

**Archaeological Heritage Assessment - Rover 1 Exploration Decline.**

Prepared for  
WestGold Resource Limited.

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**Tim Hill, BA Hons. (Archaeology)**  
Tim Hill Heritage Management and Planning

## Executive Summary

WestGold Resource Limited plans to prepare an exploration decline at the Rover 1 site, approximately 85km southwest of Tennant Creek, Northern Territory. The project targets include Gold and Copper deposits widely known across the Tennant Creek area and specifically the Waramungu Formation. The ore deposits lie between 300-600m below the surface and WestGold intends to construct a surface box cut (60m deep) with a spiral decline from the footwall. The exploration decline will reach a vertical depth of 400m below surface. Underground drilling will be undertaken from the decline into all three mineralized zones: the Jupiter and Western and Southern Zones. The broader Rover project includes additional exploration activities further to the west however these are not subject to this study.

Site infrastructure will include:

- Access roads and stockpile (1ha);
- Project offices, laydown pad and workshops, and a fuel storage area.
- Oxide waste rock dump (14ha), which will also have capacity to manage any defined PAF, fresh waste rock dump and Crushed aggregate Stockpile.
- Dewatering bores have been installed as part of the hydrology study. Mine ventilation fan installation will be at the surface between the box cut and the footprint of the underground workings.

The archaeological predictive model proposed that no archaeological sites will be present within the study area- primarily as a result of its relatively small size and the lack of either semi-permanent or ephemeral water available within the sandplain environment. There are no significant drainage or geological features to collect water. Further, no geological features exist to procure stone resources for stone tool production.

The archaeological survey was undertaken using pedestrian survey across the general area of the proposed decline and waste dump. The exact location of the proposed works had not been surveyed, and as such the transects were of a general nature and aimed to test the predictive model.

No archaeological sites were recorded within the area of the proposed works.

No archaeological site recommendations are required given the absence of sites recorded within the area of the proposed works.

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# 1 Introduction

WestGold Resource Limited plans to prepare an exploration decline at the Rover 1 site, approximately 85km southwest of Tennant Creek, Northern Territory (Fig.1). The project targets include Gold and Copper deposits widely known across the Tennant Creek area and specifically the Waramungu Formation. The ore deposits lie between 300-600m below the surface and WestGold intends to construct a surface box cut (60m deep) with a spiral decline from the footwall. The exploration decline will reach a vertical depth of 400m below surface. Underground drilling will be undertaken from the decline into all three mineralized zones: the Jupiter and Western and Southern Zones. The broader Rover project includes additional exploration activates further to the west however these are not subject to this study.

The archaeological assessment has been commissioned by Westgold Resources Limited and is structured according to the Office of Environment and Heritage 'Scope of Works'.

