

# TODD RIVER METALS PTY LTD

## **KOVACS PROSPECT**

### ANNUAL AND FINAL REPORT

### **MLC647**

### 01/01/2019 - 31/12/2020

Tenement/s	MLC 647	1:250 000 Sheet Name	Bonney Well (SF5302)
Holder	Todd River Metals Pty Ltd	1:100 000 Sheet Name	Bonney (5302)
Manager	N/A	Datum	GDA94-53
Operator	Todd River Metals Pty Ltd	GDA_E	436586-427020
Commodity	Au	GDA_N	//56041-//56213
Elements Analysed	Au		
Keywords	Au, Kovacs, pit, costean, drillholes, CLC		
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#### 1. INTRODUCTION

Kovacs Prospect MLC 647 was held by Todd River Metals Pty Ltd (a wholly owned subsidiary of Todd River Resources Ltd). It is located 73km south of Tennant Creek Township and lies within the Warramunga project area, wholly within Mungkarta Aboriginal Land Trust formerly known as McLaren Creek Station and surrounded by (the now withdrawn application) ELA25582 (Figure 1).

The Lease surrounds a small pit of exposed mineralised sulfidic chert/siltstone which assays up to 10.8grams per tonne of gold. Previous bedrock geochemistry sampling has delineated a strong arsenic anomaly originating from MLC647 and trending away to the southeast for about 400 metres.

Access to the licence has been an ongoing problem for many years and as such the licence has not been renewed and expired on 31/12/2020.



This report summarises the work completed on MLC647 throughout its tenure.

Figure 1: Location of MLC647 - Kovacs.

### 2. LOCATION AND ACCESS

Mineral Lease (Central) 647 is approximately 73km south of Tennant Creek Township (Figure 1). It is located on the Bonney Well 1:250,000 Geology Map (Figure 2) and lies wholly within Mungkarta Aboriginal Land Trust. The prospect can be accessed via the all weather Alice Springs-Darwin Highway and then by station tracks.

#### 3. TENURE

Mineral Lease (Central) 647 covers a total area of 8ha. It is currently 100% held by Todd River Metals Pty Ltd a wholly owned subsidiary of Todd River Resources Limited. The licence was included in the demerger of gold and base-metal assets from TNG Ltd to Todd River Resources Limited (TRR) in April 2017. The licence was originally granted on 9 September 1970 for a period of 20 years. It has since been renewed several times, the latest renewal was granted on 1 January 2016 for a five year term, through to 31 December 2020. Access issues resulted in the decision not to renew the licence and the tetnure ceased on this date. Tenure details are summarised in Table 1.

Table 1: Kovacs tenement details
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TITLE	AREA (ha)	GRANT DATE	EXPIRY DATE
MLC647	8	09/09/1970	31/12/2020

#### 4. GEOLOGY

The exposed rocks outcropping within Kovacs lease namely MLC647 have been mapped by AGSO as Paleoproterozoic aged Warramunga group. The area of the lease covers part of an eastwest striking series of metamorphosed felsic to intermediate volcanic pyroclastics, siltstones and minor cherts. Local dips are between 60 and 80° south. Several shears are mapped trending northeast, northwest accompanied by zones of intense brecciation promoting the development of quartz stock works accompanied by the introduction of hematite.

Mineralisation is composed of pyritic lenses over 500 metres strike length hosted by a siliceous sedimentary rock and overlying hydrothermally altered volcanics. This style of mineralisation contrasts with the styles documented in the Tennant Creek Goldfield and therefore requires further investigation.



Figure 2: Kovacs, MLC647 on 250K geology.

#### 5. HISTORY OF TENURE AND EXPLORATION

First recorded work was completed over the licence AP2268 in 1969 when licence holder Steven Kovacs (hence the prospect name) had several men carry out a prospecting programme for him. They identified anomalous gold around 600m north of a WNW striking quartz ridge and a pit was sunk to a depth of about 6ft.

Kovacs entered into an agreement with Geopeko Limited in August 1969 to undertake prospecting in the area. Detailed geological mapping, auger bedrock drilling, ground based mag and SP surveys and a diamond drillhole were completed in the vicinity of the gold prospect. Unfortunately this was all completed using local grid coordinates so is difficult to locate accurately based on written reports. The Geopeko drillhole (Figure 3) was a 129m inclined hole drilled at the southern end of the main costean (Costean C), to test a small magnetic anomaly beneath the area of the pit. Work completed by Geopeko is detailed in Williams, 1970.

In 1984, Billiton Australia Ltd completed an exploration programme under an option agreement with the prospect holders. Work completed and exploration data gathered by Billiton is detailed in Billiton, 1985 and summarised below.

Following initial rock chip sampling of the pit and a few isolated outcrops, Billiton completed 670 metres of costeaning (Figure 3). These costeans, together with the rare outcrops, were geologically mapped and rock chip sampled.

