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MICROFILMED

EXPLORATION LICENCE 12/78

SCAMANDER, TASMANIA

AEROMAGNETIC SURVEY

September, 1979

OPEN FILE

001

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SUMMARY

A helicopter magnetic survey flown at Scamander, Tasmania has been processed and presented as stack profiles and contours of residual magnetic data.

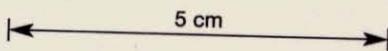
The St. Helena and Mt. Pearson granites are shown to be non-magnetic; all of the magnetic activity occurs within the Mathinna Beds but the sources of this activity are varied.

A set of narrow anomalies trending NE is interpreted to be caused by a basic dyke (unmapped).

An anomaly of large areal extent in the East is interpreted to be a contact zone anomaly related to near surface granite.

Several anomalies in the centre of the area and in the north-west appear to have a direct correlation with mineralisation.

All the anomalies in the north west are close to the granite contact.



Centre Melbourne

Date 22.1.80

THE BROKEN HILL PROPRIETARY CO. LTD.
E.L.12 78 SCAMANDER TAS.
LOCATION MAP

Project No. 9-T610-1

Drawing No. A4-2052

1. Introduction

The aeromagnetic survey at Scamander, Tasmania has been flown to obtain information which will assist in the exploration of Exploration Licence E. L. 12/78 (Fig. 1).

A helicopter was chosen as it could cope better with the rough terrain in the area and hence maintain the nominated terrain clearance. Details of the operation were:

Survey flown by:	Geoex Pty. Ltd.
Line Spacing:	300 metres
Nominated Terrain Clearance:	90 metres
Number of Tie Lines:	5
Sampling Rate:	0.8 sec.
Total Line Length:	1200 Km.
Processing by:	BHP Co. Ltd.
Data Presented:	Residual magnetics, I. G. R. F. 1975, updated to 1979, removed.
Contouring:	Gridding parameter: 50 metres by 75 metres
	Contour interval: 5n-Tesla
	Scales: 1:250,000, 1:50,000
Stack Profiles:	Vertical Scale: 1:5 m = 20 n-Tesla
	Horizontal Scale: 1:50,000

2. Results

The residual magnetic data is presented in contour form (Fig. 2), contours with geology and interpretation added (Fig. 3) and stack profiles (Fig. 4). It is not intended to present qualitative interpretation in this report; such interpretation may be warranted at a later stage of investigation.

The survey is over an area which has little magnetic variation but there are several features which stand out:

2.1.1 A north-east trending linear feature cutting across the entire survey area.

2.1.2 A complex anomaly on the eastern edge of the area, extending from line 271 to line 470.

2.1.3 Several individual anomalies of moderate strength clustered in the centre of the survey area. The most notable of these anomalies is on line 250.

2.1.4 Several anomalies with narrow-half-width and moderate to weak strength mostly in the north-west corner of the area.

2.2 Comparison with geology (Fig. 3).

2.2.1 The granite outcrop marked on the contour plan indicates that the granites (St. Helens and Mt. Pearson Plutons) are non-magnetic. However, several of the minor magnetic anomalies are in sediments close to the contact and may indicate alteration zones.

2.2.2 The linear feature 2.1.1 is interpreted to be a basic dyke although no dyke is marked on the map. However, previous work noted the presence of dolerite near the Pyramid mine.

2.2.3 The complex feature 2.1.2 is interpreted to be an alteration/contact zone in sediments above a shallow granite contact.

2.2.4 The individual anomalies do not appear to be related to sedimentary variations but to late stages of the granitic intrusion i.e., contact effects or alteration zones.

