

**YEAR 4 REDUCTION REPORT**

**EXPLORATION LICENCE EL31629**

**Bull Creek**

*For the reporting period 26<sup>th</sup> October 2018 to 25<sup>th</sup> October 2022*

**Treasure Creek Pty Ltd**

Project Name: Bull Creek

Map Sheets: Hatches 5956;  
Frew River SF5303.

Commodities: Gold, Copper, Silver, Base Metals

Licensee: Treasure Creek Pty Ltd.

Author: A Chapman

Date: Dec 2022

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## **CONTENTS**

SUMMARY .....	iii
1.0 LOCATION.....	4
2.0 TENURE .....	5
3.0 GEOLOGY.....	7
<b>3.1 Regional Geology</b> .....	7
<b>3.2 Local Geology</b> .....	7
4.0 PREVIOUS EXPLORATION .....	10
5.0 WORK DONE DURING YEAR 1 to 4 .....	11
6.0 Conclusion and Recommendations .....	12
BIBLIOGRAPHY .....	13

## **LIST OF FIGURES**

Figure 1: Project Location Plan.....	4
Figure 2: Tenement Location and cadastre .....	5
Figure 3: Blocks relinquished year 4.....	6
Figure 4 Tennant Inlier Provinces and Basins. ....	7
Figure 5: Tenement Outline, Prospects and 1:250K Geology .....	8

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## **SUMMARY**

EL31629 is part of Treasure Creeks new Tennant Creek tenement package and is part of an overall exploration strategy targeting iron oxide copper gold mineralisation in the region.

At the end of year 4 160 blocks were retained. This report covers exploration activities on the Year 4 relinquished ground for the duration it was held.

The company has undertaken significant historical, geological and geophysical data review all the tenements in this area with over 100 historical reports downloaded but work is ongoing.

No exploration was done on the relinquished ground during the period it was held. The ground is interpreted to be over granitic rocks and not of high potential for our current IOCG exploration strategy.

## 1.0 LOCATION

The Bull Creek Project is located approximately 170 kilometres south east of Tennant Creek in the central part of the Northern Territory (Figure 1). The EL covers an area of 686 square kilometres (232 sub blocks).

Access to, and within, the area is by the sealed Stuart Highway south from Tennant Creek, and then by unsealed station tracks leading west from the Stuart Highway.

The licence is located within the boundaries of Perpetual Pastoral Lease NT Por 0716 – Kurundi Station.

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

There are native title claims over the tenement.

