

ELs 30925, 30926, 30927
Georgina Project Area – GR349
Final Report to June 20 2017
Ripple Resources Pty Ltd

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Summary

Ripple Resources is a fully owned subsidiary of Armour Energy Ltd. Armour has been exploring the gas and oil resources of the McArthur Basin, and has made a significant gas discovery in the Glyde sub basin.

Ripple took up selected Exploration Licences within the Georgina Basin Phosphate province, on the basis that new gas pipelines will traverse this area when the NT government ends its bans on stimulated gas and oil production. A railway is also proposed. These infrastructure developments would remove the two main barriers to economic bulk fertiliser production.

Previous exploration work has demonstrated that phosphate occurs extensively within the ELs, and relatively small but poorly defined resources have been reported. A large JORC compliant resource has been published for the Wonarah deposits immediately to the south.

The work during the past year has been limited to a compilation of the previous data. A broad target s has been selected on the basis of previous intersections and the known association of phosphate with the Georgina Basin shelving sequences on the flanks of a basement ridge. The phosphate generally occurs within the Wonarah formation in a shoreline facies.

Additionally, there are uranium possibilities in radiometrically responsive Tertiary drainages, cobalt potential in manganiferous shales and possible IOCG targets in the basement.

A drilling program was proposed, with the initial holes being step outs from previous phosphate intersections.

Changes in the activities of Ripples parent, Armour Energy Ltd, resulted from the death of Mr Aubrey McLarendon, principal of AEGP Australia in 2015. Since that time, a moratorium on unconventional petroleum exploration has been applied to the Northern Territory, curtailing the ability of Armour and Ripple to cooperate in their respective exploration activities on a basin wide basis.

Ripple has surrendered most of its holdings in the Northern Territory. The Georgina Project has therefore been abandoned.

1.0 Introduction

Ripple Resources Pty Ltd was set up by DGR Global Ltd for the purpose of exploring for base metals within areas of the McArthur South Nicholson, and Mount Isa basins that were being examined by Armour Energy Ltd for gas and oil. After the float of Armour Energy, Ripple Resources was sold to Armour at cost. Since that time, Armour has been providing funding and much of the operating resources for Ripple.

The phosphate resources on the Barkly Tableland have been uneconomic because of the lack of energy supplies and transport infrastructure. This may change over the next few years with the discovery of abundant shale (and conventional) gas by Armour Energy and more recently by the Falcon-Origin joint venture. These gas rich sequences underlie the phosphate bearing Georgina basin. A gas pipeline and railway are also being planned.

Ripple has seized the opportunities these developments present, and intends to enlarge the known resources and discover new deposits in the project area.

1.0 Location and Access

The project area is centred 25km east of Alroy Downs homestead on the Barkly Tablelands. Access is via the Barkly Highway north of Victoria River Downs. Access is via the Buchanan Highway, Tablelands Highway and the Ranken Road through Alexandria Downs. Access within the project area is mainly via station tracks.

