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88-2811

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LETTE 30.5.88.	
Resubmit to	Date

BILLITON AUSTRALIA
The Metals Division of the Shell Co. of Australia
E.L. 31/85 - MT. STEWART
RELINQUISHMENT REPORT

Author : D.B. Hall
Date : May 1988

Report No : 08.3916
Copy No : 1

- Distribution :
1. Tasmanian Mines Department
 2. Billiton Australia, Melbourne
 3. Billiton Australia, Devonport

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SUMMARY

In the period since the last Annual Report, no field work has been carried out.

It is felt that the area has been adequately tested for skarn related tin/tungsten deposits, with little success.

The Mt. Stewart Ultramafic Complex may have some limited potential for Platinoids plus Osmium-Iridium elements; but the limited amount of work done to date indicates only low grades and poor tonnage potential.

A number of exploration companies have been approached in an attempt to farm-out the tenement. These efforts have been unsuccessful.

The Shell Company wishes to surrender Exploration Licence 31/85, Mt. Stewart.

INTRODUCTION

E.L. 31/85 was granted to The Shell Company of Australia Ltd. on 23rd December 1985, and covers 89km² southwest of Luina in NW Tasmania. (Fig. 1).

The aim of the Exploration was to test particular aeromagnetic anomalies for tin-tungsten bearing skarn mineralization.

Topographically the area is typically "West Coast" with deeply incised valleys, steep slopes, dense vegetation cover, and high rainfall.

No field work has been completed this year. Attempts to farm-out the project as a Platinoid Group Metal prospect have failed.

The EL does not represent a favourable target area for Shell, and it is decided to relinquish the tenement.

HISTORY OF EXPLORATION

Prior to Shell applying for the tenement, Aberfoyle had explored the area for tin-tungsten. Previous work by Comstaff and ANZECO consisted of reconnaissance and detailed follow-up stream sediment surveys. Aberfoyle carried out detailed gridding, mapping, sampling etc. over selected anomalous zones.

Exploration completed by Shell is summarised as follows:

1) January 1986 - January 1987

Selection of aeromagnetic anomalies that may represent skarn related mineralization.

Ground access to selected areas, particularly Anomaly A and Anomaly B (Fig. 1), and local grid erected.

Mapping, geochemical sampling (hand Auger), ground magnetic surveying, completed over the grids.

Anomaly A related to a small magnetite skarn at shallow depth.

Anomaly B is part of a complicated magnetic response, but eventually was tied in to a magnetic basalt conglomerate.

2) January 1987 - January 1988

Trenches excavated by hand at Anomaly A to expose the skarn. Limited thickness and strike.

Elevated base metal values, but not unexpected in an area containing several small magnetic related emplacement deposits.

Ground testing of aeromagnetic Anomaly E in the western part of the EL indicated a broad zone of elevated response. Previous work by Aberfoyle confirmed that the response is due to minor disseminated pyrrhotite and magnetite in hornfelsed sediments.

Preliminary testing of the Mt. Stewart Ultramafic Complex indicated only minor levels of PGE's.

An assessment of the potential of the complex to host a major PGE deposit indicates that it is limited, and would be of limited value to the Shell Company.

Efforts to farm-out the EL to companies intersected in the Platinoid potential have been unsuccessful.

WORK COMPLETED 1988

No field work has been completed since the EL was renewed in January 1988.

Five companies, Freeport, Metals Exploration, Hunter Resources, Anglo Australian and EURAUST, were offered the EL as a Joint Venture. After reviewing the data, and making ground inspections, no offers were received.

CONCLUSIONS AND RECOMMENDATIONS

No mineralization has been discovered, and there is little evidence of there being sufficient potential to encourage Shell to continue exploration in EL 31/85.

It is recommended that the tenement be relinquished.

REFERENCES

1. Progress Report on Exploration for the Period 23/1/86 to 22/1/87: D.B. Hall. Report No. 08.3540
2. Progress Report on Exploration for the Period 23/1/87 to 22/1/88: D.B. Hall. Report No. 08.3911.

