15.4

REPORT ON

EXPLORATION LICENCES

4931, 4932 AND 4933

EXPLORATION LICENCE APPLICATION

5516

IN THE MOLINE AREA

SEVENTH STATE MINES N.L.

C O N T E N T S

* * *

F I G U R E S

T A B L E S

1. INTRODUCTION.

Exploration Licences 4931, 4932 and 4933 were granted to Motoo Sakurai and Robert Johnston on the 27th June, 1986 for the period of 6 years.

Because no mineralization is likely to occur in the area of Exploration Licence 4932 as it is situated entirely within granite, it was surrendered at the anniversary.

Exploration Licences 4931 and 4933 were transferred to the joint names of Motoo Sakurai, Robert Johnston, Graeme Barry Scrimegour and Peter Rowe on the 27th July, 1987.

Exploration Licence 5516 was applied by the joint names of Motoo Sakurai, Robert Johnston, Graeme Barry Scrimegour and Peter Rowe on the 15th May, 1987.

Exploration Licence 4931 and 4933 and Exploration Licence application 5516 were fully acquired by Seventh State Mines N.L. on the 28th July, 1987.

Exploration Licences 4931,4933, Exploration Licence application 5516, any future licences and mining tenements in the vicinity are dealt by this company as constituting one project which is called as the Moline project.

This report deals with the activities of Seventh State Mines N.L. on the Moline project. The work so far conducted in the area is of preliminary nature and, therefore, emphasis is rather placed on the discussion about what we are going to do in the area of the Moline project. Persuant to the Section 31 and Section 173 (5) (b) (c) of the Mining Act, this report is submitted to the Minister for the Northern Territory Department of Mines and Energy. The next annual report is due to be prepared by the 27th August, 1988.

This report was prepared by the writer undersigned.

M. Sakurai

2. SUMMARY

Establishment of access track to half way, reconnaissance, reconnaissance auger drilling and quartz reef sampling were carried out during the term for a structurally controlled gold mineralization (Cosmo Howley and Zapopan types).

Any particular anomalies on structurally controlled gold deposits were not encountered. However, effort to discover this type of mineralization is continued in the area during the ensuing year.

Access track did not reach the area of proposed PGM's (Platinum group metals) exploration. During the ensuring year, PGM's exploration will be first conducted in a methodical and systematic way. This programme is discussed into details in this report.

3. CHARACTERISTICS OF THE MOLINE PROJECT.

Establishment of gold mines and platinum mining complex (mining and processing for platinum group metals and associated copper and nickel) are the main objective of this company.

From the above standpoint, there were two main sites attracted our attention to be first investigated in the area. They are:-

Area 1. Middle of EL 4931 where depression of the southeasterly plunging anticlinal axis occurs running to southeast.

Area 2. Southwestern part of EL 4933 where two sorts of dyke rocks younger than granite intruded into the Cullen granite batholith, one of which is syenite and the other dolerite. Of the above two the dolerite more important, for syenite is generally similar to granite (the difference between granite and syenite is only on very small quartz content and lack of muscovite in syenite) and, therefore, the syenite may be considered as comagmatic to granite.

The above two areas are shown on Fig 1 .

A stracturally controlled gold deposit such as saddle reefs was sought in Area 1, and investigation by means of detailed geological mapping, rock assaying and petrological study was to be conducted in Area 2 as both gold and platinum exploration.

