

# **BOWGAN MINERALS LIMITED**

BOWGAN MINERALS LIMITED

## **EXPLORATION LICENCE 31292 BUGGY CAMP (NEUTRAL JUNCTION PROJECT)**

**FIRST SURRENDER REPORT**

**ANNIVERSARY No.2**

**FEBRUARY 2019**

Barrow Creek, Alcoota  
1:250,000 Map Sheet

Registered titleholder: Bowgan Minerals Limited

Target commodities: precious metals, base metals, tungsten, uranium

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## **SUMMARY**

Buggy Camp (EL31292) is located 250km north of Alice Springs and comprises part of the Neutral Junction project. Bowgan Minerals Limited is the current operator of the tenement. Exploration is currently aimed at identification of potential occurrence of economic gold, silver and base metals within an iron oxide-copper-gold (Tennant Creek-style IOCG) deposit setting and exploration for uranium within known alaskite occurrences. Known anomalies have been previously identified further to the west, on adjacent EL's 24253 and 29475 with exploration by Bowgan currently focused towards exploration along prospective structural corridors interpreted from regional geophysics. Surrender of 50% of EL31292 (43 out of 86 originally granted blocks) was conducted prior to the second anniversary. This report presents a summary of all exploration activity conducted to date, on the surrendered portion of EL31292 by Bowgan Minerals Limited.

## 1. INTRODUCTION

Buggy Camp (EL31292) is located 250 km north of Alice Springs, Northern Territory, on the Barrow Creek (SF53-6) and Alcoota (SF53-10) 1:250 000 map sheets (Figure 1). Access to the district is via the Stuart Highway to Ti Tree, then the Adelaide Bore Road or alternatively via the Sandover Highway, then the Adelaide Bore Road to Mount Skinner homestead, with access to the tenement via a network of graded station tracks.

This report, for the first surrender for EL31292 Buggy camp presents a summary of all work completed on the surrendered portion of the tenement to date, by Bowgan Minerals Limited.

## 2. TENEMENT DETAILS

### 2.1 Tenure

Bowgan Minerals Limited is the registered titleholder of exploration licence EL30797 as detailed in Table 1. This exploration licence lies within the Mount Skinner Pastoral Lease.

**Table 1:** Tenement Details

Tenement	Name	Tenement Holder	No. blocks granted	Date Granted	Renewal Date
EL 31292	Buggy Camp	Bowgan Minerals Ltd (Bowgan)	86 blocks (273.86 km <sup>2</sup> )	13/01/2017	12/01/2023

Buggy Camp (EL31292) comprises part of the Neutral Junction project, which includes; Neutral Junction (EL24253), Donkey Creek (EL28615), Adnera Hill (EL29475) and EL30797 (Ooralingie).

Buggy Camp, Donkey Creek, Adnera Hill and Ooralingie are 100% owned/operated by Bowgan, with Neutral Junction being operated under joint-venture agreement between Bowgan Minerals Limited and Mithril Resources Limited and Mega Hindmarsh Pty Limited.

