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MELBOURNE OFFICE

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REPORT

ON

NORTH SCAMANDER PROSPECT - S. P. L. 412.

1964

W. S. Chesnut

**MICROFILMED**

Melbourne

June, 1965.

AMG REFERENCE POINTS ADDED

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## LOCALITY SKETCH

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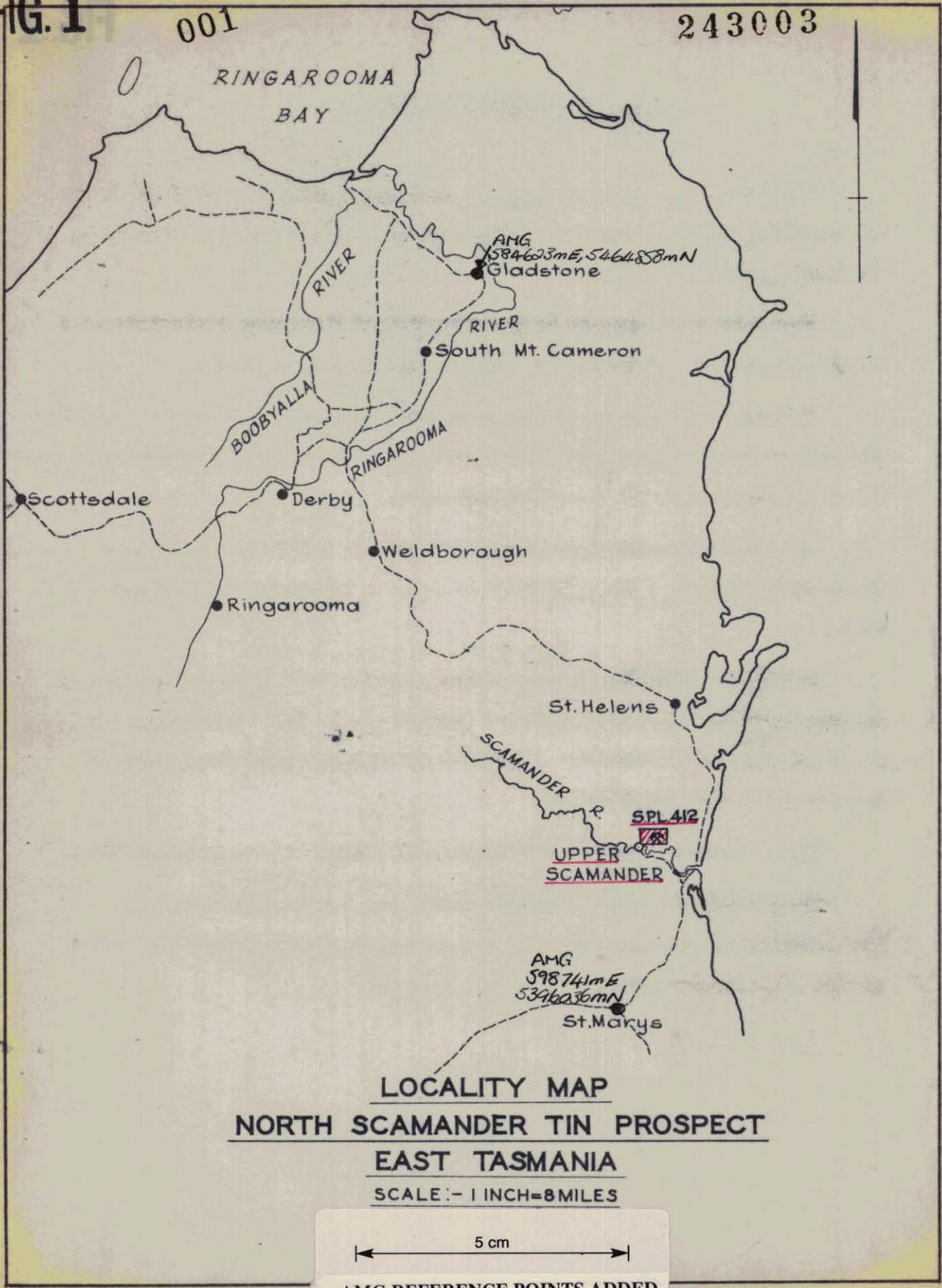
FIG. 1	LOCALITY SKETCH
FIG. 2	REGIONAL PHOTO GEOLOGICAL PLAN OF SCAMANDER AREA
FIG. 3	PLAN OF PROSPECT