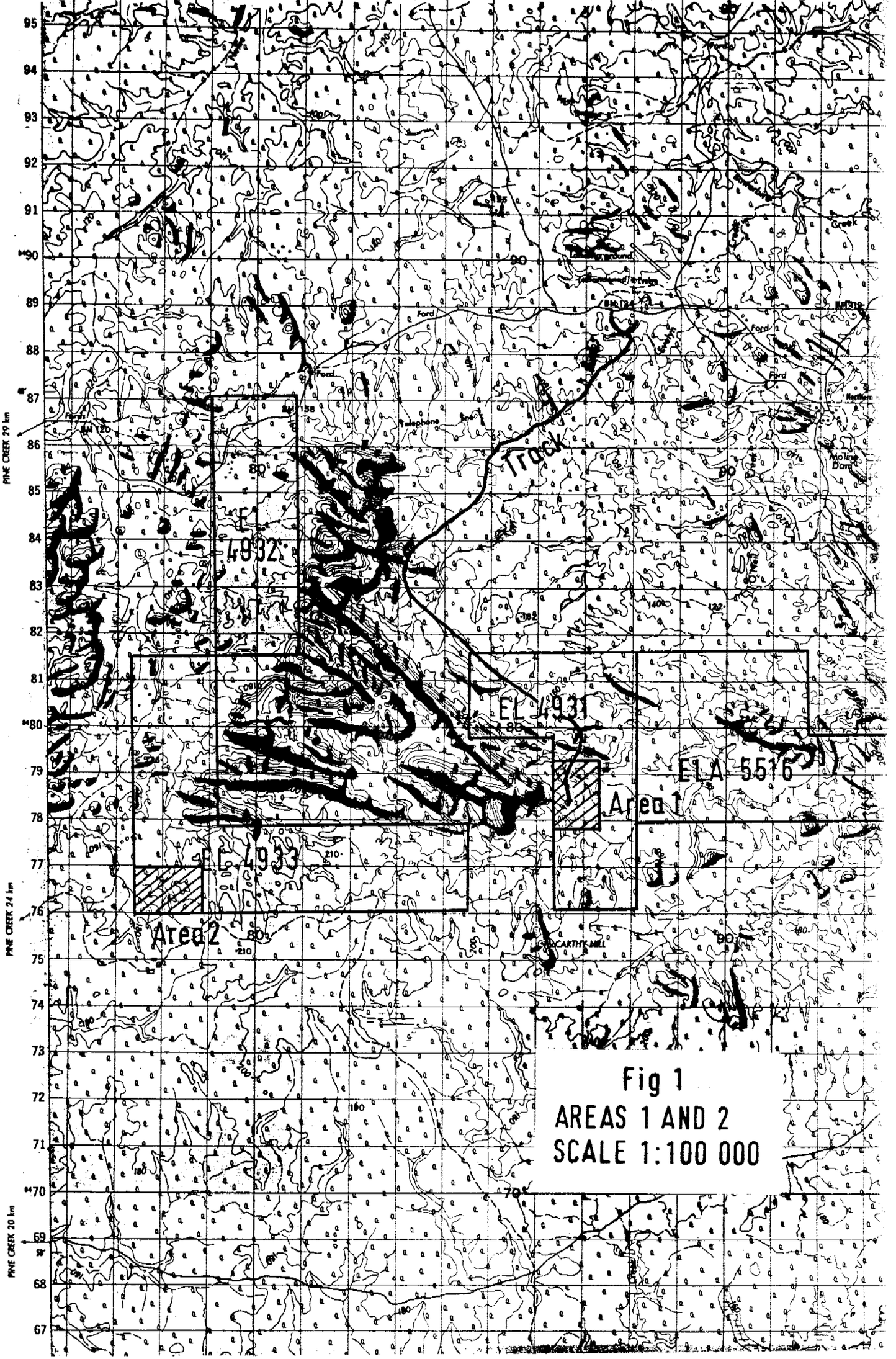

Fig 1
AREAS 1 AND 2
SCALE 1:100 000

Access road has been constructed to reach Area 1. Reconnaissance, reconnaissance quartz sampling and assaying, and auger drilling were carried out in Area 1 and along the road to Area 1. Any possitive results have not yet been obtained enough to claim existence of a structurally controlled gold deposit at the anticlinal axis. This is detailed in Chapter 6.

Because of the lack of time, access road could not be extended to Area 2 and the programme was not commenced. However, this programme is to be carried out first in the ensuing year, details of which are discussed in Chapter 7.

4. AREA AND ACCESS

The area is situated 200 km due southeast of Darwin. The area is accessible during the dry season. Distance from Darwin to the area is shown below (Table 1).

Exploration Licences 4931,4932,4933 and Exploration Licence application 5516 are plotted on the published topographical map on a scale of 1:100.000 (Fig. 2). The access track of 14 km was built by this company and it is shown on Fig 2.

T A B L E 1.

