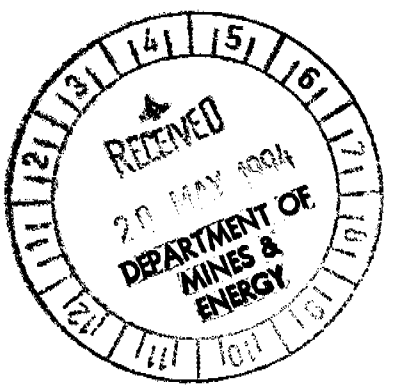
EXPLORATION LICENCE 7686
"WARREGO EAST"

SECOND ANNUAL REPORT

10 APRIL 1993 - 9 APRIL 1994

LICENSEE:

TC8 PTY LTD
A.C.N. 009 644 188



TENNANT CREEK 1:250,000
SE53-14
SHORT RANGE 1:100,000
5659

P. G. SIMPSON
TENNANT CREEK NT
MAY, 1994

CONTENTS

1. INTRODUCTION AND SUMMARY

This report records the exploration work carried out for gold and copper on Exploration Licence 7686 for the second year of the Licence, from 10th April 1993 to 9th April 1994.

Exploration Licence 7686, "Warrego East", is held by TC8 Pty Ltd, a subsidiary of Giants Reef Mining N.L. The Licence area, originally of 3 blocks totalling approximately 10 square kilometres, was reduced to 2 blocks at the end of the second year.

The southwest corner of the tenement is approximately 1.6 kilometres northwest of the headframe of the Warrego copper-gold mine at Tennant Creek.

The targets are gold and copper orebodies.

Aeromagnetic surveys by Geopeko in the past suggest that the area is underlain by the Black Eye Member of the (Early Proterozoic) Carraman Formation, although this has not definitely been established.

There is no basement outcrop in the EL, which is virtually flat and mostly covered by thick mixed scrub and small trees which makes traversing in 4WD vehicles difficult. Various roads and tracks allow limited access into the Licence area, especially at its western end.

Work in the second year of the Licence consisted of a detailed aeromagnetic and radiometric survey, and the establishment of cleared and surveyed grid lines in the westernmost of the original three blocks. This block was pegged and applied for as mineral claims at the end of the year.

2. LOCATION AND ACCESS

EL 7686 is situated about 43 kilometres northwest from Tennant Creek, in the south portion of the Short Range 1:100,000 scale sheet 5659. Figure 1 shows the locations of EL 7686 and the surrounding tenements.

The area is reached from the Warrego mine area by the road from the mine to the No. 1 Water Dam, 7 kilometres to the northeast. The Alice Springs to Darwin gas pipeline route also cuts through the western block of EL 7686. Further east, a powerline track runs south-southwest through the EL to a point on the Warrego Road, 3 kilometres east of the mine.

The area is quite flat, but thick mixed scrub and small trees cover most of the EL and make 4WD vehicle access difficult because of the likelihood of punctured tyres.

3. TENURE

Exploration Licence 7686 was granted to TC8 Pty Ltd, now a wholly-owned subsidiary of Giants Reef Mining N.L., on 10th April 1992 for a period of three years.

The expenditure covenant for the first year was set at $5,000, and for the second year at $30,000.

The licence area, originally of 3 one-minute blocks totalling approximately 10 square kilometres, was reduced to 2 blocks at the end of the second year (see Figure 2). Nine mineral claims, C1315 to C1323, were applied for over the relinquished western block. These applications exclude two mineral claims, C354 and C355, covering about 30 hectares which are held by other parties.

The EL lies within Perpetual Pastoral Lease 946, Phillip Creek Station.

4. GEOLOGY AND MINERALISATION

There is no outcrop of basement rocks within the Licence, nor for some distance surrounding it. The 1978 BMR 1:250,000 Tennant Creek geology map, SE53-14, shows the area as covered by sand, soil, colluvium and gravel.

