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RELINQUISHMENT REPORT

for

EXPLORATION LICENSES

5698, 5729, 5730, 5731, 5732,
5733, 5734, 6158, 6367, 6368 and 6370

(Tennant Creek Project Group)

For the 12 Months
ending 31st January 1990

CR90/449

Distribution:
NT Department of Mines - 1
Placer, Brisbane - 1
Placer, Sydney -1

Placer Exploration Limited
Report No. NT7/90
By: Joanna Pearson
March 1990

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PLANS (in pocket)

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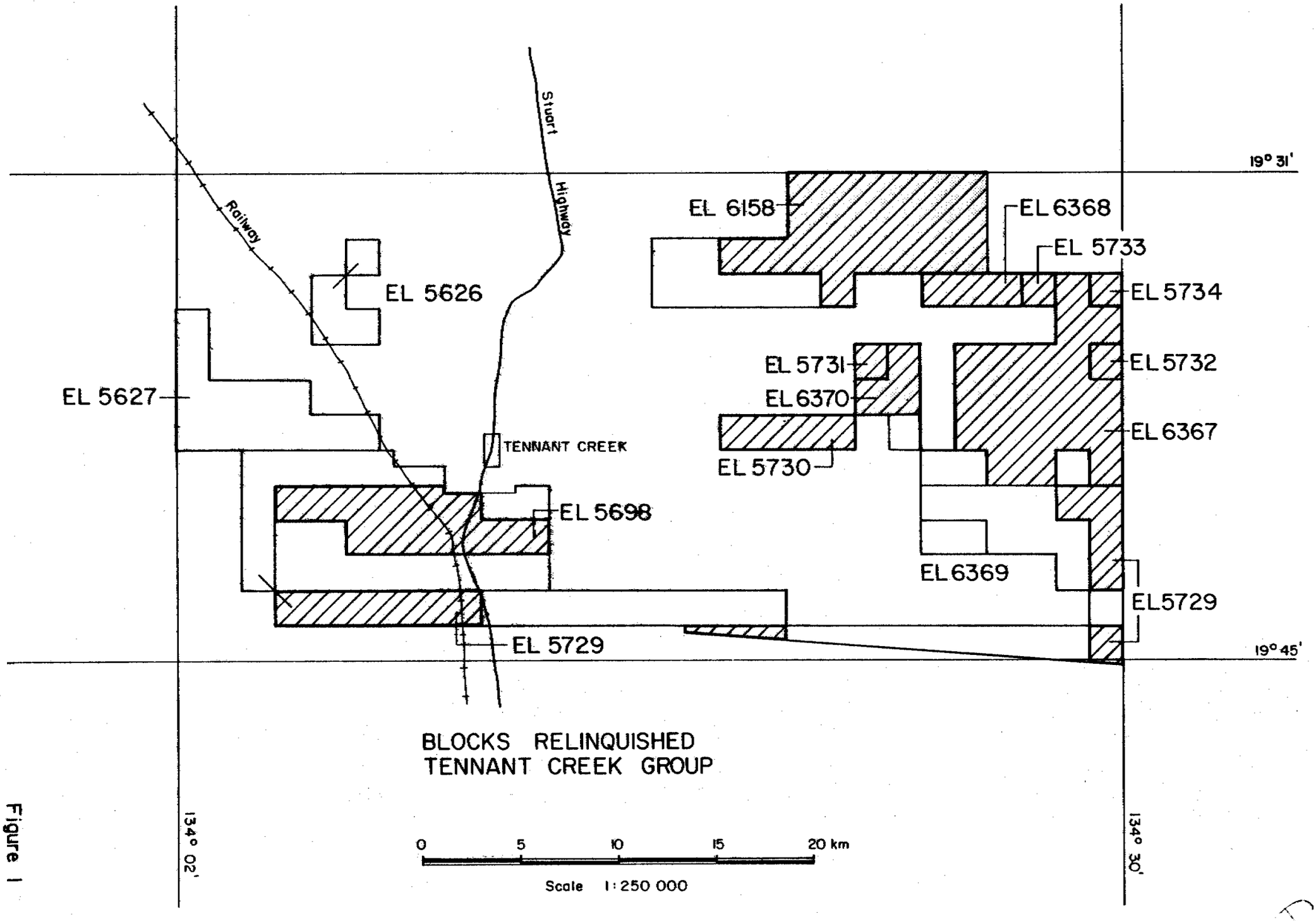
1.0 INTRODUCTION

The Exploration Licenses held in Joint venture with Metana Minerals N.L., lie to the east south and west of the Tennant Creek township, within the Tennant Creek 1:250,000 sheet, Northern territory.

