

**YEAR 4 REDUCTION REPORT**

**EXPLORATION LICENCE EL31625**

**WHISTLEDUCK CREEK**

*For the reporting period 20<sup>th</sup> August 2018 to 19<sup>th</sup> August 2022*

**Treasure Creek Pty Ltd**

Project Name: Whistle Duck Creek

Map Sheets: Epenarra 5957;  
Frew River SF5303;

Commodities: Gold, Copper, Silver, Base Metals

Licensee: Treasure Creek Pty Ltd.

Author: A Chapman

Date: Oct 2022

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## SUMMARY

EL31625 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 2 22 blocks were relinquished, this report covers exploration activities on the relinquished ground for the duration it was held.

At the end of year 4 208 blocks were retained.

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 relinquished is interpreted to be over granite and of low gold exploration potential.

## 1.0 LOCATION

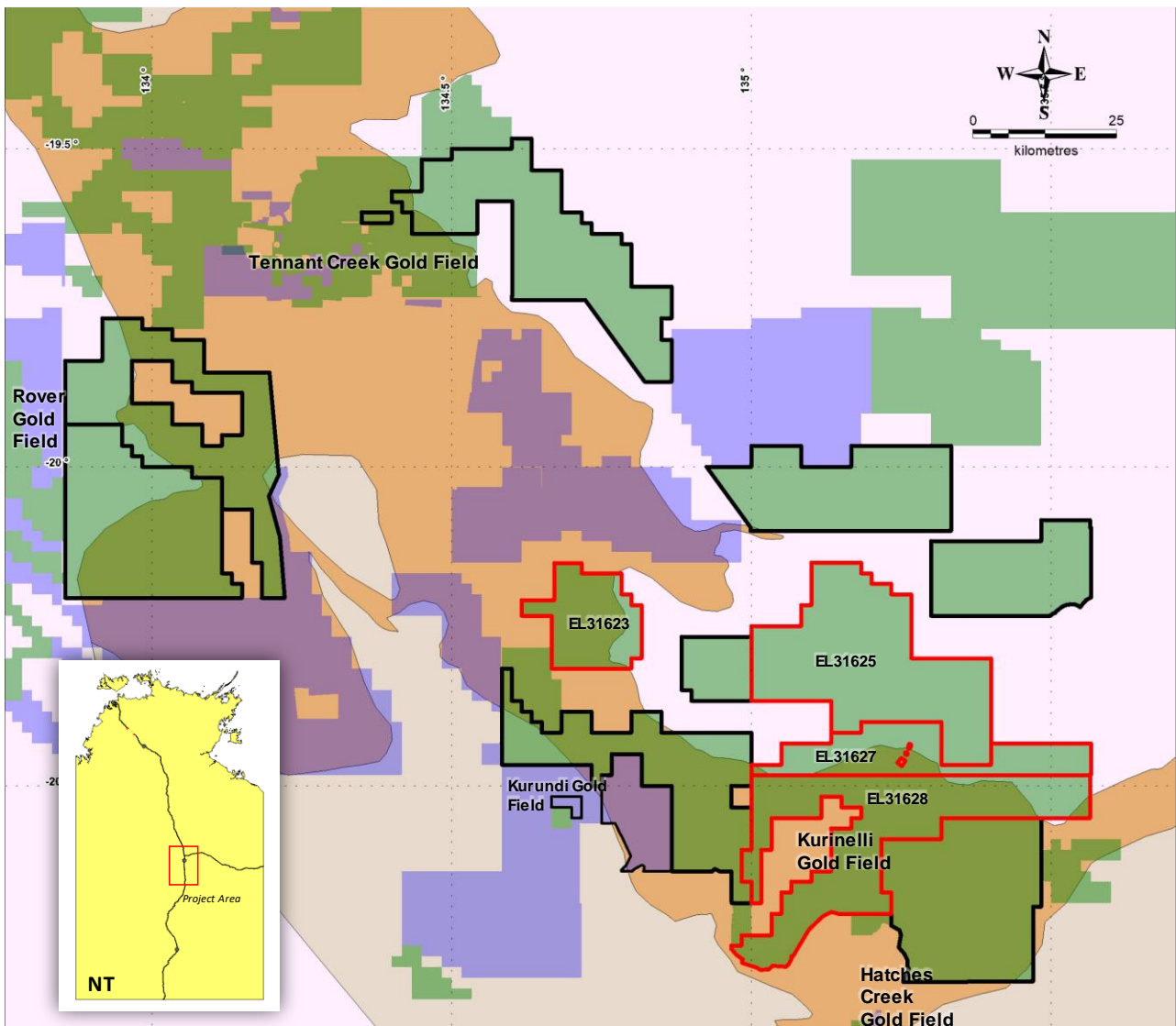
The Whistle Duck Creek Project is located approximately 100 kilometres south of Tennant Creek in the central part of the Northern Territory (Figure 1). The EL covers an area of 805.25 square kilometres (250 sub blocks).