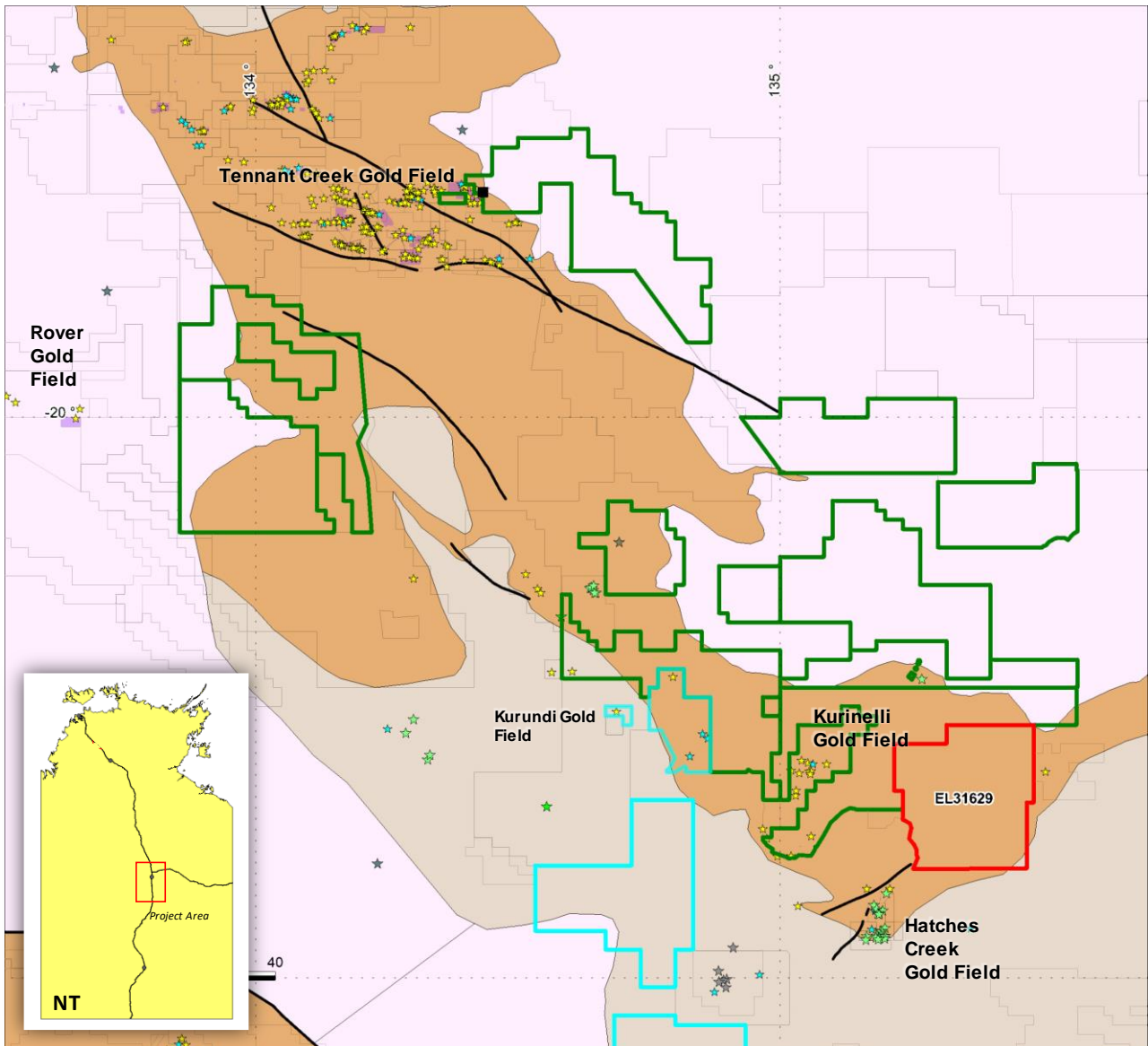


Figure 1: Project Location Plan

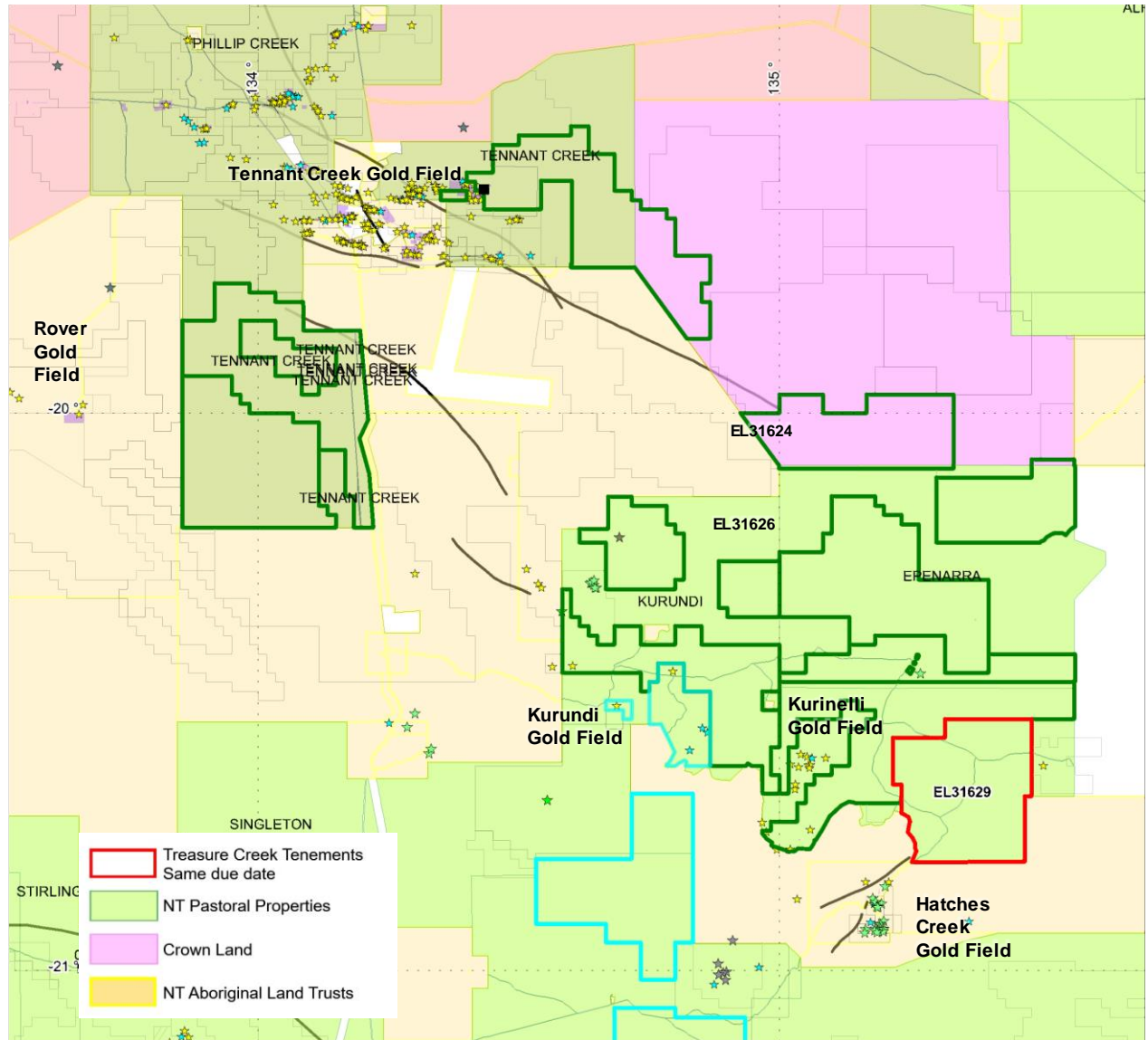
## 2.0 TENURE

Treasure Creek Pty Ltd was granted the title on 20th of August 2018, and cover's an area of ~778km<sup>2</sup>. The title is located over the Kurundi Pastoral lease.

Tenement Details are given in the table below:

