

SECOND ANNUAL REPORT

ON

EXPLORATION LICENCE 9176

CR 98 / 38



**WR JETTNER
OCTOBER 1997**

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1. INTRODUCTION

Exploration Licence No. 9176 was granted to Markaranka Selected Seed Co., Morestoe Pty Ltd and D.R. Jettner on 17 July 1995 for a period of 5 years.

EL9176 was transferred to Agricola Gold Ltd in January 1997. This is the second Annual Report for EL9176.

With the statutory reduction by 3 blocks, the EL9176 now has 3 graticular blocks.

Exploration during the year consisted of several extensive geological traverses over the 2 north western blocks now relinquished. Attention was then focused on the gossanous quartz reefs along the summit of the main north south ridge of the Mt Tymn anticlinal structure.

2. LOCATION AND DESCRIPTION

Exploration Licence No. 9176 is located in a offset rectangular 6 sub block shape between 131°10'E and 131°14'E and 13°16'S and 13°19'S approximately 140km to the south of Darwin and is accessible from Darwin via the Stuart Highway thence via Fisher Road to near the centre of the EL.

Fisher Road traverses the EL and in association with the large number of station fences and tracks make the general area easily accessible for reconnaissance purposes.

The EL primarily consists of rocks of the Lower Proterozoic Burrell Creek formation which forms the Finnis River Group in this area and its eroded remnants which forms a sub-mature to mature geomorphological land form in this sub-area of the overall Adelaide River to Mt Wells land form area.

The low lying, rubbly hills are separated by narrow, sandy loam choked drainages in the western portion of the EL with broad, shallow desiccated and subdued drainage systems in the eastern portion of the EL.

The area that Fisher Rd traverses is of a sub-mature landform with the regional Mt Tynm anticlinorium plunging northwards through the largest portion of the EL.

14/2 - 1/16

21

22

23

24

25

131° 15' 13' 15'

