RELINQUISHMENT REPORT
EL 28081

PERIOD: 5/1/2013 TO 4/1/2016
PLENTY RIVER REGION, NORTHERN TERRITORY

FAR RESOURCES Pty Ltd
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Plenty Rivers Project
1:100 000 Mapsheets: 5852 Delny, 5952 Dneiper
1:250 000 Mapsheets: SF5310 Alcoota, SF5311 Huckitta
Commodities: Cu, Pb, Zn, Mo, Au, Ag

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Abstract:
EL 28081 forms part of FAR Resources Plenty Rivers Project which consists of 8 granted exploration licences covering 667km$^2$ in the Harts Range/ Plenty River area of the Northern Territory, see figure 2. This report covers work done on EL 28081 between the date of grant (5/01/2011) and the fifth anniversary date (4/1/2016). Work done on the relinquished area consisted of several geological reconnaissance trips with the analysis of rock samples within this area.

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This report may be released to open file as per Regulation 125(3)(a).
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1. LOCATION

EL 28081 is located some 150km to the northeast of Alice Springs in the Northern Territory. The licence has an irregular shape having a length of 65km with an average width of 5km. The licence is located upon pastoral leases to the north of the Harts Range Police Station and Atitjre Community. The Plenty Highway traverses to the south of the licence and the Derry Downs Road provides access to the northern part of the licence.

This report is the technical report on that area which was relinquished from EL 28081 in a voluntary reduction at the end of the fifth year of tenure, (Fig 2).
2. TITLE HISTORY

Mineral Tenure

EL 28081 was granted on 5/01/2011 and this report is the Relinquishment Report which covers activities in the period 5/01/2011 to 4/01/2016, being the first five years of tenure. The licence had an area of 33 graticular blocks (102 km²), of which 19 graticular blocks were relinquished at the end of the fifth year of tenure.

EL 28081 forms part of the Plenty Rivers Project which consists of 8 granted exploration licences covering a total area of 210 graticular blocks (667km²)

The licence area has a mineral exploration history going back to the 1880s when the Harts Range garnet and mica fields were found and exploited by small scale miners. The mica fields are currently being examined for lithium-bearing minerals.
Real Property
EL 28081 is located on 2 separate real property parcels, these are:
NT PPL 1116 “MacDonald Downs Station” which is owned by MM Chalmers (PMB 81 Alice Springs NT), NT PPL 989 “Mt Riddoch Station” which is owned by Harts Range Pty Ltd (PMB 43 Alice Springs NT).
3. ACCESS

Access to the exploration licence from Alice Springs is northwards along the Stuart Highway for 68km to the intersection of the Plenty Highway then 166 km along the Plenty Highway to the Harts Range Police Station, then another 22km to the Derry Downs turnoff. Traversing 30km northwards along the Derry Downs road to the Mt Swan turnoff then 20km in to the Mt Swan Station homestead. This is located within the northern section of the licence area. Access throughout the remainder of the licence is via the Delny Station and MacDonald Downs Station roads and fence lines.
4. GEOLOGICAL SETTING
The exploration licence is located in a northeast-southwest traverse across the Aileron Province from the Georgina Basin in the north to the Irindina Province in the south.

Georgina Basin
The Georgina Basin is a Paleaoproterozoic sedimentary basin that contains dolostone, limestone, sandstone, siltstone and shale. It is a widespread intracratonic basin that was initiated as part of the Centralian Superbasin and extends east into Queensland. It unconformably overlies the Aileron Province, Tennant Region, Murphy Inlier, McArthur and south Nicholson Basins and Lawn Hill Platforms. It is interpreted to be contiguous at depth with the Wiso and Daly Basins and conformably overlies the Kalkarinji Province.

Aileron Province
The Aileron Province is a Palaeoproterozoic metamorphic and igneous terrain containing variably metamorphosed sediments, meta-volcanic rock, calc-silicate rocks, dolerite, mafic rocks and granites. It forms part of the Arunta Region and is a poly-deformed and metamorphosed basement terrain along the southern margin of the North Australian Craton. It is unconformably overlain by the Ngalia, Amadeus, Murraba, Georgina and Eromanga Basins and has largely faulted relationships with the Wurumpi and Irindina Provinces.

Irindina Province
The Irindina Province is characterised by a Neoproterozoic metamorphic terrain that contains metasedimentary gneiss, quartzite, mafic amphibolite and felsic migmatites. It forms part of the Arunta Region and is a fault bounded metasedimentary and igneous province that formed a deep depocentre within the Centralian Superbasin and was metamorphosed in the Ordivician. It is fault contacted with the Aileron Province to the north and unconformably overlain by the Eromanga Basin to the south.

i. Regional Geology
The regional geology can be divided into 3 main tectonic elements, separated by west trending shear systems. The southernmost of these elements, the Harts Range Domain, comprises upper amphibolite to granulite facies metasediments belonging to the Harts Range Group. Dominant lithologies include migmatite, metapelite, metabasite, garnet-biotite gneiss and subordinate calc-silicate rock marble and quartzite. The Harts Range Group underwent peak metamorphism during the Larapinta Event at 480-460 Ma.