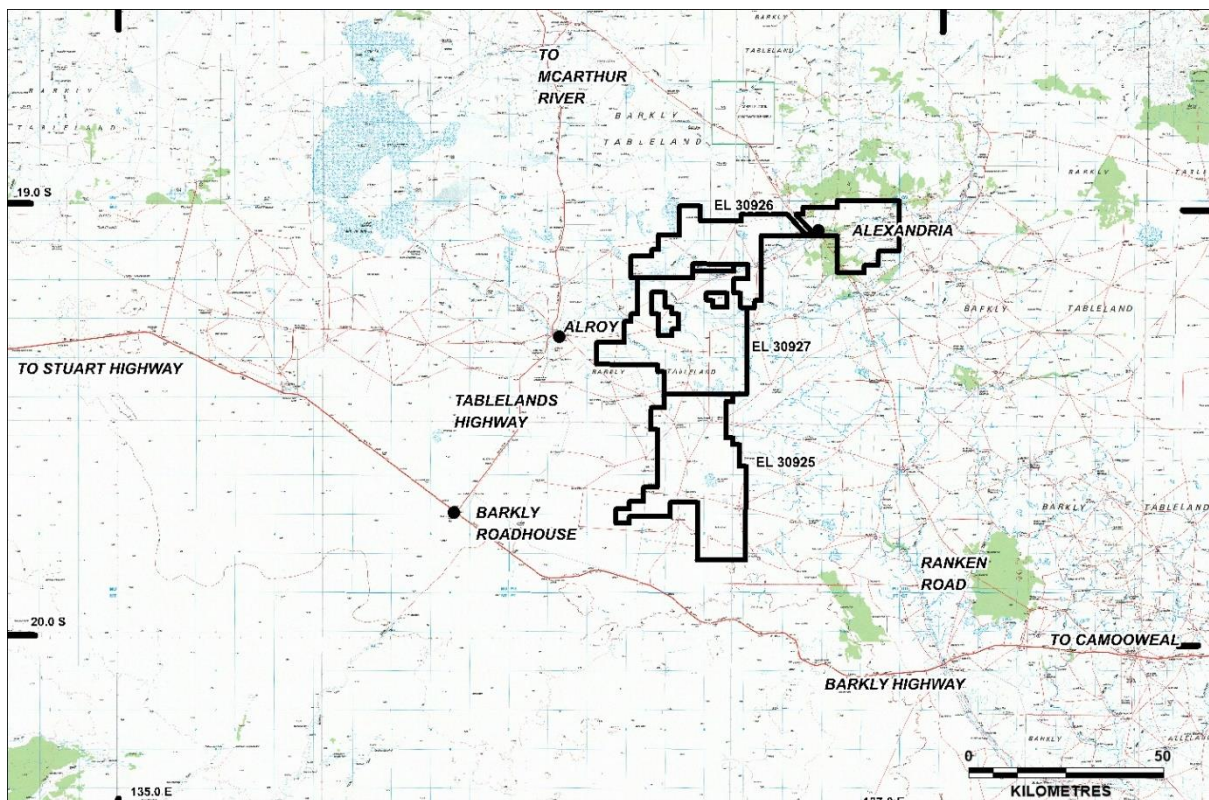


Fig. 1 Location and access

3.0 Licence Details

ELs 30925, 30926 and 30927 were granted on the 28th February 2016 for 5 years. Each covers 250 sub blocks and has expenditure requirements of \$47,500 in year one and \$72,500 in year two. The Licences have been granted project status GR349 for reporting. All were surrendered on the 20th June 2017

4.0 Geology and Previous Exploration

Most of the area is comprised of black soil covered flat lying Georgina basin sediments. There are also Tertiary and Recent drainages that feed local lakes. These drainages contain calcrete and gypsum. Outcrops of Georgina basin are actually rare, and most of the information comes from drilling within and around the project area.