56

57

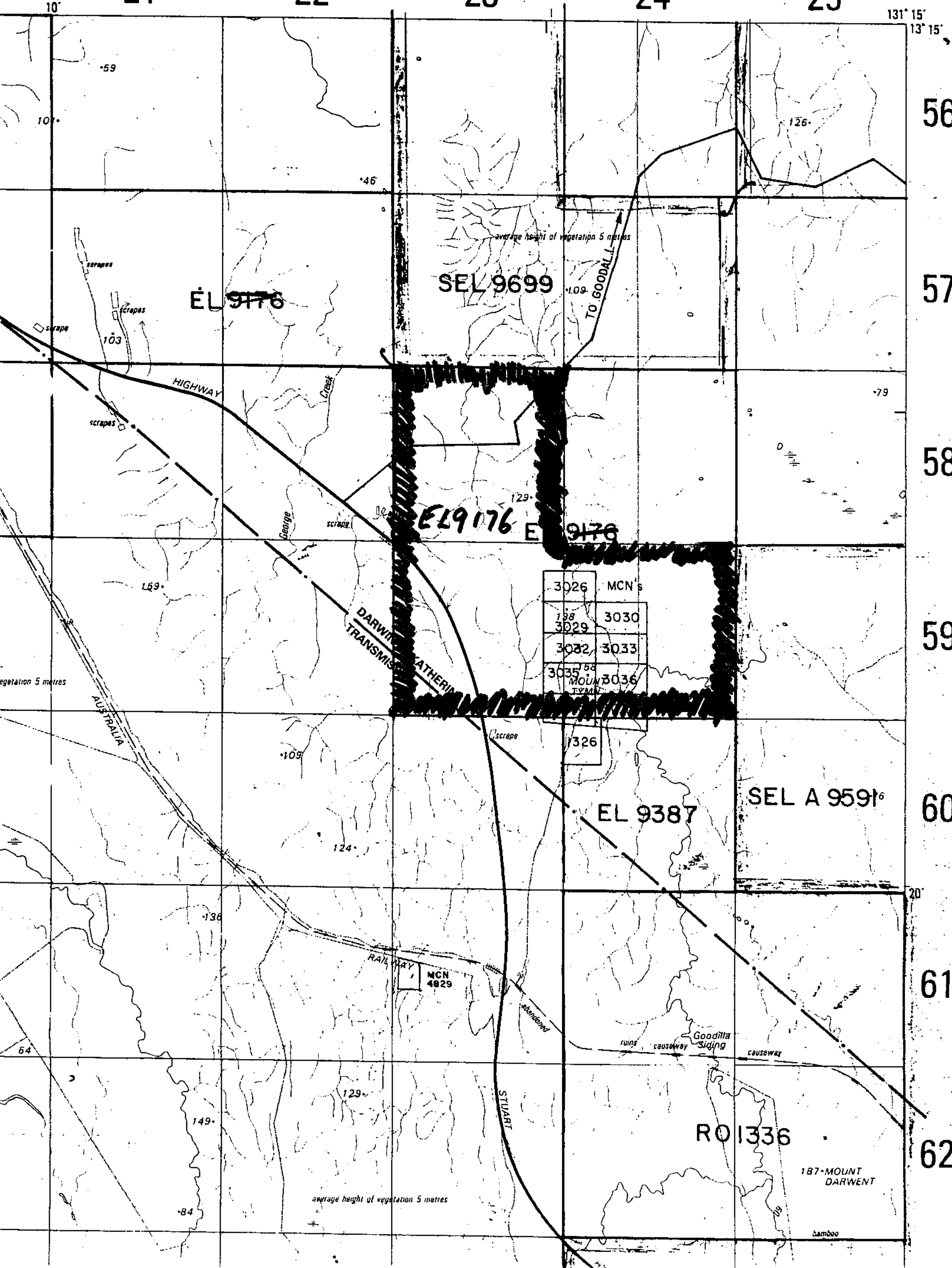
58

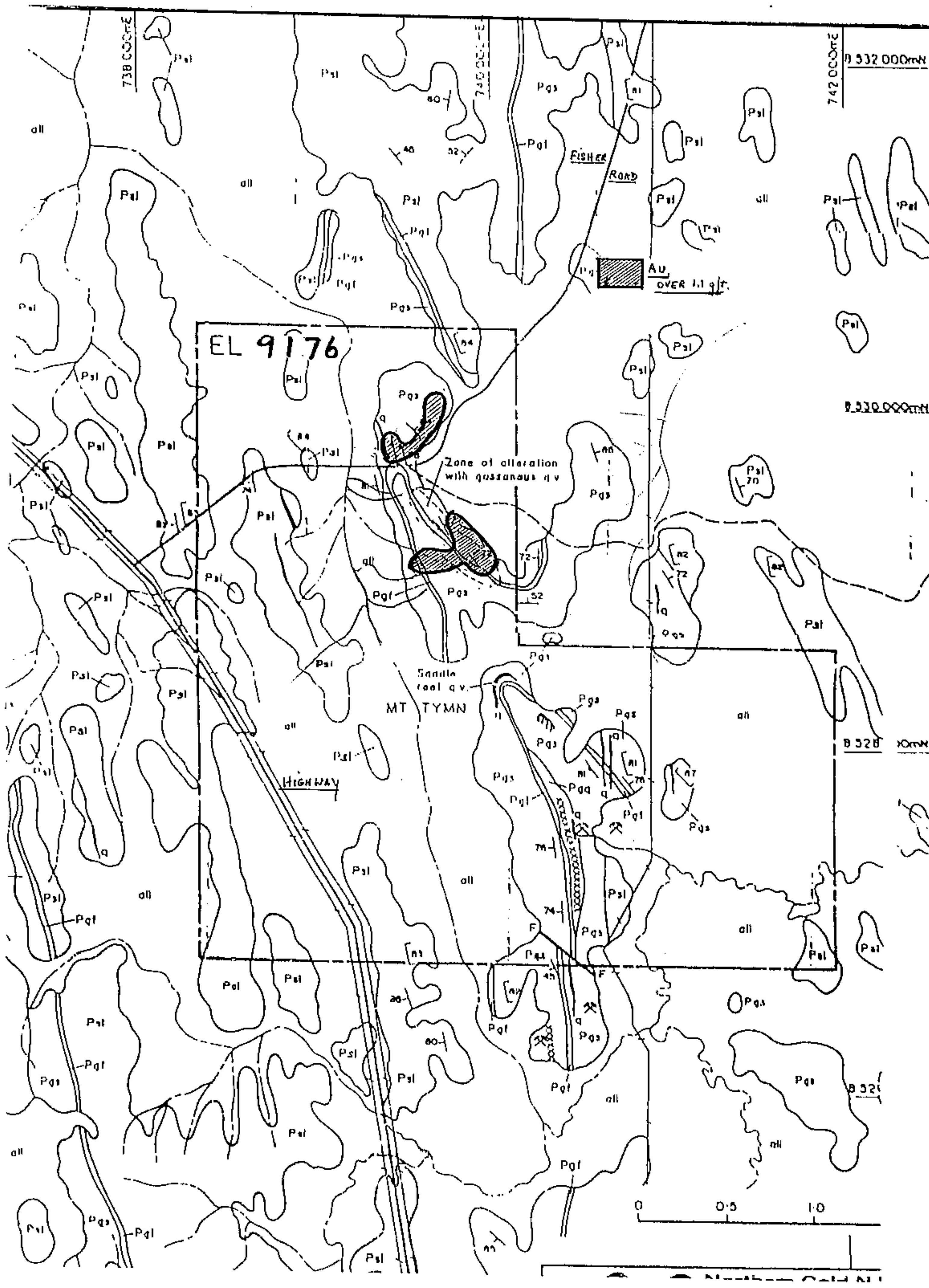
59

60

61

62





3. GEOLOGY

As previously stated the rocks that outcrop in the EL belong to the Lower Proterozoic Burrell Creek formation and consist of a wacke to mudstone suite representing a series of macro-cyclic turbidite events throughout the Finnis River Group depositional history.

EL ⁹¹⁷⁶~~8578~~ lies within Western Mining's Central Zone which was explored in the mid-late 1980s as part of their regional program on ground surrounding the Goodall Mine.

Western Mining did not do a great deal of detailed work on this area during their program as they tended to concentrate more on the area to the east of Howley Creek, which they termed the Howley Anticlinorium.

As part of their exploration effort a great deal of work was done on the depositional and deformational history of this area which represents the deepest portion of the Pine Creek Geosyncline.

The stratigraphic sequence in this area is similar to that found around the Goodall Mine and is as follows: (Hancock and Ward 1988).

Unit:	Upper Wacke Sequence
Thickness:	≥ 1500m
Description:	Comprises medium grained, clast supported, buff weathering quartzo-feldspathic, tuffaceous wackes, silts and lesser lithic pebble conglomeratic turbidites. The lower portion is a relatively distinctive, buff weathering wacke.

Unit:	Red Silty Unit
Thickness:	≥ 600m
Description:	A relatively poorly exposed unit dominated by distinctive red-brown weathering phyllitic metasiltstone, graded and bedded phyllite, distinctive laminated phyllite and matrix supported medium grained quartzo-feldspathic wacke. Laminated chlorotic phyllites with thin tuffaceous interbeds form a distinctive association in the unit.

The unit can be internally considered as comprising a lower unit dominated by phyllite and matrix supported wacke and an upper unit distinguished by laterally persistent wacke units which include clast supported lithologies similar to those which dominate the overlying wacke-rich unit. The top boundary is gradational in detail and defined by a thin but continuous wacke unit traceable around the structure in the area mapped in detail.

Unit: **Bundey Sequence**
Thickness: $\geq 1000\text{m}$