From	To	Distance (km)	Road
Darwin	Pine Creek	247	Stuart Highway
Pine Creek	Entrance	41	Kakadu Highway
Entrance	EL 4931	14	Track

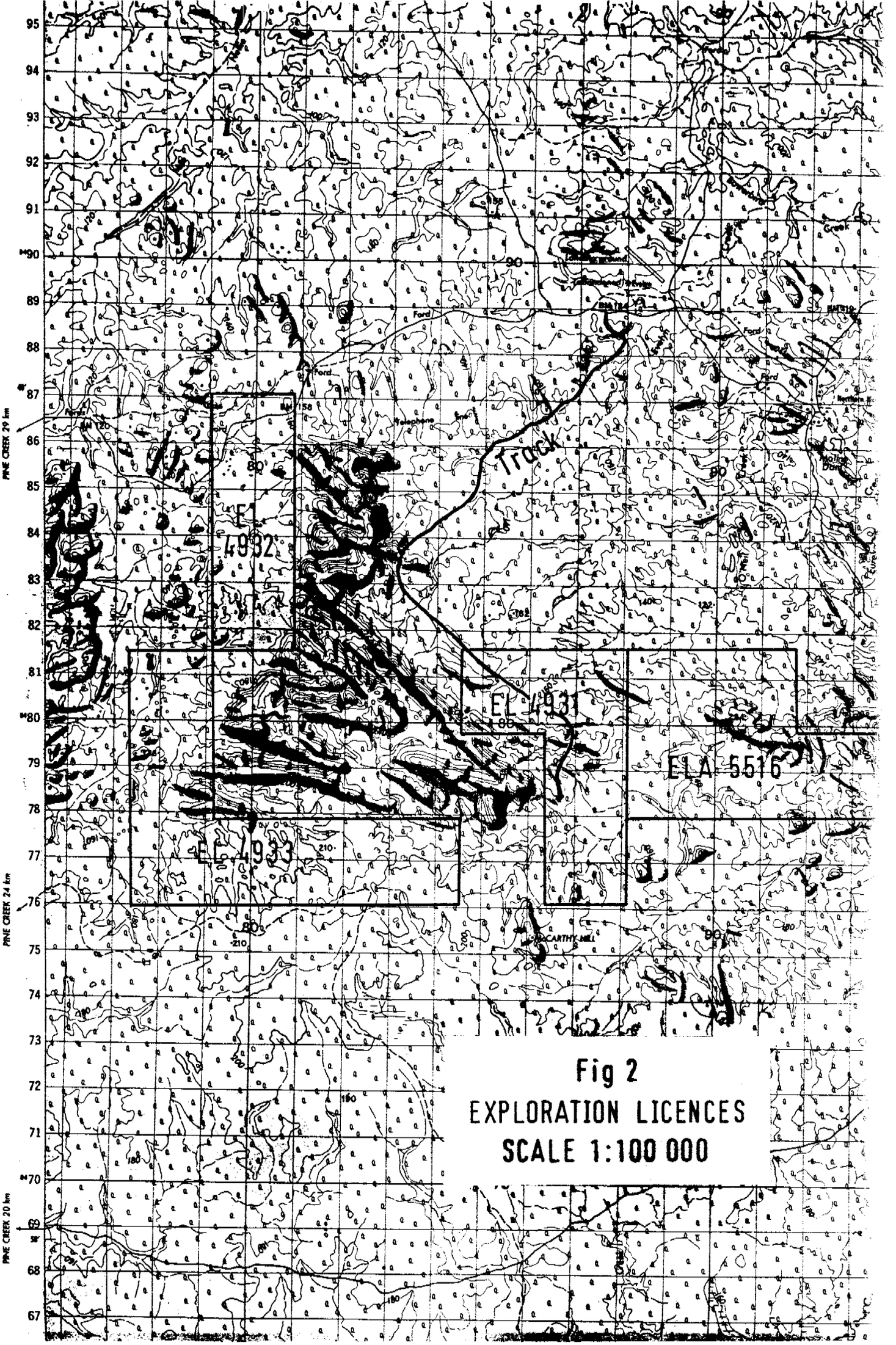

Fig 2

EXPLORATION LICENCES

SCALE 1:100 000

5. REGIONAL GEOLOGICAL SETTING.

The area is situated in the Pine Creek Geosyncline. The oldest unit occupied in the area is the South Alligator Group which is composed of the Koolpin Formation, the Gerowie Tuff and the Mount Bonnie Formation. The Koolpin Formation is characterized by a distinctive iron-rich sequence and consists of ferrunginous phyllite and slate, graphitic slate and minor silicified dolomite. The Gerowie Tuff comformably overlies the Koolpin Formation and consists of siltstone, phyllite, crystal tuff, vitric tuff and tuffaceous chert. The Mount Bonnie Formation conformably overlies the Gerowie Tuff. It is the generally similar rock types to the Koolpin Formation and consists of siltstone, phyllite, greywacke and minor tuffaceous chert.