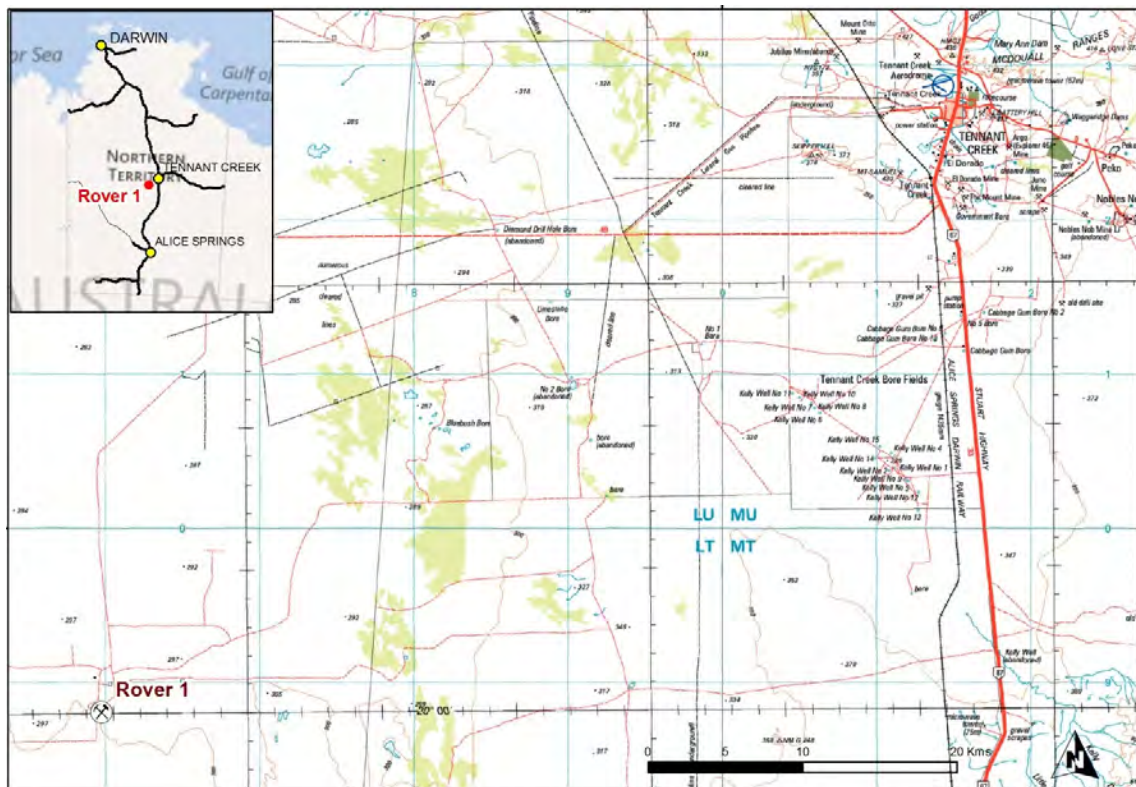


Figure 1. Location of the Rover 1 project.

Site infrastructure will include (Fig.2):

- Access roads and stockpile (1ha);
- Project offices, laydown pad and workshops, and a fuel storage area.
- Oxide waste rock dump (14ha), which will also have capacity to manage any defined PAF, fresh waste rock dump and Crushed aggregate Stockpile.

- Dewatering bores have been installed as part of the hydrology study. Mine ventilation fan installation will be at the surface between the box cut and the footprint of the underground workings.

