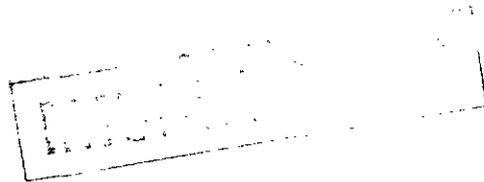


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**1987 ANNUAL REPORT
FOR E.L. 57/83.**

Prepared for Cominex
by Ross R. Large

Hobart
January, 1988.

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INTRODUCTION

Exploration Licence 57/83, of 28 sq km in the Mount Donaldson region, covers the north west part of the Corinna gold field.

Exploration for the year was limited to geological investigations of areas considered by Large (1987) to have potential for high purity silica flour.

The primary exploration effort by Cominex was focused on the adjacent silica leases where an occurrence of crystalline gold was identified. This discovery has major ramifications on the gold potential and future work programme in E.L. 57/83.

SUMMARY

- (1) Geological mapping and interpretation has identified a sequence of Proterozoic dolomites and basic volcanics in the southern portion of the E.L.
- (2) Patchy silica flour occurrences have been located on the Savage dolomite bedrock. However the occurrences identified to date show significant contamination.
- (3) Literature research on previous alluvial gold operations and current exploration results from the adjacent mineral leases and E.L. indicate very good potential for bedrock gold mineralisation along dolomite-mudstone contacts within the E.L.

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PROPOSED EXPLORATION PROGRAMME

- (1) Panned concentrate sampling for gold in the drainage system in the southern portion of the E.L., with emphasis in the areas of dolomite-mudstone contacts.
- (2) Microscope study and microprobe analyses of gold concentrates to aid in the identification of the source of gold.
- (3) Areas where anomalous crystalline gold is identified will be followed up with rock chip and soil geochemical sampling.
- (4) In the course of the gold exploration programme, further reconnaissance for commercial quality silica flour deposits will be undertaken.

GEOLOGY

The detailed geology of the Corinna district has been discussed by Large (1987). A re-evaluation of the previous work by Spry (1964) and Carey (1981) plus recent mapping by Turner (1984) has led to a re-interpretation of the stratigraphy for the Proterozoic rocks in the area (see Figure 2).

Two distinct dolomite horizons are considered to be present : (a) the upper, Corinna Dolomite, which is bedrock to the high purity silica flour deposits and, (b) the lower, Savage Dolomite, which is partly silicified and stromatolitic. A sequence of altered meta mafic lavas and tuffs plus minor mudstones separates the two dolomite formations.

The southern portion of E.L. 57/83 consists of Donaldson Group (sandstones, mudstones and conglomerates) overlain on the eastern side by the Savage Dolomite and Bernafai volcanics. Tertiary gravels cover the majority of the area of the dolomite. This sequence is terminated by a major north-east

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trending fault termed the Savage Fault (Figure 2). The geology to the north west of the Savage Fault within E.L. 57/83 is poorly known. Photo interpretation by Carey (1981) suggests the possibility of a re-occurrence of Precambrian dolomites on the the northern side of the fault.

SILICA FLOUR POTENTIAL

Previous exploration and research outlined in the 1986 annual report (Large, 1987) demonstrates that the high purity silica flour deposits of the region are the result of silicification and breakdown of Proterozoic dolomite under a protective blanket of Tertiary Gravels. The key exploration criteria of Proterozoic dolomites and Tertiary gravels occur in the south east portion of E.L. 57/83. Exploration work over the past 12 months has concentrated on the areas of high potential identified by Large (1987) as outlined in the enclosed Figure 3.

Minor patchy occurrences of silica flour have been identified on the Savage Dolomite bedrock in the south east portion of the E.L., however the bulk of these occurrences were visually contaminated by Tertiary gravels and iron staining and would therefore not be suitable commercial material. Only two samples were found that appeared not to be contaminated, however subsequent analyses showed unacceptably high levels of iron and titanium.