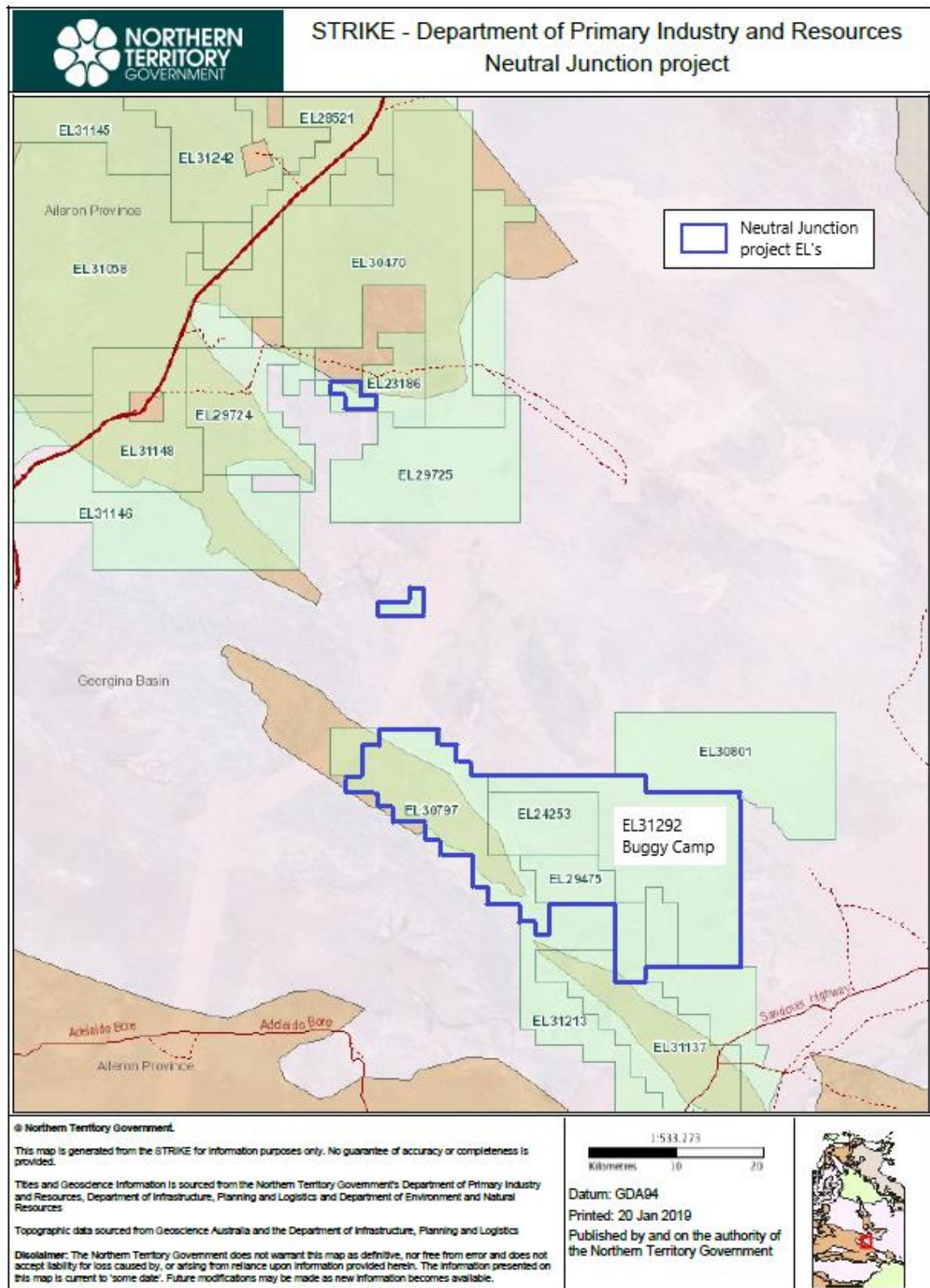
### 2.2 Native Title Parties and Aboriginal Heritage

EL31292 lies within Native Title Claim area NTP 704 (Mount Skinner) with sacred sites being identified within this precinct.

Bowgan has engaged the Aboriginal Areas Protection Authority (AAPA), which conducted a survey of protected sites on record for EL30797. Sacred sites have been identified within the EL30797 tenement area.

### 2.3 Consultation with Pastoralists

The station manager at Mount Skinner pastoral station was contacted by Bowgan both before commencement, during the running of the program and, at the conclusion of field exploration programs conducted on EL31292.



**Figure 1:** Neutral Junction project tenements; EL24253, EL28615, EL29475, EL30797 and EL31292 (Buggy Camp). Image generated prior to 50% tenement reduction for EL31292 which is the subject of this report.

### 3. REGIONAL GEOLOGY

The Neutral Junction project is located at the boundary of the Arunta Inlier to the south and the Tennant Creek Inlier/Davenport Province to the north. The contact between these tectonic blocks constitutes a wide northwest-southeast trending corridor which includes intensely folded and faulted rock types of both provinces (Lennartz, 2006).