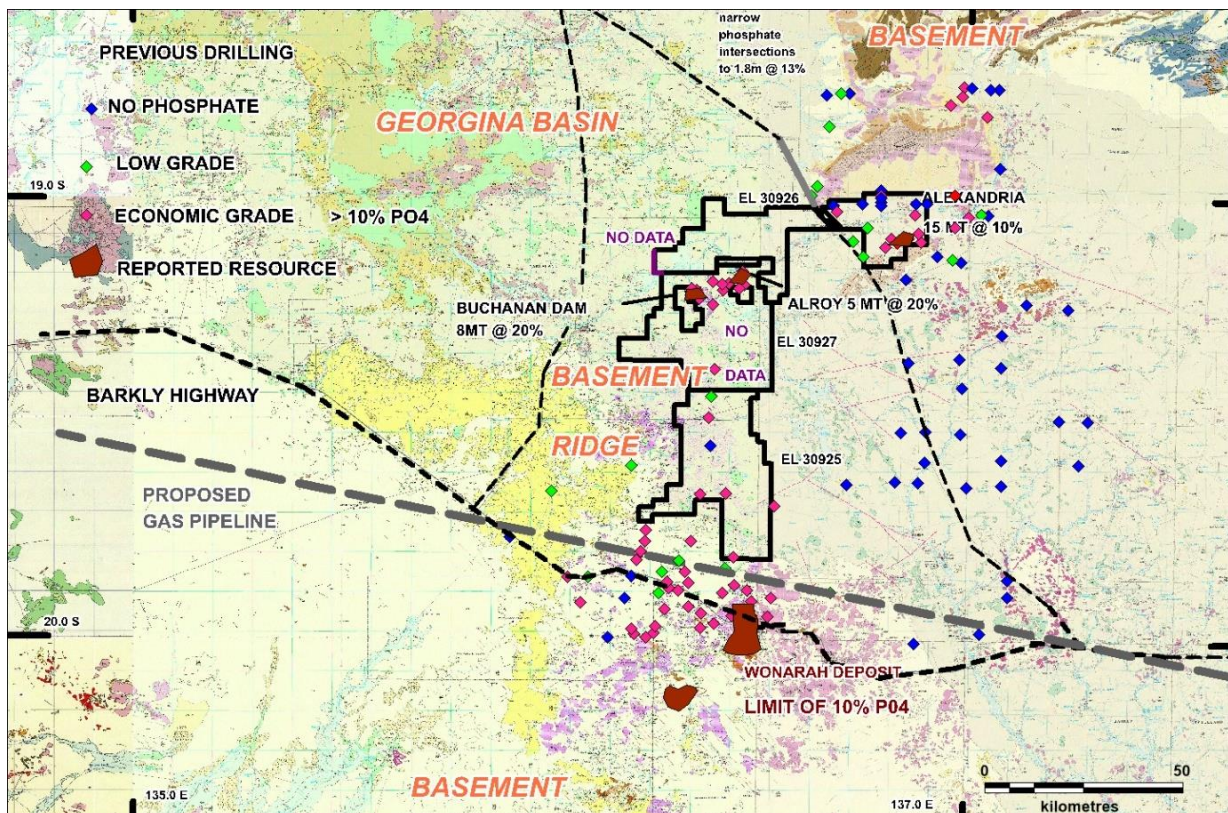


Fig.2 Geology and previous phosphate drilling

The phosphate mineralisation lies within the middle Cambrian Wonarah formation, which lies unconformably upon the lower Cambrian sediments and volcanics in most places. Locally, on the Alexandria – Wonarah basement high it lies on the mid Proterozoic South Nicholson Group.

Regionally, the Georgina Basin phosphate deposits lie on the flanks of basement highs.

A JORC compliant inferred resource of 542 Mt @ 18% PO₄ was announced by Minemakers Ltd for the Wonarah deposit in October 2012. This deposit occurs mainly within a phosphorite mudstone 2m – 10m in thickness and grades up to 40% PO₄. A lesser resource occurs within an underlying chert breccia phosphorite.

Within the project area smaller deposits have been partially drilled out at Alexandria Alroy and Buchanan Dam, and drill intercepts have been recorded in several areas that have not been followed up. The resource tonnages and grades for these deposits are not JORC compliant. These resources and the scout holes were drilled by IMC Development (1968), Pickhands Mather (1968 – 1970), Minoil Ltd (1971) and ICI (1976). The lattermost company summarises this drilling in CR 1977 0038.

In more recent years, the ground has been held by Australis Mining and Phosphate Australia Ltd, but no field work was conducted.

Minoil intercepted ore grades of cobalt in one hole (3m @0.2% Co). This material also assayed 17% Manganese and had high copper nickel and zinc, and is probably due to the cobalt ore known as asbolite.

