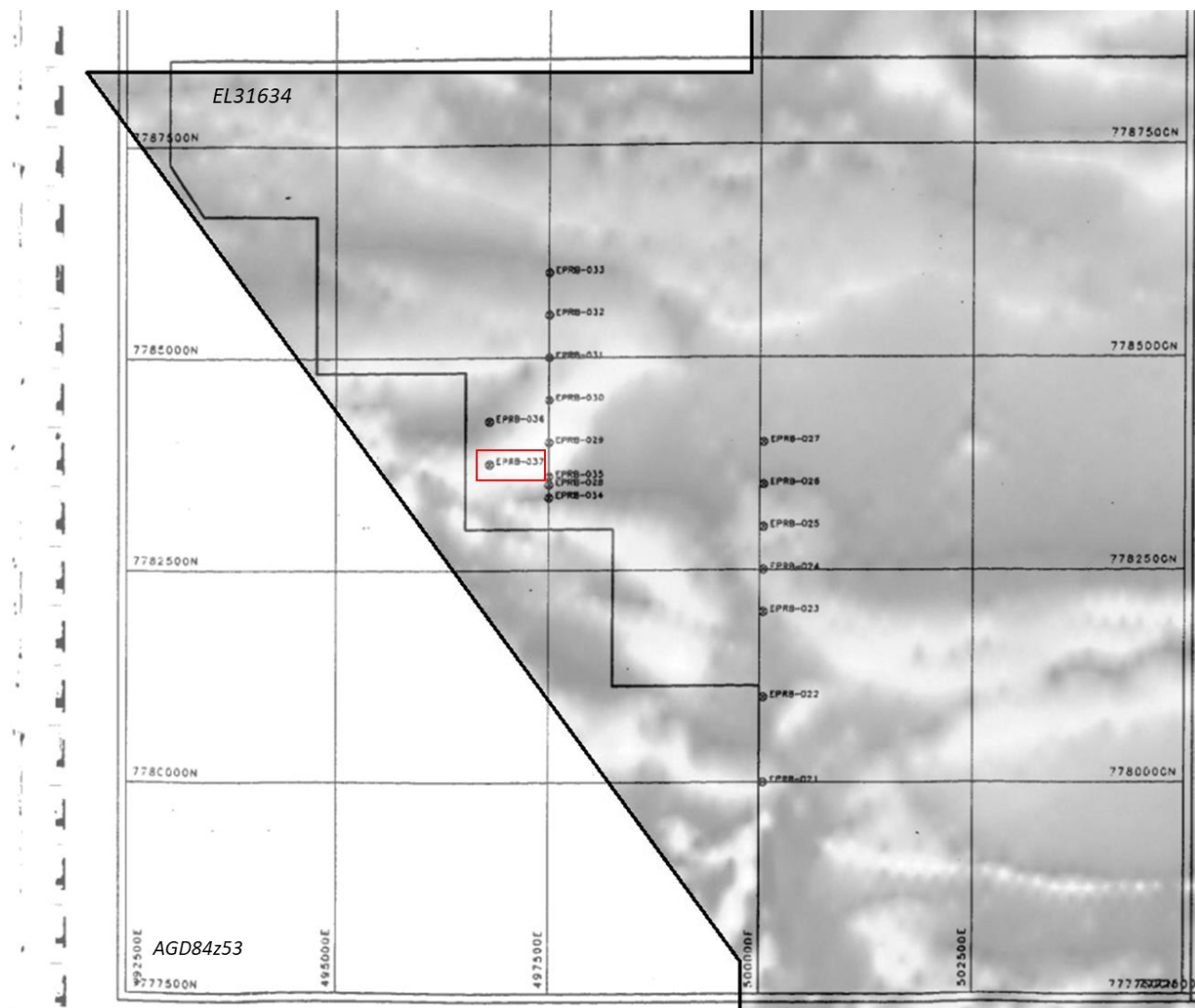


Figure 15 Location of historical drilling western most end of EL31634, to be used for an orientation line for the Tromino Passive Seismic.

5. Exploration Concept

Exploration Model

King River Resources is exploring for IOCG style mineralisation, most likely of the Tennant Creek Style. For this collaboration application exploration is targeting the classic magnetite rich ironstone model.

Traditional exploration methods for Tennant Creek IOCG deposits have targeted coincident magnetic and gravity highs where dense ironstone and magnetite bodies have formed (Figure below) but copper-gold mineralisation may also be associated with hematite bodies with little/no magnetite (a gravity high without a magnetic high). Known deposits such as Nobles Nob, Troy and Marathon (discovered in 1990s) had very weak if no magnetic signature.

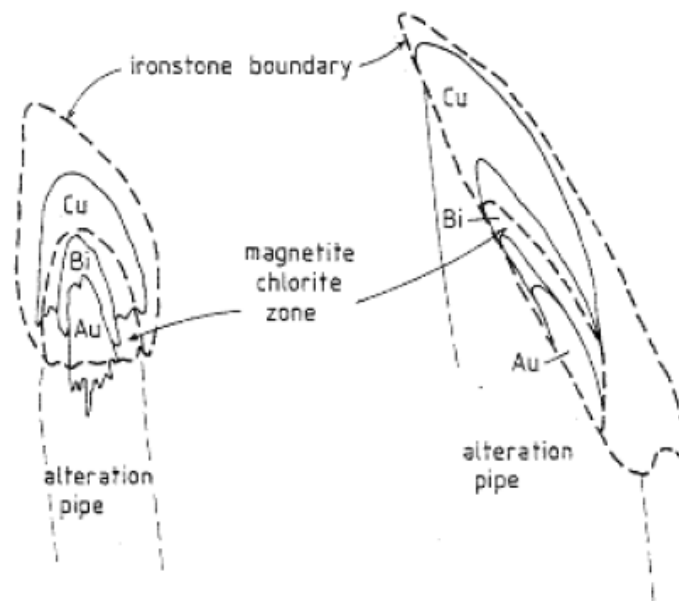


Figure 16 Traditional Tennant Creek Model, metal zonations in Typical Tennant Creek Ironstone (Large 1991).