Description: Boldly outcropping, medium grained, tuffaceous, quartzo-feldspathic wackes with matrix chlorite and muscovite and interbedded chlorite-sericite-quartz phyllitic metasiltstones.

Graded, medium grained, clast supported wacke dominant and a distinctive sub-zone of wackes with nodules to 5 - 8 cm of quartz ex-diagenetic chert occurs near the top. Thick phyllitic metasiltstones, often with local ex-andalusite and ex-cordierite spotting occur.

Unit: **Lower Transitional Zone**
Thickness: $\approx 500\text{m}$
Description: Not mapped in detail but reconnaissance observations structurally beneath the Bundey Sequence in the axial zone of the Howley Anticline indicate poorly outcropping, mixed successions of medium grained, quartz- feldspar wacke and significant thicknesses of ferruginous, probably ex-graphitic phyllite reminiscent of the underlying Mt Bonnie formation.

The units above show alterations in the abundance of sand and silt but rarely if ever the exclusion of either lithology. The change in character probably reflects the changes in the character of the provenance area of detritus as bed organisation and the depositional environment are similar in both the clast supported and matrix supported (Red Silty Unit) lithologies.

Elements of all of the above units may be found in the EL area with variants from the quartz pebble conglomerate to the fine matrix supported Red Silty Unit in areas of sub-crop to postulated alluvium covered areas.

Structurally the dominant feature is the presence of the Mt Shoobridge fault in the eastern portion of the EL with several minor folding events present to the west of this fault.

The Mt Shoobridge fault has been shown to contain very minor mineralisation sporadically along its length and for such a major lineament is a very dry conduit for both mineralising fluids and groundwater.

4. PREVIOUS EXPLORATION

A brief summary of exploration work covering portions of EL 9176 is listed below:

EL 2473 (1982 - 1986)

Originally held by WR Grace but subsequently taken over by Pan D'Or Mining NL and Western Mining Corporation, in turn, under the terms of the Ringwood Joint Venture.

WMC undertook helicopter and vehicle traversing, soil, rock chip and limited -200# stream sediment sampling.