The Burrell Creek Formation is the only representative of the Finniss River Group and comformably overlies the Mount Bonnie Formation. It consists of slate, phyllite, siltstone and greywacke.

Pre-ogogenic dolerite sills of Zamu Dolerite intrude the above units and folds together with the sediments.

Syn to post-orogenic granitoid intrusions occur in the Geosyncline and the above occupying the area is Allamber Springs Granite and McCarthys Granite.

Geological map of the area is given as Fig. 3.

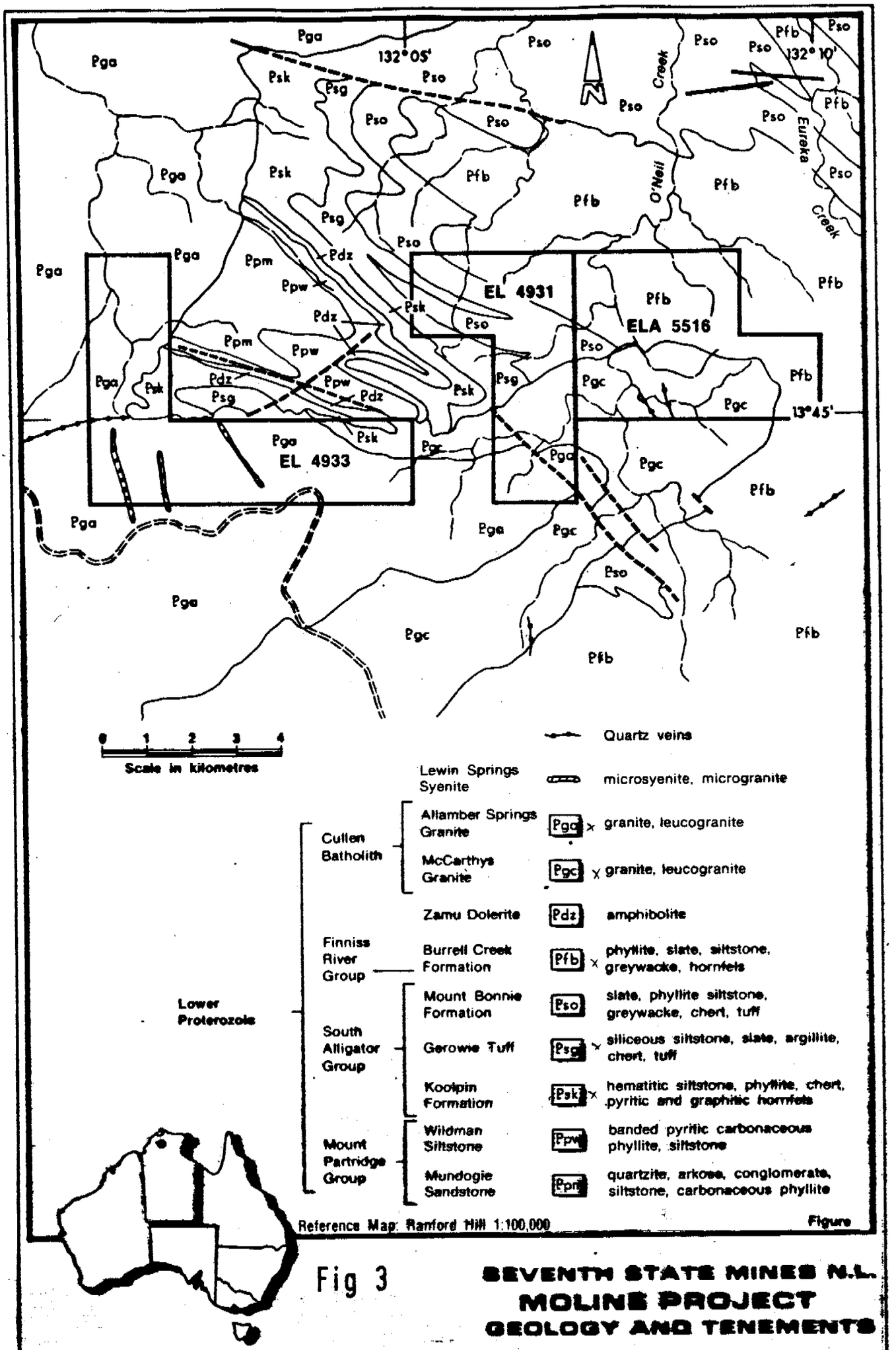

Fig 3

SEVENTH STATE MINES N.L.

MOLINE PROJECT

GEOLOGY AND TENEMENTS

This illustration was prepared by Dennis Reeve Drafting Pty Ltd for inclusion in this Prospectus.

6. STRUCTURALLY CONTROLLED GOLD DEPOSIT

Since the area offers a very clear anticlinal feature, a type of gold deposit, situated on an anticlinal axes like Cosmo Howley and Zapopan is being sought in the area.

Access truck was built into the area of anticlinal axes and reconnaissance was conducted. During the course of road construction several quartz reefs occurring in the Gerowie Tuff were encountered and were sampled.

Auger drilling was also carried out. The auger machine used was Pacific Auger fitted with 350 mm Pango Bit.

The samples were analysed for gold, arsenic and antimony contents by Analabs.

The results on quartz sampling are shown on Table 2, and auger drilling on Table 3. The sampling sites are plotted on Fig 4.

Any particular discovery of anomalous areas was not made by this study. However, effort to discover this type of mineralization is continued in the ensuing year. More rock and soil sampling will be conducted.

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd.
Phone (09) 458 7999 — 52 Murray Road, Welshpool, W.A. 6106 — Telex AA92560