See below for analyses and Figure 3 for sample locations.

Sample No	Al ₂ O ₃	CaO	Fe ₂ O ₃	K ₂ O	MgO	MnO	TiO ₂	Na ₂ O	SiO ₂
	ppm								
8708	430	320	180	32	215	3	640	34	99.6%
8710	530	295	245	34	210	6	1370	42	99.5%

Further reconnaissance will be undertaken but it is considered that the

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potential for high purity flour within the E.L. is low.

GOLD POTENTIAL

Literature research has been carried out to identify the areas of previous alluvial mining activities within both E.L. 57/83 and the adjacent E.L.s 37/82, and 35/85. To this date, field work for gold has been concentrated within the mineral leases in E.L. 37/82. This work has identified the presence of high silver bearing crystalline gold with an immediate bedrock source in Brookside Creek. Rock chip and soil sampling has demonstrated that anomalous gold (plus copper and arsenic) occur along the contact between Corinna Dolomite and stratigraphically adjacent mudstones which are a part of the Bernafai Volcanic formation. Further information on current exploration at the Brookside prospect will be given in the Annual Report for E.L. 35/85.

It appears that the dolomite-mudstone contact is an important control on the localisation of bedrock gold in the district. Similar stratigraphic contacts of the Savage dolomite with mudstones of the Bernafai Volcanics and Donaldson Group occur within the southern part of E.L. 57/83. The potential of these contact positions for gold-arsenic-copper mineralisation will be investigated in the forward exploration programme.

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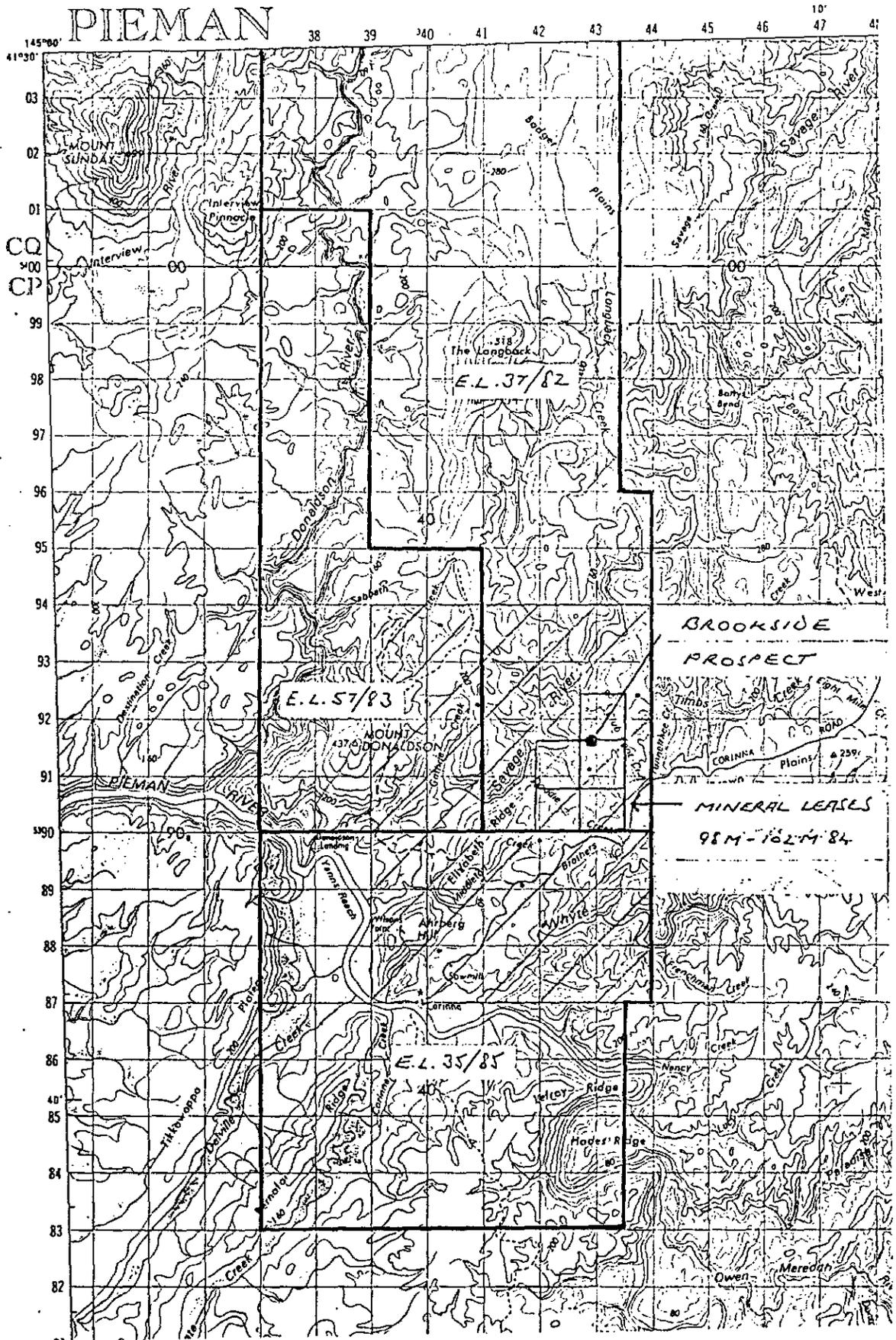