EL 5278 (1987 - 1990)

Held by Coronation Hill Gold Mines.

Work done included geological mapping, drainage geochemical sampling and rock chip sampling.

EL 7065 (1992 - 1994)

Aztec Mining Co held this EL for the early 1990s as part of their regional exploration program for their operation at the Woodcutters Mine. Limited work was done with none being completed from within the boundaries of EL 9176.

5. WORK DONE IN THE SECOND LICENCE YEAR

On ground work consisted of rock chip sampling over a gossanous quartz vein region along the main strike, north of Mt Tymn and straddling the Fisher Road traverse. While modest anomalism occurs at each end of the region, samples T78 and T82 0.38 PPM and 0.47 PPM respectively were the only positions to warrant any further work.

Further traverses over the 2 north western blocks failed to locate any mineralisation on the surface and therefore warrant no further work.

EL8369

46

+ T9

+ T8

+ T7

average height of vegetation 5 metres

109

TO GOODALL

Creek

T82

T80

T83

T81

T70

T71

T72

T73

T74

T75

T76

T77

T78

George

scrape

10 metres

EL 9176

T5

T3

T4

T2

T1

3026

MCN's

188

3030

3029

3032

3033

3035

58

MOUN

TYMN

3036

3038

3039

DARWIN - KATHERINE
TRANSMISSION LINE

scr

MORESTOE PTY LTD

EL 9176

SAMPLE LOCATIONS

GEO: WA Jettner DATE: Aug 1996 REPORT: 9176

DRAWN: WA Jettner SCALE: 1:20 000

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6. CONCLUSIONS

The area along strike from the Mt Tymn prospect remains the most promising area in light of the last season's exploration.

Areas to the north west no longer have any interest for the company. The current year's work will concentrate on determining the perimeter of the main central anomaly.

Under policy reduction of the EL the two north west blocks have been dropped as has the north east block.

7. EXPENDITURE

1996 - 1997

Expenditure in the second year is as follows:

Administration	\$ 3000.00
Gridding & rock chipping	3000.00
Ground survey of 2 north west blocks	1900.00
Assays	300.00
Field stores (shared)	480.00
Geo 2 days	700.00
Reports	800.00
Vehicle - 5 days	500.00

Total	\$ 10,680.00

Expenditure 1997 - 1998

Expenditure in the third licence year is expected to lower with \$4000 being budgeted for exploration on EL 9176.

EL8369

EXPLORATION
AREAS
1988



46

average height of vegetation 5 metres

109

TO GOODALL

Creek

George

scrape

12 scrapes

EL 9176

DARWIN - KATHERINE
TRANSMISSION LINE

3026	MCN's
138 3029	3030
3032	3033
3035 MOUN TYM	3036
3038	3039

MORESTOE PTY LTD

EL 9176

SAMPLE LOCATIONS

GEO: WA Jettner DATE: Aug 199 REPORT: 9176

DRAWN: WA Jettner SCALE: 1:25 000 PLAN: FIG

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8. PROPOSED EXPLORATION IN THE THIRD LICENCE YEAR

The proposed exploration program for the third licence year on EL9176 will include a closed up rock chip sampling over the two known mineralised areas. At present the only area with sufficient anomalism to warrant costean or drilling programmes is situated about $\frac{3}{4}$ km NNW of MCN 3026. The new surface sampling will determine if this is of sufficient size to warrant these additional programmes.

APPENDIX 1

ASSAYS



ASSAYCORP

ASSAY CODE: AC 29074

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Sample		Au (ppm)	Au(R) (ppm)
46P	31	<0.01	
46P	32	<0.01	
46P	33	<0.01	
46P	34	0.04	
46P	35	0.09	0.06
46P	36	0.03	
46P	37	0.10	0.07
46P	38	<0.01	
46P	39	0.02	
46P	40	0.03	0.03
T	1	0.15	0.18
T	2	0.07	
T	3	<0.01	
T	4	<0.01	
T	5	<0.01	
T	6	0.07	0.08
T	7	<0.01	
T	8	<0.01	
T	9	<0.01	<0.01



ASSAYCORP

ASSAY CODE: AC 37078

Page 2 of 2

Sample	Au (ppm)	Au(R) (ppm)
T70	0.12	0.13
T71	0.06	0.03
T72	0.01	0.01
T73	<0.01	<0.01
T74	0.06	0.06
T75	0.05	0.04
T76	0.02	0.02
T77	0.01	0.02
T78	0.38	0.28
T80	0.18	0.18
T81	0.07	0.07
T82	0.47	0.50
T83	0.08	0.06
Method	FA50	FA50