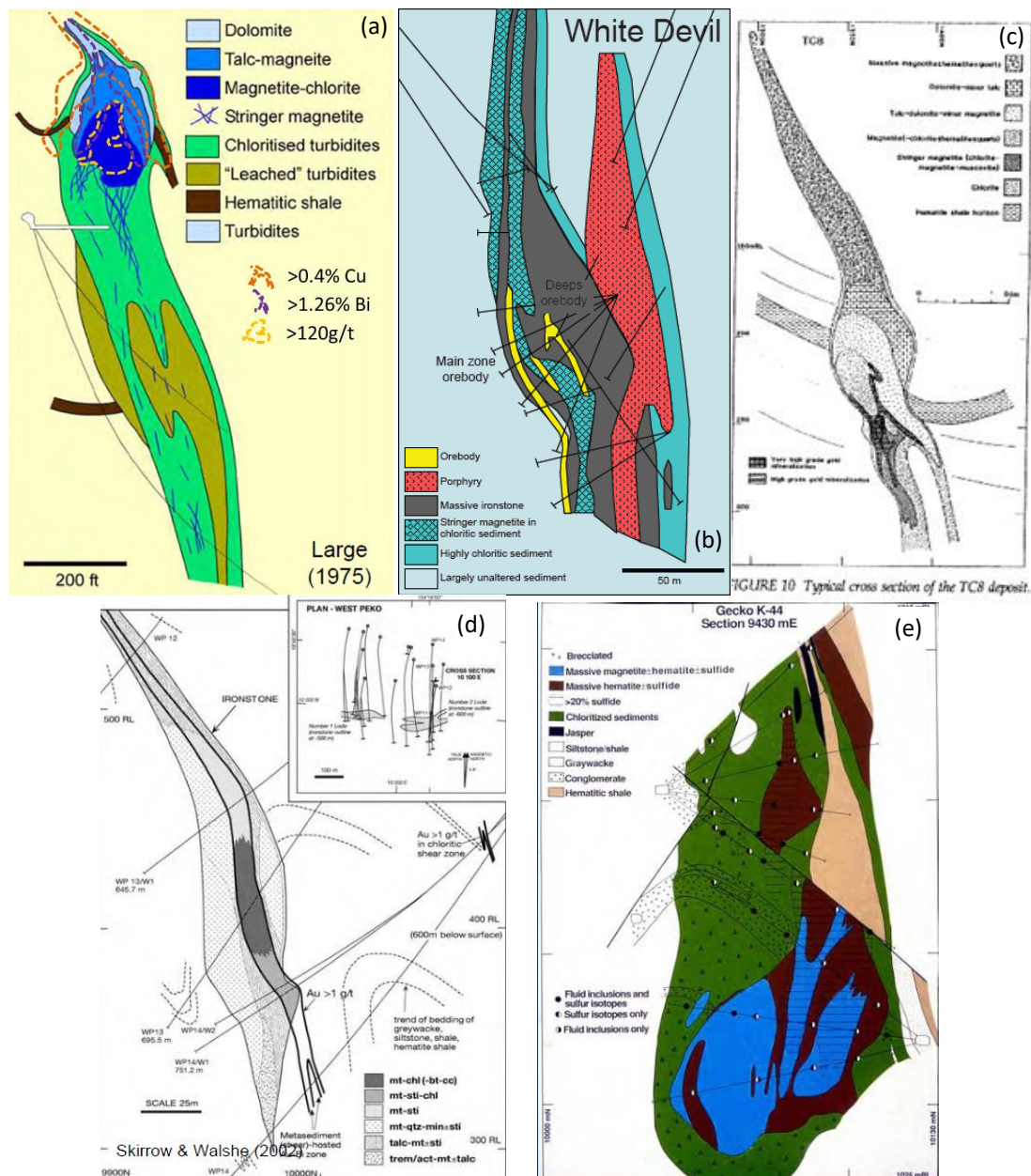


Figure 17 Different Tennant Creek Style IOCG deposits (a) Juno (Hudson et al. 2006), White Devil Deposit Section (Huston et al. 2006), TC8 Deposit Section (Large 1991), Peko Deposit Type Section (Huston et al. 2006), Gecko Type Deposit Cross section (Huston et al. 2006).

Stratigraphically, all the Tennant Creek IOCG deposits are within the Warramunga Formation making it the primary target stratigraphy, however there are indications that potential exists for significant gold mineralisation to be hosted in younger units, evidence includes the younger age of the quartz vein gold mineralisation at Tennant Creek, younger age of Hatches Creek and Kurinelli gold mineralisation, and the theory that the younger Treasure Suite granites are the main mineralising source (Wyborn et al 1998).

Interpretation of magnetic and gravity imagery indicates that EL31633 and EL31634 cover large areas of Warramunga Formation (the stratigraphy that is host to the Tennant Creek Gold Field) adjacent to granite units of the Tennant Creek and Treasure Creek Suites, under cover sediments of the Cambrian Georgina Basin.

The project offers excellent IOCG exploration potential with the following factors:

- The granitic bodies (evident in the magnetics) could have provided energy sources/driving mechanisms for mineralisation and possibly also the source of mineralising fluids.
- The major structures and internal structural complexity of the lensoidal magnetic complex provides excellent fluid flow regimes and trap sites for mineralisation.
- The host stratigraphy is interpreted to be Warramunga formation or stratigraphically equivalent units.
- The depth of cover is interpreted to be less than 200m which means a discovery would be of drillable and of reasonable economic depths (dependant on discovery size).
- The area is untested

Main Targets

Seven strong magnetic anomalies ranging in strike length from 500m to 3km are evident within EL31634 and are considered prospective IOCG targets for follow up work, see - Figure below.

