

GEOPEKO LIMITED

CENTRAL AUSTRALIA

MINES BRANCH
GEOLOGICAL LIBRARY

OPEN FILE

ANNUAL AND FINAL REPORT ON EXPLORATION LICENCE

NO. 982

Compiled By

G. J. Bujtor

TENNANT CREEK

FEBRUARY, 1977

ANNUAL AND FINAL REPORT ON EXPLORATION LICENCE NO. 982

<u>CONTENTS</u>	<u>PAGE NO.</u>
1. Introduction	1
2. Tenure	2
3. Regional Geology	3
4. Regional Geophysics	4
5. Prospect Evaluation	5 - 6
5.1 Explorer 147	
5.2 Explorer 148	
5.3 Explorer 149	
6. Expenditure	7

LIST OF FIGURES

- Figure 1 Locality Plan showing Exploration Licence No. 982
Scale 1:1,000,000 .
- Figure 2 Plan showing approximate positions of Explorer Prospects
within Exploration Licence No. 982.
Scale 1:500,000 .

1. INTRODUCTION

Exploration Licence No. 982 held by Peko Mines Limited was initially granted on the 8th February, 1974 and subsequently renewed on the 8th February, 1975, at which time the area held under licence was reduced from 1290 sq. kms to 324 sq. kms. It was renewed for a further twelve month period on the 8th February, 1976 and the area held under licence was again reduced, from 324 sq. kms to 161 sq. kms.

This report covers the exploration activities conducted by Geopeko Limited, on behalf of Peko Mines Limited for the twelve month period from the 8th February, 1976 to the 7th February, 1977. It is the third Statutory Report to be presented and is to be regarded as both an Annual and Final Report, since further renewal is not sought.

The north eastern corner of Area A ($20^{\circ} 05' 00''$, $133^{\circ} 00' 00''$) is situated approximately 133 kms on a true bearing of 249° from Tennant Creek. The north eastern corner of Area B ($20^{\circ} 03' 00''$, $132^{\circ} 40' 00''$) is situated approximately 166 kms on a true bearing of 254° from Tennant Creek. The north eastern corner of Area C ($20^{\circ} 05' 00''$, $132^{\circ} 40' 00''$) is situated approximately 167 kms on a true bearing of 253° from Tennant Creek (Figures 1 and 2).

Access to the Exploration Licence is via a bitumen road from Tennant Creek to Warrego Mine, thence 11.5 kms west along the Wiso Bore road to a graded track that runs south for approximately 63 kms to Geopeko Limited's Rover Camp. From the camp, a graded track continues south for approximately 2 kms, then turns west for 8 kms, thence south for 4 kms, thence 22 kms west to a north-south trending graded track. Approximately 3 kms south of the above 'T' intersection, an ill-defined flagged track runs in a westerly direction for 40 kms to intersect the north eastern corner of Area A. Areas B and C are a further 35 kms due west.

2. TENURE

Nineteen (19) mineral leases within Exploration Licence No. 982 are held by Pako Mines Limited. These are:-

<u>Number</u>	<u>Area (ha)</u>	<u>Name</u>
ML 517F	16	Explorer 147 No. 1
ML 518F	16	Explorer 147 No. 2
ML 519F	16	Explorer 147 No. 3
ML 520F	16	Explorer 147 No. 4
ML 521F	16	Explorer 147 No. 5
ML 522F	16	Explorer 147 No. 6
ML 523F	16	Explorer 147 No. 7
ML 524F	16	Explorer 147 No. 8
ML 525F	16	Explorer 147 No. 9
ML 526F	16	Explorer 147 No. 10
ML 527F	16	Explorer 147 No. 11
ML 528F	16	Explorer 147 No. 12
ML 529F	16	Explorer 147 No. 13
ML 530F	16	Explorer 148 No. 1
ML 531F	16	Explorer 148 No. 2
ML 532F	16	Explorer 148 No. 3
ML 533F	16	Explorer 148 No. 4
ML 534F	16	Explorer 148 No. 5
ML 535F	16	Explorer 148 No. 6

3. REGIONAL GEOLOGY

With the exception of very minor scattered Tertiary laterite outcrops, the Exploration Licence areas are devoid of outcrop and covered with superficial sand and bulldust.

