

# **BOWGAN MINERALS LIMITED**

BOWGAN MINERALS LIMITED

## **EXPLORATION LICENCE 30797 OORALINGIE (NEUTRAL JUNCTION PROJECT)**

### **SECOND SURRENDER REPORT**

**ANNIVERSARY No.4**

**NOVEMBER 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**

Ooralingie, EL30797 is located 250km north of Alice Springs and comprises part of the Neutral Junction project. Bowgan Minerals Limited (Bowgan) 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 orogenic (Tanami-style) and/or iron oxide-copper-gold (Tennant Creek-style IOCG) deposit setting and exploration for uranium in association with known alaskite occurrences. Anomalies have been previously identified by Bowgan immediately east, on adjacent EL's 24253 and 29475 with exploration currently focused towards exploration along prospective structural corridors interpreted from regional geophysics. Surrender of 10 out of 69 blocks originally granted was conducted prior to the second anniversary. A further surrender of 21 blocks was conducted prior to Anniversary No.4, with 38 blocks being retained in good standing. This report details exploration activity conducted by Bowgan Minerals Limited on the surrendered portion of EL30797.

**1 INTRODUCTION**

EL30797 Ooralingie 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 second surrender completed for EL30797 details exploration work completed on the surrendered portion of the tenement, anniversary No.4 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 and Stirling Pastoral Leases.

**Table 1:** Tenement Details

Tenement	Name	Tenement Holder	No. blocks granted	Date Granted	Renewal Date
EL 30797	Ooralingie	Bowgan Minerals Ltd (Bowgan)	69 blocks (224 km²)	12/11/2015	11/11/2021

Ooralingie (EL30797) comprises part of the southern Neutral Junction project area, which includes; Neutral Junction (EL24253), Adnera Hill (EL29475) and EL31292 (Buggy Camp), with Donkey Creek (EL28615) and Home of Bullion (EL32027),

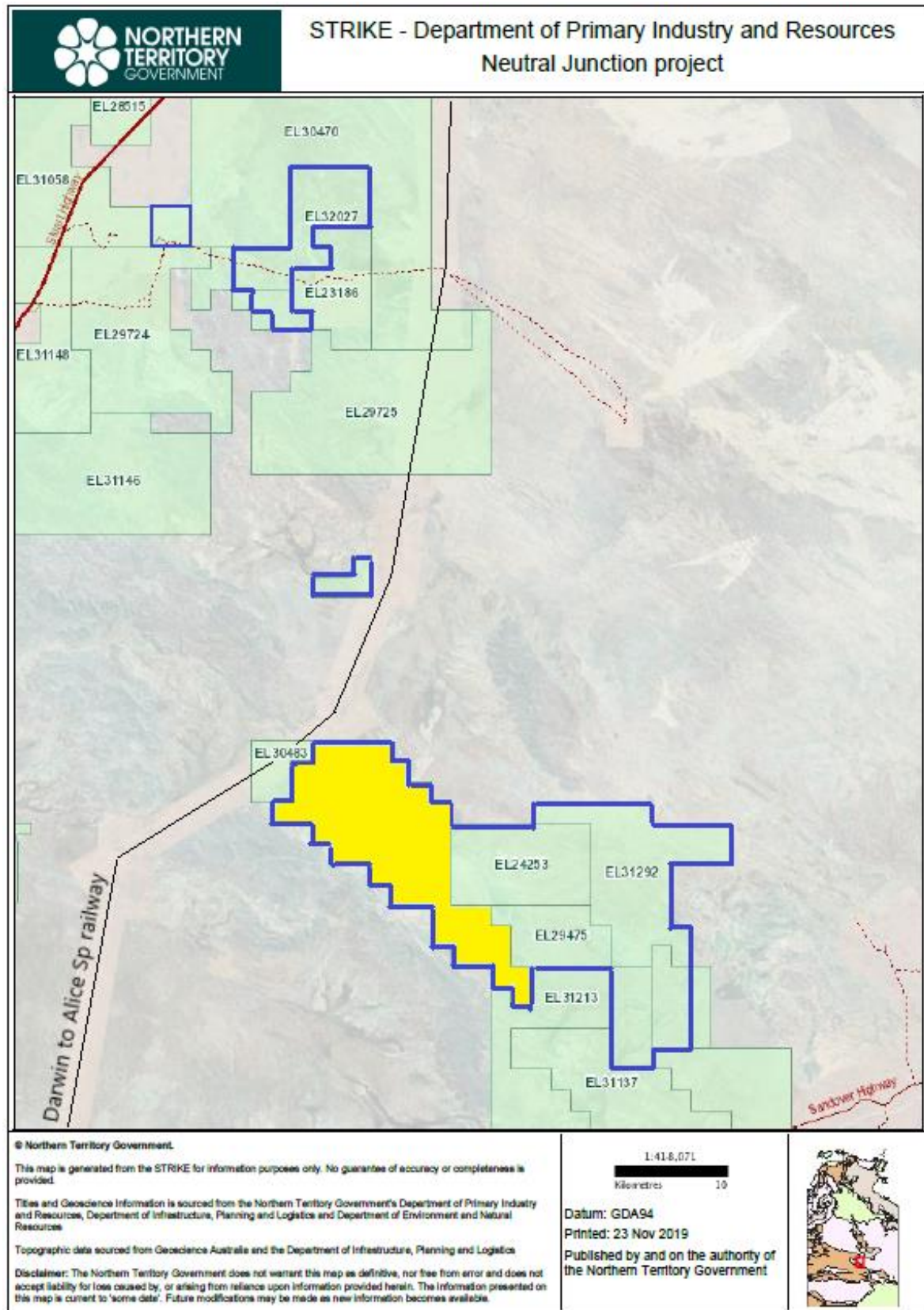
Ooralingie, Adnera Hill, Buggy Camp, Donkey Creek and Home of Bullion tenements are 100% owned/operated by Bowgan, with Neutral Junction being operated under joint-venture agreement between Bowgan Minerals Limited and Mithril Resources Limited and Mega Hindmarsh Pty Limited.