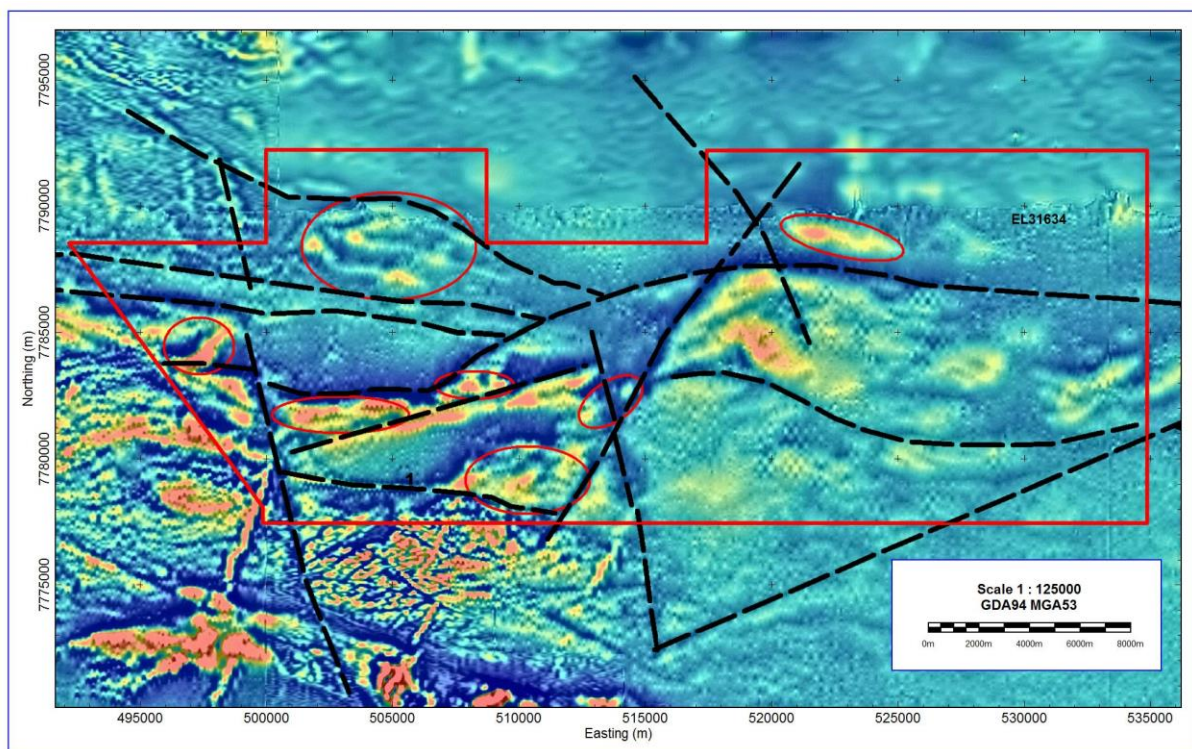


Figure 18 Total Magnetic Intensity 1st VD image with interpreted major structures and magnetic anomalies of interest

Rationale

King River Resources is proposing a combined geophysical approach in preparation for drill testing of the magnetic bodies with detailed airborne magnetics following on from the 2020, Round 13 collaboration, ground passive seismic survey.

The goal of the proposed programme is to assess:

- The nature of the strongest magnetic highs within the magnetic complex in EL31633.
- Identify major structures, intrusive bodies and their relationship to basin geomorphology to assist with understanding the nature of the basin cover over the +30km magnetic body (interpreted to be Warramunga formation rocks).

As there has been no IOCG exploration over this tenement other than the historic air magnetic surveys in 1999 it is reasonable to initially target the more magnetite rich bodies of the Tennant Creek style IOCG deposits. Tennant Creek IOCG deposits are relatively small bodies and the most effective exploration method for such targets over such a large area is a detailed airborne magnetic survey.

It can be demonstrated that even at 200m line spacing the main magnetite rich Tennant Creek ironstone bodies are identifiable in airborne magnetics (figure below), however structural details, peaks of response and smaller deposits are subdued or not visible making prioritisation of targets ineffective at 200m resolution. Also, positionally the targets are not drillable at 200m line spacing as the modelled body can significantly move (as much as 150m in the case from 200 to 100m spacing) as more detailed surveys are completed.