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FIG. 1

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**LOCALITY MAP**  
**NORTH SCAMANDER TIN PROSPECT**  
**EAST TASMANIA**  
 SCALE :- 1 INCH=8 MILES

5 cm  
 AMG REFERENCE POINTS ADDED

A. - INTRODUCTION

This report covers the results of a short programme of mapping and sampling around some old workings near Upper Scamander during the latter months of 1964.

The area was brought to the attention of Company geologists as a result of perusal of Tasmanian Mines Department records.

The old workings were known to have encountered mixed magnetic sulphide mineralisation and activities were centred on determining whether tin was associated with the mineralisation.

The Company obtained temporary title in the form of a Special Prospecting Licence No. 412 over an area of approximately  $1\frac{1}{2}$  square miles.

Activities included survey of the area for base topography, some mapping to locate the ground trace of a magnetic feature detected by previous exploration and the collection of chip samples from parts of the area for tin determination.

The work was carried out by Dr. A. Barco with a field assistant.

The presence of tin mineralisation was not indicated and the Special Prospecting Licence was abandoned by the Company (by letter) on 21st December, 1964.

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2.B. - LOCATION AND ACCESS

The prospect lies about eight miles from Scamander on the central East Coast of Tasmania. Its general location is shown in Fig. 1, while a somewhat more detailed location is shown on Fig. 2.

The prospect is best reached by turning right, off the Upper Scamander to Great Pyramid Mine road, near the farm on the north bank of the Scamander River, at a distance of about  $6\frac{1}{2}$  miles from Scamander. The poorly marked track then follows the river flats for about a mile before climbing very steeply up the southern side of the ridge system.

From the top of the ridge the road continues to the east, but to reach the prospect it is necessary to walk north straight down to the creek bed. There being no distinctive land marks it is necessary to traverse the creek bed (generally upstream) to locate the old workings.

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C. - TITLES

The Company applied for temporary title over an area of about 960 acres to cover the ground centre of the magnetic anomaly associated with the old workings. The location of the area is shown on Figs. 1 and 2.

Special Prospectors Licence No. 412 was issued on 12th October, 1964, for six months, for that part of the area applied for which was unoccupied Crown land.

The title was abandoned in a formal letter to the Director of Mines on 21st December, 1964.

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D. - HISTORY.

An early reference is made to the old workings of this prospect under the name of the North Scamander Mine in W. H. Twelvetrees Bulletin on the Scamander Mineral District, published in 1911.

Workings, consisting of two short drives, a shaft and some trenches, intersected a zone of mixed sulphides in part magnetic.

There almost certainly was no production of any importance.

During the regional aeromagnetic survey carried out by Lyell - E. Z. Exploration during the late 1950's, a magnetic anomaly was detected which corresponded with the old workings, see Fig. 2. Ground follow up using magnetic electromagnetic and induced polarisation confirmed the anomalous magnetic feature. These ground surveys indicated the location of magnetic contours approximately as shown on Fig. 3.

A drill hole depressed at  $45^{\circ}$  was drilled by Lyell - E. Z. in the early 1960's to a depth of 149 feet as shown on Fig. 3. The hole intersected a magnetite sulphide zone between 120 and 126 feet which corresponded with that revealed in the shaft.

The core was apparently not assayed for tin, hence the Company interest in the prospect - it being close to the Great Pyramid Mine, which was being tested for tin potential, together with the presence of magnetic sulphides which showed some resemblance to other areas of tin mineralisation in Tasmania.

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E. - GENERAL.

Dr. Barco carried out the survey of the area using his hand survey instrument and compiled the topographic plan Fig. 3. The writer has plotted the magnetic contours from the Mines Department records.