Shallow regolith to deeper transported sandy soils cover occurs across the EL31292 tenement area, with limited outcrop exposures occurring across the middle part of the tenement. Here, Neoproterozoic-aged Georgina Basin sediments comprising; Adelaidean Central Mt Stuart Formation (sandstones and quartzite) occur within flat-lying outcrops. These flat-lying units rest unconformably above steeply inclined and deformed/metamorphosed Palaeoproterozoic-aged metasediments (Arunta Inlier rocks) which exhibit amphibolite-grade metamorphism and are largely obscured across most of the tenement.

Further north, this metasedimentary package includes the prospective Hatches Creek Group (HCG) which hosts the Home of Bullion mine as well as a number of other potentially economic prospects.

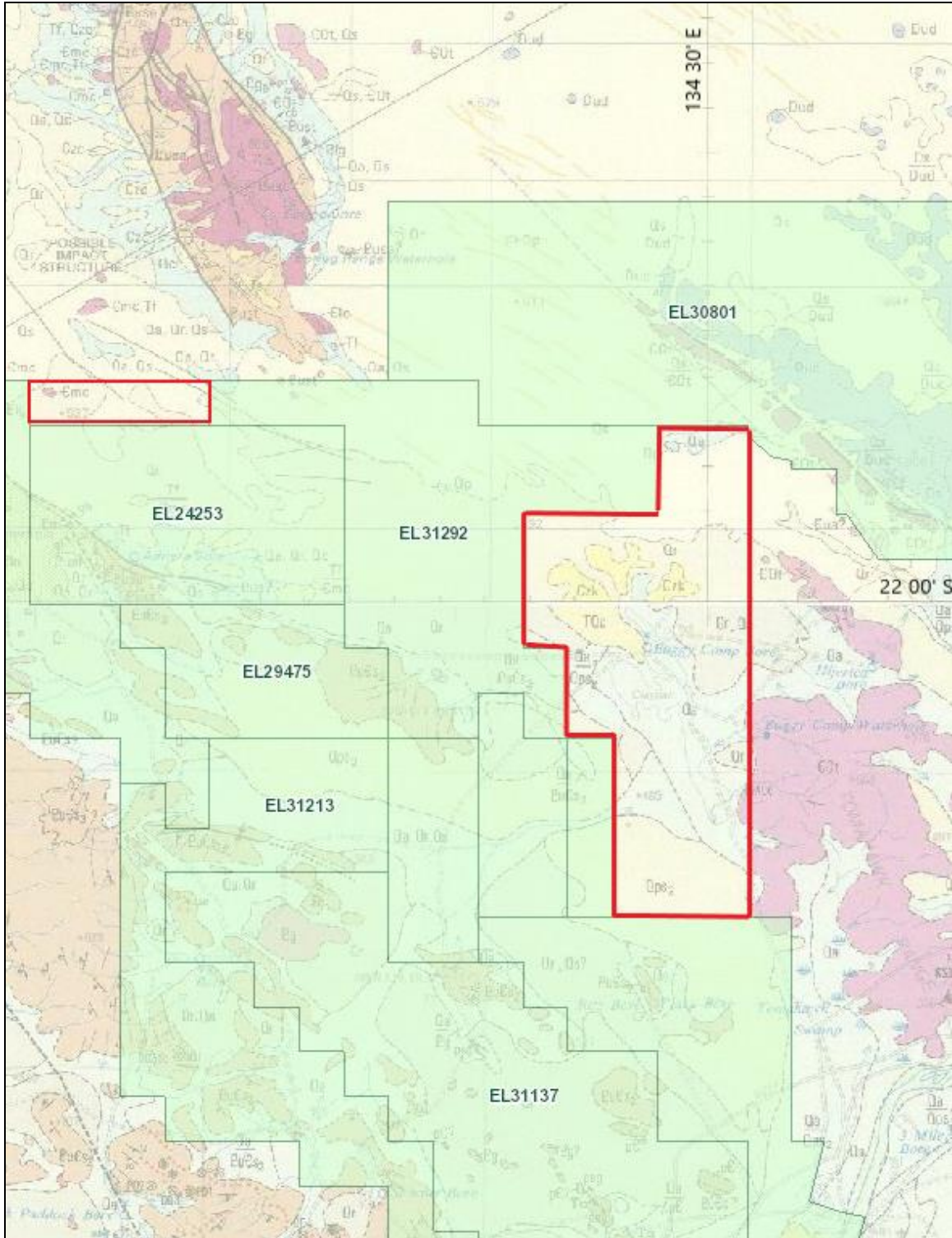
Proterozoic-aged, radiometrically-anomalous granites have intruded along the northwest-southeast structural trend and occur along the east and southern flank of the EL31292 tenement area.