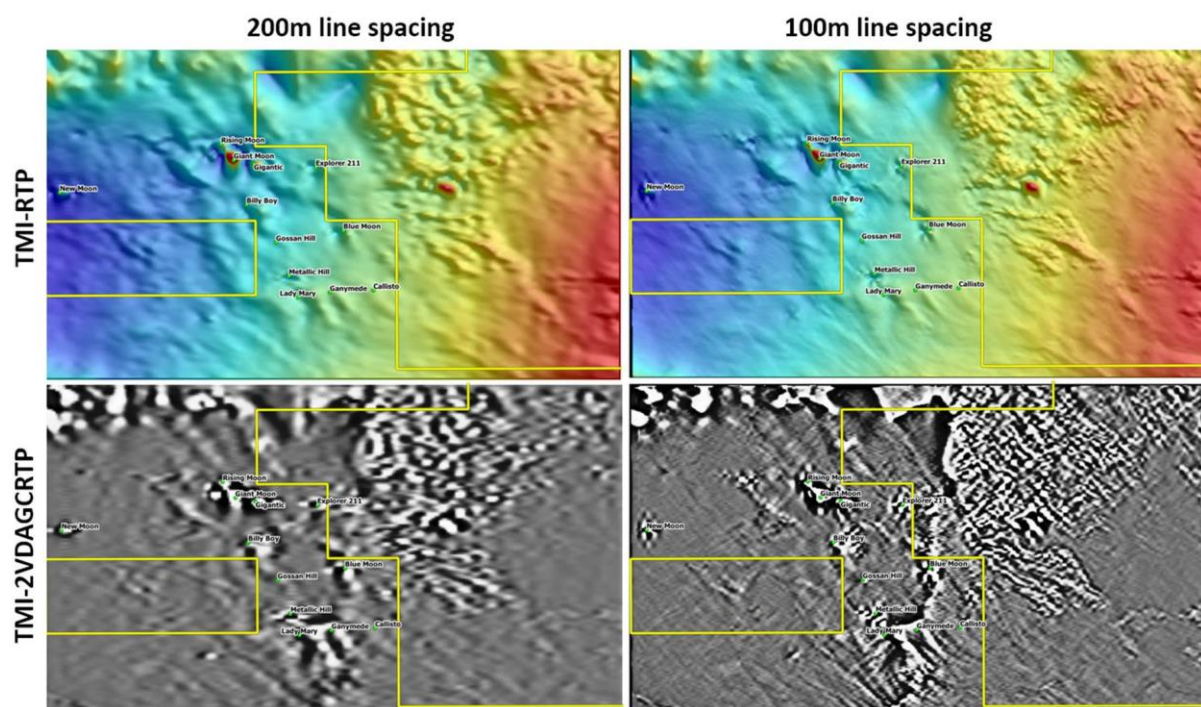


Figure 19 Reduction of airmag data from 100m to 200m lines pacing over the Tennant Creek Lonestar Area..

The images below are from the 2020 collaboration airborne magnetic survey over EL31633 and clearly shows the improvement gained from the detailed survey work.

The image below shows a closer view of target areas 2 and 4. With the new spacing there is a lot more detail and definition to the shapes and smaller anomalies of 100-200m become evident that were not

seen at the previous spacing. This is important given the typical small size of Tennant Creek style IOCG's.

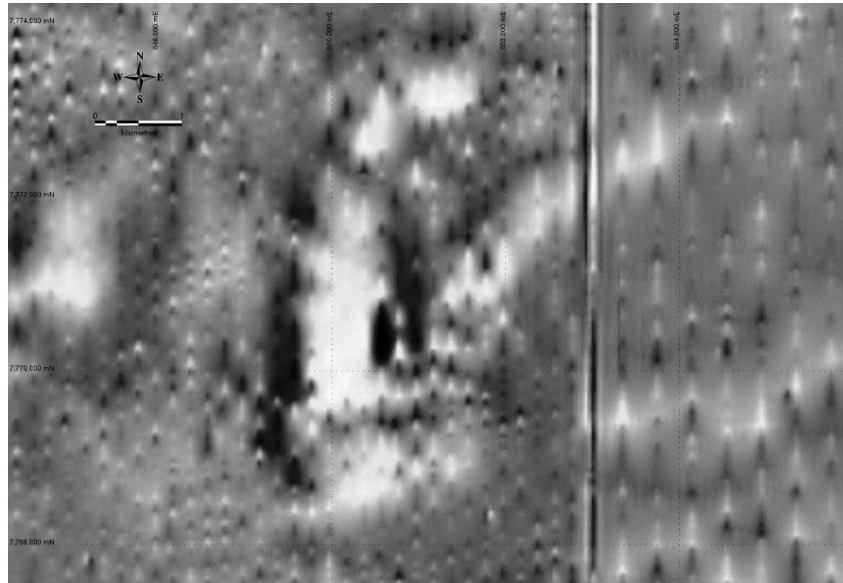


Figure 20 Total Magnetic Intensity 2nd° VD image close up of anomaly 2 and 4 – prior to 2020 survey

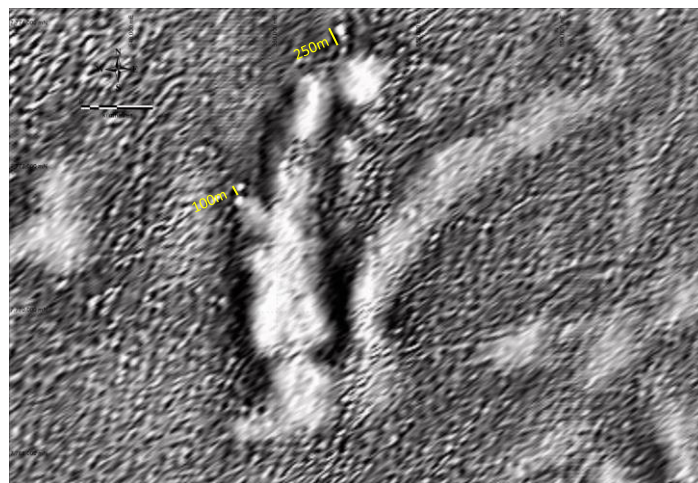


Figure 21 Total Magnetic Intensity 2nd° VD image close up of anomaly 2 and 4 – 2020 survey

Given the expected and unknown depth of cover (which would suppress geophysical details required for effective targeting), the small nature of the targets, the large untested area (+20km strike length) and the reliance on the interpretation that the magnetic bodies are Palaeo- Proterozoic Warramunga equivalent rock sequences then a combined geophysical approach following the Tromino Survey (to test Cambrian cover depth) and detailed 100m magnetic survey (to identify/characterise and locate magnetic bodies) is warranted prior to drill testing.

It is hoped that the programme will identify a new area of Warramunga equivalent rocks previously untested and to better delineate the eastern extension of major NNE structures clearly evident where cover is absent to the west, as well as identify/define any intrusive units. This knowledge can then be applied to other KRR tenements such as EL31619, EL31623 and EL36124 which are also in the Barkly/East Tennant Area as well as on EL31617/18 east of Rover.

6. Program Details

The proposed collaboration application was ongoing from work done in 2020 as part of round 13 collaborations. The application was for geophysical work in preparation for and to allow the effective drill testing of the interpreted Palaeo-Proterozoic rocks beneath Cambrian cover sequences over EL31634.

The proposal was a regional scale (>500km²) airborne magnetic survey.

- Detailed airborne magnetic survey over the whole of EL31634 (100m line spacing, 30m survey height); 597km², 6,035 line km.

Details of each survey are given below, and maps/data are provided in Appendix A:

Airborne Magnetism Survey:

Acquisition of high resolution airborne magnetic, radiometric and DEM data was carried out using a fixed-wing platform (eg. Cessna 210 or similar). The aircraft was fitted with a tail mounted 'stinger', housing a Caesium vapour magnetometer (Geometrics GR823), and 2x RSX-4 gamma-ray spectrometer detector packs (32L) was housed in the aircraft (details attached in Appendix A).