A granitic body is postulated to exist in the northern and southern portion of Area A. Palaeozoic sediments are interpreted to underlie the remained of the areas since the magnetic character is not typical of Lower Proterozoic Warramunga Group sediments. Palaeozoic sediments are known to crop out further to the south.

4. REGIONAL GEOPHYSICS

Geophysical surveys conducted prior to Peko Mines Limited, being granted on Exploration Licence over the area, include a reconnaissance aeromagnetic survey, a high level aeromagnetic survey and a B.M.R. regional gravity survey.

During February - March 1974, a low level aeromagnetic survey was carried out by Geometrics International Incorporated on behalf of Geopako Limited. The results of the survey was a series of contoured residual magnetic intensity plans (1:50,000) which were presented in the Annual Report on Exploration Licence No. 982 for the year ending February 7th, 1975.

Analysis of all the available geophysical surveys indicated that the magnetic character was derived from features varying from 400 to 1500 metres in depth. Several narrow, vertical and NW-SE striking features were delineated in Area A. In Areas B and C, the strike of the magnetic features is more east west. A few NNE-SSW faults have been inferred within the areas.

Three anomalies were selected for further investigations. These are Explorer 147, Explorer 148 and Explorer 149.

5. PROSPECT EVALUATION

Detailed prospect evaluation has continued throughout the current term of the exploration licence. This has mainly involved geophysical evaluation and interpretation. Work carried out previously to the current year is briefly outlined under 'Summary of Previous Activities'. This includes the results of low level aeromagnetic survey and results of the eight reconnaissance magnetic traverses (Annual Report on Exploration Licence No. 982 for year ending February 7th, 1975).

5.1 Explorer 147

5.1.1 Location

The Explorer 147 Prospect is situated approximately 47 kms on a true bearing of 243° from Point Wakefield Trig, at the intersection of latitude $20^{\circ} 11' 05''$ with longitude $132^{\circ} 57' 07''$.

5.1.2 Summary of Previous Activities

The aeromagnetic anomaly was located on the ground and three reconnaissance vehicle magnetometer - navigator traverses were conducted over it. Thirteen 16 hectare mineral leases were surveyed in (ML 517F - ML 529F).

5.1.3 Summary of Activities for the Year Ending February 7th, 1977

(1) Geophysics

Geophysics analysis suggests the presence of Warramunga Group sediments lying beneath the bulldust, sand and Cambrian sediment cover. An ironstone body is interpreted to be present at a depth of some 700 metres.

5.2 Explorer 148

5.2.1 Location

The Explorer 148 Prospect is situated approximately 46.4 kms on a true bearing of 245° from Point Wakefield Trig, at the intersection of latitude $20^{\circ} 09' 29''$ with longitude $132^{\circ} 57' 12''$.

5.2.2 Summary of Previous Activities

The aeromagnetic anomaly was located and three reconnaissance vehicle magnetometer - navigator traverses were conducted over it. Six 16 hectare mineral leases were surveyed in over the prospect (ML 530F - ML 535F).

5.2.3 Summary of Activities for the Year Ending February 7th, 1977

(1) Geophysics

Geophysical results suggest the presence of Warramunga Group sediments lying beneath the bulldust, sand and Cambrian Cover. The presence of a discrete ironstone body is not conclusive since the anomaly may well be due to magnetic sediments or basic intrusives.

5.3 Explorer 149

5.3.1 Location

The Explorer 149 Prospect is situated approximately 50 kms on a true bearing of 247° from Point Wakefield Trig, at the intersection of latitude $20^{\circ} 08' 20''$ with longitude $132^{\circ} 55' 34''$.

5.3.2 Summary of Previous Activities

The aeromagnetic anomaly was located and two reconnaissance vehicle magnetometer - navigator traverses were conducted over it.

5.3.3 Summary of Activities for the Year Ending February 7th, 1977

(1) Geophysics

Geophysical analysis suggests that the anomaly is caused by magnetic Warramunga Group sediments and/or basic rocks.