A total of 145 costean chip samples and 22 samples from the pit and outcrops were assayed and analysed, mostly for copper, lead, zinc, arsenic, iron, manganese and silver as well as gold. Petrological studies were also done. Spacing between the north-south orientated costeans varies between 45 metres and 145 metres making along-strike correlations difficult.

The main gold occurrence is within the previously mentioned open pit. The gold mineralisation is preferentially located within a pyritic chert horizon and is accompanied by anomalous arsenic. Billiton estimated that the auriferous part of this chert lens "is strike limited to less than 50 metres long by 2.5 metres wide, and is only exposed in the discovery pit". Six chip samples gave gold values varying between 2.3 and 10.8 grams/tonne averaging 6.03 grams Au.



Figure 3: Aerial view of the Kovacs prospect shows the pit and costeans and approximate locations of drillholes, Geopeko (Peko1) and ADL (KOP-1 to KOP-3 & KOP-8).

Along the northern side of the chert is a pod of silicified pyritic siltstone which is over 5 metres thick in the open pit and carries 1.5 grams/tonne Au. These results suggested the existence of a small stratabound lens 7.5 metres thick averaging 3.0 grams/tonne Au. Analysed by AAS method the samples produced a few isolated anomalous results, however no values exceeded 0.5 grams/tonne.

Check fire assaying of 14 selected samples of which 10 had given assays of less than 0.1 grams/tonne Au increased in five of the above samples to 0.2 grams/tonne Au. More rock chip sampling was undertaken at the end of 1984 of the pyritic chert or siltstone, quartz chert breccia. Assays from these costean samples ranged from 0.4 up to 1.2 grams/tonne Au. The location of these samples are plotted on Figure 2 which also shows a moderate to strong arsenic anomaly trending to the south east from Kovacs for approximately 400 metres. A gold/arsenic association is well established as indicated by the following sampling results from Kovacs pit in Table 2.

All available geochemical data is recorded in local coordinates and therefore very difficult to accurately locate and plot in GIS software.

SAMPLE	As (ppm)	Au (ppm)
6148	610	4.9
4013	3750	10.8
4016	195	3.7

#### Table 2: Au and As results from the Kovacs pit

In 1986 Australian Development Ltd (ADL) completed a program of 8 percussion drill holes for 310 metres (KOP-1 to KOP-8) in August 1985. Holes KOP-1 to KOP-3 and KOP-8 fall within the main prospect area (Figure 3). KOP-4 to KOP-7 lie to the west of the MLC647 boundary along Costean F, within the surrounding ELA25582 (Figure 4). All of the drill holes were drilled to the north at inclinations of 45° (Figure 3, 4).

Percussion hole KOP-1 drilled beneath the pit intersected four metres (25 to 29 metres down hole depth) averaging 0.49 grams/tonne Au suggesting significant mineralisation does not extend to 20 metres vertical depth. Percussion drill hole KOP-8, located alongside the easternmost costean, intersected one metre averaging 2.8 grams/tonne Au.

Logs from these holes are contained in Powierza, 1986 and the assay details from these logs have been captured digitally. Once again local grid coordinates have been used and exact locations of the holes are unknown. Based on figures contained in Powierza (1986) the drillhole locations have been superimposed on the aerial image of the prospect area (Figure 3).

In late 1987 Tennant Creek Gold Ltd (now TNG Ltd) purchased the lease and together with three surrounding exploration licenses were joint ventured to Metana Minerals NL in 1988 who completed a 200 x 20 metre spaced ground magnetometer survey and a 400 x 80 metre spaced bedrock geochemistry sampling program. A vacuum drilling program totalling 783 metres was completed and 306 samples were assayed for Au only. A weak 15ppb Au anomaly trending to the southeast was delineated (Figure 4).

In 2008 Tennant Creek Gold (NT) Pty Ltd (TNG) entered into a Joint Venture heads of agreement for this lease with WDR Gold Pty Ltd, a wholly owned subsidiary of Western Desert Resources Ltd (WDR).

WDR advised that it had plans to investigate potential gold mineralisation on MLC647 by conducting a detailed bedrock geochemistry sampling program over the southeast trending arsenic anomaly once ELA25582 (the surrounding licence) was granted.

WDR repeatedly reported that there has been no activity on the lease due to uncertainty with land access and the precise location of the lease.

WDR had administrators appointed during 2015 and liquidators during 2016. MLC647 is now operated by Todd River Metals Pty Ltd (a wholly owned subsidiary of Todd River

Resources Ltd). The licence was included in the demerger of gold and base-metal assets from TNG Ltd to Todd River Resources Limited (TRR) in April 2017.

TRR have faced similar difficulties to WDR in regards to access to the lease and no further exploration has been undertaken.



Figure 4: Anomalous trend within MLC647.

#### 6. WORK COMPLETED 2020

No on-ground work has been undertaken on MLC647 during the past year and the licence has not been renewed. The licence ceased on 31 December 2020.

#### REFERENCES

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