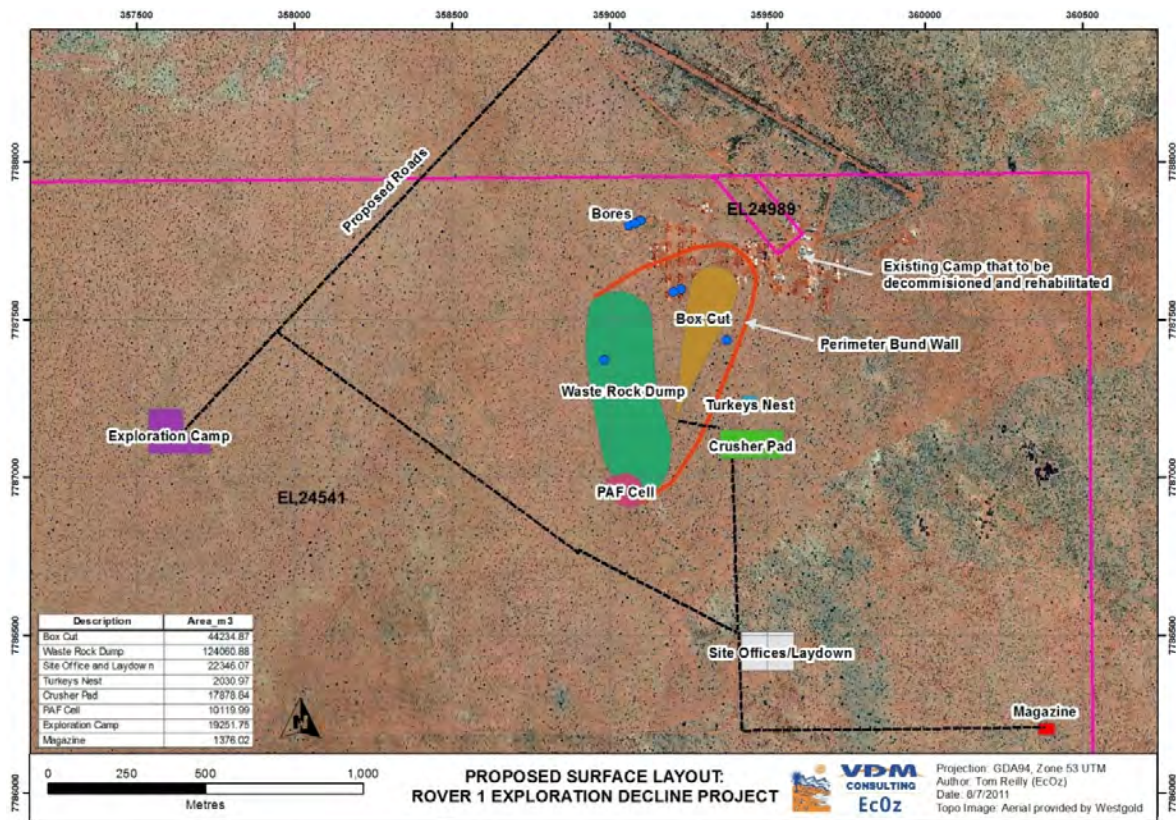


Figure 2. Proposed site layout, Rover 1.

## 2 The physical environment.

The broader Rover area predominantly consists of flat sandy hummock grasslands (*Triodia* spp.) with Acacia shrublands/woodlands, low mallee (*Eucalyptus* spp.), and Corymbia/Eucalyptus open woodlands (Fig 3).

The main vegetation type within the Rover 1 project area is Soft Spinifex (*Triodia pungens*) hummock grassland with Acacia tall sparse-shrubland overstorey. All of the proposed exploration activities occur within this vegetation type.

The other distinct vegetation community identified within the Rover 1 project area is *Acacia aneura* (Mulga) tall open shrubland with *Eragrostis eriopoda* (Woolly Butt) open-grassland understory. These patches were also associated with minor depressions (heavier soils with higher clay content). There were only a few small isolated patches/groves of this vegetation type within the project area, all located close to the north eastern boundary. These Mulga patches will not be cleared, but may be used as shade areas for the site offices.



Figure 3. Typical soft spinifex grassland typical of the study area.

### 3 The cultural environment.

#### 3.1 *Aboriginal and archaeological history*

The study area is located between the Warumungu/Warramungu and Warlpiri language areas (Sutton 1995:45). The Warumungu language area is relatively localized around Tennant Creek, whereas the Warlpiri language is much more extensive- covering most of the Tanami Desert. There is extensive anthropological records of the Warlpiri in particular, and Meggit (1962:38) indicates that relationships between the Warlpiri and Warramungu have been antagonistic

“Accounts such as this clearly indicate that, in the past, the relations of the Walbiri and Warramungu were by no means friendly. It is also significant that, although most Walbiri men are bi or multilingual, few of them could speak Warramunga when the drought of 1924 forced them to move into the Tennant Creek area” (Meggit 1962:38).

Meggit (1962:48-49) proposes a model of land use based on ‘country’ and noted the capacity of the ‘country’ of the eastern Warlpiri was much greater than that to the west and the Tanami Desert proper. Historical records from the Lander River area include gatherings of more than 200 people.

“The residents of Walbiri country were normally economically self sufficient....Hunting and food gathering itineraries were governed mainly by local and seasonal variations in the distribution of game and plants...They travelled from one waterhole to another as particular plant came into bearing and the game moved ahead of the hunters. As water and food became more scarce, the main party broke up into progressively smaller groups. By the time of the bad season, towards the end of the dry weather in late spring and early summer, the typical food gathering unit comprised a man, his wives and children, with perhaps an old widowed mother or father in law in their care... Meggit 1962:49,50.

Historical records indicate that the Warramungu actively sought to restrict the movement of settlers within the Tennant Creek area during the late 1800's. Several incidents of aggression and violence occurred between white settlers and Aboriginal people, most notably the attack on the Barrow Creek Telegraph Station in 1874 (Reid1990:62) and a series of reprisals and raids over the following decades, including a significant massacre at Skull Creek immediately follow the attack on the telegraph station.