Regional aeromagnetics, together with the lithologies encountered by Geopeko in the mid-1970's when some drilling was done in the southwest part of what is now the Licence area, are consistent with the underlying rocks belonging to the Carraman Formation of the Early Proterozoic Warramunga Group, but other interpretations are also possible.

5. PREVIOUS EXPLORATION

Metana Minerals N.L., in a joint venture with Placer Prospecting Australia Ltd, were the most recent explorers in the area, between 1988 and 1990. A detailed aeromagnetic survey was followed up by a ground magnetics survey over an anomaly on or near the southern boundary of what is now EL 7686, but the anomaly was not drilled.

Metana also carried out a bulk cyanide leach soil geochemistry trial traverse across the present EL 7686. A peak value of 11.4 ppb gold was noted on the southern boundary, but this was not followed up.

Geopeko has held this ground, as parts of larger tenements, during the years from 1982 to 1987 and before that from 1972 to 1976. Work in the earlier period identified a magnetic anomaly called Explorer 74 (now held under MCs C354 and C355) where ground magnetics and shallow (auger) drilling was carried out. It was interpreted that the source of the anomaly could be a dyke or an iron rich shale, and no more work was done.

Geopeko did not produce any new targets on what is now EL 7686 during their second period of tenure, when a detailed regional aeromagnetic survey was flown.

6. FIRST YEAR'S EXPLORATION

The first year's work on EL 7686 consisted of purchasing air photographs, a ground reconnaissance of the Licence area and a trial lag sampling geochemical traverse across a linear magnetic feature. The lag sampling appeared inconclusive and it has since been decided not to pursue this technique but to use an auger or vacuum drill rig for geochemical sampling.

7. SECOND YEAR'S EXPLORATION

7.1 Airborne geophysical survey

The major item of exploration carried out in the second year was the detailed airborne magnetic and radiometric survey, flown late in May 1993 as part of a district-scale survey covering adjacent ELs 7465, 7688 and 7801, held by the Giants Reef group.

The survey, referred to as the *Great Western Airborne Geophysical Survey*, was flown by Austirex International Limited (Job No. 2146).

Key specifications were north-south flight lines at a spacing of 80 metres, with a mean terrain clearance of 60 metres. The aircraft was a Cessna 206. Instruments used were a Scintrex V2321 split beam cesium magnetometer and a Geometrics 256-channel GR800 spectrometer.

Map 1 shows total magnetic intensity contours over EL 7689 and the surrounding area. The most prominent feature is the "high" centred on Explorer 74 (MC's C354 and C355) in the westernmost (relinquished) block of the original Licence area. Other features include the belt of moderate to low magnetic intensity trending northwesterly through the Licence, and a small but strong dipole anomaly within this zone.

Geophysical consultant, Mr. Leigh Farrar, has carried out some interpretation work on the survey results for EL 7686, and this information will be used in conjunction with bedrock geochemical and geological information to be obtained from auger or vacuum drilling in the coming year.

7.2 Line clearing and gridding

A number of north-south grid lines were cleared in the western block of the original licence area as the beginning of a grid system to cover the entire EL. The clearing was done using a front-end loader to lightly scrape the surface of the ground clear of small bushes and spinifex. This method leaves the roots of the vegetation largely intact. It has been noted at other prospects where this has been done that regrowth takes place quite quickly.

The western block of the original licence area was chosen as the starting place for the gridding on the basis of the area of relatively high magnetic intensity surrounding but not confined to the two small claims held by other parties over Explorer 74. Use was made of these grid lines as claim boundaries in this block at the end of the second year.

7.3 Gravity survey and vacuum drilling

The gravity survey and vacuum drilling proposed for the second licence year were not carried out as the survey equipment and drill were committed on another project. These programmes are now planned for completion in year 3 of the licence.