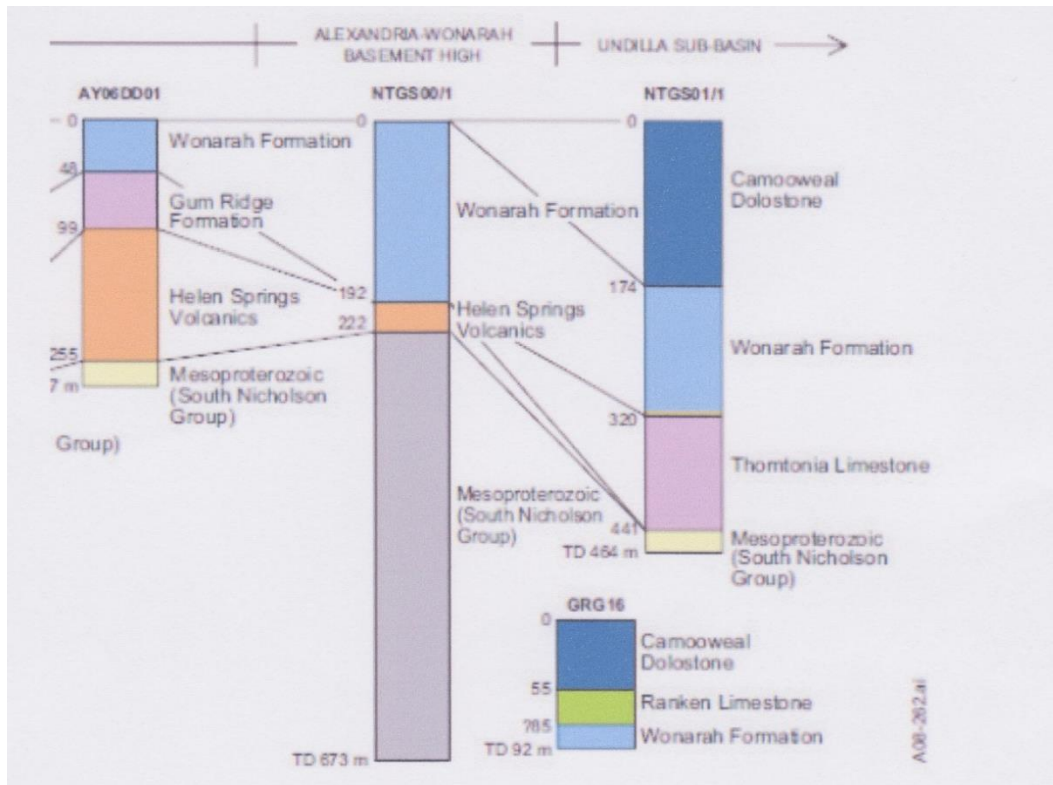


Fig. 3 Stratigraphic columns

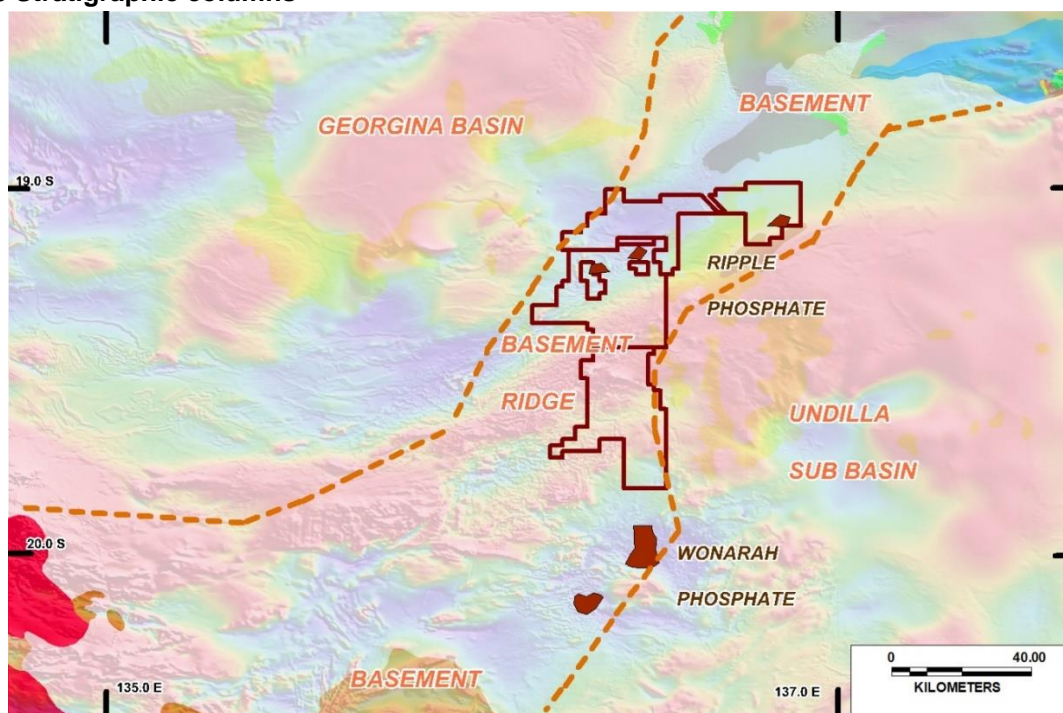


Fig.4 Regional Setting

5.0 Exploration Completed during the Reporting Period

The only work conducted was a compilation of previous work.

