

YARDARINO MINING NL

FINAL REPORT

EL9283 - PREMIER

TENNANT CREEK DISTRICT

NORTHERN TERRITORY

COPIES:

1. Department of Mines and Energy - Darwin.
2. Yardarino Mining NL - Perth

AUTHOR:

R.P. MURPHY

Report No. 9283-1
31 August 1996

CR916/671

TABLE OF CONTENTS

	<u>Page No.</u>
1. SUMMARY	3
2. INTRODUCTION	4
2.1 Location and Access	4
2.2 Physiology	4
2.3 Tenure	4
3. REGIONAL GEOLOGY	4-5
4. PREVIOUS EXPLORATION	5
5. EXPLORATION PROGRAMME	5
6. EXPLORATION EXPENDITURE	6

LIST OF PLANS

PLAN NO.	TITLE	SCALE
1	Tenement Location Plan	1 : 250 000
2	Tenement Boundaries	-
3	Aeromagnetic Contours	1 : 50 000

1. SUMMARY

Exploration Licence 9283 (Premier) of four blocks was granted on 16 October, 1995 and relinquished on 1 July, 1996. The tenement was subject to a joint venture between Orion Resources and Yardarino. No work was conducted on the tenement by Orion Resources as managers of the joint venture before their withdrawal on 15 December, 1995.

Following Orion's withdrawal, an evaluation of available aeromagnetic data and previous exploration work by Yardarino failed to locate any worthwhile targets for ground evaluation. The tenement was assessed as being largely underlain by granite and where Warramunga Group sediments occur has already been subject to first pass geochemical testing without success. Consequently, no field work was undertaken during the period of tenure.

2. INTRODUCTION

2.1 Location and Access

Exploration Licence 9283 is located approximately 25km west-north-west of Tennant Creek and 20km south-east of the Warrego Mine (Plan No 1). Access is via a graded fence line track from the Amadeus-Darwin gas pipeline track.

2.2 Physiography

There are no physical features of note in the licence area. The ground is flat and covered with aeolian silt. Vegetation consists of spinifex grass, acacia and eucalypt trees.

2.3 Tenure

Exploration Licence 9283 was granted to Yardarino Mining N.L. for a period of 4 years on 16 October, 1995. The EL covers four blocks numbered 45-38, 39, 40 and 46-37 on the Kelly Sheet 52/4.

The tenement was subject to a joint venture agreement with Orion Resources N.L. who managed the exploration from project inception until withdrawal on 15 December, 1995.

Subsequent to Orion Resources N.L. withdrawal the tenement was surrendered on 1 July, 1996.

3. REGIONAL GEOLOGY

The Tennant Creek district over the past 60 years has produced several small, very high grade gold orebodies. Two of these bodies, Warrego and Nobles Nob, have produced over 1M ounces. The field has produced copper ore mainly from Warrego and Peko and was, until very recently, the world's major source of bismuth. To date nearly all the gold, copper and bismuth produced has been mined from quartz-jasper-magnetite-haematite bodies locally called ironstones. Exploration has focused on ground prospecting and drilling outcropping ironstones or selecting magnetic bulls eyes from the aeromagnetic surveys for drill testing.

The Tennant Creek district is deeply weathered (+70m) and regionally there is less than 30% outcrop. There are extensive plains of alluvium and colluvium between the outcrops which makes surface stratigraphic mapping almost impossible. There are however, three recognisable groups in the district.

The oldest and most prospective is the Warramunga Group, which hosts all of the significant and potentially mineralised ironstones. The Group consists of medium to deep water siltstones and greywackes which have been highly sheared and folded. There is a pervasive S1 cleavage which commonly is over printed by S2.

Overlying the Warramunga Group is the Flynn Sub-group. This is characterised by interbedded siltstones and fine sandstones, although highly sheared original bedding can be recognised as can some sedimentary textures.

The Tomkinson Creek Group overlies the Flynn and is located in the northern extremity of the field. This Group is dominated by silicified sandstones and dolerite sills in the Tennant Creek area.

There are very poorly outcropping but extensive granites in the district. These are of two ages with the oldest represented by the sheared Tennant Creek granite and the younger by the unshaped Warrego granite. Quartz-feldspar and feldspar porphyries are reasonably common. They occur as either concordant or discordant to bedding. Often they are cross-cutting to the pitch and plunge of mineralisation.