8. CONCLUSIONS

The airborne magnetic survey has improved on previous surveys in producing better detail of areas of interest. This information will be used in conjunction with bedrock geochemical and geological information, to be obtained by a shallow drilling programme next year, in the selection of targets for more detailed work including drilling.

9. EXPENDITURE

Total expenditure costed to EL 7686 for the second year of tenure is as follows:

• Aeromagnetic and radiometric survey		$5,450
• Geophysical interpretation		1,700
• Line clearing and gridding		4,450
• Geological		1,300
• Administration and overheads		650
	TOTAL	$13,550

EL 7686 is part of a group of contiguous exploration licences, namely 7465, 7686, 7688, 7807 and 7901, in the Great Western/Warrego region of the Tennant Creek goldfield, being explored as one project known as the *Great Western Project*.

During the second licence year of EL 7686, the gravity meter and vacuum rig, which were to be used in the planned work programme, were in use on EL 7688. This resulted in EL 7688, with an expenditure covenant of $50,000, having a total expenditure of $120,000, for its second licence year. EL 7686, with a covenant of $30,000, had a total expenditure for the same period of $13,550.

The expenditure covenants for the second licence year of ELs 7686 and 7688 totalled $80,000. The actual expenditure was $133,550.

An application under Section 172 of the *Mining Act* for variation of this condition of EL 7686 is being submitted.

10. PROGRAMME FOR THIRD YEAR

During the third year of tenure it is intended to:

- Extend the north-south grid line system to cover the remainder of the EL. Lines will be at 200 metre east-west intervals;
- Carry out vacuum or auger drilling along these lines to acquire bedrock geological and geochemical information;
- Carry out a gravity survey over the grid system;
- Assess the results of the airborne geophysics, geochemistry and gravity surveys to choose areas for further detailed work;
- In conjunction with the results assessment, the gold-in-soil anomaly of 11.4 ppb Au on the southern boundary of the Licence area, found by Metana/Placer, will be evaluated and, if justified, followed up.

11. PROPOSED EXPENDITURE

The estimated minimum expenditure costs for the planned exploration on EL 7686 during the third year of tenure are as follows:

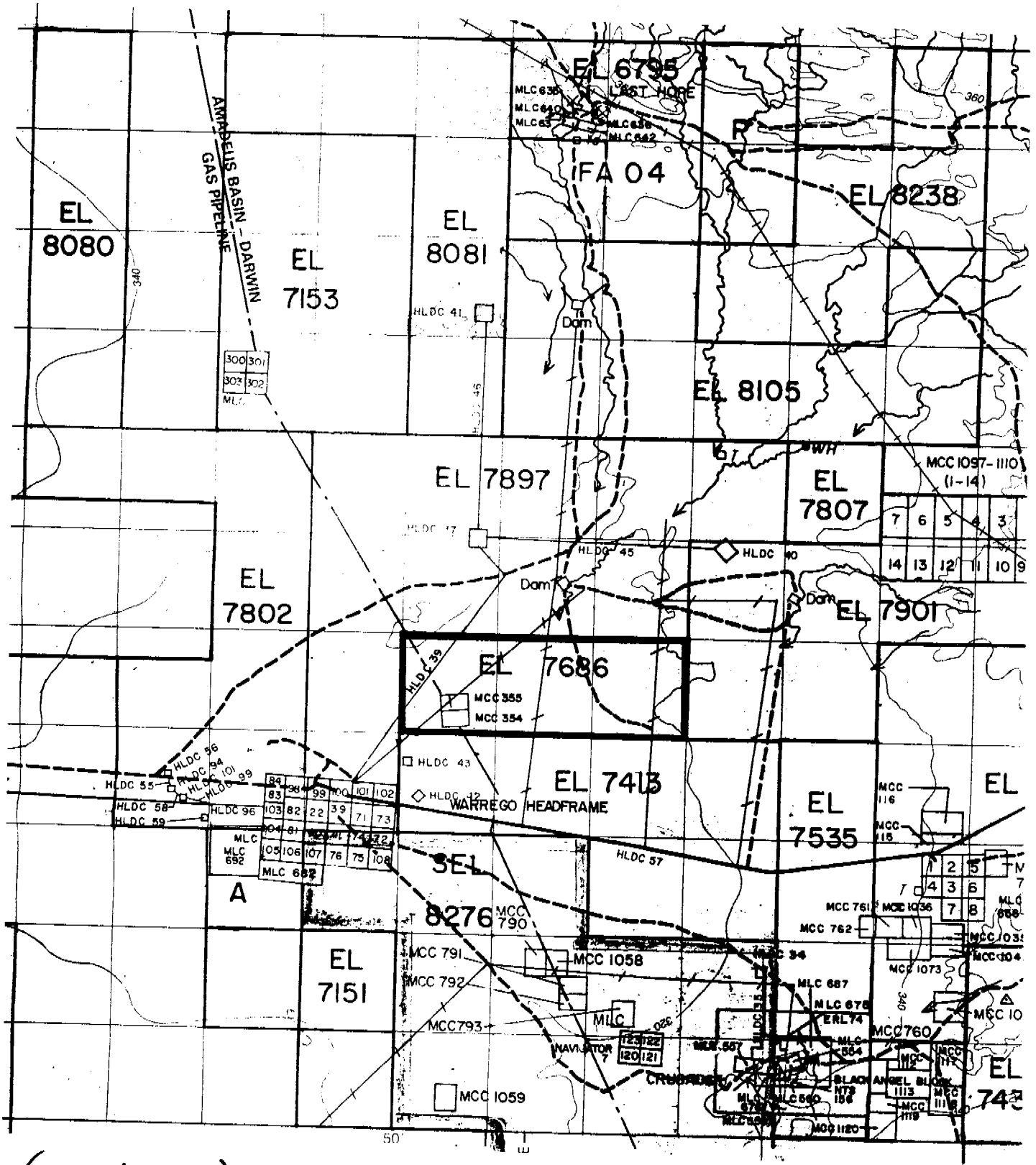
• Line clearing and gridding	$5,600
• Vacuum or auger drilling	7,900
• Assaying	3,000
▫ Gravity survey (including levelling)	6,500
• Geological assessment	2,000
TOTAL	$25,000

Exploration programmes can be affected by results, and while $25,000 is the proposed minimum expenditure, the specific activities may vary according to the results achieved.

P. G. SIMPSON
EXPLORATION MANAGER

EXPLORATION LICENCE 7686

"WARREGO EAST"



(March 1994)