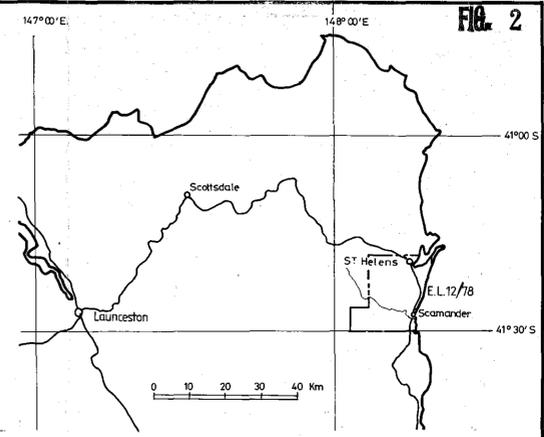
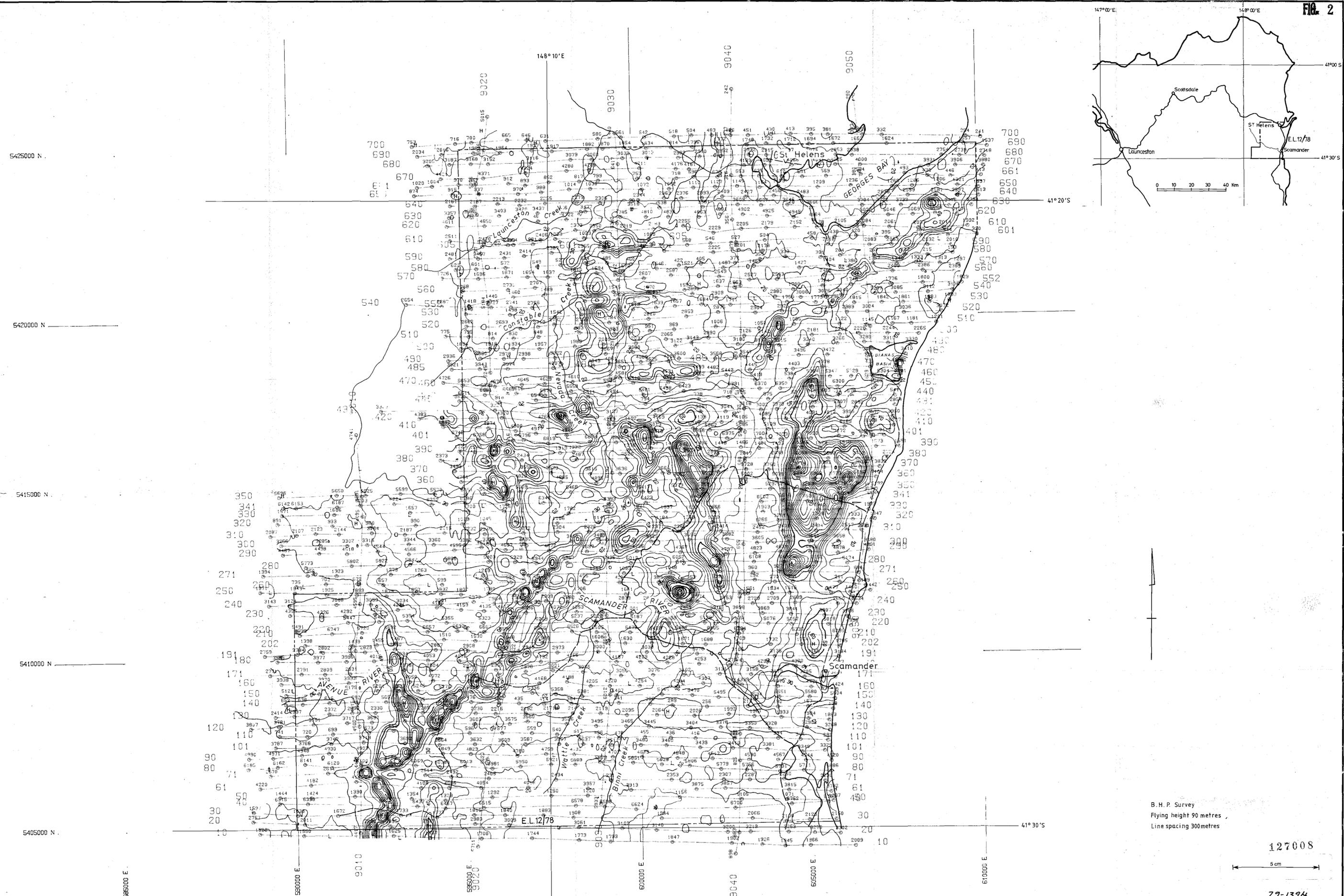
2.2.5 When known mineralisation is compared with the magnetic data, most of the occurrences have no magnetic feature associated with them. The exceptions are:

- 1-1: North Scamander
- 1-2: un-named
- 1-3: Pyramid
- 1-10: un-named

A detailed investigation of these prospects on the ground plus an examination of results of any previous surveys would determine if there is direct relationship between the magnetic anomalies and the mineralisation.

