



**Titleholder:** Rum Jungle Resources Ltd

**Operator:** Rum Jungle Resources Ltd

**Tenement Manager:** Ross McColl

**Tenement:** EL 26655

**Project Name:** Gecko North

**Report Title:** [Third annual and final report for EL 26655, Gecko North, Tennant Creek NT](#)

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**Corporate Author:** Rum Jungle Resources Ltd

**Target Commodity:** Uranium, gold, base metals

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**Datum/Zone:** GDA94/ Zone 53

**250K mapsheet:** Tennant Creek SE5314

**100K mapsheet:** Flynn 5759

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## Contents

LOCATION AND ACCESS .....	4
HISTORY OF TENURE AND JOINT VENTURES .....	5
GEOLOGICAL SETTING.....	5
PREVIOUS EXPLORATION AND MINING.....	6
EXPLORATION RATIONALE .....	6
EXPLORATION BY RUM JUNGLE RESOURCES.....	6
Year 1 .....	6
Year 2 .....	7
Year 3 .....	8
CONCLUSION AND RECOMMENDATION .....	9

## SUMMARY

EL 26655 was only a single isolated sub-block located 3 km northwest of the old Gecko Mine at Tennant Creek. The EL was granted for six years in August 2008. During the first year of tenure, as part of a larger survey, approximately 30 line km of airborne geophysics were flown N-S at 100 m line spacing and at 40 m flying height with a Fletcher FU24 Aircraft. Raw line data was sent to Southern Geoscience Consultants in Perth for processing. Field work for the second year of tenure consisted of using a scintillometer and a hand-held XRF to prospect and ground-truth geophysical and geochemical anomalies. Five field XRF scans were taken; some showed elevated arsenic. A soil sample, analysed by handheld XRF back in the office, showed elevated levels of zinc. None of the geochemical anomalies warranted further follow-up. A desktop review in year three determined that all likely targets had been field checked and failed to generate any new leads. In the opinion of Rum Jungle, EL 26655 had been definitively tested. The EL was surrendered as part of a rationalisation of the company's Tennant Creek holdings. Rum Jungle remains committed to exploring in the NT and is currently focussed on its Karinga Lakes potash project and Barrow Creek 1 phosphate.

Expenditure for the final year of tenure was \$635 against a covenant of \$6,500. This excludes the cost of preparing this report.

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## LOCATION AND ACCESS

EL 26655 was located 30 km northwest of Tennant Creek and 3 km northwest of the old Gecko Mine. It was located on the Flynn 1:100 000 map sheet and the Tennant Creek 1:250 000 map sheet. It is on Phillip Creek Perpetual Pastoral Lease 946.



Figure 1. EL 26655 location map

## HISTORY OF TENURE AND JOINT VENTURES

EL 26655 was granted 100% to Rum Jungle Uranium Ltd on 18/08/2008. The EL was a single block of 3.24 km<sup>2</sup> and, despite Departmental guidelines for small ELs, was granted for a full term of six years. EL 26655 was part of Rum Jungle's Tennant Creek Project which, at that time, consisted of ten granted tenements. EL 26655 was surrendered in full on 03/08/2011.

## GEOLOGICAL SETTING

EL 26655 is covered by alluvium and black soil with minimal outcrop. EL 26655 was located over the unconformity between the Warramunga Province and the Tomkinson Creek Province about 30 km north of Tennant Creek township. At the unconformity, the Wundirgi Formation of the Flynn Group overlies volcanics and chert of the older deformed Warramunga Formation which hosts the Tennant Creek goldfield.

The Warramunga Formation contains lithic tuffaceous, volcanoclastic and lithic sandstone, siltstone and hematitic siltstone, mudstone, slate and volcanic arenite (metagreywacke). At the Northern Star mine site, there are a number of hematitic ironstone knobs, which are common occurrences around Tennant Creek in the Warramunga Formation. Chloritic schists are known to host uranium mineralisation at depth below the Northern Star open cut mine but occur at such a depth they are not mapped in Warramunga Formation anywhere as outcrop. Chlorite is mapped in alteration haloes and shear zones around a number of Tennant Creek ore bodies.

The Flynn Group of the Palaeoproterozoic Churchill's Head Group of rocks consists of relatively undeformed and unmetamorphosed sedimentary rocks and volcanics. The basal units are the Wundirgi Formation in the west and the Monument Formation to the east. The Wundirgi Formation consists of lithic arenite, siltstone and shale while the Monument Formation consists of rhyolitic and rhyodacitic tephra, tuffaceous sandstone, siltstone, chert and shale. The Bernborough and Brumbreu Formations occur further up in the stratigraphy, consisting of similar rocks to the Warrego Volcanics (chert, tuff, white siltstone and shale and sublithic arenite) interfingering with the Bernborough Formation.

The younger Warrego Granite intrudes the Flynn Group and is exposed to the west of EL 26655, while the Tennant Creek Granite is in outcrop to the east.