The magnetic data was corrected for diurnal magnetic variations by acquiring magnetic data at a base station near the survey area using a Geometrics G-856 base station magnetometer. Radar and laser altimeters are also fixed on the aircraft

Details below and flight lines in Figure 22.

- Airborne magnetic, radiometric and DEM using a fixed wing platform.
- Line spacing: 100m
- Tie-line spacing: 1,000m
- Bearing: 090/270
- Flying height: 30m
- Total line km: 6,035 km

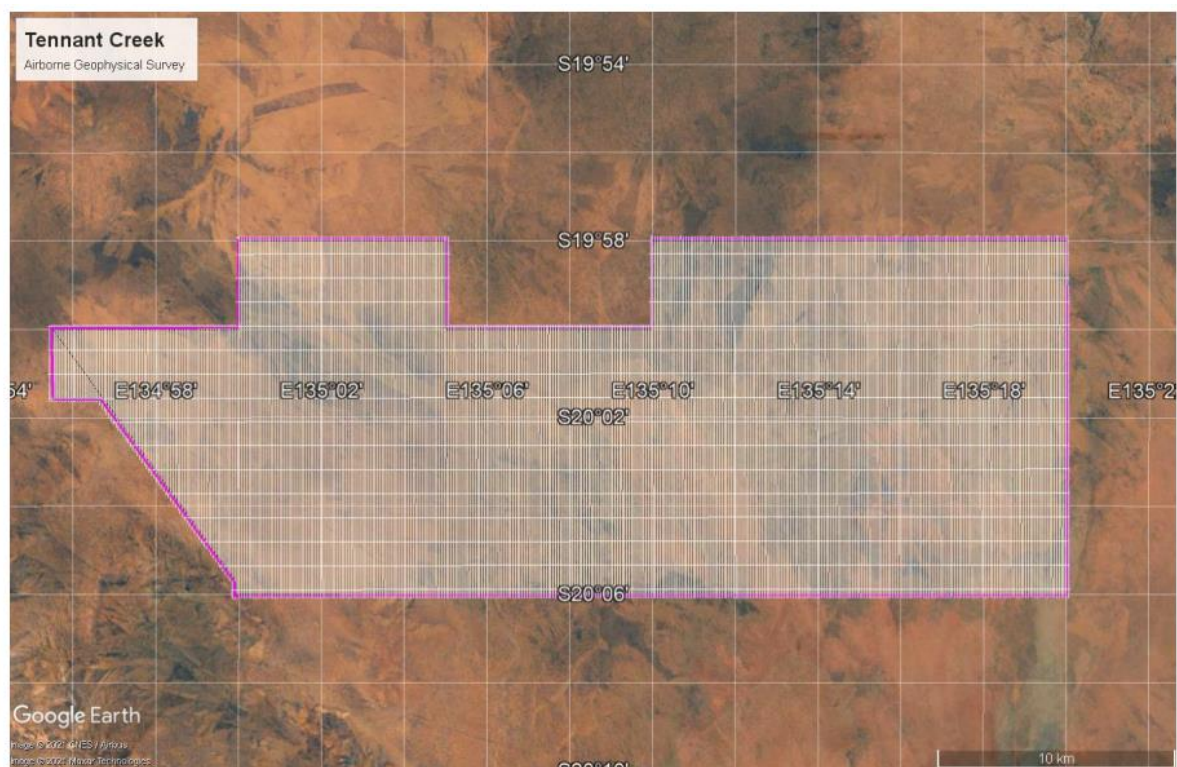


Figure 22 Map showing flight lines over satellite imagery (flight lines faint NW trending, tie lines bold NE trending)

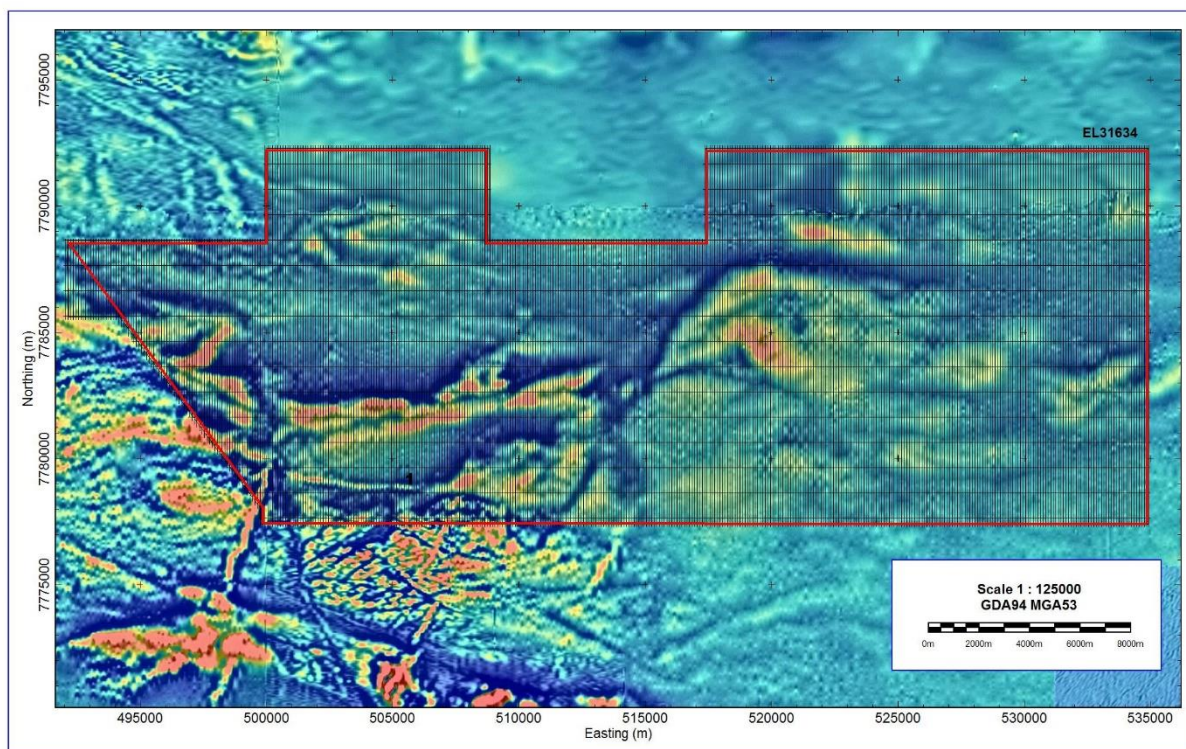


Figure 23 Map showing flight lines over previous magnetics (flight lines faint NW trending, tie lines bold NE trending)