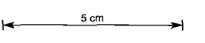
Given that anomaly 1-1 is directly related to North Scamander then other anomalies with similar characteristics are 1-4 to 1-9 and these anomalies should be explored in detail. Individual sections of 1-10 (a-e) could be compared with 1-1 but when they are taken together they have to be considered a formative anomaly.

Anomalies 2-1 to 2-10 are interpreted to be related to late stages of the Mt. Pearson Pluton. While these anomalies may not be directly related to mineralisation, they may be indirect pointers to areas favourable for the accumulation of sulphide mineralisation.



B. H. P. Survey
 Flying height 90 metres
 Line spacing 300 metres

127008



Scale 1:50 000



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 EXPLORATION DEPARTMENT

E.L. 12/78 — SCAMANDER, TAS.
 AEROMAGNETIC SURVEY 3220
 TOTAL MAGNETIC INTENSITY CONTOURS
 (RESIDUAL)

Drawn: P. Hillson	Date: 22-1-80	Centre: Melbourne
Traced:	Project:	Drawing No:
Checked:	9-T610-2	A1-1899A

5425000 N.

5420000 N.

5415000 N.

5410000 N.

5405000 N.

545000 E.

550000 E.

555000 E.

600000 E.

605000 E.

610000 E.

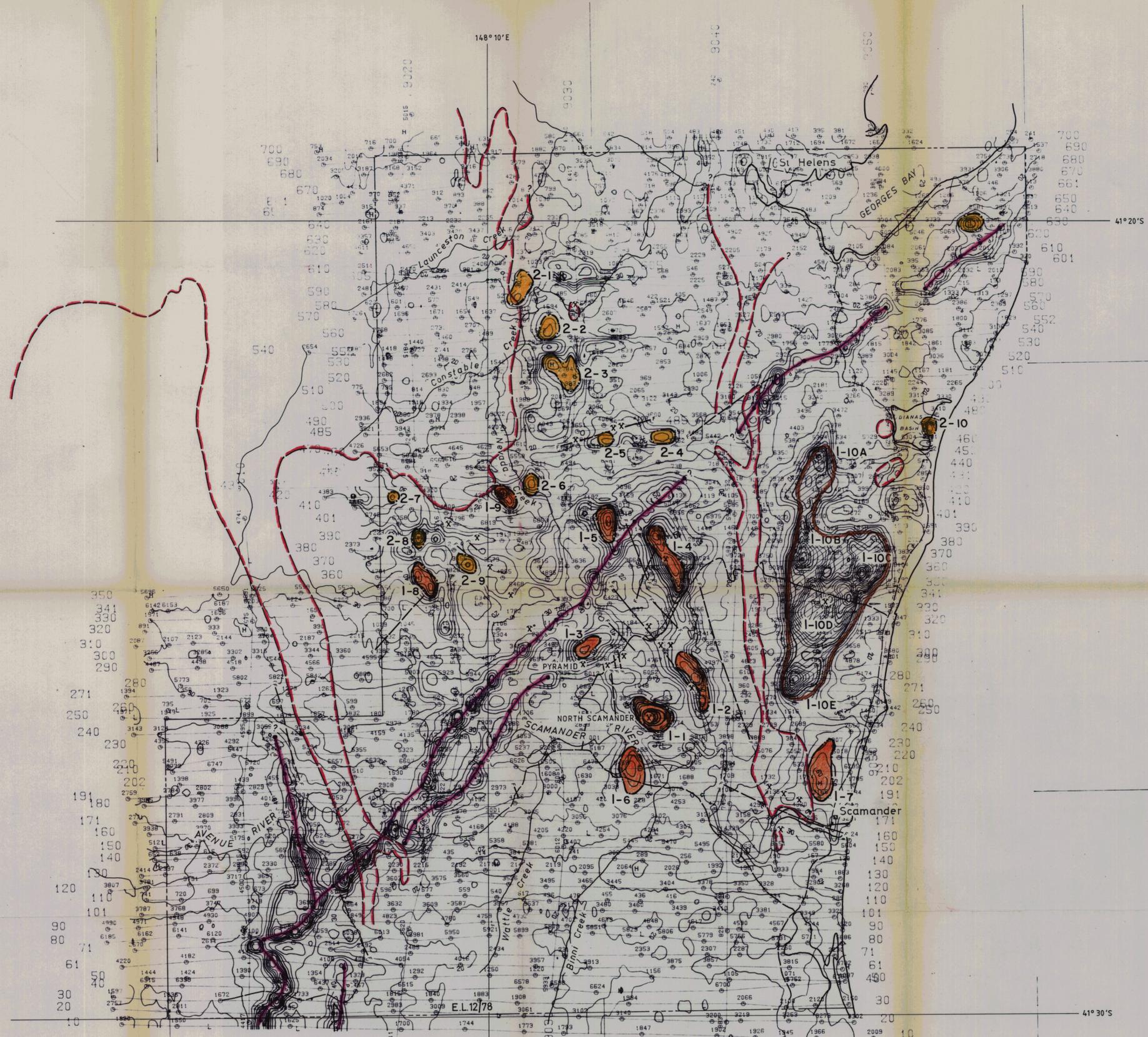
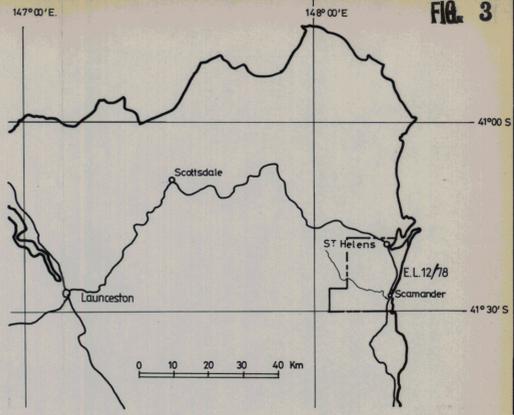
610000 E.

148° 10' E

90° 10'

41° 20' S

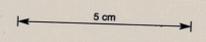
41° 30' S



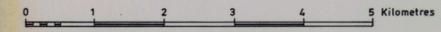
- LEGEND**
- Granite contact
 - Dolerite dyke
 - Alteration/contact zone anomaly
 - Anomalies to be checked (Priority and number)
 - Faults, lineaments
 - Mines and prospects