There have been few- if any- detailed archaeological surveys of the Tennant Creek region. A search of the Heritage Database indicated that all recorded sites are closely associated to the Stuart Highway and Darwin to Alice Springs Railway Line (Fig 4). This distribution of sites is a factor of sampling and not an adequate reflection of the broader archaeological record of the region.

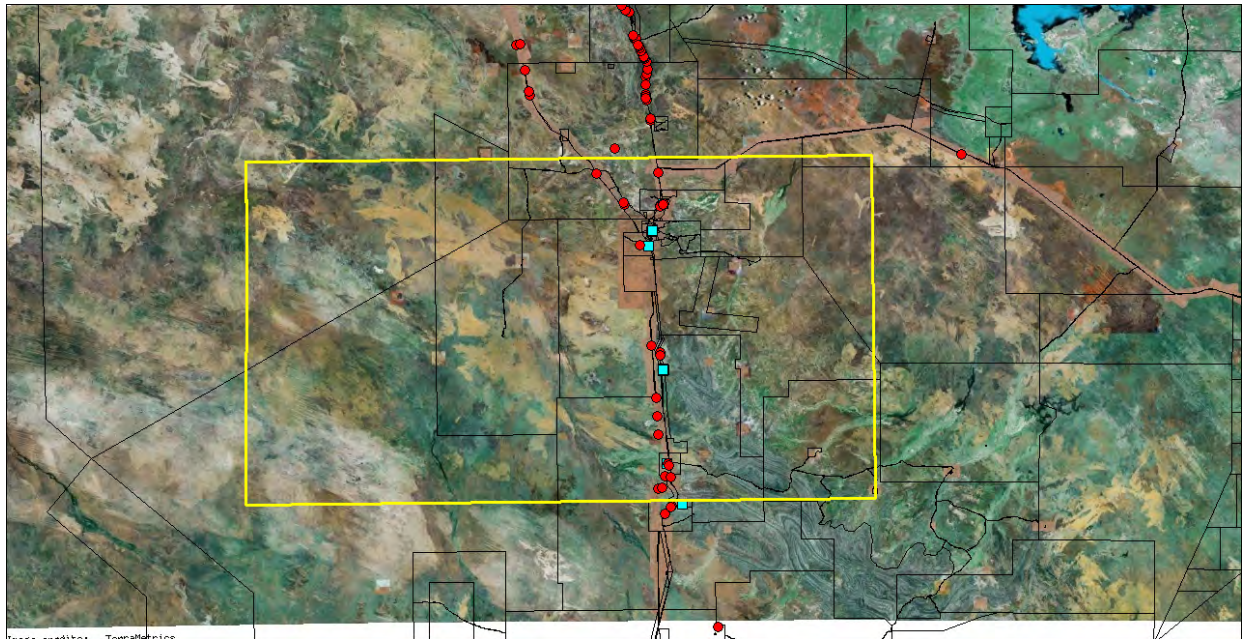


Figure 4. Map of recorded archaeological sites in the Tennant Creek Area.

### ***3.2 Aboriginal archaeological predictive model***

It is predicted that no archaeological sites will be present within the study area- primarily as a result of its relatively small size and the lack of either semi-permanent or ephemeral water available within the sandplain environment. There are no significant drainage or geological features to collect water. Further, no geological features exist to procure stone resources for stone tool production.

It is expected that the study area was use very ephemerally- if at all- by travelling and hunting parties which would have a very minor archaeological footprint.

## **4 Previous archaeological research**

A heritage database search was completed for the Tennant Creek area based on a regional map of the River project. No sites were recorded within or close by to the Rover study area, however this is likely due to a lack of archaeological surveys in the area.

No sites have been excavated within the region and as such there is no detailed chronology for occupation and utilization of the Barkly region. The region has played almost no role in broader debate about colonization of the desert/arid zones of Central Australia (i.e. Veth 1989, Veth 2005).

The database search resulted in several stone artefact scatters being recorded along the highway and railway line. Several of these sites contained portable grind stone. A number of stone quarries are also recorded, as are ceremonial areas. The high number of grindstones is likely due to the available of grasses on the Barkly tablelands and the location of a grindstone quarry north at Renner Springs.