To the north of the Harts Range Domain is the Kanandra Domain, this contains the Kanandra Granulate which belongs to the palaeoproterozoic Strangways Metamorphic Complex. The Kanandra Granulate forms part of a 150-200km long, west trending belt of intermittently outcropping belt of pelitic and mafic granulites that includes the Bleechmore Granulate to the west. This domain comprises felsic and mafic granulites with garnet-bearing pelitic and semi-pelitic migmatite and rare calc-silicate rock, intruded by deformed granite.
The third major geological element in the licence area is located to the north of the Kanandra Granulite, and is termed the Jinka Domain. This comprises a narrow (5-25km wide) belt of low-pressure amphibolite to granulite facies metasediments intruded by extensive granites. It extends from the Perenti Metamorphics in the west to the Jervois Range in the east, a total distance of more than 100km.

Two major shear zones separate the three tectonic elements in this region: the Entire Point Shear Zone which separates the Harts Range Domain from the Kanandra Domain and the Delny Shear Zone which separates the Kanandra Domain from the Jinka Domain. The Entire Point Shear Zone trends east-northeast, dips steeply south and merges with the east-southeast striking Delny Shear Zone in the Plenty Rivers Project area. The Delny-Mt Sainthill Shear Zone is a major east-southeast striking structure more than 150km in length and is locally up to 3km wide. A substantial gravity gradient is evident across the shear zone, implying it is a major crustal feature.
ii. Licence Geology

Because of the irregular shape of the licence it traverses all three tectonic elements of the eastern Arunta. Locally these basement rocks are covered by a thin veneer of Tertiary to recent sediments. The Tertiary Waite Formation forms a significant impediment to exploration of underlying bedrock.

In the northern portion of the licence the Jinka Domain occurs and comprises metasedimentary rocks intruded by granites. Metamorphism occurred at amphibolite to granulite facies and low pressures during the Strangways Event. The rocks of the Jinka Domain in the licence area include the following:

- Eklera Formation, (Pak); micaceous siltstone to sandstone, dolostone horizons some of which are stromatolitic.
- Grant Bluff Formation, (Pag); fine-grained fissile quartz arenite to quartz-wacke, cross bedded and ripple marked grey quartz arenite.
- Ledan Schist, (Pln); two-mica schist with minor metaconglomerate.
- Dnieper Granite, (Pgd); Grey biotite granite, grading into orthogneiss locally hornblende bearing or quartz deficient.
- Mt Swan Granite, (Pgs); Pink porphyritic hornblende biotite granite.

The Jinka Domain is separated from the Kanandra Domain by the Delny-Mt Sainthill Shear zone

The Delny Shear Zone is a steeply south-dipping shear zone locally up to 3km wide.

The central tectonic element is the Kanandra Domain, and consists of:

- Kanandra Granulite, (PCK); quartzo-feldspathic schist containing local retrograde shear zones.

The Kanandra Domain is separated from the Harts Range Domain by the Entire Point Shear Zone.

The Entire Point Shear Zone is a steeply south dipping upper amphibolite shear zone.

The southern tectonic element in the licence is the Harts Range Domain which consists of the following:

- pCh; Pelitic, calcareous and psammitic and felsic gneisses, leucocratic gneiss, quartzites and amphibolites.
- pChs; quartz and garnet bearing amphibolite, minor plagioclase-hornblende gneiss.
- pCh4; meta-calcsilicate rock, flaggy quartzite, biotite quartzite, rare calcite-bearing gneiss.
- pCh3; leucocratic biotite-quartz-feldspar gneiss.
5. GEOLOGICAL ACTIVITIES

Office Studies.
During each licence year data collected during field visits was incorporated into the GIS data set by the licence holders.

Field Studies
Field work conducted during the period consisted of 3 site visits, these were geological reconnaissances with a soil and rock geochemical sampling program. 10 x A horizon soil samples were taken with a Niton Portable XRF machine and 25 rock samples were analysed with the same machine. The results obtained are displayed in the section Surface Geochemistry.
6. **SURFACE GEOCHEMISTRY**

Within the relinquished area there were 25 surface geochemical samples of prospective rocks taken during the period. There were also 10 A horizon geochemical samples taken. The locations of which are shown below and the results of which are attached as appendices to this report.

There were no obvious anomalous rocks located in these samples.
7. **CONCLUSIONS**
The rock sampling over the relinquished areas of EL 28081 was disappointing with no geochemical anomalies located. There were 19 blocks relinquished from this licence at the end of the fifth year of tenure.