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 4030 – Epenarra 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 18th of June 2018, and cover's an area of ~805.25 km<sup>2</sup>. The title is located over the Kurundi Pastoral lease.

Tenement Details are given in the table below:

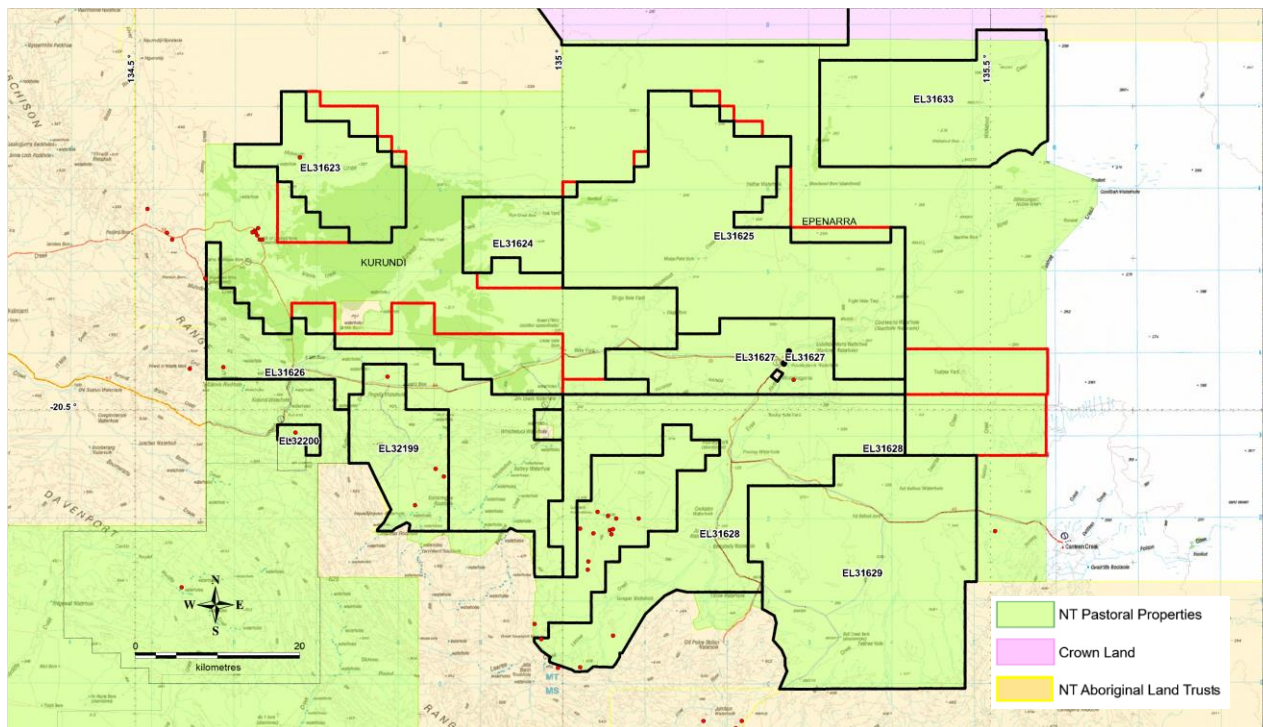
**Table 1 Tenement Details**

Title number	Title holder	Area (blks)	Grant Date	Expiry Date
EL31625	TREASURE CREEK PTY LTD	228	20/8/18	19/8/24