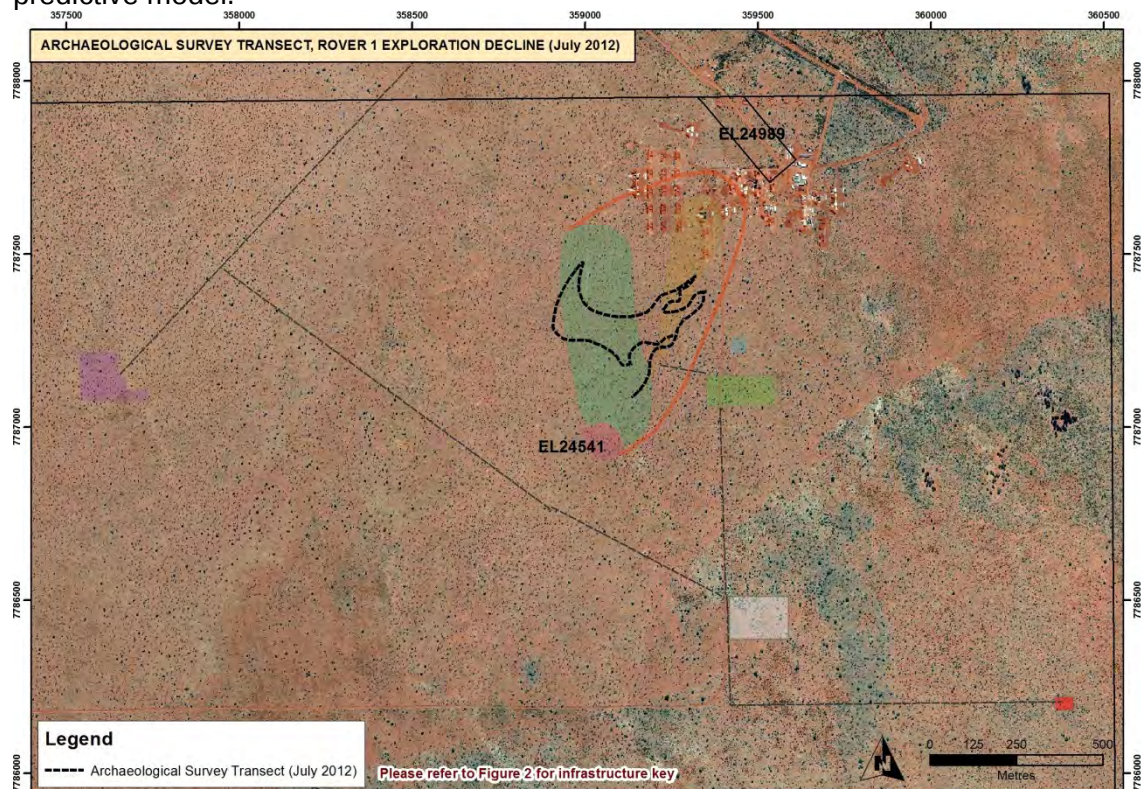
Table 1. Heritage Database search results.