4. PREVIOUS EXPLORATION

The south-western block of the Premier tenement formed part of a six block EL explored by a Poseidon/Newmont joint venture between 1987 and 1990. A BLEG soil survey was conducted on a 500m grid with a total of 12 samples collected from within Yardarino's Premier EL. High gold results were recorded initially but repeat samples were several orders of magnitude lower. It was concluded that the original samples were contaminated and that the area in question was non-anomalous.

Between 1991 and 1993 North Flinders Exploration/Roebuck Resources conducted a propriety "M" magnetic fraction surface soil sampling program over the two western blocks of the Premier EL. Gold values ranged from 2 to 21ppb which were not considered sufficiently encouraging to warrant further exploration.

5. EXPLORATION PROGRAMME

No work was undertaken on EL9283 by Orion Resources during their period of project management. Following Orion Resources withdrawal from the joint venture a review of available open file exploration data was undertaken by Yardarino Mining.

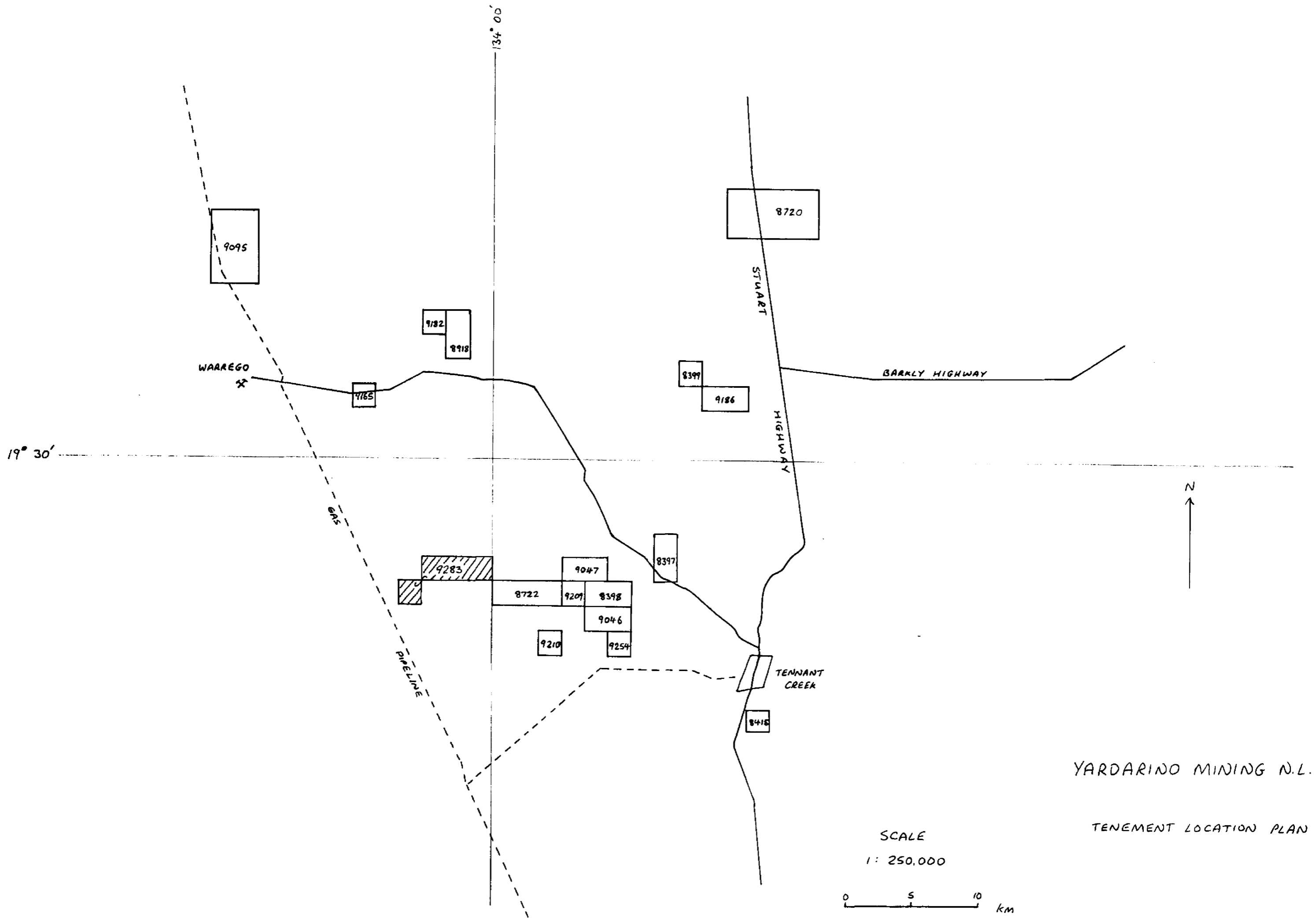
An evaluation of available aeromagnetic data indicated that the largest part of the tenement is not underlain by prospective Warramunga Group sediments but by granite. Although the Jubilee Shear Zone transects the tenement it is not considered prospective within granite rocks. The areas underlain by Warramunga Group sediments in the west and south-west of the tenement have been adequately geochemically tested by previous explorers.

