TANAMI JOINT VENTURE

ZAPOPAN N L

KUMAGAI GUMI CO LTD

KINTARO METALS PTY LTD

EXPLORATION LICENCE 6448

TANAMI DOWNS STATION

TANAMI REGION

NORTHERN TERRITORY

FIRST RELINQUISHMENT REPORT 1991

THE GRANITES 1:250,000 SHEET

SF 52-3

C O N T E N T S

F I G U R E S

1. SUMMARY AND CONCLUSIONS

This report is submitted as a requirement of statutory relinquishment of 37 blocks of Exploration Licence 6448 and summarises work carried out on the relinquished areas. This has consisted of literature searches, aerial photography acquisition, open-file airborne magnetic data acquisition and subsequent image processing and interpretation. No surface geochemical sampling methods have been used on the area being relinquished due to lack of targets and appropriate sample media. Interpretation of data has shown that the areas being relinquished are not prospective for near-surface gold mineralization.

2. INTRODUCTION

Exploration Licence 6448 was granted to Zapopan NL, 50%, Kumagai Gumi Co Ltd, 30%, and Kintaro Metals Pty Ltd, 20%, for a period of 6 years from 22 May 1989. The three companies comprise the Tanami Joint Venture (TJV).

The licence initially covered an area of 242 sq km, equivalent to 75 blocks, and is situated on Tanami Downs Pastoral Lease, 50km south-west of the Tanami Mine. The shape of the licence is that of an open 'z' with a north-south trending central portion.

The Macfarlanes Peak Range extends across the northwest part of the licence area and the northern slopes of the Muriel and Inningarra Ranges extend across the southern part.

Access is gained via various station tracks leading westwards from Tanami Downs homestead.

No modern gold exploration has occurred in the licence area and the areas being relinquished are not considered prospective for near-surface gold mineralization.

The attached portion of the 1:250,000 scale tenement plan for The Granites sheet shows the 37 blocks being relinquished (Figure 1).

3. GEOLOGY

The oldest exposed rocks within EL 6448 are those of Lower Proterozoic age comprising various schistose sediments, ferruginous quartzites and chert, and dolerite, showing distinct similarities to the rocks of The Granites Mine. These rocks are well exposed in the north of the licence area forming part of the Macfarlanes Peak Range. The schists are often garnetiferous with common quartz, muscovite, biotite, cordierite and some staurolite. The rocks are strongly weathered and iron-stained.

Minor granite crops out to the east of Macfarlanes Peak Range and to the north of the Muriel Range.

Upper Proterozoic arenities of the Muriel Range Sandstone form the prominent Muriel Range and Inningarra Range in the southern part of the EL. The formation consists predominantly of sublithic arenite and quartz arenite with minor siltstone, shale, arkose, conglomerate and breccia. The sublithic arenite and quartz arenite are mainly pale pinkish to greyish and medium to fine grained. In the type section across the Inningarra Range the beds dip gently south. About 300m of thin-bedded medium to coarse-grained arenite forms a series of low cuestas in the north, mainly less than 3m high, and is overlain to the south by about 150m of medium-bedded, medium to fine-grained arenite that forms stepped scarp faces each about 15m high. The Muriel Range and other outcrops to the north form part of an anticline with exposed granite and Lower Proterozoic schist in the core.

Basalts of the Antrim Plateau Volcanics occur in the central part of the licence. They form broad low rises capped by pisolitic laterite. Fresh basalt, containing plagioclase pherocysts is well exposed just to the east of the licence near the track to Tanami Downs homestead.

Permian Pedestal Beds crop out frequently in the north and central parts of the licence. They consist of flat-lying quartzose sandstone which forms small mesas, hillocks and rocky terrain. In the Macfarlanes Peak Range a thickness of 20m is exposed and dips gently south. The basal 5m consists of ripple-marked medium-grained quartzose sandstone with micaceous partings. This is overlain by 5m of flaggy sandstone and minor thin beds of maroon siltstone, which is overlain by 10m of thick-bedded sandstone with large-scale cross-bedding.

Laterite cappings occur on all of the above-mentioned formations.

Superficial Quaternary deposits comprise aeolian, residual, fluvial and lacustrine sediments. Aeolian sand is widespread and forms an east-trending dune field 10-15km north of the Muriel Range.

The areas being relinquished are underlain by Upper Proterozoic Muriel Range Sandstone, Antrim Plateau Volcanics, and Permian Pedestal Beds with extensive aeolian sand cover. These areas are not considered prospective for shallow gold mineralization.

4. EXPLORATION COMPLETED

EL 6448 has been explored as part of a broad regional exploration programme for which preliminary office-based work was standardized for all areas.

Open-file reports and relevant geological data from the Tanami-Granites region were obtained.

This data includes the regional airborne magnetic survey compiled by the Northern Territory Geological Survey for the Macfarlane, Pedestal Hills and Inningarra 1:100,000 Sheets.

Colour aerial photography at 1:50,000 scale was flown by Airesearch Mapping on behalf of the TJV over all their exploration licences. Relevant landforms, outcrop extent, geology, drainage, structure etc were interpreted from the photography.