| Site_Name                                                          | Eastin<br>g | Northin<br>g | Site_Type                                                                |
|--------------------------------------------------------------------|-------------|--------------|--------------------------------------------------------------------------|
| Orlando Dam                                                        | 39404<br>2  | 784847<br>2  | quarry                                                                   |
| Dixon Creek 2                                                      | 41726<br>5  | 773126<br>4  | stone artefact scatter                                                   |
| Dixon Creek 3                                                      | 41858<br>8  | 773168<br>9  | quarry, stone artefact scatter, hearths                                  |
| Dixon Creek Rain Dreaming - Jumkaji                                | 41968<br>1  | 773587<br>7  | Stone arrangement, ceremonial ground,<br>Restricted anthropological site |
| Bonney Well [Have used data from<br>MS's 1984 recording, not AS's] | 42080<br>0  | 774060<br>0  | Stone artefact scatter                                                   |
| Dixon Creek                                                        | 42180<br>5  | 773562<br>7  | Stone artefact scatter                                                   |
| Gilbert Creek                                                      | 41676<br>8  | 775851<br>2  | Stone artefact scatter, grindstone<br>portable                           |
| Site AB PCARP                                                      | 41800<br>0  | 778200<br>0  | Stone artefact scatter                                                   |
| Site AC PCARP                                                      | 41800<br>0  | 778100<br>0  | Stone artefact scatter, grindstone<br>portable                           |
| Site AD PCARP                                                      | 41800<br>0  | 778100<br>0  | Stone artefact scatter                                                   |
| Little Edinburgh Creek 1                                           | 41476<br>0  | 778468<br>3  | quarry                                                                   |
| Gilbert Well 1                                                     | 41624<br>0  | 776528<br>4  | quarry                                                                   |
| Bonney Well artefact scatter 2                                     | 42117<br>8  | 774016<br>1  | stone artefact scatter                                                   |
| McLaren Creek 1                                                    | 41715<br>1  | 775151<br>2  | stone artefact scatter                                                   |
| Tennant Creek                                                      | 41937<br>4  | 783730<br>8  | Stone artefact scatter                                                   |
| Kitjibaridji                                                       | 41937<br>4  | 783730<br>8  | Unrestricted mythological site                                           |
| Mt. Samuel                                                         | 41014<br>6  | 782182<br>8  | Restricted mythological site                                             |
| Tennant Creek SW                                                   | 41800<br>0  | 783630<br>0  | Stone artefact scatter, quarry                                           |
| Tennant Creek NW Site 1                                            | 41790<br>0  | 783670<br>0  | Stone artefact scatter                                                   |
| Tennant Creek NW Site 2                                            | 41800<br>0  | 783680<br>0  | Stone artefact scatter                                                   |
| Tennant Creek NW Site 3                                            | 41810<br>0  | 783680<br>0  | Stone artefact scatter                                                   |
| Tennant Creek NW Site 4                                            | 41810<br>0  | 783680<br>0  | Stone artefact scatter                                                   |
| Tennant Creek NW Site 5                                            | 41820<br>0  | 783690<br>0  | Stone artefact scatter                                                   |
| Lance Site 6                                                       | 41800<br>0  | 783640<br>0  | Stone artefact scatter                                                   |

|                        |            |             |                        |
|------------------------|------------|-------------|------------------------|
| Tennant Creek Site 1   | 41900<br>0 | 783700<br>0 | Stone artefact scatter |
| Tennant Creek Site 2   | 41900<br>0 | 783700<br>0 | Stone artefact scatter |
| Tennant Creek Site 3   | 41900<br>0 | 783700<br>0 | Stone artefact scatter |
| Warrego Quarry Complex | 40463<br>8 | 783706<br>4 | quarry                 |
| Warrego Quarry 2       | 40408<br>4 | 783760<br>1 | quarry                 |
| Three Ways Site 1      | 41700<br>0 | 784900<br>0 | Stone artefact scatter |

## 5 Archaeological Survey

The archaeological survey was undertaken using pedestrian survey across the general area of the proposed decline and waste dump. The exact location of the proposed works had not been surveyed, and as such the transects were of a general nature and aimed to test the predictive model.



## 6 Results

No archaeological sites were recorded within the area of the proposed works.

## **7 Discussion**

The absence of archaeological sites is likely due to the following;

- o The relatively small scale of the proposed works,
- o The absence of any water features- either semi-permanent or ephemeral.
- o The absence of any stone features suitable to tool procurement, and
- o The nature of Aboriginal use of marginal sandplain country which would have a very minimal archaeological footprint.

### ***7.1 Potential Cultural Significance.***

No sites were recorded during the survey.

### ***7.2 Potential Scientific significance.***

No sites were recorded during the survey.

### ***7.3 Statements of significance.***

No sites were recorded during the survey.

## **8 Summary and recommendations**

### ***8.1 Summary***

No archaeological sites were recorded during the survey.

### ***8.2 Recommendations.***

No archaeological site recommendations are required given the absence of sites recorded within the area of the proposed works.

## 9 Bibliography

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