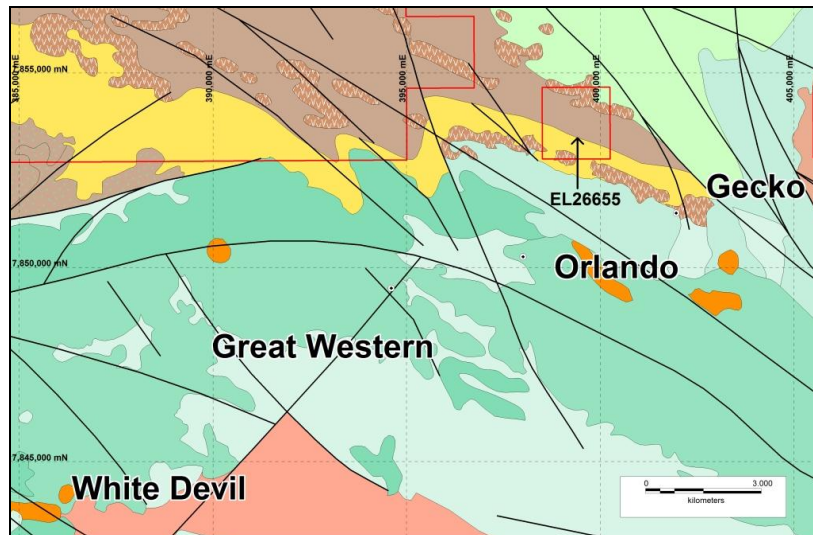


Figure 2. Local geology of EL 26655

## PREVIOUS EXPLORATION AND MINING

This area has a long history of exploration for Tennant-style IOCG and the region contains a number of near-by historical mines. To the north east of EL 26655, The Northern Star Mine was operated a number of times between 1934-1988 producing 24 000 ounces of gold from 101 000 tonnes of ore at 7.3 g/t Au. Gold, copper and uranium has been intersected in drill holes beneath the open pit which ceased operations in 1988 after a rock fall. Uranium has also been reported from the Edna Beryl Mine 4 km to the east (MODAT). Three kilometres to the southeast of the tenement, the Gecko Mine produced 150 000 ounces of gold at 0.6 g/t and 119 000 tonnes of copper at a grade of 3.6% from 2.9 Mt of ore between 1980 and 1999. The Orlando Mine 5 km to the south produced 187 000 ounces of gold at 7.9 g/t and 32 000 tonnes of copper at a grade of 3.1% from 736 000 tonnes of ore between 1962 and 1999. There had been little exploration for uranium prior to Rum Jungle.

## EXPLORATION RATIONALE

The tenement was pegged to explore for Tennant-style IOCGU mineralisation, vein type and unconformity type uranium mineralisation. The tenement is located on the northern edge of the Warramunga Province which hosts the Tennant Creek gold field. A magnetic feature striking northwest in the southern part of the tenement and also warranted field checking.

## EXPLORATION BY RUM JUNGLE RESOURCES

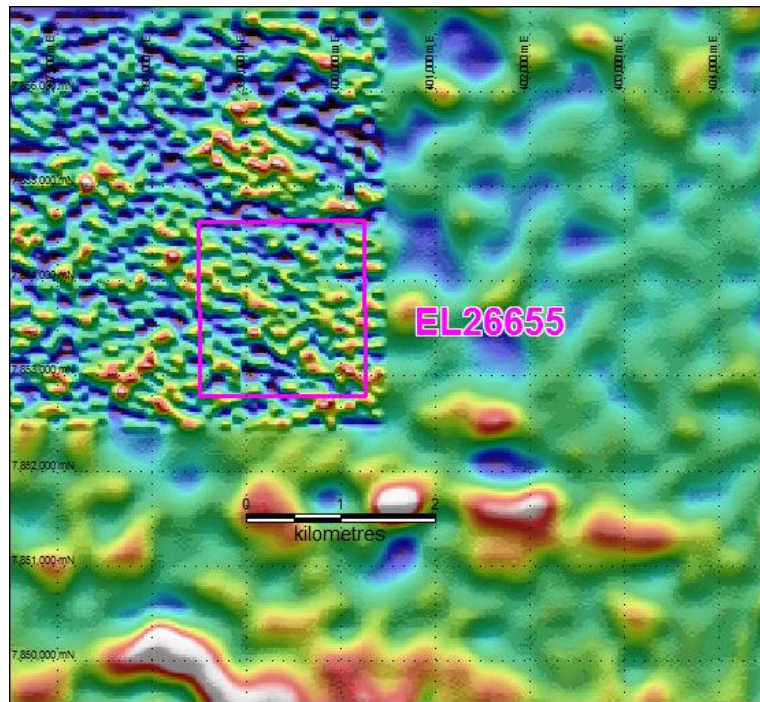
### *Year 1*

A geophysical survey was flown over the tenement and surrounding area to the west by UTS Geophysics between 27/05/2009 and 2/06/2009. Approximately 30 line km were flown at 100 m line spacing (N-S flight lines) at 40 m flying height with a Fletcher FU24 Aircraft. Raw line data was sent to Southern Geoscience Consultants in Perth for processing. Geophysical data are attached in Appendix 1. This data is combined with data from a larger EL 27129 to the immediate west of EL 26655. The combined survey data has been supplied to the DoR previously and permission has already been given to open file it.