**2.2 Native Title Parties and Aboriginal Heritage**

EL30797 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 and Stirling pastoral stations were contacted by Bowgan both before commencement, during the running of the program and, at the conclusion of field exploration programs conducted on EL30797.



**Figure 1:** EL30797 (Ooralingie), highlighted along with other Neutral Junction project tenements; EL24253, EL28615 EL29475, EL31292 and EL32027.

### 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 most of EL30797, with an increase in outcrop exposures towards the western side of the tenement. Here, Neoproterozoic-aged Georgina Basin sediments comprising; Adelaidean Central Mt Stuart Formation (sandstones and quartzite) occur within shallow-dipping outcrops, or under shallow cover. These flat-lying units rest unconformably above steeply inclined and deformed/metamorphosed Paleoproterozoic-aged meta-sediments (Arunta Inlier rocks) which exhibit amphibolite-grade metamorphism and are largely obscured apart from a small number of exposures at surface or under shallow cover.

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 in the Donkey Creek area (EL's EL31292 and EL32027) with age-equivalent units being currently interpreted to occur within the EL30797 tenement area.

Proterozoic-aged, radiometrically-anomalous granites have intruded along the northwest-southeast structural trend and occur along a NW/SE strike trend through the EL30797 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 the Barrow Creek area 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 north-east part of EL30797. A number of surface gold, silver and copper anomalies have been identified to occur at Adnera Hill, within an orogenic and/or IOCG depositional setting, with the potential for further prospectivity interpreted to occur along strike further west along this structural corridor on EL30797.

Review of historical exploration reports identify outcrops of alaskite (granitic rocks composed of K-feldspar and quartz with almost no dark minerals) on EL30797 which were previously explored for their uranium potential and a small number of tungsten prospects are also identified in the area. Exploration for lithium-bearing pegmatites has also occurred in the area over the last 1-2 years.





#### **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 NTGS during 1981; N/S-oriented 500 metre line-spacing, 100metres flight height. A regional gravity survey was completed on a 4kmX4km survey density during 2008-09.

##### *Gold*

Normandy explored for orogenic Gold at the Wapiti prospect during the 1990's, which included conducting vacuum and RAB drilling programs.

##### *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 formally 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 MegaHindmarsh (2006-9) and by Bowgan (2009-present). Intercept Minerals explored an alaskite prospect which is located within the current EL30797 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 EL30797**

Gravity surveying was conducted by Atlas Geophysical Services during December 2016 with the assistance of co-funding from NTG's CORE (Round 9). Surveying was conducted on-ground according to a 1kmX1km rectangular survey density.

Apart from the gravity field survey, there has been no other field exploration activity conducted to date, on the surrendered portion of EL30797 by Bowgan Minerals Limited.

Office-based study of historical reports and open-file datasets was conducted prior to surrender, with no significant exploration targets that warranted field exploration being identified within the surrendered portion of EL30797.