Previous modelling of the depth of the HCG metasediments by the NTGS indicates that a major fault forms the western margin of the Georgina Basin. The depth of the basin sediments in this part of the Neutral Junction project increases from less than 100 m to greater than 1 km from west to east over a distance of less than 500 m. This suggests a major crustal discontinuity, which could provide a pathway for migrating mafic magma.

Locally, this discontinuity is represented by the Ooralingie Fault, which runs along the western flank of EL31292. A number of surface gold, silver and copper anomalies have been identified to occur at Adnera Hill, within an iron oxide-copper-gold (IOCG) depositional setting, with the potential for further anomalies interpreted to occur within the Ooralingie fault corridor located further west.

Review of geophysical datasets identify a potential extension of the prospective geology to continue onto EL31292 with potential for precious and base-metal mineralisation being interpreted. Exploration for lithium-bearing pegmatites has also occurred in the area over the last 1-2 years.





**Figure 2:** Geology of surrendered portion of EL31292 (Buggy Camp) and surrounding tenements. Image derived from 250K geology layer, NTG Strike database.

#### **4. PREVIOUS EXPLORATION**

Historically, limited prospecting and small-scale mining has been reported in the local area for copper, lead, silver, nickel, tin, tantalum, tungsten, molybdenum and mica (NTGS, 1991). The largest mining operation occurred at Home of Bullion mine site where copper ore was extracted (6,100 tonnes officially recorded) between 1923 and 1951.

Aerial surveying (magnetics) was completed by NT Geological Survey on N-S oriented 500 metre line-spacing at 100 metres height during 1981 and a regional gravity survey was completed on a 4km grid during 2008-09.

##### *Base metals*

Exploration for base metals was conducted within the district by Kennecott Exploration (1966), Department of Mines and Water Resources (1968). Wolfram, tantalum and tin exploration was conducted within the local area by BHP Minerals Ltd (early 1980's) and R.B. Mining (1981). Further work for base metals was conducted in the district by C.R.A.E. (1980), Alcoa Australia Ltd. (1983) and Otter Exploration (1989).

Work recommenced at the abandoned Home of Bullion mine site in 2012, with a program of resource-delineation drilling being conducted by Kidman Resources. An inferred resource figure of 2.5Mt @ 1.8% copper, 2% zinc, 1.2% lead, 0.14g/t gold and 36g/t silver was announced at the conclusion of this program (ASX release, July 29<sup>th</sup> 2014).

##### *Diamonds*

Exploration for diamonds was undertaken in the district by C.R.A.E. in 1977.

##### *Nickel*

Exploration for nickel was undertaken in the district by Mithril Resources Limited in 2005.

##### *Uranium*

Uranium exploration was undertaken in the district by Otter Exploration (1977), C.R.A. Exploration (1978) and by Uramet Minerals (Intercept Minerals) between 2007 and 2014 and by Mega Hindmarsh (2006-9) and by Bowgan (2009-present). Intercept Minerals explored an alaskite prospect which is located within the EL30797 Ooralingie tenement area.