ANALYTICAL REPORT No. 1000.0.01.52887

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

TABLE 2

Seventh State Mines
PO BOX 37820
WINNELLIE NT

ORDER No.	PROJECT
9662	WOOLNGI

DATE RECEIVED	RESULTS REQUIRED
28/07/87	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
1	31/07/87	1	13

STATE OF SAMPLES		PRE-TREATMENT							ANALYSIS		
REFER BELOW	SAMPLE NUMBERS	DRY	CRUSH	SPLIT	PUL-VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	Pref:Moline										
PU	01/11							1	Au		309
									Ag		101
									Sb		117
									As		114
PU	R1							1	Au		309
	RM001								Ag		101
									Sb		117
									As		114

RESULTS TO: as above

RESULTS TO:

REMARKS

STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorbtion	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemicals means	CHEM
tissue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

AUTHORISED OFFICER

ANALABS

A Division of Macdonald Hamilton & Co. Pty Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	1000.0.01.52887	31/07/87	9662	1 OF 1

TUBE No.	SAMPLE No.	As	Ag	Sb	Au					
1	Moline 01	N/L	N/L	N/L	N/L					
2	Moline 02	5	x	0.8	x					
3	Moline 03	x	x	0.2	x					
4	Moline 04	5	x	0.2	x					
5	Moline 05	20	x	2.0	x					
6	Moline 06	21	x	0.8	x					
7	Moline 07	8	x	0.2	x					
8	Moline 08	6	x	0.2	x					
9	Moline 09	1	x	0.2	x					
10	Moline 10	3	x	0.2	x					
11	Moline 11	6	x	0.4	x					
12	Ri	1	x	0.2	x					
13	RM001	x	x	x	x					
14										
15										
16										
17										
18										
19										
20										
21										
22										
23	DETECTION	1	0.5	0.2	0.008					
24	DIGESTION									
25	METHOD	114	101	117	309					

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER

ANALABS

A division of MacDonald Hamilton & Co. Pty. Ltd
Phone (09) 458 7999 52 Murray Road, Welshpool, W.A. 6106 Telex AA92560