7. Results and Interpretations

All data, images and method/survey reports are included in Appendix A for the airborne magnetic survey and Appendix B for the passive seismic survey.

Airborne Magnetics

The detailed airborne magnetics have provided excellent resolution of the area. The Work has much more clearly defined the contrast of the main trends throughout the tenement and delineated the surrounding granites and internal positions and structures.

The detailed survey has identified numerous discrete high magnetic anomalies along structural and lithological trends. KRR is confident that these anomalies are associated with Warramunga equivalent rock units which are host to the IOCG gold deposits of the Tennant Creek Gold field. Fifteen historical holes were drilled at the western end of the tenement of which only one hole penetrated the cover (at 67m) intersecting a few metres of what was interpreted to be Warramunga Formation equivalent rocks before ending. Cover rocks are interpreted to range from only 67m to 100m across the tenement. These anomalies present quality IOCG targets within rocks shown to be Warramunga equivalent.

Comparison of the pre-100m survey images of magnetic bodies versus images of the new data can be seen in the two figures below. The nature and positions of the targets identified in the application document (Figure below) are much more defined and details within higher zones are now evident (Figure 24-27).

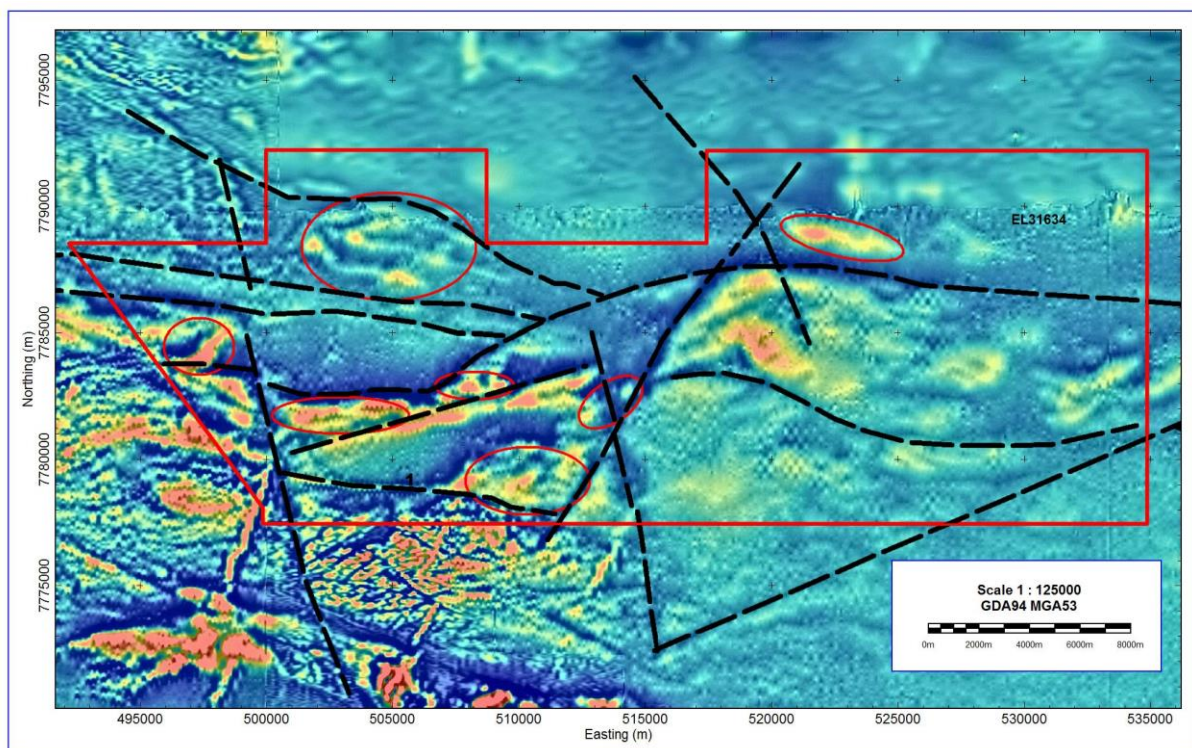


Figure 24 Pre 2020 200m line spaced data Total Magnetic Intensity 1st VD image with interpreted major structures and magnetic anomalies of interest