In the absence of any worthwhile targets, no field work was undertaken and the tenement was relinquished on 1 July, 1996.

6. EXPLORATION EXPENDITURE

The following expenditure was incurred on the EL.

	\$
Wages	188.18
Administration	113.33
Geological Consultant	37.55
Data Acquisition	25.00
Drafting	8.87
Property Costs	-
Subtotal	<u>372.93</u>
Overheads	55.94
TOTAL	<u><u>\$428.87</u></u>



YARDARINO MINING N.L.
 TENEMENT LOCATION PLAN

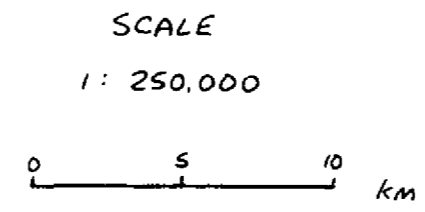
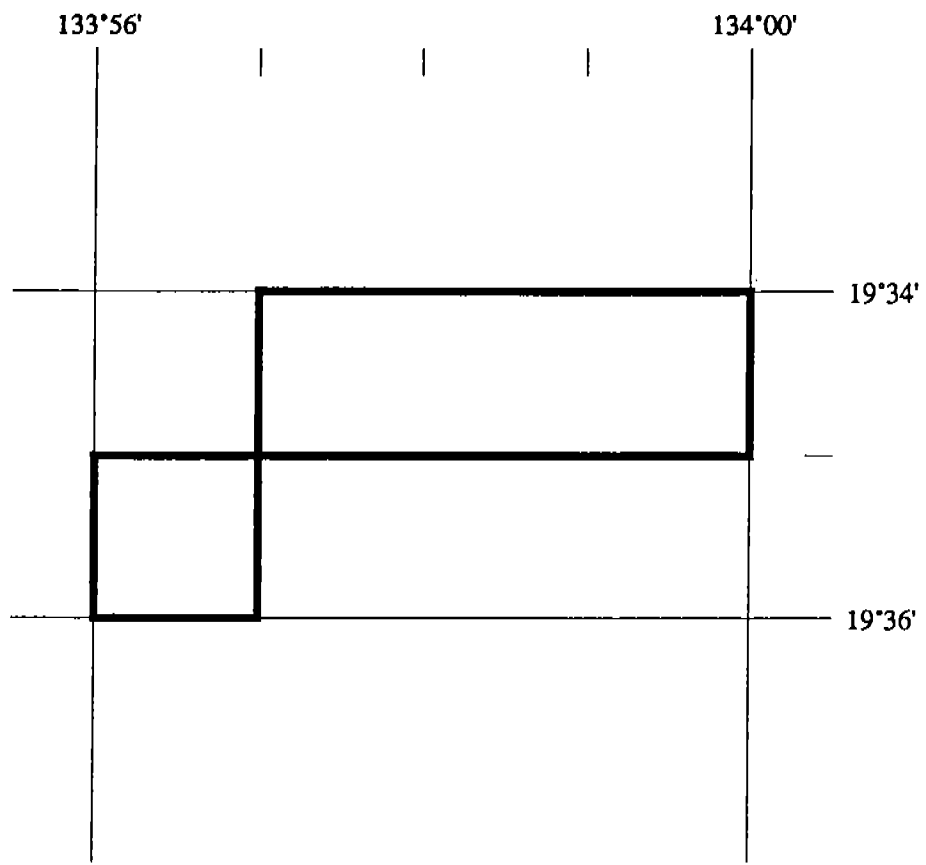


Fig 1.