The project area consists of Exploration Licenses granted to Metana Minerals N.L. during 1987 and 1988. In June 1989, Placer Exploration Ltd. entered, as managers, into a joint venture with Metana Minerals N.L. With agreement from the Northern Territory Department of Mines and Energy the Exploration Licenses were grouped together as one project, known as the "Tennant Creek" project group. A common reporting date, January 31st, was set. In accordance with Mines Department regulations, on the 31st January 1990, half of the total number of blocks in the project group were relinquished.

This report summarises work carried out by Placer Exploration during the year ending 31st January 1990, on that part of the project group relinquished.

A location map showing the area relinquished is given in figure 1.



BLOCKS RELINQUISHED
TENNANT CREEK GROUP

Figure 1

2.0 EXPLORATION APPROACH AND REGIONAL GEOLOGY

The regional geology will not be repeated here as it has been adequately described in numerous previous publications. For instance the Geological Survey, 1:250,000 series Tennant Creek Sheet explanatory notes.

Most previous exploration at Tennant Creek has concentrated on mineralisation associated with ironstones and adjacent sediments. This exploration approach has been very successful in the past, however most of the large magnetic anomalies have now been well tested by earlier mining companies. Placer has, both continued exploration of the largely untested smaller magnetic targets searching for either oxidised, primary hematite or sulphide bodies; and is also attempting a structural and geological re-interpretation of the Tennant Creek field in order to identify other styles of mineralisation that could be structurally controlled but non ironstone hosted.

3.0 LOCAL GEOLOGY

The geology of the area relinquished is shown in Drawing No. 517-5. Most of the area to be relinquished consists of greywackes, siltstones, hematite shales and subordinate shale of the Carraman Formation. The northern portion of EL 6158 consists of older massive sandstones with subordinate greywacke and shales of the Whippet Formation. The Carraman and Whippet are overlain to the east by the younger Gum Ridge Formation and Helen Springs Volcanics of the Cambrian.

4.0 WORK UNDERTAKEN

The Austirex airborne geophysical survey flown in 1984, and purchased by Metana Minerals was reinterpreted using a second vertical derivative enhancement. No discrete magnetic anomalies or major regional shear zones were identified on the ground to be relinquished.

The aeromagnetic data was compiled with regional geological mapping to develop a regional structural and geological interpretation.

No further specific exploration work was carried out on this portion of the Exploration Licenses to be relinquished.

5.0 CONCLUSIONS

This portion of the project group is being relinquished because the aeromagnetic, geological and regional compilation does not suggest any obvious magnetic or structural targets.