6. EXPENDITURE

The total expenditure on Exploration Licence No. 982 for the twelve month period from February 8th, 1976 to February 7th, 1977 was \$5,272.00 . The breakdown of expenditure is as follows:-

Geology	\$ 964.00
Geophysics	\$ 408.00
Leasing	\$ 1,650.00
Survey & Drafting	\$ 450.00
General Field Expenses	\$ 887.00
Administration Costs	\$ 913.00
Total	<u>\$ 5,272.00</u>

The various subdivisions are costed directly, the exception being General Field Expenses and Administration Costs.

- (1) Administration Costs are proportioned period by period on the basis of man hours worked on the project to the total man hours worked for the period.
- (11) General Field Expenses are spread on the same basis as Administration Costs and consist of the following overheads :-
- Field Messing
 - Field Supplies
 - Vehicle Operation
 - Workshop Supplies
 - Depreciation - Field Plant

The total expenditure on Exploration Licence No. 982 since the initial granting of the licence on February 8th, 1974 is as follows:-

<u>Year</u>	<u>Expenditure</u> <u>Commitment</u>	<u>Actual</u> <u>Expenditure</u>
1 8.2.74 to 7.2.75	15,000.00	25,207.00
2 8.2.75 to 7.2.76	5,000.00	15,273.00
3 8.2.76 to 7.2.77	10,000.00	5,272.00
Total	<u>\$ 30,000.00</u>	<u>\$ 45,752.00</u>