B. H. P. Survey
 Flying height 90 metres
 Line spacing 300 metres

127009



Scale 1:50 000

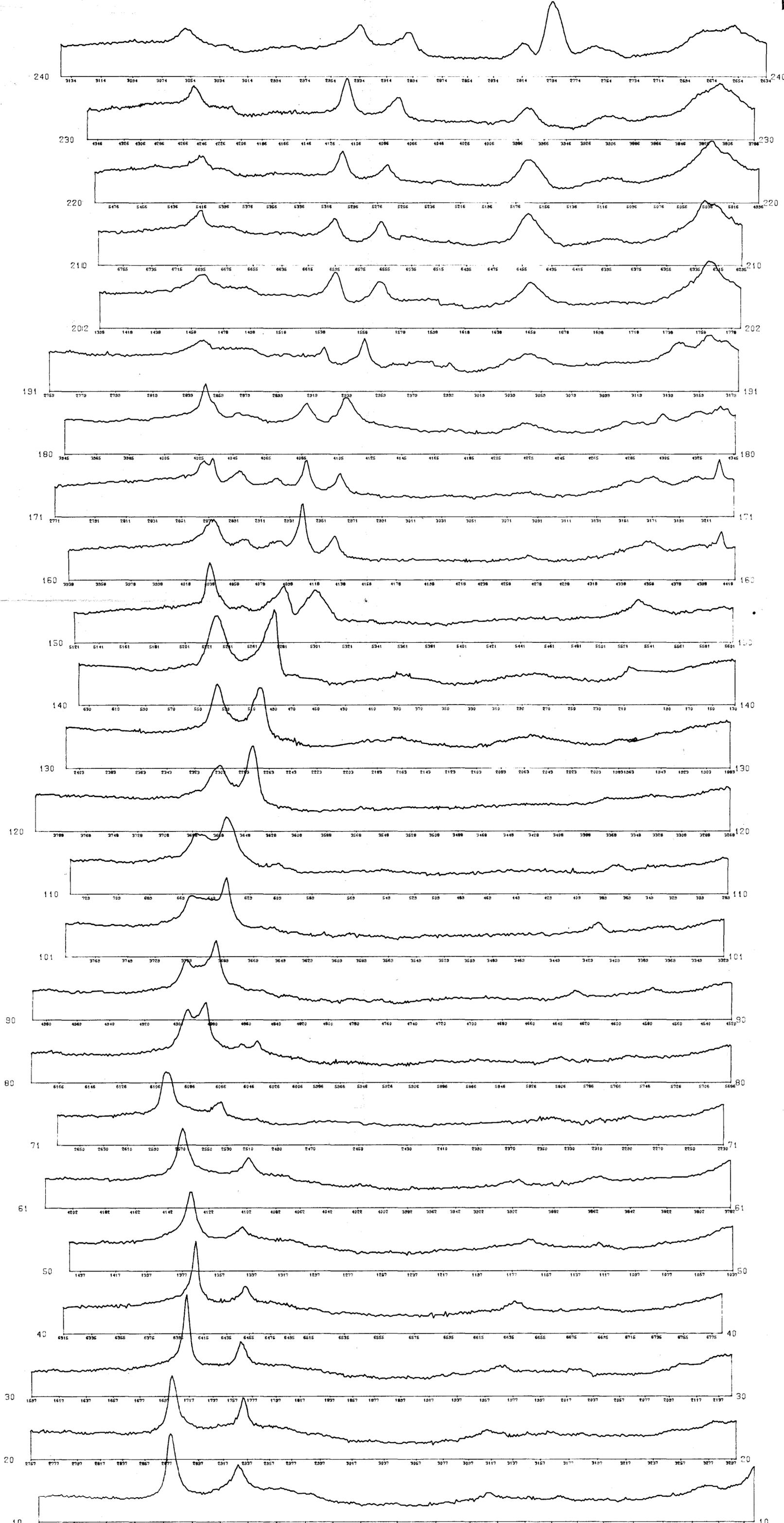


27-1394

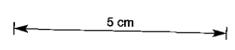
THE BROKEN HILL PROPRIETARY CO. LTD.
 EXPLORATION DEPARTMENT

E.L. 12/78 — SCAMANDER, TAS
 AEROMAGNETIC SURVEY 3221
 TOTAL MAGNETIC INTENSITY CONTOURS
 INTERPRETATIONS

Drawn: P. Hillson	Date: 22-1-80	Centre: Melbourne
Traced:	Project:	Drawing No:
Checked:	9-T610-3	A 1-1899 B