##### *Tungsten*

Exploration for tungsten was undertaken in the district by Uramet Minerals (Intercept Minerals) between 2007 and 2014.

## 5. EXPLORATION CONDUCTED BY BOWGAN MINERALS LIMITED

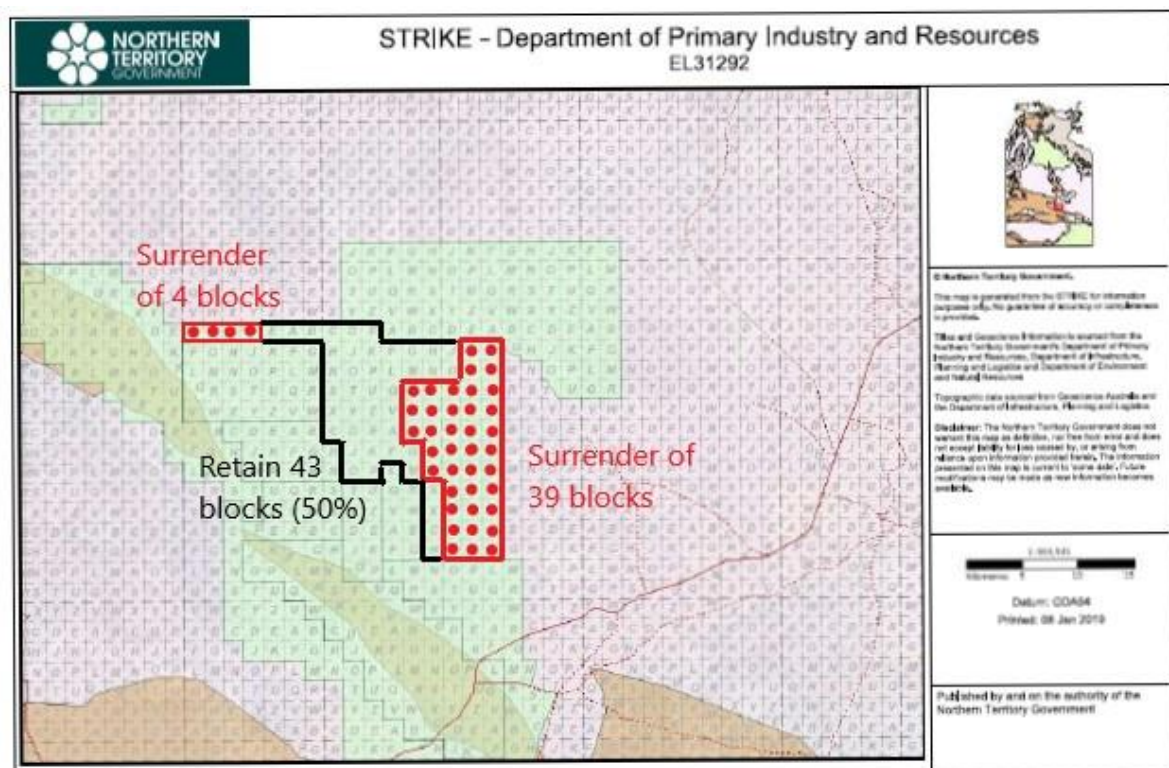
### 5.1 Surrendered portion of EL31292 (Buggy Camp)

No field exploration activity has conducted by Bowgan Minerals Limited on the surrendered portion of EL31292 Buggy Camp.

Office-based study of historical reports and open-file datasets was conducted prior to surrender, with no significant targets being identified to occur within the surrendered portion of EL31292 Buggy Camp.

As a consequence, a 50% reduction (43 out of 86 granted blocks) for EL31292 Buggy Camp was submitted to the Titles Office, NT Department of Primary Industry and Resources on 1<sup>st</sup> November 2017, prior to the second anniversary date of 13<sup>th</sup> January 2018.

The surrendered portion of EL31292 is identified in Figure 3.



**Figure 3:** Surrendered portion of EL31292 Buggy Camp. (Image generated from NTG Strike database).

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