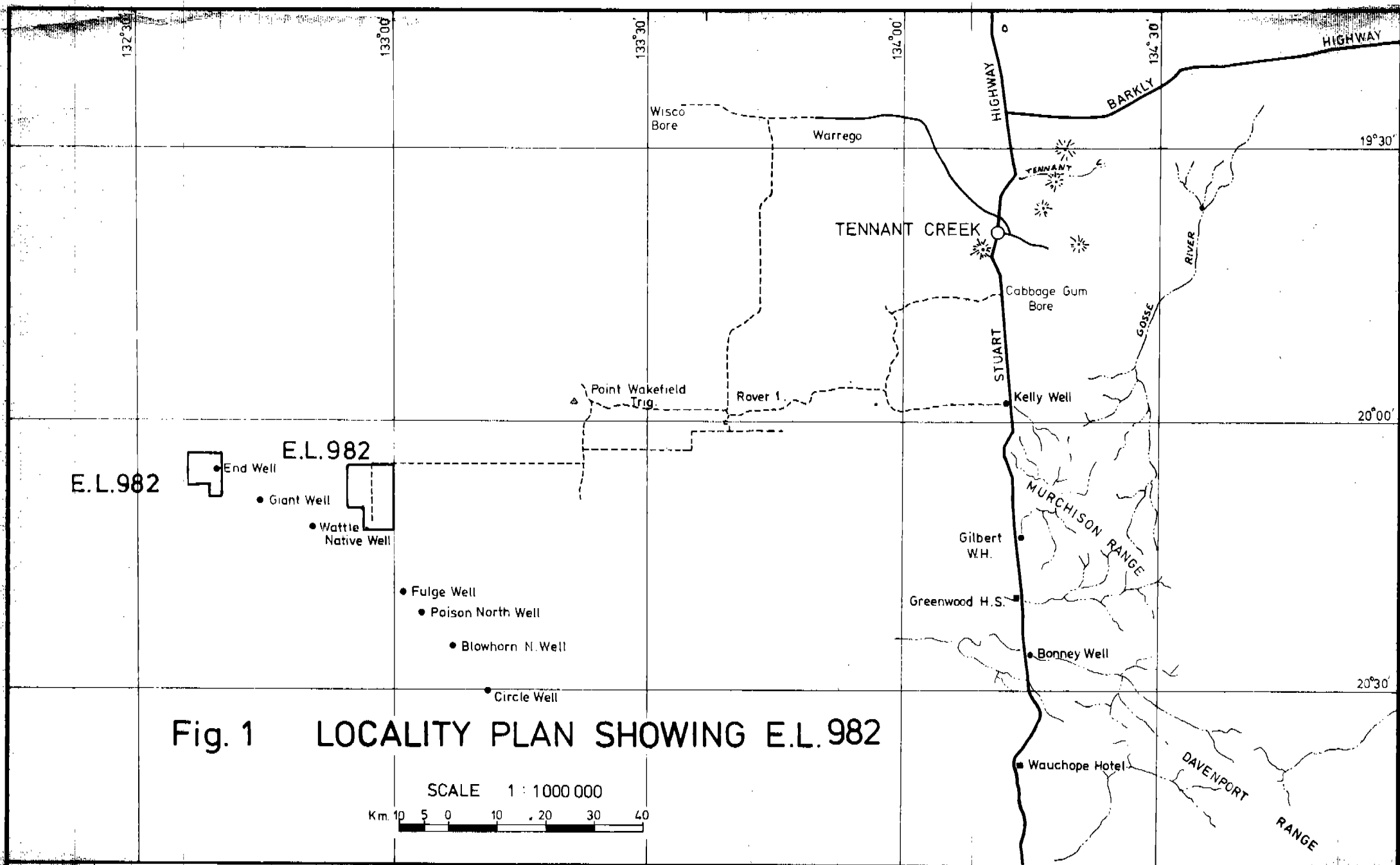
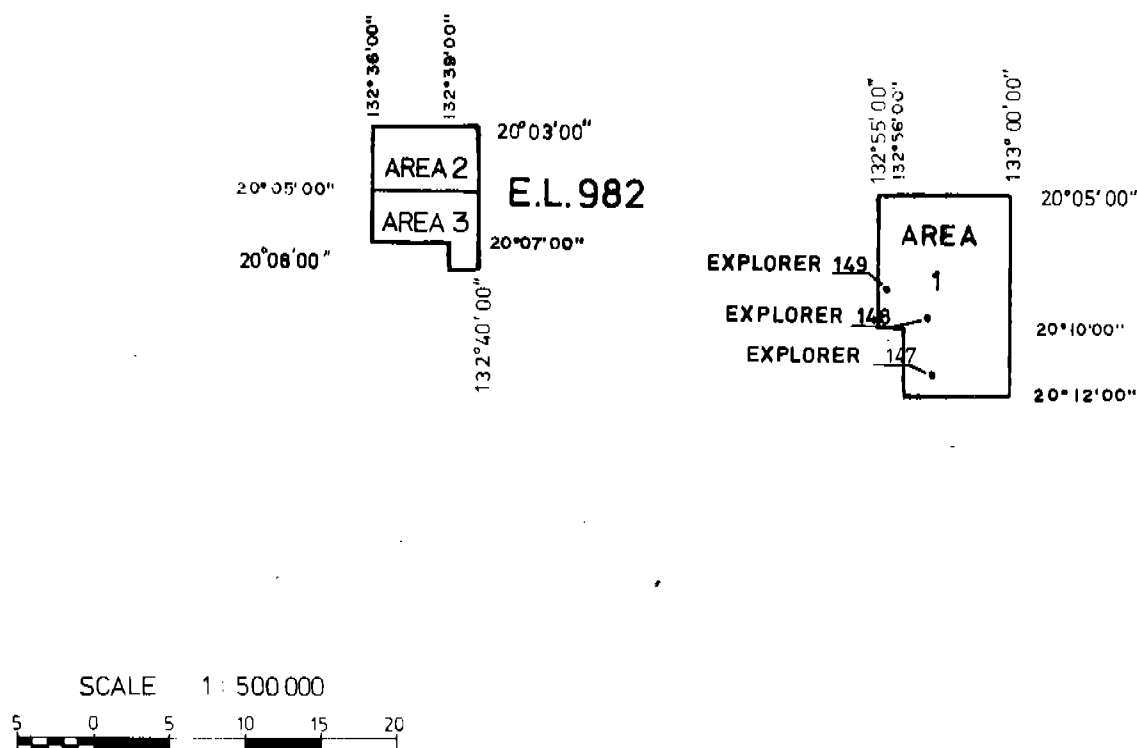


Fig. 2



PLAN SHOWING APPROXIMATE
POSITIONS OF EXPLORER PROSPECTS
WITHIN EXPLORATION LICENCE N° 982

GEOPEKO LIMITED
TENNANT CREEK

DRAWN G.J.B. AMF II	SCALE AS SHOWN
DATE 15/3/77	Dwg No TF 1535