## ***Year 2***

Reprocessing and reinterpretation of the radiometrics data showed a northwest trending line of low amplitude uranium anomalies extending almost diagonally across the EL (Figure 3). These were field checked with a scintillometer but the results were disappointing.



**Figure 3. Uranium channel image of EL 26655**

The northwest striking magnetic feature evident in the southern part of the tenement (Figure 4) was found to correspond to a chert and/or volcanic unit in the Warrego volcanic suite. It was not considered prospective but was field checked anyway.

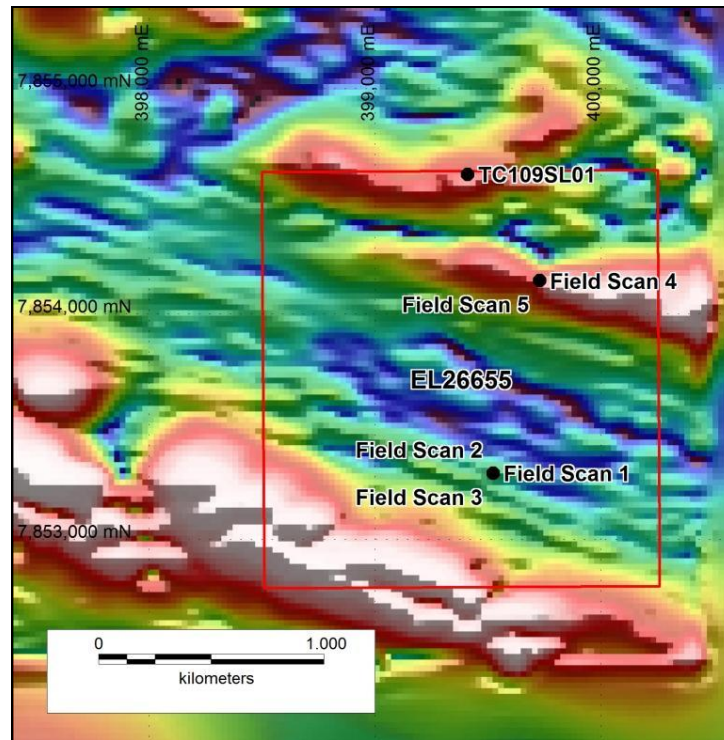


Figure 4. Locations of XRF field measurements and the XRF soil sample scan on EL 26655 on a magnetic image

Most fieldwork conducted on EL 26655 during the second year of tenure involved using a NITON hand-held XRF in the field to scan rock chip samples and a scintillometer to check outcrop and subcrop. All scintillometer traverses were disappointing. Five XRF scans were recorded. Scans 4 and 5 were taken over a magnetic anomaly with significant levels of arsenic. A soil sample (TC109SL01) was also taken and analysed by the XRF in the Darwin office. This failed to confirm the same levels of arsenic, but detected anomalous, sub-economic, levels of zinc. Results are summarised in Table 2 and given in Appendix 2.

SAMPLE	Easting	Northing	Mode	Note
TC109SL01	399410	7854655	SOIL	sandy creek wash, flat no o/c or scree, possibly transported cover
Field Scan 1	399523	7853295	SOIL	ironstone Mn coating on Fe stn weathered clay fault seam
Field Scan 2	399523	7853295	SOIL	ironstone Mn coating on Fe stn weathered clay fault seam
Field Scan 3	399523	7853295	SOIL	ironstone Mn coating on Fe stn weathered clay fault gouge
Field Scan 4	399728	7854148	SOIL	rd bn ferrug silt/fe stn wh qtz float gentle spinifex slope
Field Scan 5	399728	7854148	MINING	rd bn ferrug silt/fe stn wh qtz float gentle spinifex slope

Table 1. Sample locations and descriptions on EL 26655

SAMPLE	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ni_ppm	Mn_ppm
TC109SL01	19.36	21.4	-1	292.86	42.32	345.62
Field Scan 1	59.56	-1	-1	37.13	-1	440.06
Field Scan 2	53.47	-1	120.27	47.5	185.47	1021.95
Field Scan 3	-1	-1	7.23	19.39	-1	-1
Field Scan 4	201.12	-1	-1	-1	-1	1630.09
Field Scan 5	131.89	-1	-1	-1	-1	672.65

Table 2. XRF measurements taken in the field on EL 26655. These are not laboratory assays and are indicative only. The negative number is the limit of detection of the instrument

### Year 3

No field work was conducted in Year 3. A desktop review downgraded the prospectivity of EL 26655 relative to other Rum Jungle Tennant Creek holdings and to other Rum Jungle project areas.



## **CONCLUSION AND RECOMMENDATION**

A field reconnaissance quickly downgraded the prospectivity of EL 26655. A limited number of rock chip and soil samples were assayed using handheld XRF but no mineralisation was located. A desktop review failed to generate any new leads and the EL was surrendered in full.