5.1 Compilation of Previous Work

The purpose of the compilation was to provide target areas for further field examination. The reported data was examined to locate those areas with the strongest potential for rapid discovery.

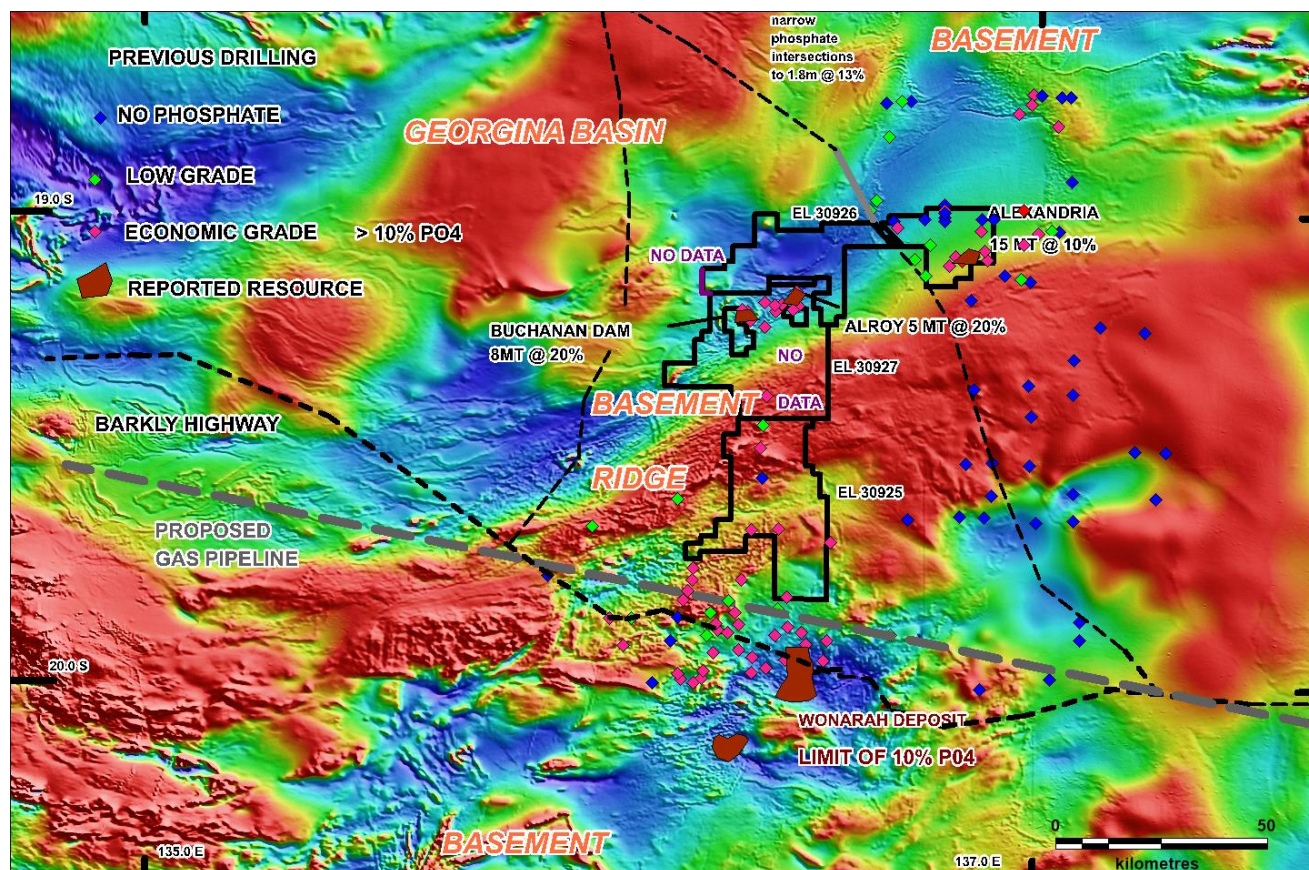


Fig. 5 Phosphate Intersections on TMI

The basement ridge is visible on the magnetic imagery, as a broad zone of sharper magnetic activity. The northern end of this ridge is comprised of non magnetic South Nicholson basin rocks, which makes magnetics a poor guide in the Alexandria environs.