Geological mapping of the area was largely inconclusive because of the poor outcrop. It was, however, possible to locate on the surface two zones of relatively strong magnetic susceptibility which were associated with ferruginous gossan type rubble float.

Chip sampling of outcrop at suitable locations along these magnetic zones, together with some chip and soil samples from a number of other locations was carried out by Dr. Barco. Samples and specimens were also obtained from the dumps of the adits and shaft. The locations of all samples are shown on Fig. 3.

It is not known whether any samples were obtained in situ from the shaft walls or whether the drill core was available for re-sampling.

In all cases the tin content of the samples was less than .01%.

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F. - GEOLOGY.1. REGIONAL:

The principal feature of the regional geology is the apparent roof pendant nature of the six mile wide belt of slightly metamorphosed Mathinna Group sediments of the Upper Scamander area. This belt is bounded on the east by the granitic rocks of the coastal range, on the north by the St. Helens-Constable Creek granitic mass and in part on the west by the Avenue River-Wolfram Creek Granites - see Fig. 2.

Whether these granites are related differentials of the same batholith is not known.

The sediments are generally thinly interbedded shales and fine grained sandstones, the latter in places becoming strongly silicified and giving rise to massive outcrops. They have undergone a fairly considerable degree of regional folding and faulting and much minor rupturing with associated development of thin quartz veins and lacings.

On Fig. 2 are shown the various anomalous aeromagnetic highs (detected by the Lyell - E. Z. survey) and from the plan can be seen their relationship to the known localities of old prospecting activities.

The relationship of these magnetic highs to geological features, mineralisation, etc., will have been checked by the geologists of Lyell-E. Z. and hence probably little importance can be attached to them as individual features. However, their general preponderance within the belt of sediments seems to indicate that the inferred underlying granitic body has given rise to a variety of mineralised structures. Thus if it is accepted that the present land surface is near the outer margin of the contact aureole, and the exposed mineralised structures are hence only weak developments, then other perhaps more strongly mineralised structures can be inferred as occurring at depth, closer to the contact zone.

These will remain undetected until a subsurface geophysical technique with greater resolution at depth is available.

2. NORTH SCAMANDER PROSPECT:

The writer is not familiar with the detail geology of the prospect. However, the following notes extracted from Twelvetrees, 1911, and Gregory, 1962, are included for completeness.

The prospect is located in sandstones and slates, dipping steeply to the east with strikes varying from 315 to 350° magnetic.

Mineralisation appears to be related to a zone of shearing which appears to strike a little north of west, with a steep dip to the southwest. The shearing appears to be restricted to a unit of black and grey slates in the drill hole, which have been partially replaced by an irregular development of thin veins and stringers in a massive body of magnetite and iron sulphides. The vein sulphides include galena, sphalerite, chalcopyrite and pyrrhotite while the massive sulphides include pyrite and pyrrhotite. Gangue includes quartz and kaolin.

The core intersection in the Lyell-E. Z. drill hole was assayed as under:

<u>Element :</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Ag</u>	<u>Au</u>	<u>Fe</u>
<u>Assay:</u>	1.5%	4.4%	0.10%	1 oz/ton	Nil	35.4%

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G. - CONCLUSIONS.