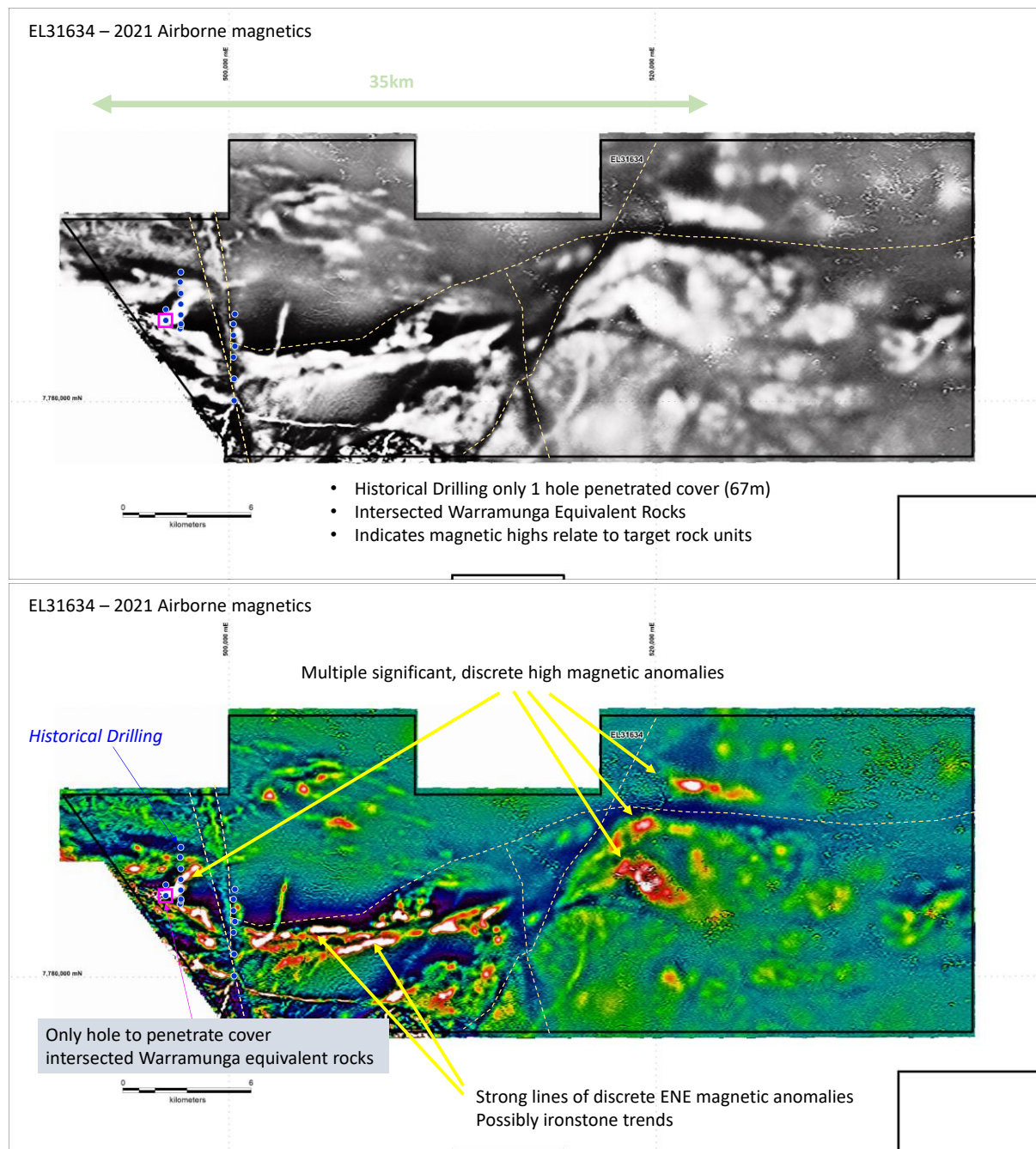


Figure 25 Total Magnetic Intensity 1st VD, 2021 survey.

The image below shows a closer view of the main target areas. With the new spacing there is a lot more detail and definition to the shapes and smaller anomalies of 100-200m become evident that were not seen at the previous spacing. This is important given the typical small size of Tennant Creek style IOCG's.

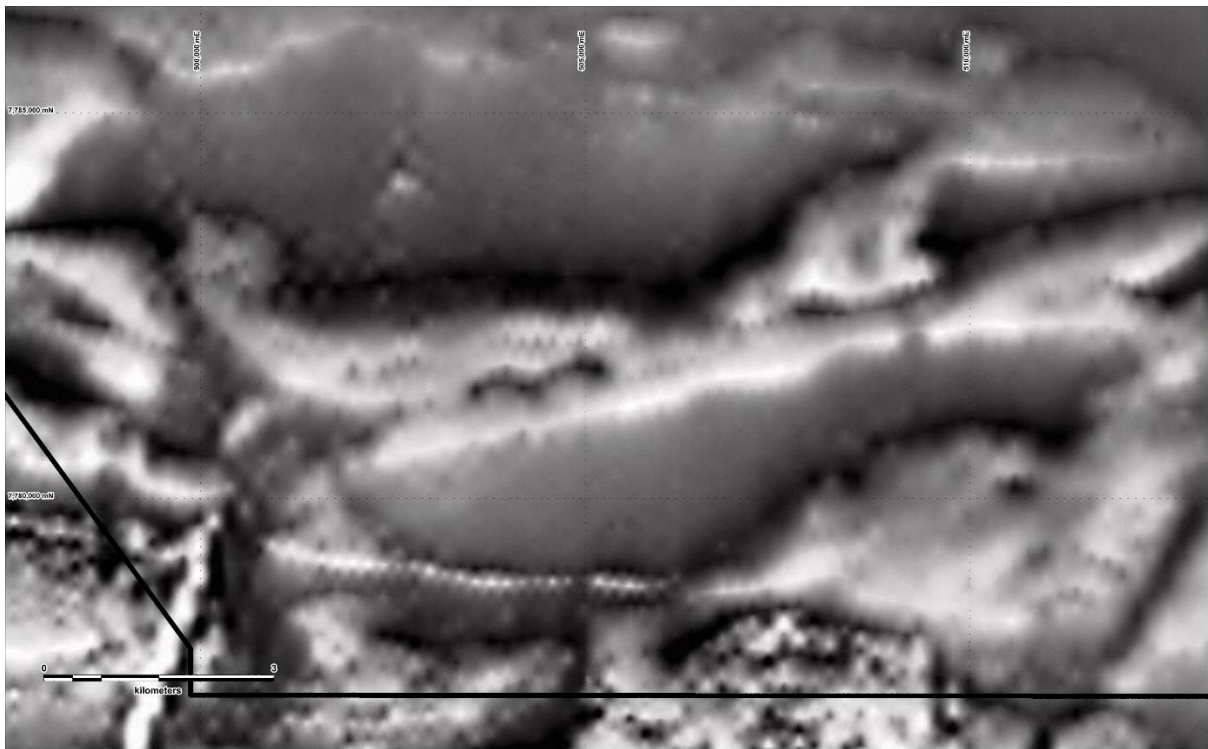


Figure 26 Total Magnetic Intensity 2nd^{derivative} VD image close up of main target area – prior to 2021 survey