Figure 1) Locality map showing Corinna district and E.L's 37/82, 57/83 and 35/85. (1 : 100,000)

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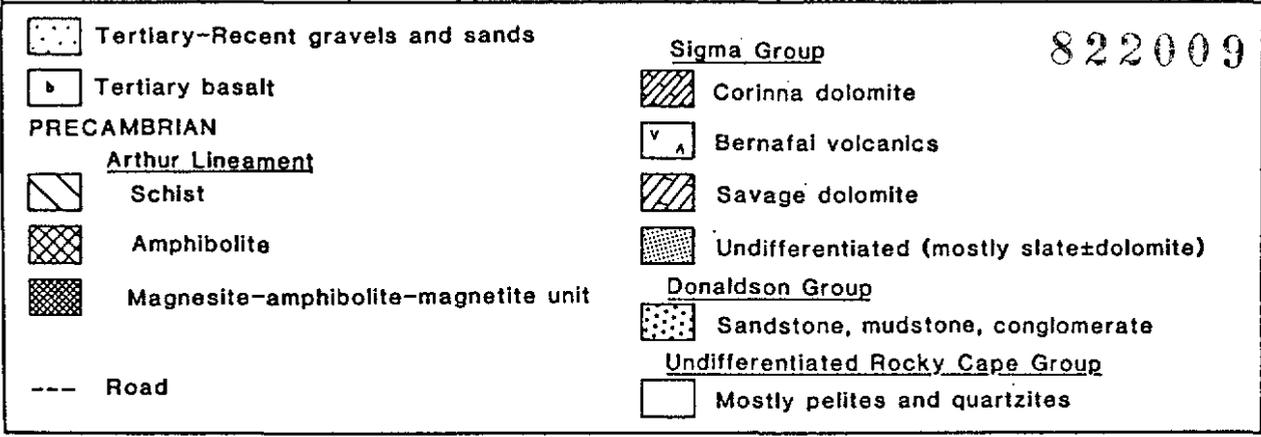
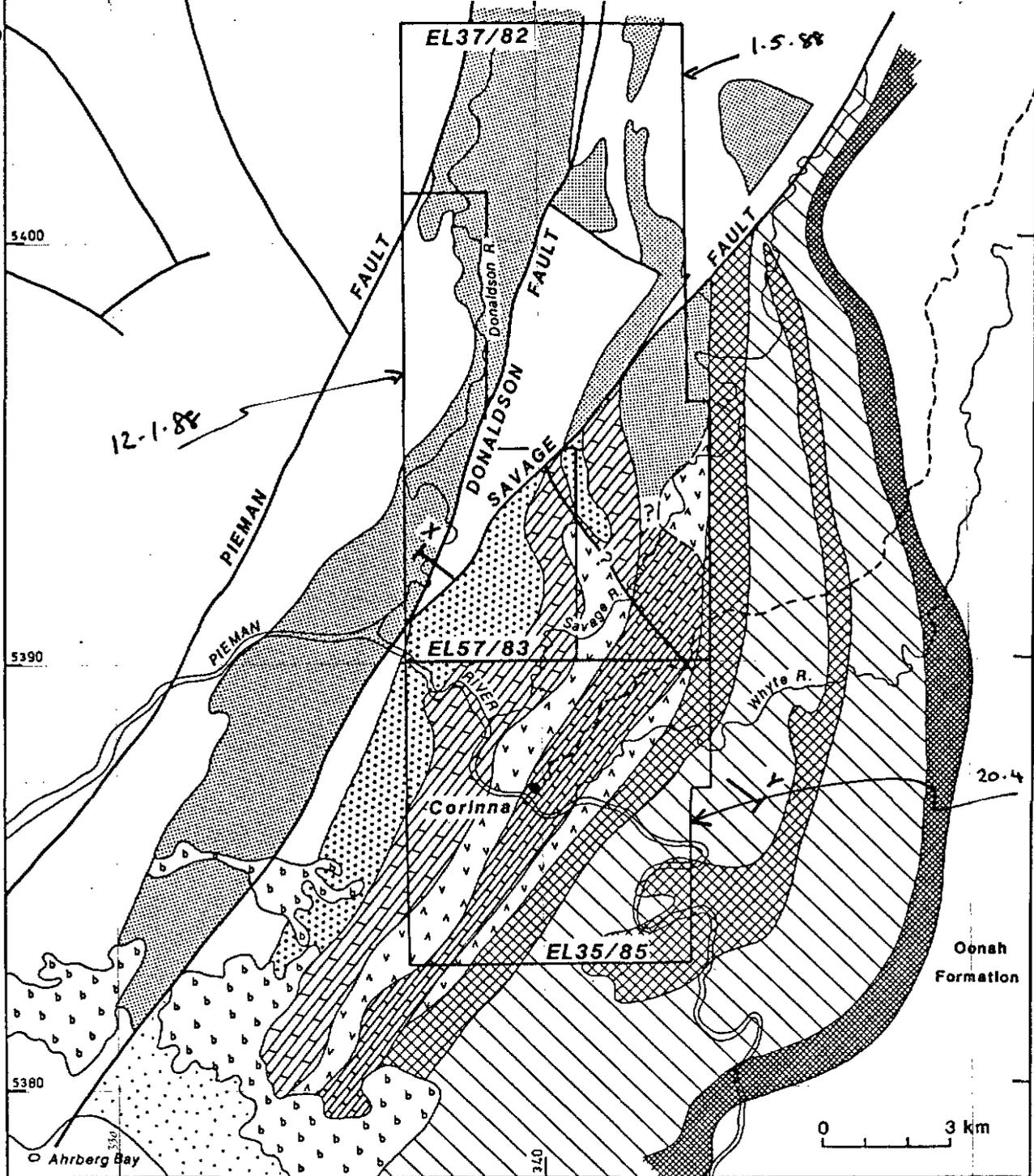


Figure 2) Interpretive geological map of the Corinna district including E.L.'s 37/82, 57/83 and 35/85. Based on Spry (1964), Carey (1981), N. Turner (in prep.), H.D. Nolan (pers. comm., 1986) and aeromagnetic interpretation by the author.