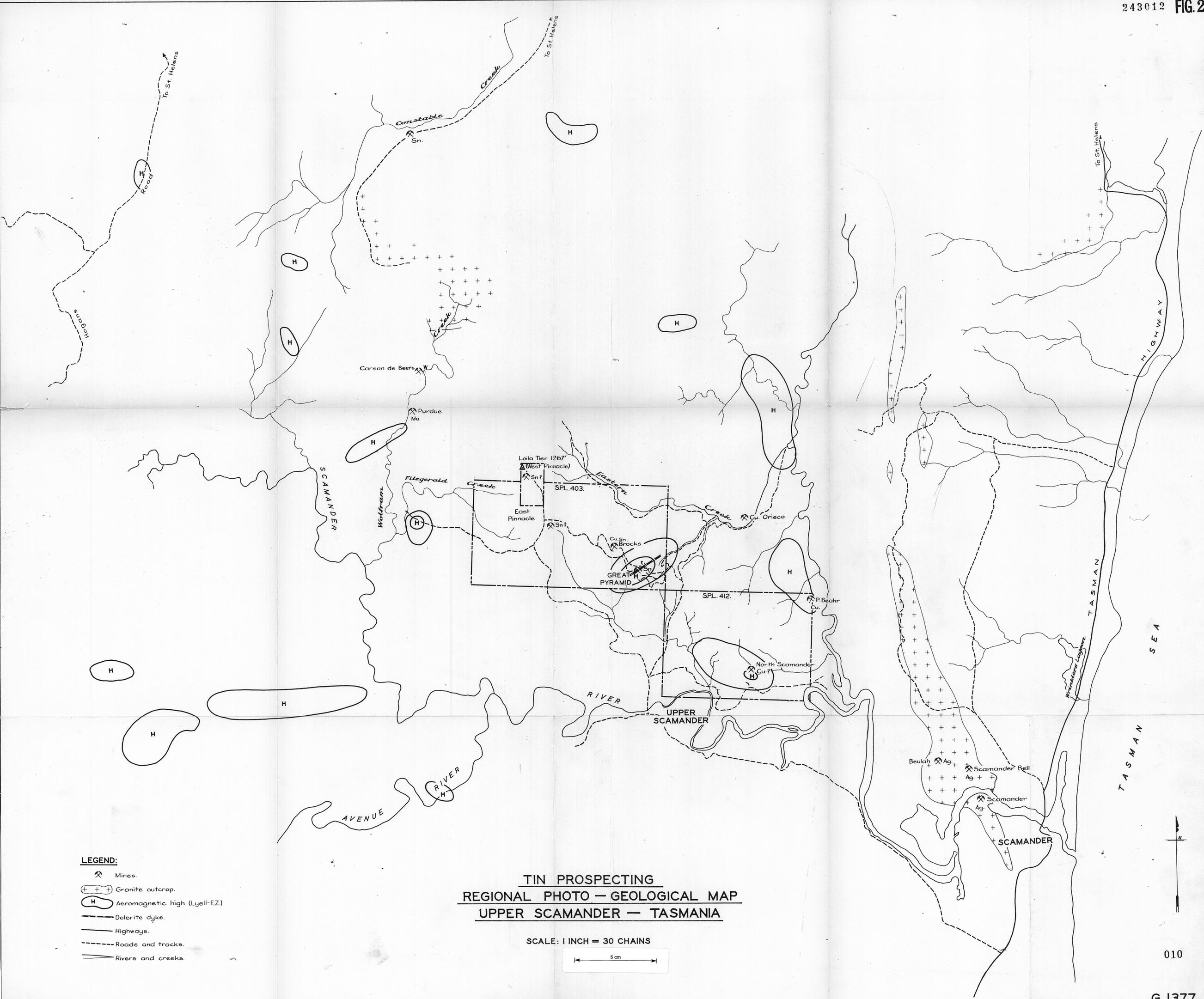
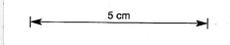
The sampling programme carried out by Dr. Barco did not indicate the presence of tin and previous work by the Lyell-E. Z. Exploration Company had indicated that the prospect had no economic value.