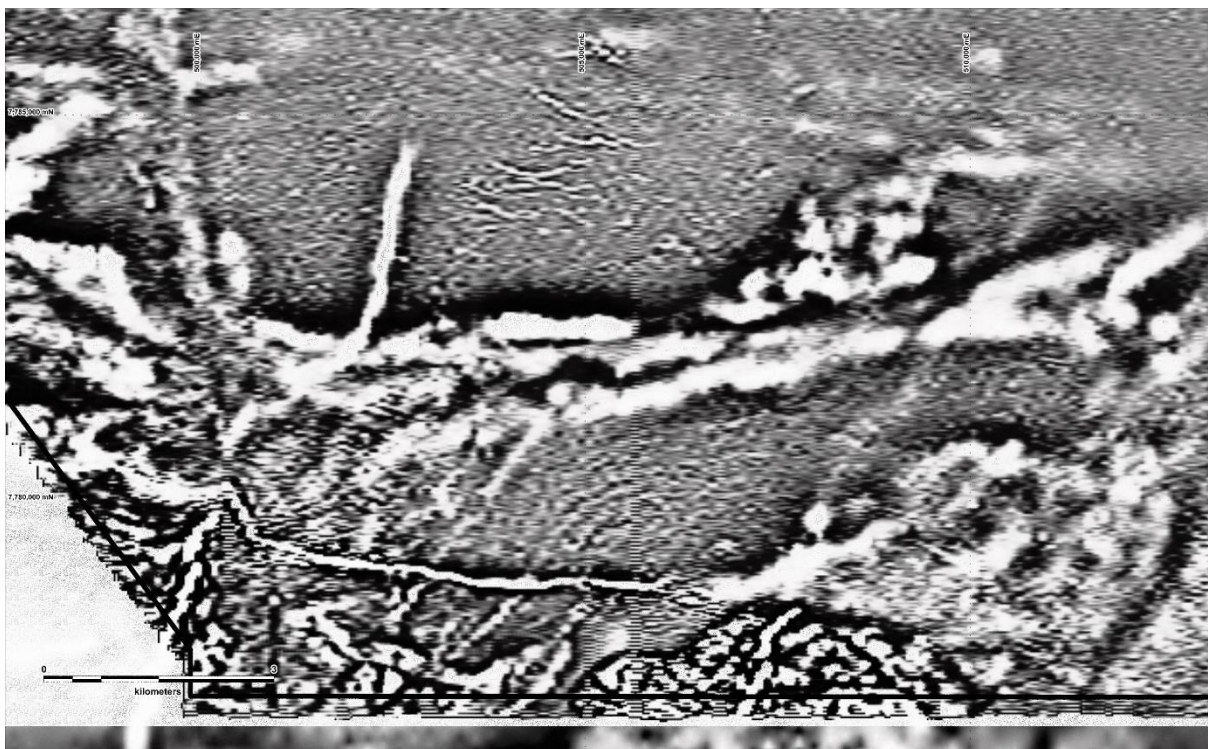


Figure 27 2021 survey Total Magnetic Intensity 2nd^{derivative} VD image close up main target area

8. Conclusion

The airborne magnetic and passive seismic surveys have assisted with:

- Regional geological understanding of the area – more understanding of the nature of the basement rock trends and structures.
- King River Resources exploration/target prioritising on EL31633/31634 and our surrounding tenements.

The detailed magnetics have confirmed and defined targets for prioritisation and further exploration.

Combined with 2020 collaboration work involving passive seismic to determine depth to basement this survey has provided excellent targeting opportunity's that will be pursued. Recommended further work would include gravity surveys and ground magnetics over priority targets and also VTEM Max over EL31633 and EL31634 with an aim to provide quality drillable IOCG and basinal stratiform copper targets.

9. References

- Large, R.R. (1991) Mineral exploration criteria and genetic models for the Tennant Creek ores. Proterozoic Gold-Cop• per Project: Tennant Creek and Starra Districts. Workshop Manual no 5, June 1991, University of Tasmania, 109-152.
- Riley S. et al. (2019) Introduction to passive seismic HVSr surveying form mineral and groundwater exploration. OREAS Victoria Minerals Roundup 2019. Resource Potentials.
- Schofield A. (2019) East Tennant: new datasets, insights and opportunities for mineral exploraion, Uncovering East Tennant, Exploring the future, Geoscience Australia.
- Skirrow R et al. (2019) Mapping iron oxide Cu-Au (IOCG) mineral potential in Australia using a knowledge-driven mineral systems-based approach. Ore Geology Reviews 113 (2019), 103011.
- Stannard D. and Xiuping L. (2021) Passive seismic HVSr surveying, data QA/QC, editing, processing, modelling and preliminary results, East Tennant Creek Project, Northern Territory. Resource Potentials.
- Vella,L (2007) Geophysical Exploration for IOCG Deposits, with Examples form the Gawler Craton and Eastern Succession. In Ore Deposit Models Iron-Oxide Copper Gold Deposits. Short Course Handouts. (Hackney et al, 2020).
- Wills, K. (1997) Fourth Annual Report on EL8272, for the year to 14 December 1997, Epenarra Project, Northern Territory. Adelaide Resources, CR19980261
- Wyborn L. et al. (1998) Metallogenic Potential of the felsic igneous rocks of the Tennant Creek and Davenport Provinces, Northern Territory. AGSO Research Newsletter 29.

10. Appendices

Appendix A – Airborne Magnetic Survey Data and Reports

AppendixA\

1261_TennantCreek_Report.pdf

IMAGES.zip – relevant location images of radiometrics and magnetics

DATA.zip – relevant geophysical data