REFERENCE

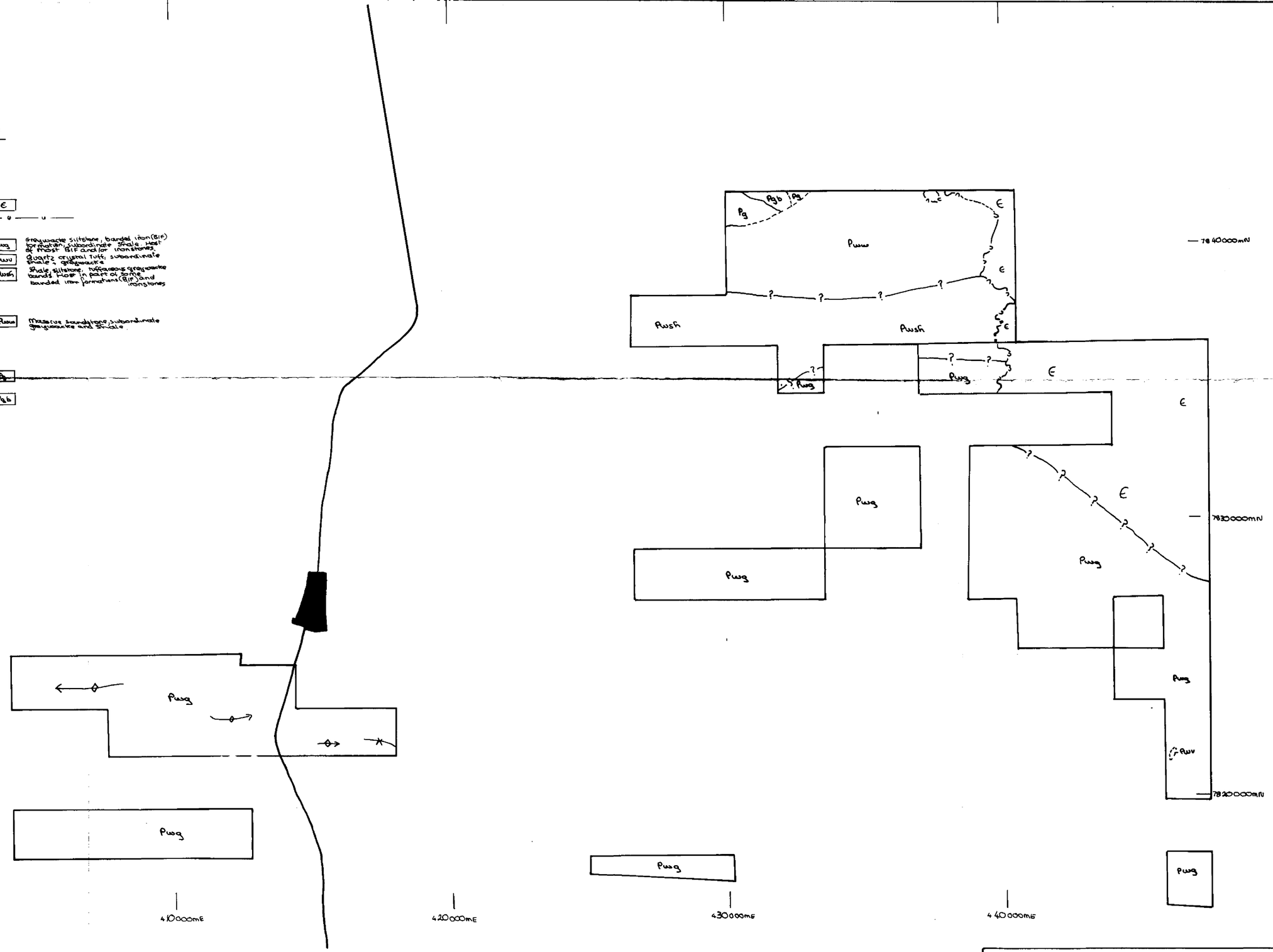
Gum Ridge Formation
Helen Springs Volcanics — Є — U — U —

Carraman Formation
- Pwg — Greywacke siltstone, banded iron (BIF) formation, subordinate shale. Host of most BIF and/or ironstones.
- Pwu — Quartz crystal Tuff; subordinate shale, greywacke
- Pwsh — Shale, siltstone, tuffaceous greywacke bands host in part of some banded iron formations (BIF) and ironstones

Whippet Formation — Pwsa — Massive sandstone, subordinate greywacke and shale

Tennant Stock granite — Pg

Porphyroblastic granitoid — Pgb



PLACER-METANA JOINT VENTURE

TENNANT CREEK

LOCAL GEOLOLOGY OF AREA RELINQUISHED EL's 5698, 5729, 5730, 5731, 5732, 5733, 5734, 6158, 6367, 6368, and 6370.

SCALE 1 : 100000	DATE MARCH 1990	PROJECT No 517
AUTHOR J. Pearson	DRAFTED	DRAWING No 517 - 5