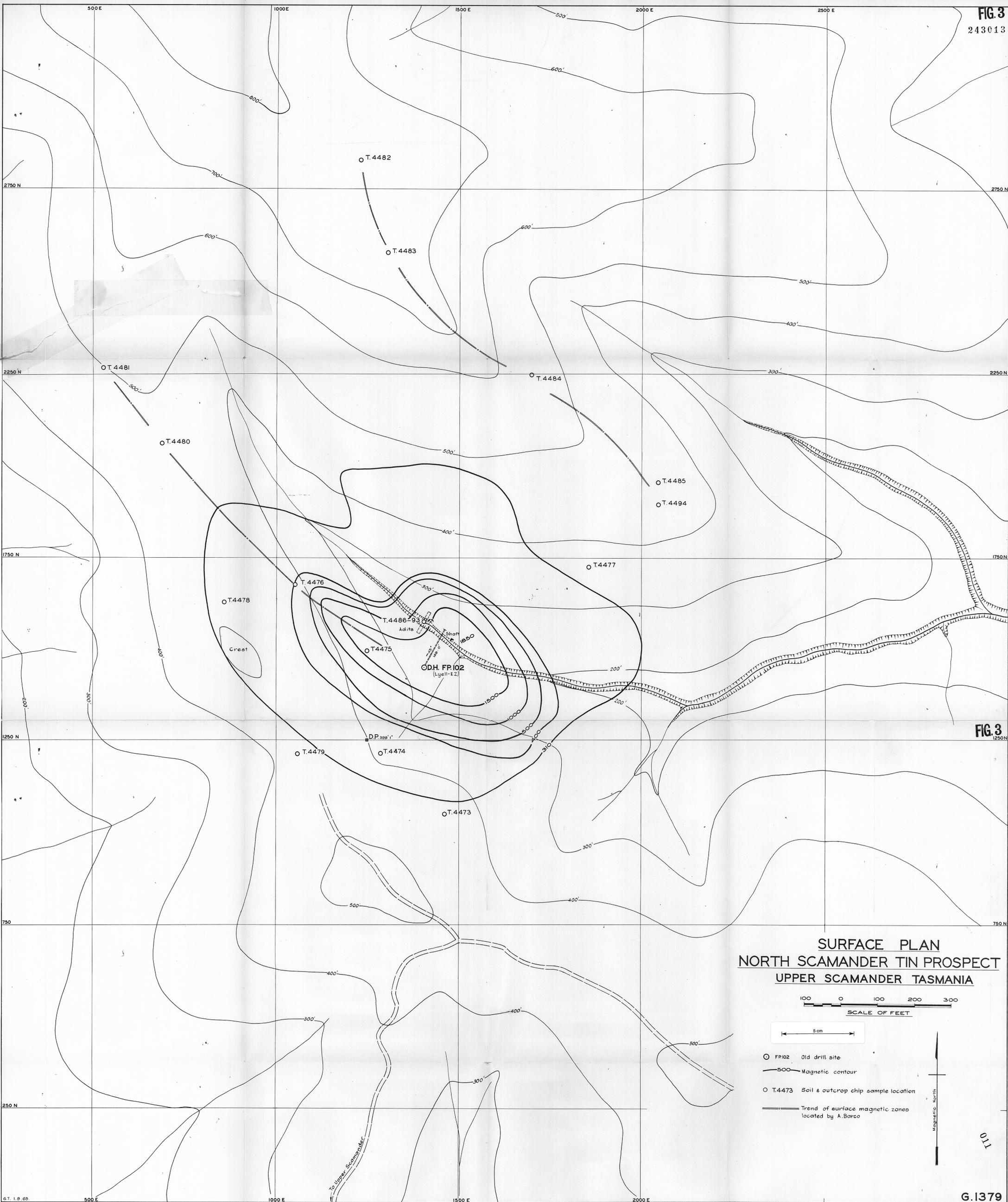
MELBOURNE  
WSC:MJP  
June, 1965.

- LEGEND:**
- Mines.
  - Granite outcrop.
  - Aeromagnetic high. (Lyell-EZ.)
  - Dolerite dyke.
  - Highways.
  - Roads and tracks.
  - Rivers and creeks.

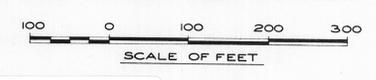
**TIN PROSPECTING  
REGIONAL PHOTO - GEOLOGICAL MAP  
UPPER SCAMANDER - TASMANIA**

SCALE: 1 INCH = 30 CHAINS





**SURFACE PLAN  
NORTH SCAMANDER TIN PROSPECT  
UPPER SCAMANDER TASMANIA**



- FP102 Old drill site
- 500' Magnetic contour
- T.4473 Soil & outcrop chip sample location
- Trend of surface magnetic zones located by A. Barco