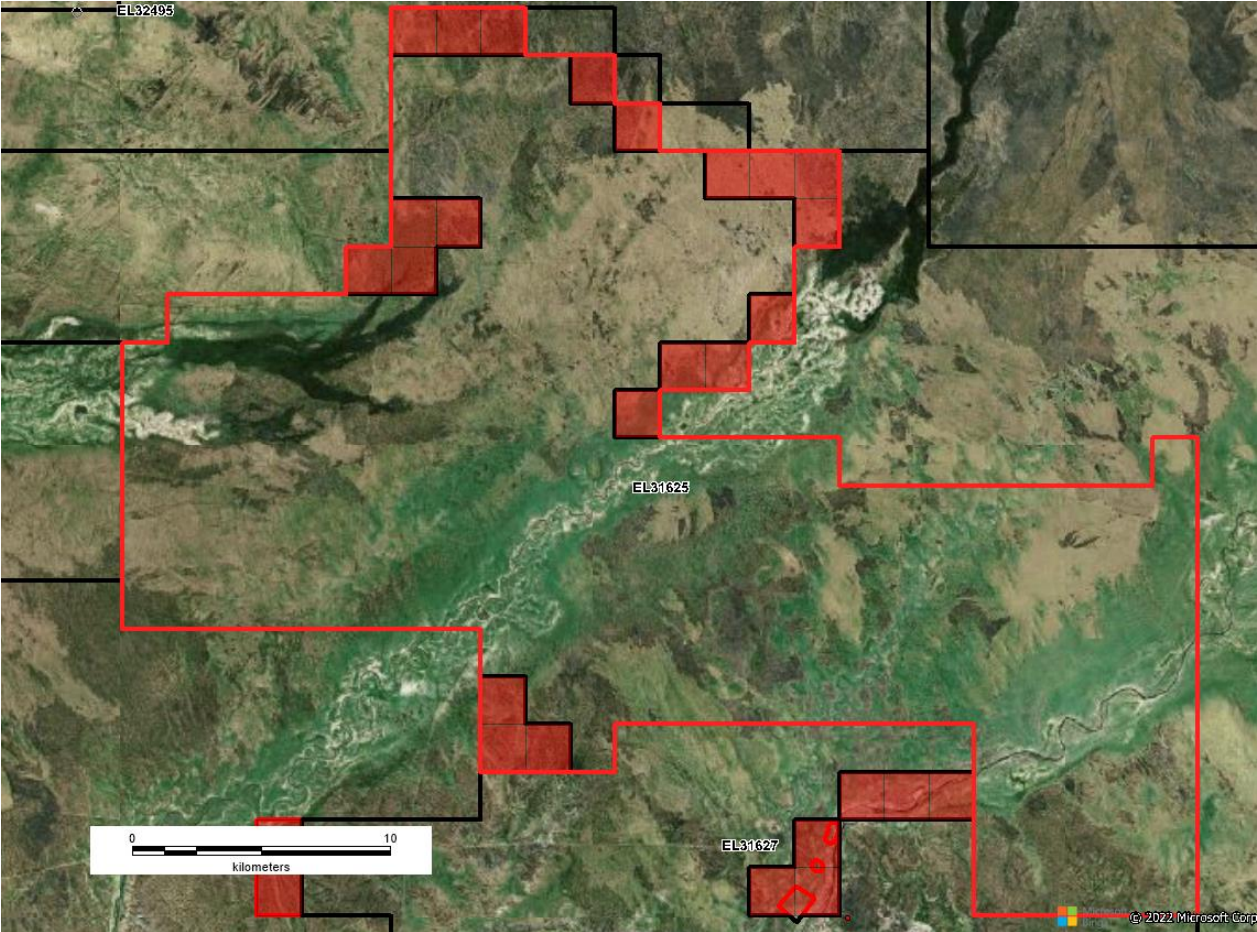
At the end of year 2 22 blocks were relinquished. This report covers exploration activities on the relinquished ground for the duration it was held.