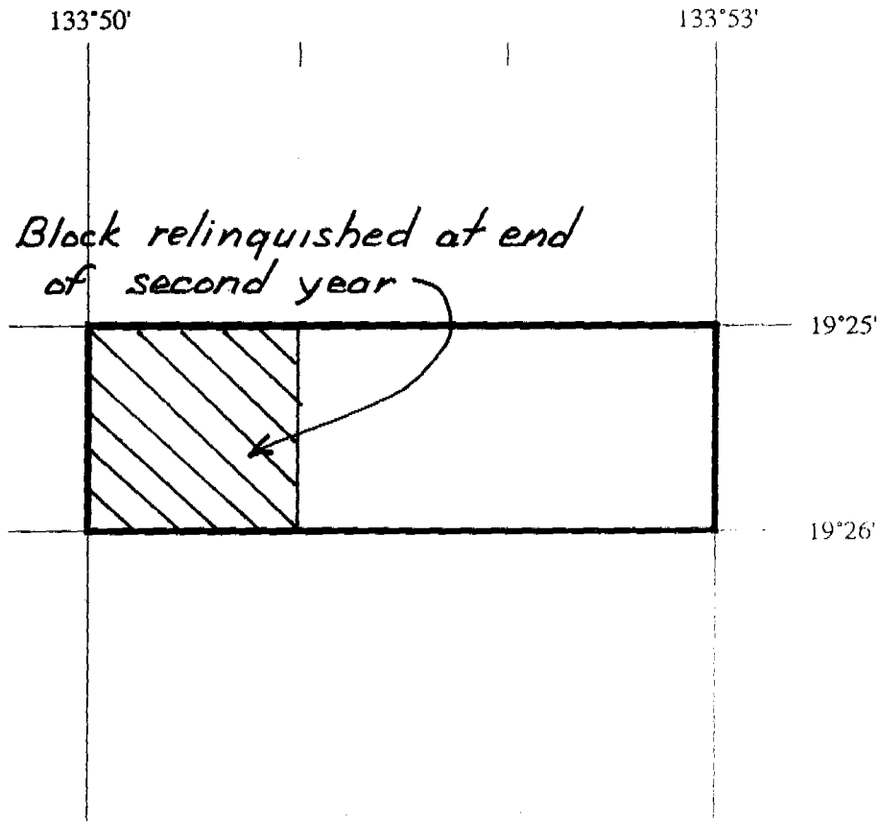
EL 7686 and Surrounding Tenements

0 5 10 km

Base map : NTDME Tenement Map 52/1 Short Range

Figure 1

EXPLORATION LICENCE 7686
"WARREGO EAST"



EL7686
3 BLOCKS
10 sq kms

BOUNDARIES OF EL7686

(From NTDME Exploration Licence document)

Figure 2

133°50'
133°51'
133°52'
133°53'
19°24'
19°25'
7856000 mN
7855000 mN
7854000 mN
7853000 mN
7852000 mN
7851000 mN
7850000 mN
377000 mE
378000 mE
379000 mE
380000 mE
381000 mE
382000 mE
383000 mE
384000 mE
EL7686

GREAT WESTERN

AIRBORNE GEOPHYSICAL SURVEY

GIANTS REEF MINING N.L.

Surveyed and compiled by AUSTREX INTERNATIONAL LIMITED
MAY 1993
Job No. 2146
austrex

RESIDUAL MAGNETIC INTENSITY

AIRCRAFT
VH-AZG CESSNA 206
MAGNETOMETER
SPLIT BEAM CESIUM SCINTREX V2321
RESOLUTION 0.001 nanoTesla
CYCLE RATE 0.1 seconds
SAMPLE INTERVAL 6.0 metres
SPECTROMETER
256 channel GEOMETRICS GR800
VOLUME 33.56 litres
CYCLE RATE 1.0 seconds
SAMPLE INTERVAL 60 metres
DATA ACQUISITION
RMS Multi-channel CHART RECORDER
PICODAS PDAS 1000 COMPUTER
RECODATA DIGITAL ACQUISITION SYSTEM
FLIGHT LINE SPACING
TRAVERSE LINES 80 metres
TIE LINES 800 metres
FLIGHT LINE DIRECTION
TRAVERSE LINES 180 - 360 degrees
TIE LINES 090 - 270 degrees
SURVEY HEIGHT
MEAN TERRAIN CLEARANCE - 60 metres
NAVIGATION
Using SYLEDIS UHF radio positioning

DATA PROCESSING

GRID CELL SIZE	30 metres
CONTOUR INTERVAL	2 nT
PARALLAX CORRECTION	0.5 fiducial
REGIONAL FIELD	IGRF model 1990 removed

SHEET LAYOUT

GRID NORTH
TRUE NORTH
MAGNETIC NORTH

North point relationships are shown for the centre of the map. Magnetic north is true for 1990.

GRID/MAGNETIC ANGLE	4°53'31"
GRID CONVERGENCE	-0°22'40.67"
SECULAR VIRATION	0°01'5" west per year

Scale 1:10 000
200 0 200 400 600 800 1000 metres
AUSTRALIAN MAP GRID

MAP 1.