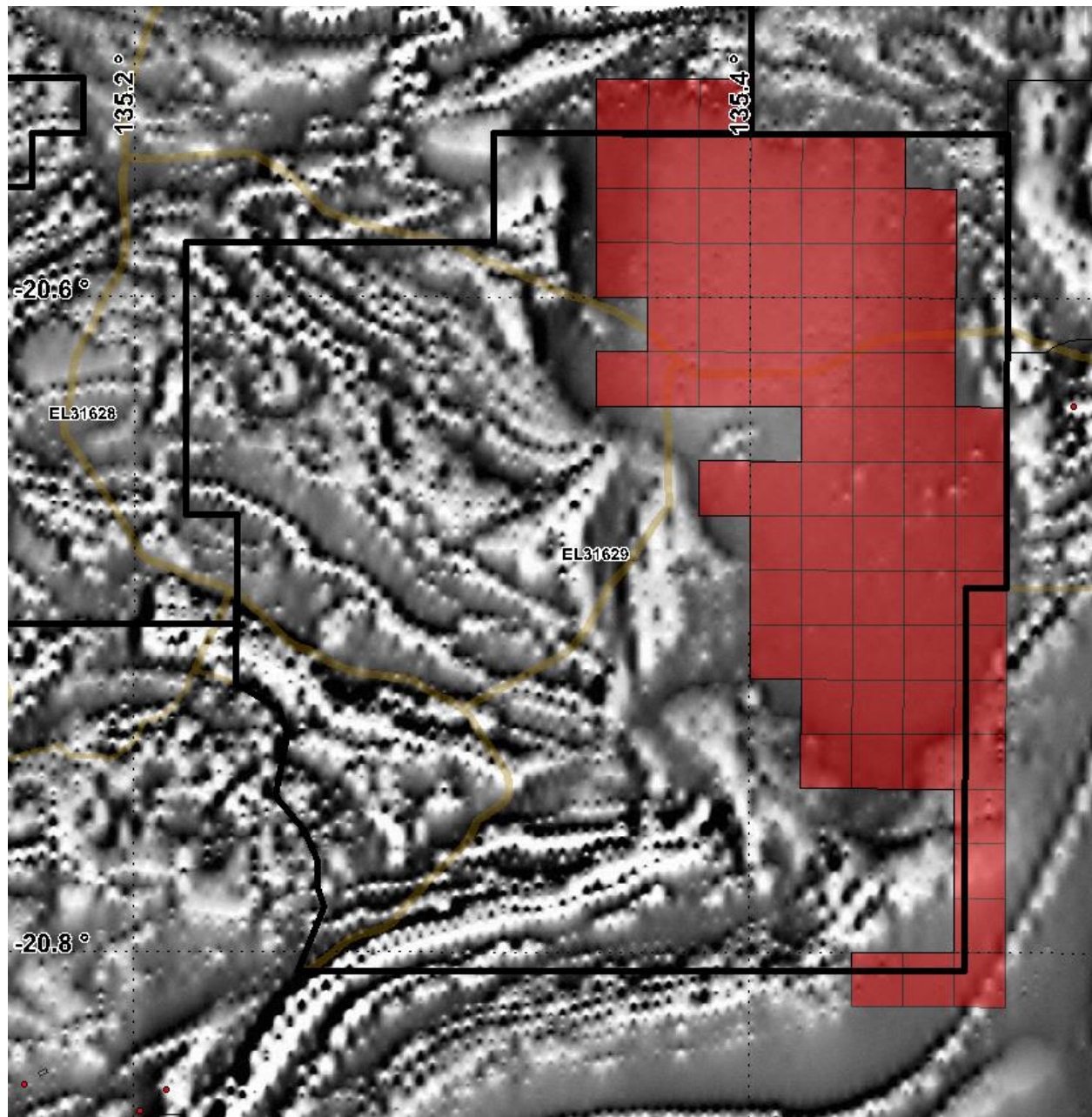
**Table 1 Tenement Details**

Title number	Title holder	Area (blks)	Grant Date	Expiry Date
EL31629	TREASURE CREEK PTY LTD	232	26/10/18	25/10/24



**Figure 2: Tenement Location and cadastre**

At the end of year 4 160 blocks were retained. This report covers exploration activities on the Year 4 relinquished ground for the duration it was held.



**Figure 3: Blocks relinquished year 4**

### 3.0 GEOLOGY

#### 3.1 Regional Geology

The area is located on the western margin of the Tennant Creek Inlier (Donnellan et al 1999). The Tennant Creek Inlier consists of a gneissic basement successively and unconformably overlain by Proterozoic sediments. These sediments have been intruded by Proterozoic (syn-post tectonic) aged granite and subsequently overlain by Cambrian sediments. The inlier can be divided into a number of major divisions (Figure 2); the Tomkinson Province (manganese deposits) in the north, the Warramunga Province (contains the Tennant Creek Mineral Field (TCMF) with Au-Cu-Bi, W, Pb-Zn) and the Davenport Province (small W, Mo, Au, Cu, Ag Pb and U occurrences) in the south. The Cambrian Georgina and Wiso Basins flank the Inlier to the east and west respectively.

The Warramunga Formation hosts the gold-copper-bismuth mineralisation of the Tennant Creek goldfield. The mineralisation is associated with ironstone. The Middle Cambrian Wiso Basin covers the basement rocks west of the Tennant Creek Inlier. This is a sedimentary sequence consisting of the Montejinni Limestone and the Hooker Creek Formation (sandstone and siltstone).

The Davenport Province, to the southeast, is a sub-tectonic unit of Tennant Creek Inlier. The Davenport Ranges comprise highly folded Proterozoic sediments and volcanics rocks of the Hatches Creek Group within the Tennant Creek Inlier and are intruded by a late Proterozoic radiogenic granite that is poorly exposed but extends for a considerable distance southwards beneath Cainozoic unconsolidated sedimentary cover, as inferred from its magnetic signature.