At the end of year 4 208 blocks were retained.

This report covers exploration activities on year 4 relinquished ground during the period it was held.



**Figure 2: Tenement Location and cadastre (Treasure Creek – black polygons, red polygons are relinquished areas)**



**Figure 3: Year 4 Blocks relinquished (red)**



## 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.

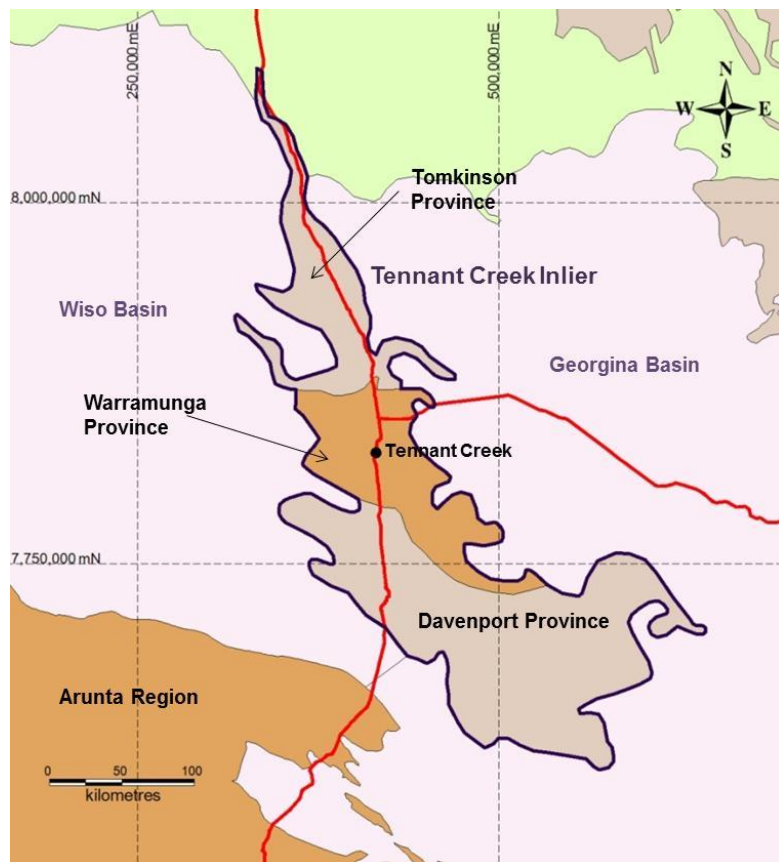
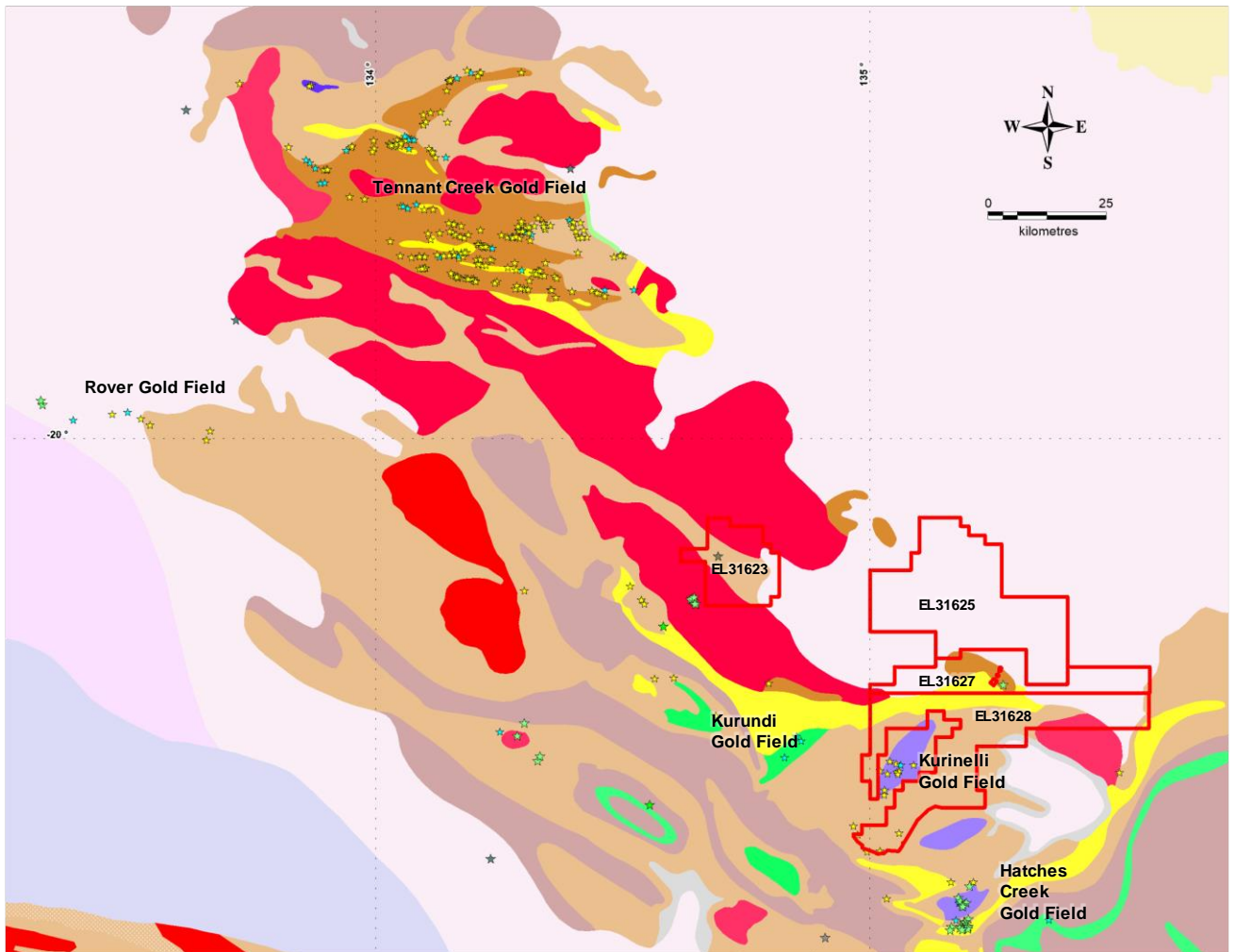


Figure 4 Tennant Inlier Provinces and Basins.

### 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 a belt of Warramunga Formation rock units striking approximately east/west under shallow Cambrian cover.



**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:**

To the south east of the tenement (45km) is the Kurinelli Gold field, and to the south west (30km) is the Kurundi Gold Field.

## **4.0 PREVIOUS EXPLORATION**

The tenement was held by different companies between 1969-2015.

The major contributors to historic exploration includes: BKM Management Ltd, Andromeda Metals, Giants Reef, Asian Minerals, Excelsior Gold, Image Resources, Castile Resource, Northern Minerals, Natural Resources Exploration, Vale Australia, Territory Phosphate and Red Metal. 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 and 2**

EL31625 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 relinquished is interpreted to be over granite and of low gold exploration potential.

## **BIBLIOGRAPHY**

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