SECOND SCHEDULE
(Plan of Area)



EL9283
4 BLOCKS
13 sq kms

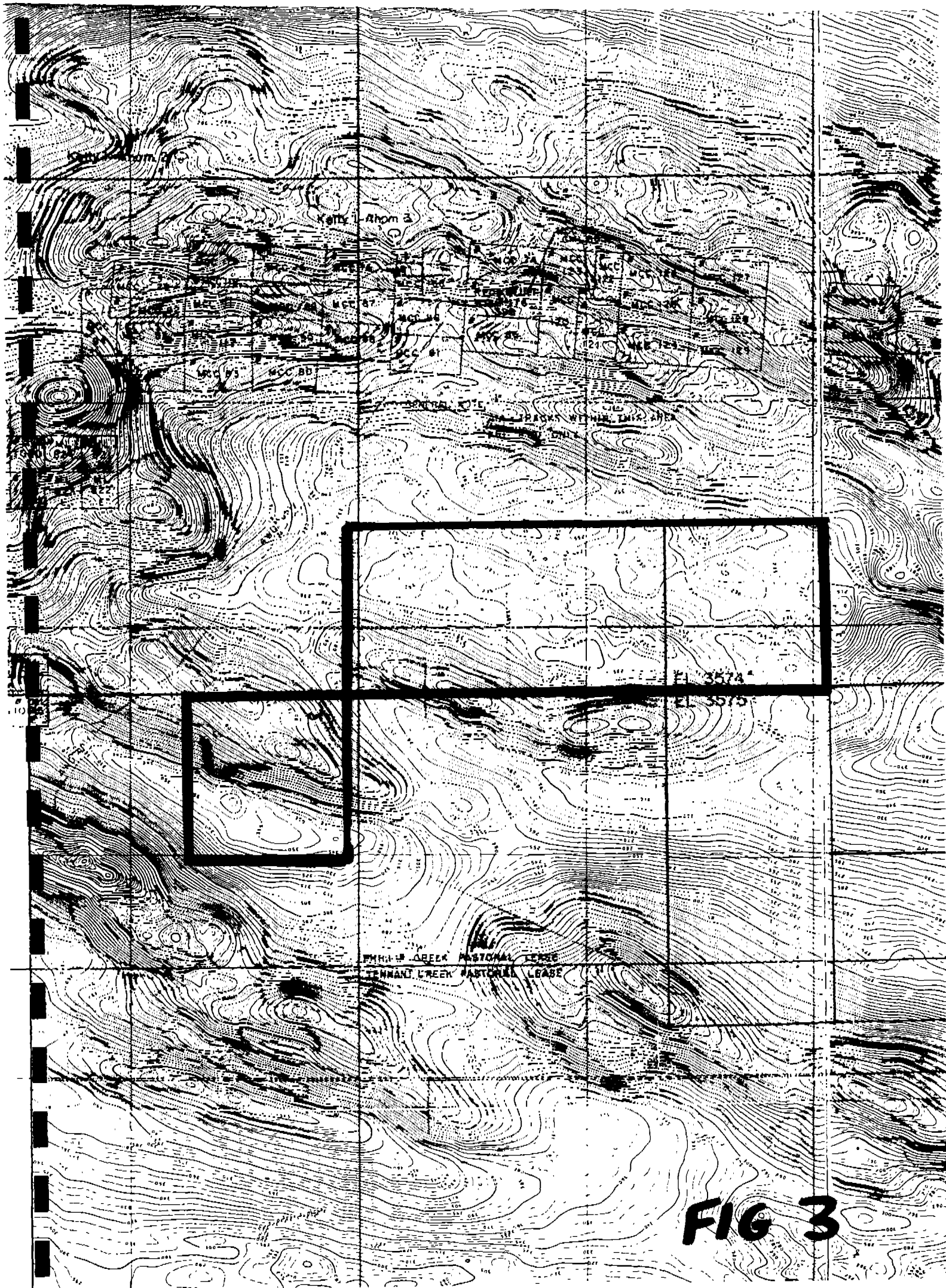


FIG 3