There is sufficient room for a number of Wonarah sized deposits in the project area, and the previous scout drilling has intercepted > 10% phosphate at numerous locations. Clearly the most immediate phosphate potential lies around those intersections.

An examination of the NT government radiometrics reveals a (blue) uranium signature over the centre of the project area. This appears to represent a fossil Tertiary drainage system that is prospective for roll front and calcrete hosted deposits.

An economic intersection of cobalt (3m @ 0.2% Co) was reported by Minoil in one hole. The association is with manganese (asbolite) in a weathered shale. The significance is uncertain as asbolite is often very nuggety in distribution.

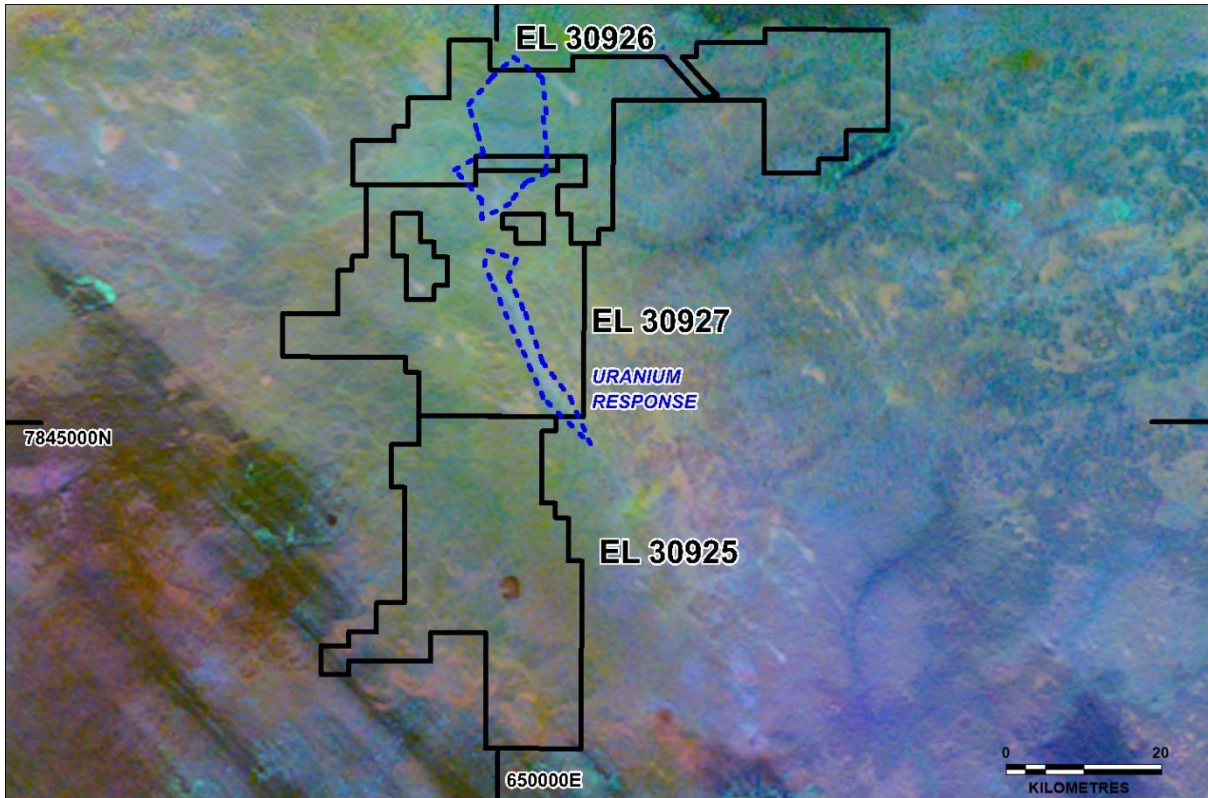


Fig.6 Uranium targets on KUTh radiometrics

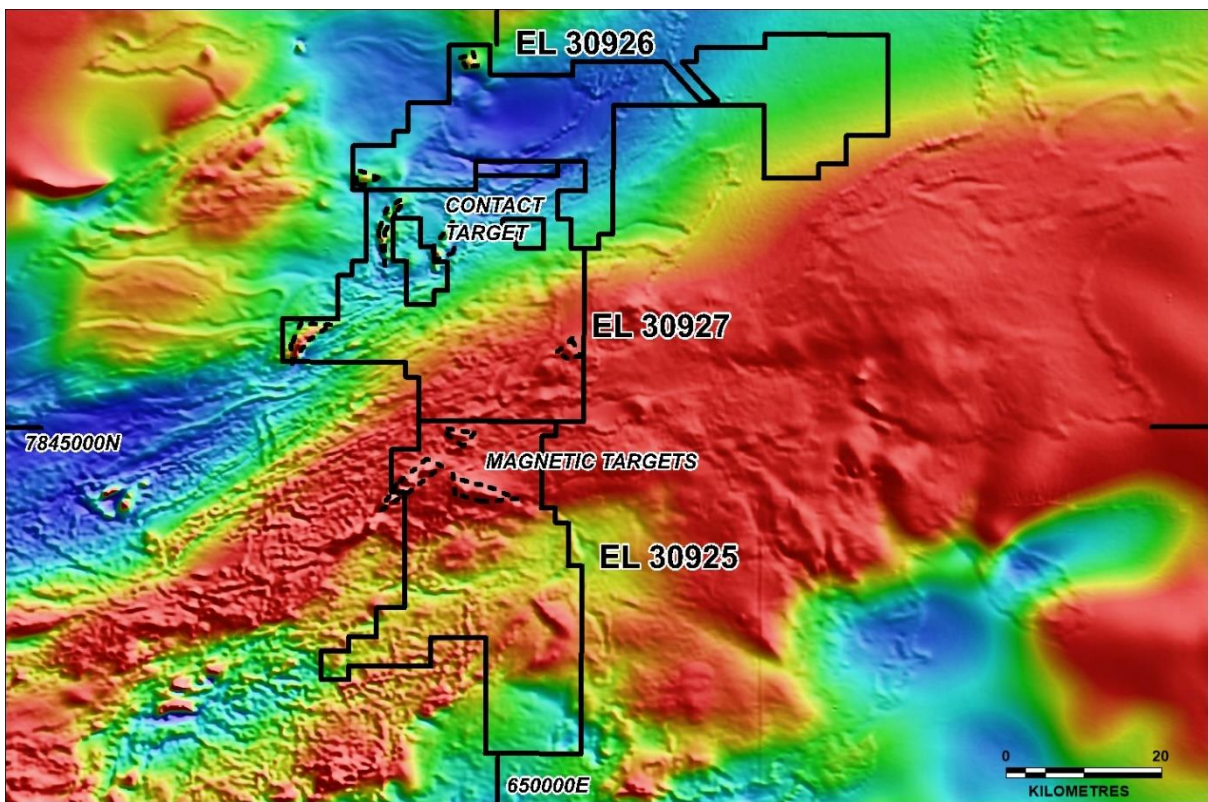


Fig.7 IOCG targets on TMI

There are a number of magnetic bodies developed in the basement. The northern bodies appear to represent magnetised hornfelses, but there is a cluster crossing the boundary of EL 30925 and 30927,

which appear structurally controlled and represent IOCG targets that are thought to be no deeper than 200m.

6.0 Results and Conclusions

The project area contains extensive but poorly defined phosphate mineralisation in the same geological environs as the Wonarah resource.

There is also potential for uranium in postulated Tertiary drainages.

There are possibilities for cobalt dominated base metal mineralisation in manganiferous shales.

The lack of outcrop and the presence of an extensive transported soil cover means that scout drilling is the only effective exploration tool to evaluate the phosphate, uranium and cobalt.

There is a potential for IOCG in the shallow areas of basement. These magnetic bodies should modelled.

7.0 Proposed Program

The proposed program of scout drilling and geochemistry has been abandoned and the tenements surrendered.

This has been brought about by the changes in corporate funding and the move towards the expansion of the Armour Energy's Queensland activities. The cooperative Armour – Ripple exploration effort was no longer possible in the Northern Territory due to the ban on unconventional oil and gas exploration.