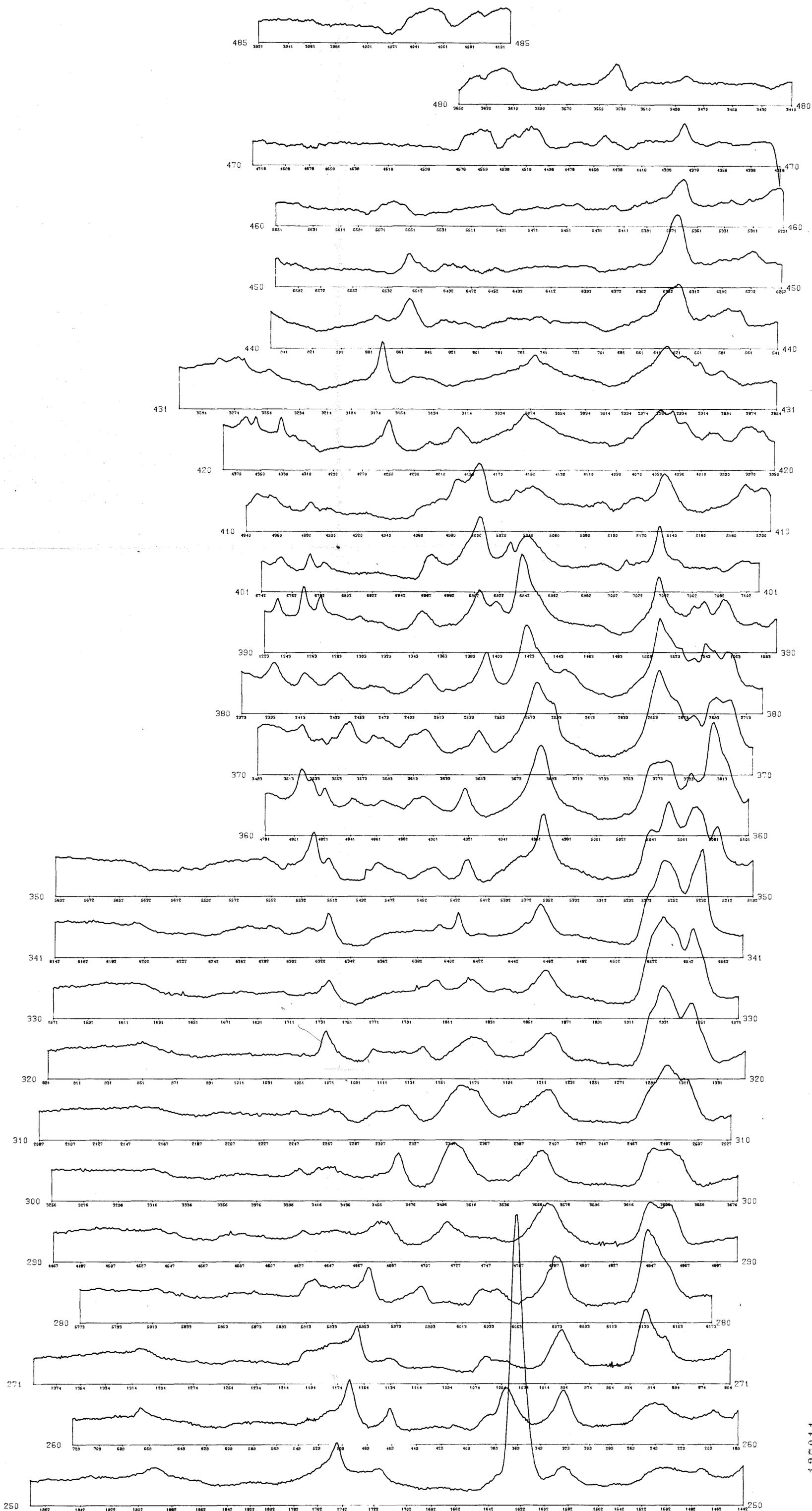


E.L.12/78
 SCAMANDER, IAS.
 SCALE 1:50000
 MAGNETIC SCALE (GAMMAS/CM) 20
 BASE (GAMMAS) 0



79-1394
 Project No
 9 - 1610 - 4
 Drawing No
 G 84A

127010



E.L.12/78
 SCAMANDER, T.A.S.
 SCALE 1:50000
 MAGNETIC SCALE (GAMMAS/CM) 20
 BASE (GAMMAS) 0