ANALYTICAL REPORT No. 1000.0.01.53087

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

TABLE 3

Seventh State Mines
PO Box 37820

Winnellie
NT 5789

ORDER No.	PROJECT
9664	MOLINE

DATE RECEIVED	RESULTS REQUIRED
05/08/87	ASAP

No. OF PAGES OF RESULTS	DATE REPORTED	No. OF COPIES	TOTAL No. OF SAMPLES
1	07/08/87	1	15

STATE OF SAMPLES		PRE-TREATMENT							ANALYSIS		
REF BELOW	SAMPLE NUMBERS	DRY	CRUSH	SPLIT	PUL-VERISE	SIEVE	OTHER SEE REMARKS	NONE	REFER TO ANALYSIS SECTION	PREPARATION	METHOD
	Pref:MC 100/110,115,117							1	Au As Sb		309 114 117

RESULTS TO: as above
M Sakurai

RESULTS TO:

REMARKS

STATE OF SAMPLES		ANALYSIS — PREPARATION				ANALYSIS — METHOD	
whole core	WC	perchloric acid	A1	cold acid	CA	atomic absorbtion	AAS
split core	SC	hydrochloric acid	A2	specific sulphide	SS	x-ray fluorescence	XRF
cutting	CU	nitric acid	A3	other mixed acids	Ma	spectrophotometry	SPEC
rock	Ro	aqua regia	A4	alkaline attack	AA	colorimetry	COL
soil	SO	nitric-perchloric	A5	volatilization	VO	chromatography	CHR
pulp	PU	HF mixture	A6	ignition	IG	titration	TTN
water	WA	HF under pressure	A7	pressed powder (XRF)	PP	other chemicals means	CHEM
tissue	TI	fusion	A8	glass fusion (XRF)	GF	miscellaneous	MISC
stream sediment	SS					fluorescence	FLUOR
heavy mineral	HM					inductively coupled plasma	ICP

AUTHORISED OFFICER

ANALABS

A Division of Macdonald Hamilton & Co. Pty. Ltd.

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	1000.0.01.53087	07/08/87	9664	1 OF 1

TUBE No.	SAMPLE No.	As	Sb	Au						
1	MC 100	22	0.8	x						
2	MC 101	22	1.4	x						
3	MC 102	22	0.8	x						
4	MC 103	25	0.8	x						
5	MC 104	26	0.8	x						
6	MC 105	29	1.2	x						
7	MC 106	17	0.8	x						
8	MC 107	6	0.6	x						
9	MC 108	5	0.6	x						
10	MC 109	6	0.4	x						
11	MC 110	18	1.0	x						
12	MC 115	3	0.6	x						
13	MC 117	17	0.4	x						
14	MC 118	30	0.5	x						
15	MC 119	51	1.0	x						
;										
17										
18										
19										
20										
21										
22										
23	DETECTION	1	0.2	0.005						
24	DIGESTION									
25	METHOD	114	117	309						