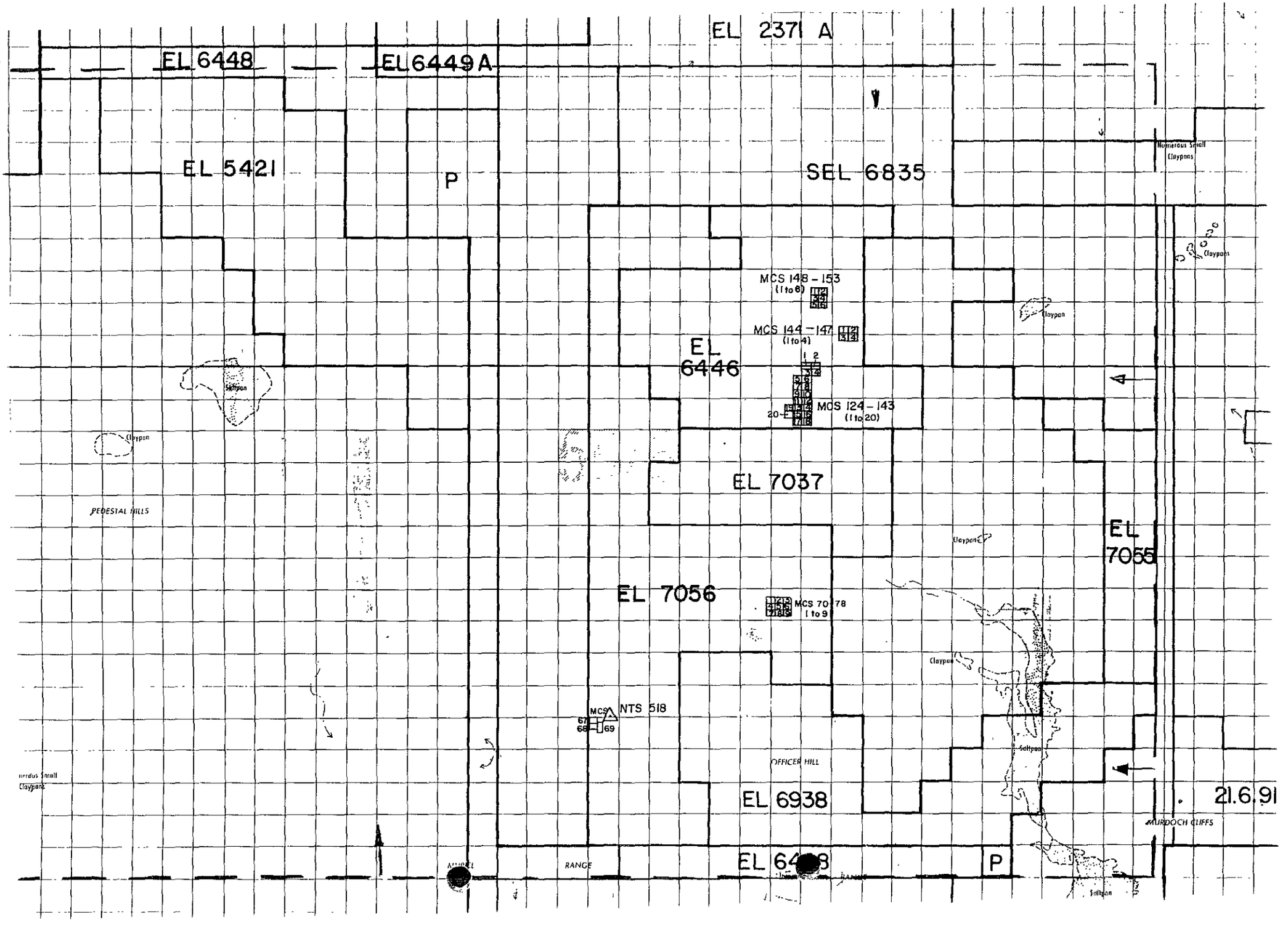
Landsat images at 1:250,000 scale covering the Tanami-Granites region were purchased and again relevant geological and structural features interpreted.

All the available data has been utilized to build up a broad geological and structural picture of the area.

In an attempt to quantify the prospectivity of the TJV's exploration licences, initial area selection for exploration was based on four parameters : aeromagnetics, geology, landform and structure. Each parameter was assigned a numerical ranking value of 0-5 for a given area. The values were then added to give a prospectivity index.

Areas with a prospectivity index in the range 15-20 are considered to be a high priority, 9-14 a moderate priority and less than 9 a low priority. This does not mean that areas with a prospectivity index of 8 or less are not prospective, however they will be more difficult to explore due to overlying regolith geology or younger sediments.

Interpretation of this data and reconnaissance field work showed that the areas being relinquished are not prospective for near-surface gold mineralization and therefore did not warrant detailed work. Thus no surface geochemical sampling was carried out.


EL 2371 A
EL 6448
EL 6449 A
EL 5421
P
SEL 6835
Numerous Small Claypans
Claypans
MCS 148 – 153 (1 to 6)
MCS 144 – 147 (1 to 4)
EL 6446
MCS 124 – 143 (1 to 20)
Claypan
Saltpan
PEDESTAL HILLS
EL 7037
EL 7055
EL 7056
MCS 70 – 78 (1 to 9)
MCS NTS 518
OFFICER HILL
EL 6938
MURDOCH CLIFFS
EL 6448
P
RANGE
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