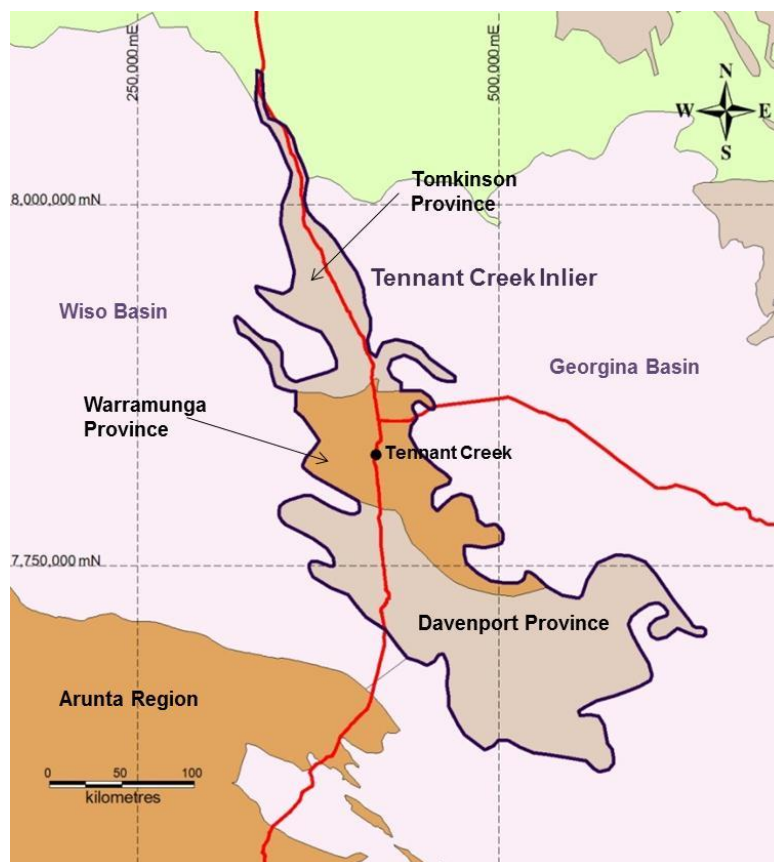
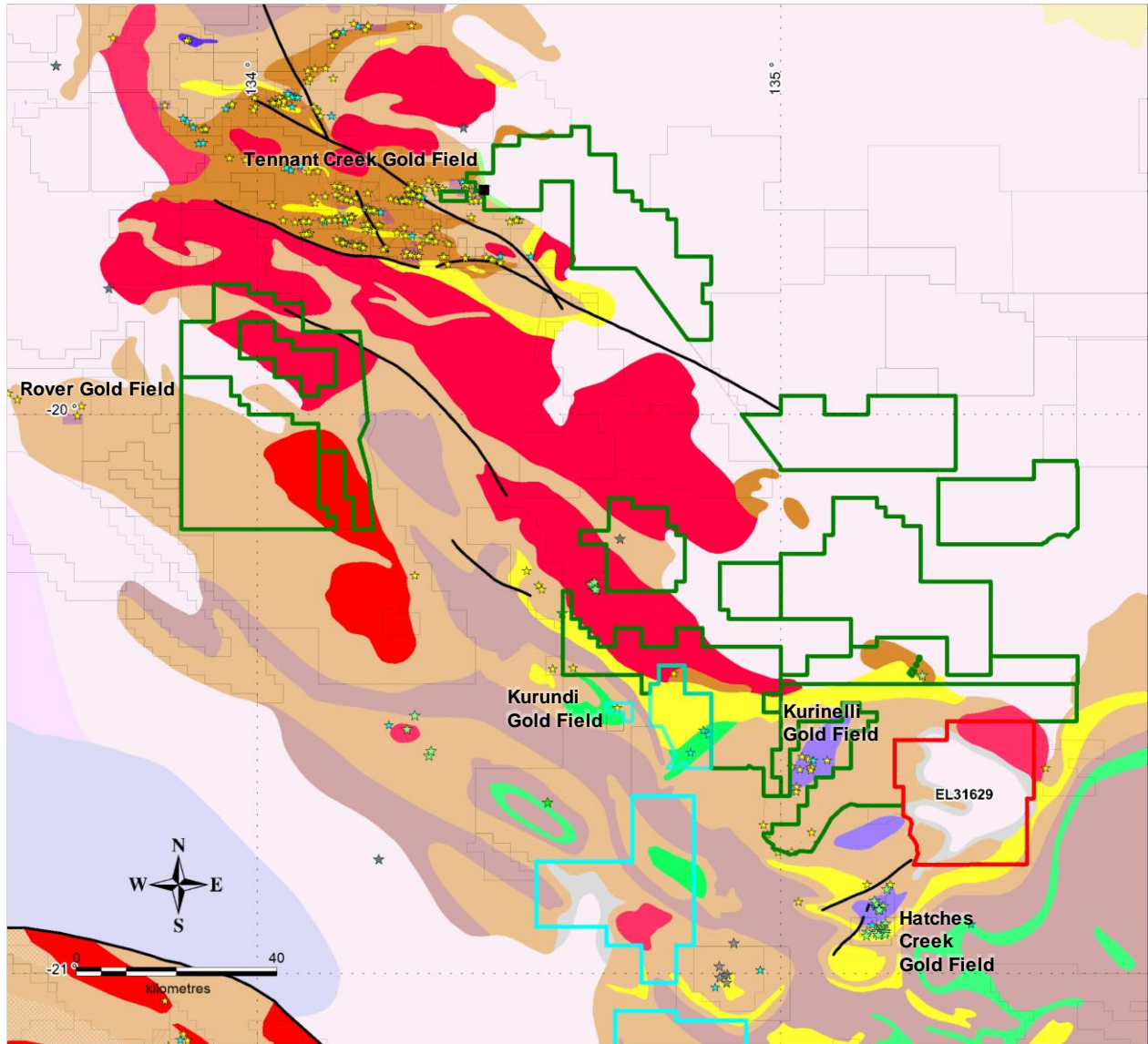