An application to vary the reduction requirement; Waiver of Reduction for Exploration Licence (Approved form 29) was submitted to the Titles Office, NT Department of Primary Industry and Resources on 12<sup>th</sup> November 2019 for surrender of 21 blocks (Figure 3).

This request was granted by the Office of Mining Titles, NT Department of Primary Industry and Resources prior to the second anniversary date of 11<sup>th</sup> November 2019.

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APPENDIX

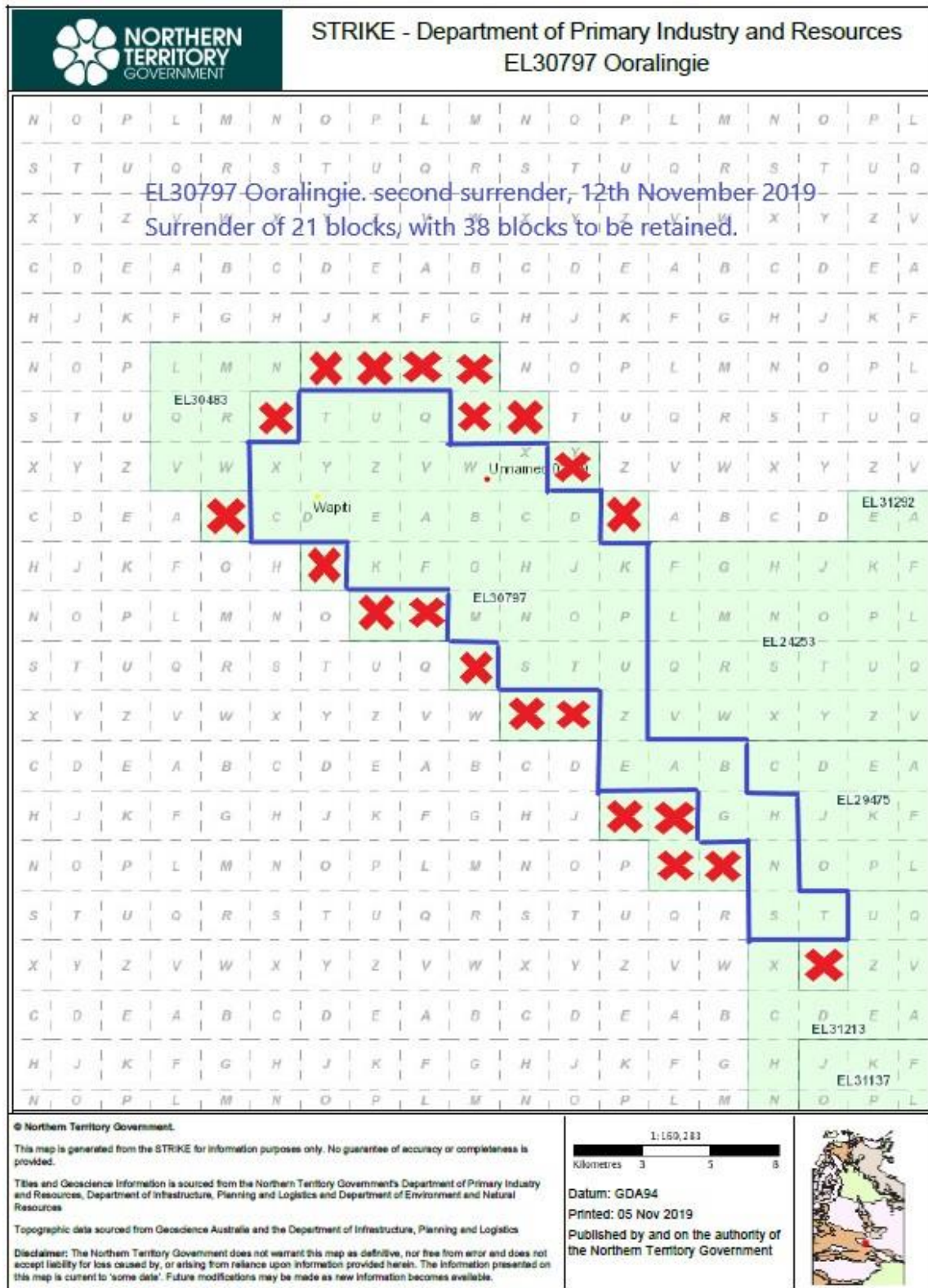


Figure 3: Surrendered portion of EL30797, November 2019 (NTG Strike database).