



Northern Gold NL ACN: 009 620 937

Lot 128 Finlay Rd Adelaide River, N.T. 0846 Ph 089 767023 Fax 089 767025

**EL 8636
FINAL REPORT**

Edith River 1:50,000 Map Sheet

Title Holder:- Territory Goldfields N.L.

April 1996

Author:- N. Socic

NTDME

Northern Gold N.L., Adelaide River

Northern Gold N.L., Perth Office

Barnjarn Mining Company Pty. Ltd.

CRG/381

OPEN FILE

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1.0 SUMMARY

Exploration Licence 8636 is located south-east of Pine Creek in the Wandie Project area on the Edith River 1:50,000 scale map sheet (21/1-IV).

The licence is located within the Pine Creek Geosyncline and is dominated by the Lower Proterozoic Burrell Creek Formation.

Substitute Exploration Licence 9212 was granted over the area on the 9th of February 1996 for a period of four years.

Expenditure for the final year of tenure to the 9th of February 1996 was \$1000.

2.0 LOCATION AND TENURE

EL 8636 is located approximately 40 kilometres south-east of Pine Creek on the Edith River 1:50,000 and Katherine 1:100,000 scale map sheets. The licence consists of five graticular blocks, approximately 15 square kilometres in area, and lies between latitudes 14°02' south and 14°06' south and longitudes 132°12' east and 132°14' east. Access to the area is via the Stuart Highway from Pine Creek then via pastoral tracks (Figure 1).

EL 8636 was granted to Dominion Gold Operations Pty. Ltd. on the 24th of April 1995 for a period of five years. The licence is now held by Territory Goldfields N.L., and is managed by Northern Gold N.L. The Barnjarn Mining Company holds a 10% interest through a Joint Venture.

SEL 9212 was granted over the area on the 9th of February 1996 for a period of four years.

3.0 GEOLOGY

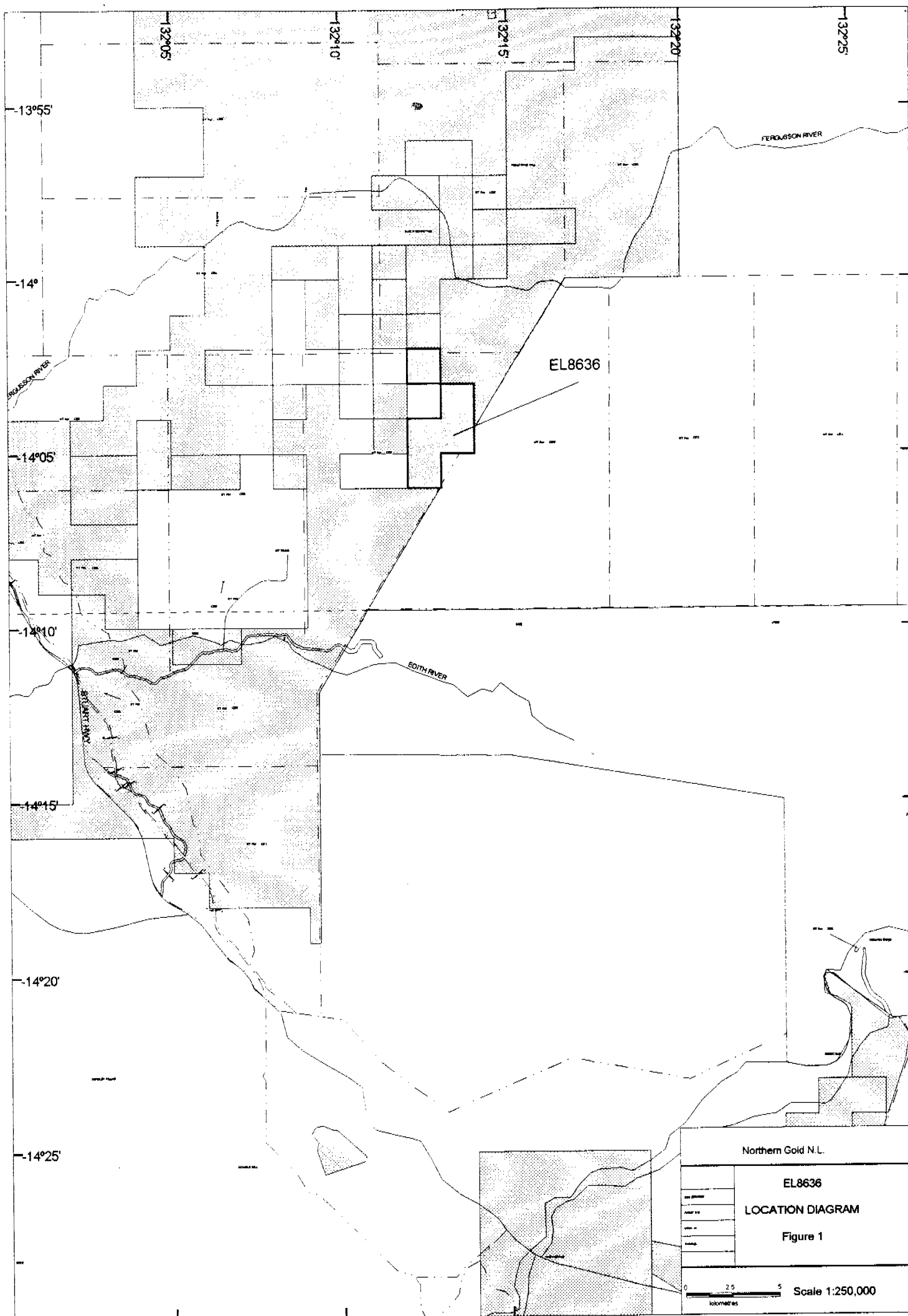
3.1 Regional Geology

EL 8636 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammitic Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed to low, and in places, medium grade metamorphic assemblages. For the purpose of this report, the prefix meta- is implied, but omitted from the rock names and descriptions.

The sequence has been intruded by pre-orogenic dolerite sills of the Zamu Dolerite and a large number of late syn-orogenic to post-orogenic Proterozoic granitoids. Largely undeformed Middle and Late Proterozoic, Palaeozoic and Mesozoic strata, as well as Cainozoic sediments and laterites, overly the Pine Creek Geosyncline.

3.2 Local Geology

The exploration licence is dominated by the Lower Proterozoic Burrell Creek Formation sediments. The Burrell Creek Formation consists of greywacke and siltstone/shale and crops out extensively throughout the area on lightly timbered rubble strewn rises and low strike ridges. Most of the rocks within the unit are well cleaved and tightly folded about north to north-west subhorizontal fold axes (Needham, 1980).



4.0 EXPLORATION COMPLETED

No exploration was completed in the licence to the 9th of February 1996 due to commitments in other areas.

5.0 EXPENDITURE

The following is a breakdown of costs incurred in the final year of tenure to the 9th of February 1996 for EL 8636:-

| | |
|---------------------|----------------------|
| Report Compilation | |
| Data Review | |
| Tenement Management | |
| | <hr/> |
| TOTAL | <u>\$1000</u> |

6.0 REFERENCES

NEEDHAM, R.S., CRICK, J.H. & STUART-SMITH, P.G. (1980). Regional Geology of the Pine Creek Geosyncline, in Proceedings of the International Uranium Symposium, International Atomic Energy Agency, Vienna p1-22.