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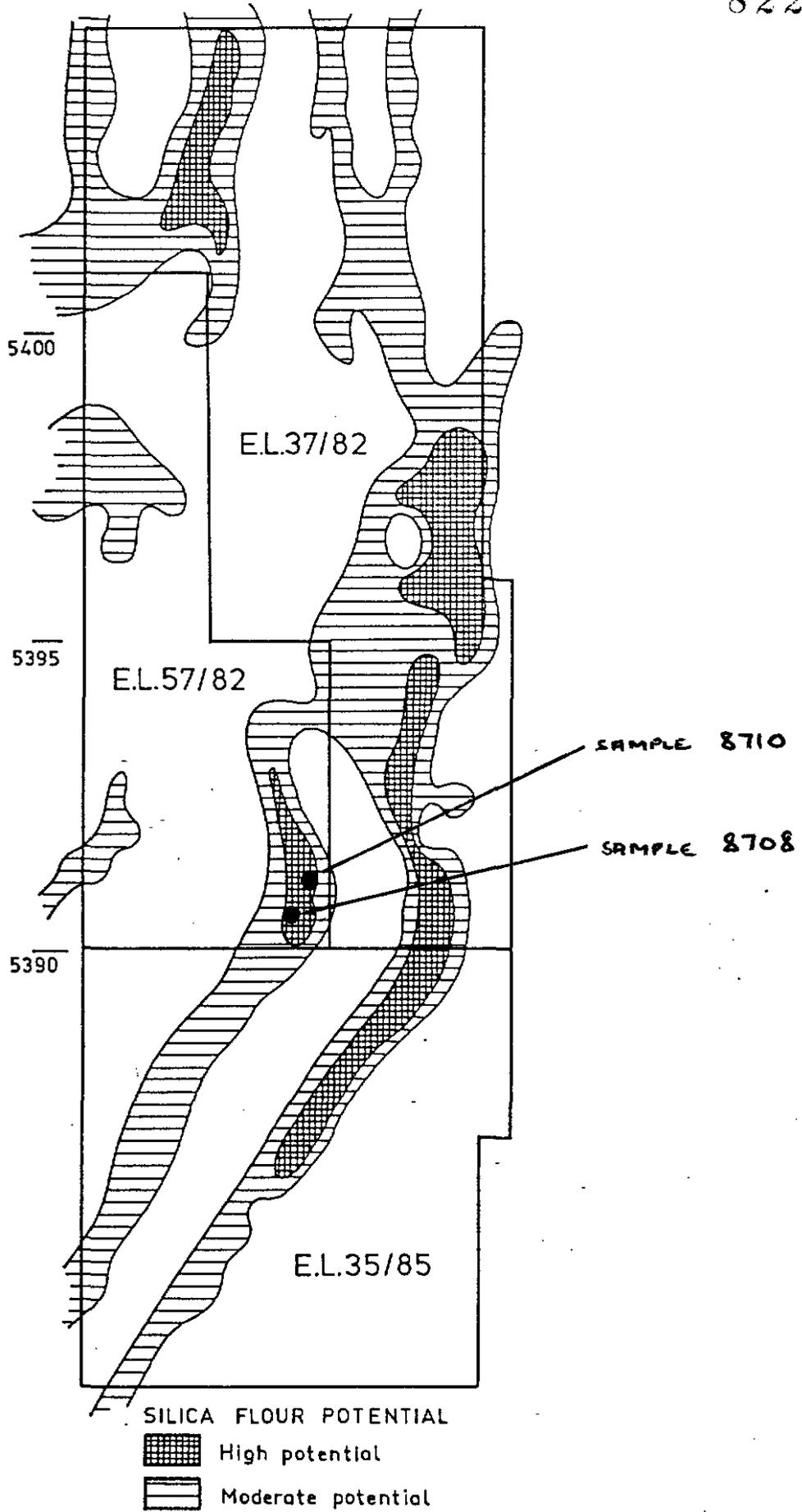


Figure 3) Aeromagnetic lows in E.L.s 37/82, 57/83 and 35/85 indicating areas of good potential for dolomite bedrock and silica flour deposits.