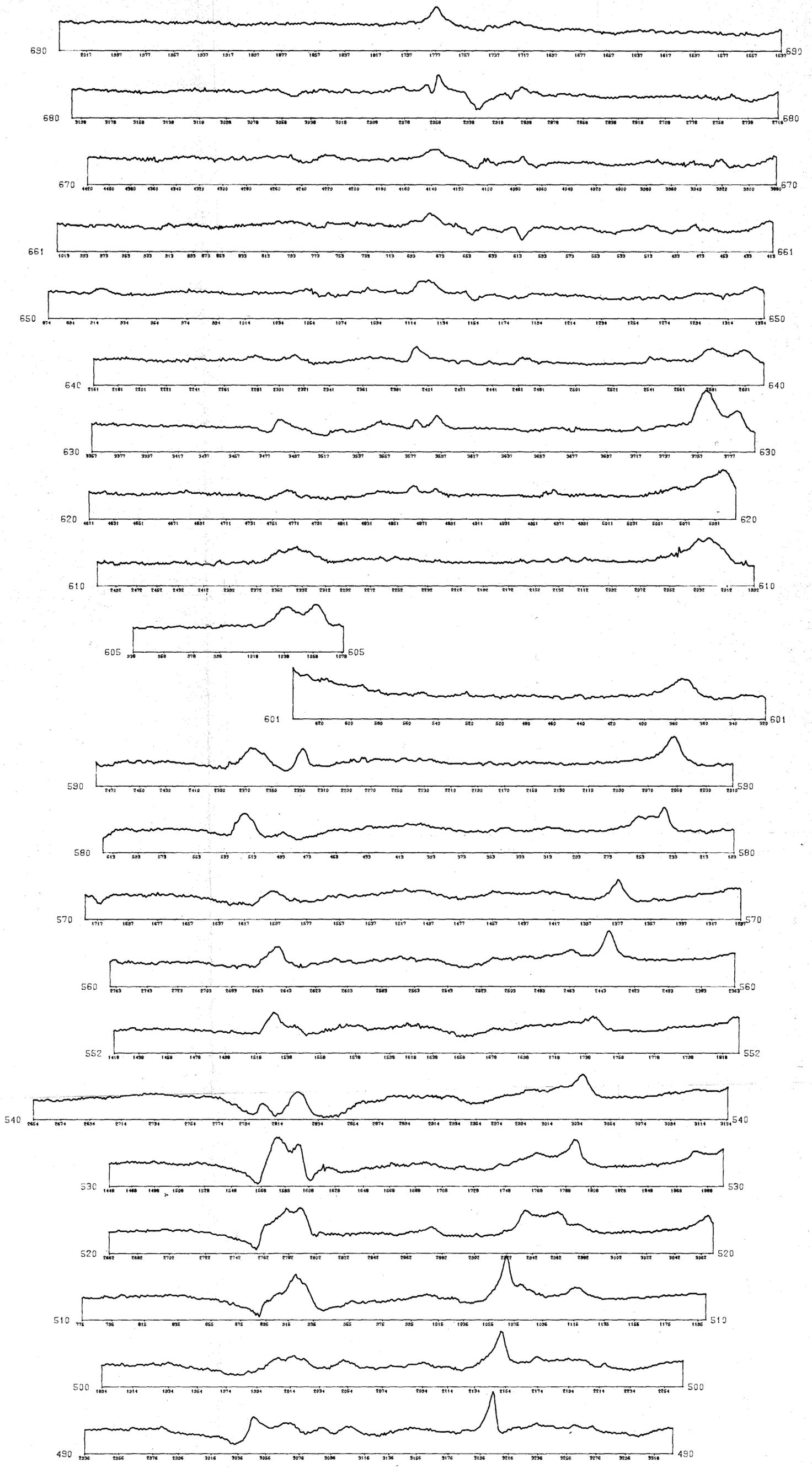
5 cm

Project No
 9 - T 610 - 5
 Drawing No
 G 84 B

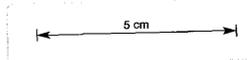
79-1394.

3223

127011



E.L.12/78
 SCAMANDER, TAS.
 SCALE 1:50000
 MAGNETIC SCALE (GAMMAS/CM) 20
 BASE (GAMMAS) 0



127012
 Project No 79-1374-
 9-T610-6
 Drawing No 3224
 G84C