Figure 4 Tennant Inlier Provinces and Basins.

#### 3.2 Local Geology

The tenement area lies in the Davenport Province of the Tennant Inlier. The well-exposed Palaeoproterozoic basement of the Davenport Province consists of lower greenschist facies sandstones, bimodal volcanics and minor carbonates of the Hatches Creek Group. Two separate deformational events have resulted in a regional fold pattern of domes and saddles with dominant northwesterly-trending axes. However, this tenement is situated over the Kurinelli Rock units with a large granitic intrusion in the eastern half. The Taragan Fault Zone strikes NE through the southern half of the tenement. The Rooneys formation and dolerites host most of the mineralization at Kurinelli Gold field and mineralization at Hatches Creek.



**Figure 5: Tenement Outline, Prospects and 1:250K Geology**



### **3.3 Known mineralisation**

#### **Mineralisation Styles:**

Mineralisation in the Tennant Inlier (Figure) includes manganese deposits in the Tomkinson Province, Au-Cu-Bi, W, Pb-Zn in the Tennant Creek Mineral Field (Warramunga Province) and small W, Mo, Au, Cu, Ag Pb and U occurrences in the Davenport province. Also significant Phosphate deposits have been discovered in the Wiso and Georgina basins. Gold and Copper mineralization of the Kurundi, Hatches Creek and Kurinelli Gold fields

#### **Local Mineralisation:**

This tenement is 15km west of the Kurinelli Gold field, which is under reserve.

## **4.0 PREVIOUS EXPLORATION**

The tenement was held by different companies between 1984-2013.

The major contributors to historic exploration includes: Arafura Resources, Sammy Resources, Excelsior Gold, Natural Resources, Oneva Exploration. Activities in the area included some RAB and RC drilling and soil geochemistry. Historical data review is ongoing for this tenement.

## **5.0 WORK DONE DURING YEAR 1 to 4**

EL31629 is part of Treasure Creeks new Tennant Creek tenement package and is part of an overall exploration strategy targeting iron oxide copper gold mineralisation in the region.

The company has undertaken significant historical, geological and geophysical data review all the tenements in this area with over 100 historical reports downloaded but work is ongoing.

No on ground exploration was undertaken on the relinquished ground during the period it was held.

## **6.0 Conclusion and Recommendations**

No exploration was done on the relinquished ground during the period it was held. The ground is interpreted to be over granitic rocks and not of high potential for our current IOCG exploration strategy.

## **BIBLIOGRAPHY**

Donnellan, N., Morrison, R.S., Hussey, K.J., Ferenczi, P.A. and Kruse, P.D., 1999. Tennant Creek, Northern Territory 1:250,000 Geological Map Series. Northern Territory Geological Survey, Explanatory Notes, SE 53-14 Fox, K., 1993. The Bonney Well Gold Project, EL 8169 - Report on previous and recent exploration.