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

AUTHORISED OFFICER

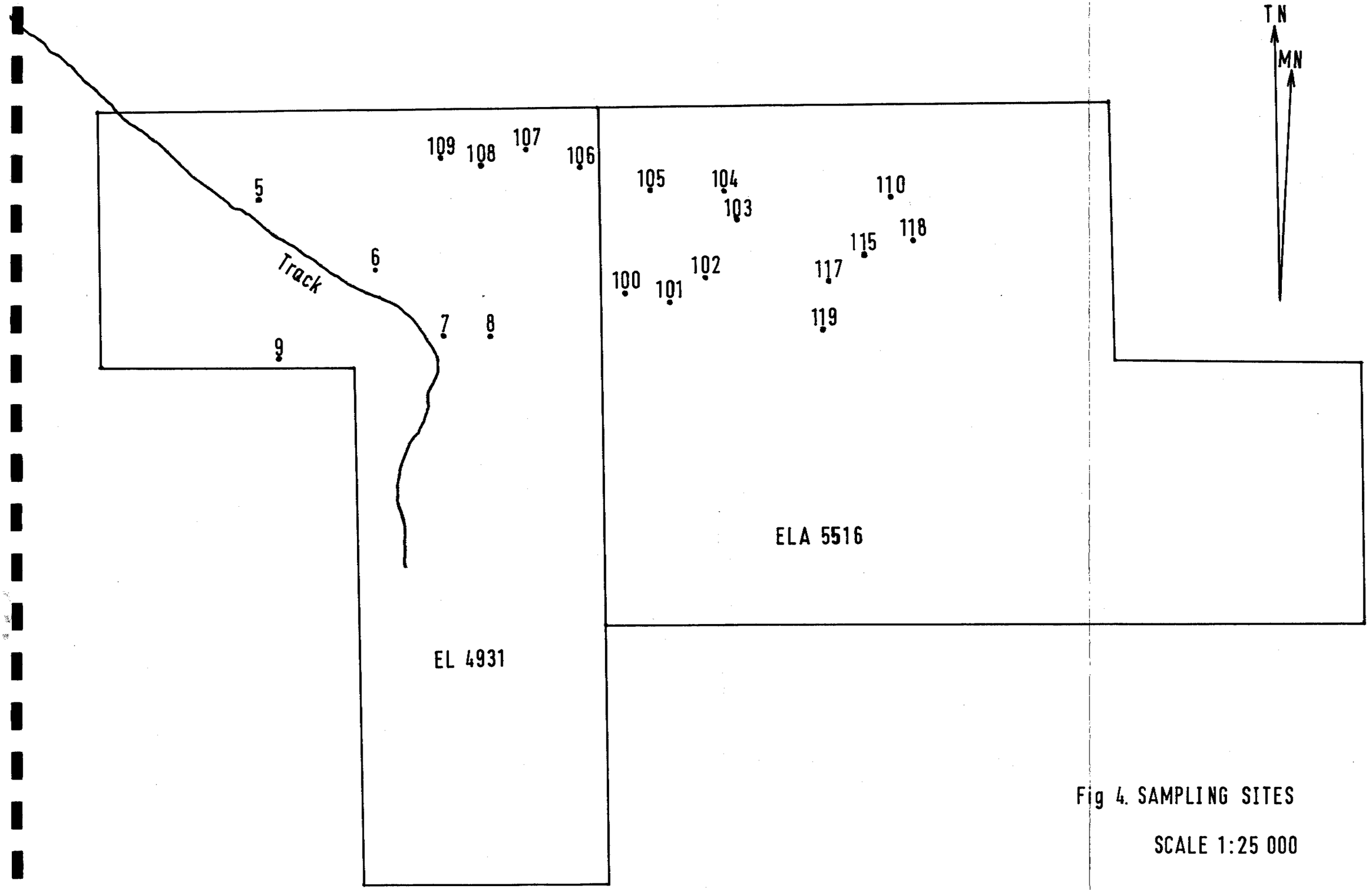

Fig 4. SAMPLING SITES

SCALE 1:25 000

7. PLATINUM (AND GOLD) EXPLORATION.

Platinum exploration in Area 2 is discussed in this chapter. Before discussing the exploration programme of platinum group metals (PGM's) in any great depth, it is essential to list the important PGM targets. They are:-

A. Bushveld and great dyke-types.

B. Alpine, alaskan and ophiolite-types.

C. Kambalda and sudbuny-types.

D. Coronation Hill-type.

E. Alluvial deposits.

Generally speaking, with the exception of the above C, there is no indirect search tools such as airborne and ground geophisical methods in PGM's exploration. In a deposit of the above category C, PGM's are associated with nickel-copper sulphides and only recovered as by-product. Therefore, exploration for the above category C should be deemed as exploration for sulphide nickel ores for which there are some indirect search tools.

Detailed geological mapping, petrological study of bed-rocks and assaying of bed-rocks and alluvials are the only means of platinum search. Systematic search must be started from the areas of known basic and ultra-basic rocks itself or its vicinity.

From the above point of view, dolerite dykes intruded into the Cullen batholith (this is not common in the Pine Creek Geosyncline) was attracted to our attention. Greak Dyke's gabbroic rocks intrude into granite.

The work will be proceeded by the following proceedure. A detailed survey grid of 50 metres a side is first established. Extention and establishment of the access track into Area 2 should precede the

above. The rock samples will be collected from the sites of the grids. They are assayed for As,Cu,Ni and Cr contents and also be petrologically studied by means of microscopic experiment. The above programme will be completed by the end of 1987.