EXPENDITURE STATEMENT

Geology	\$29,332
Geochemistry	10,203
Geophysics	11,210
Gridding and Access	12,140
Tenement Costs	2,294
Administration Costs	<u>6,353</u>
 TOTAL	 <u>\$71,532</u>

038

146°00'

780009

148°00'

41°00'

DEVONPORT

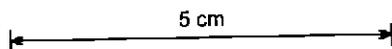
Luina - Waratah
E.L. 31/85

Rosebery

42°00'

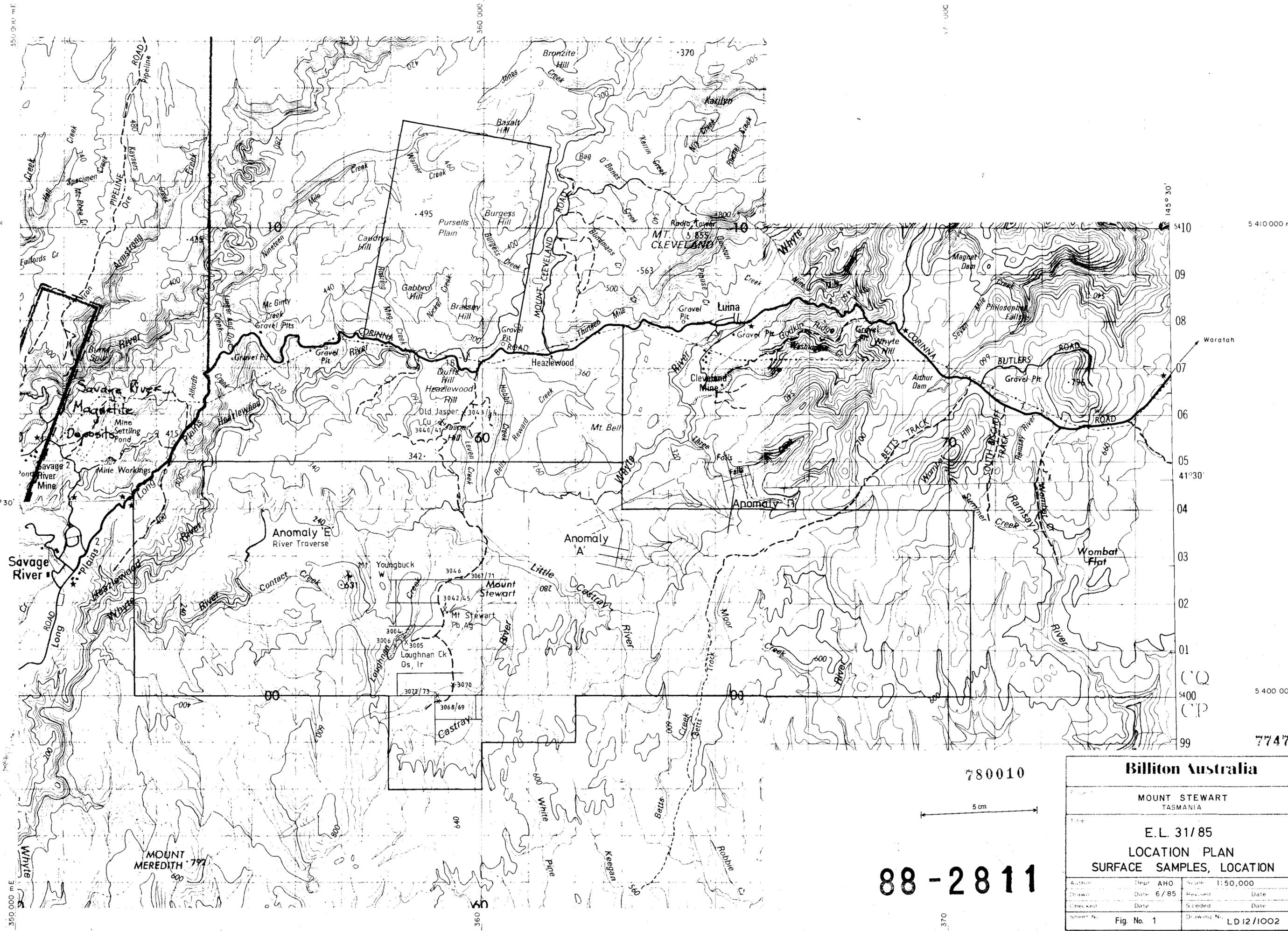
43°00'

HOBART



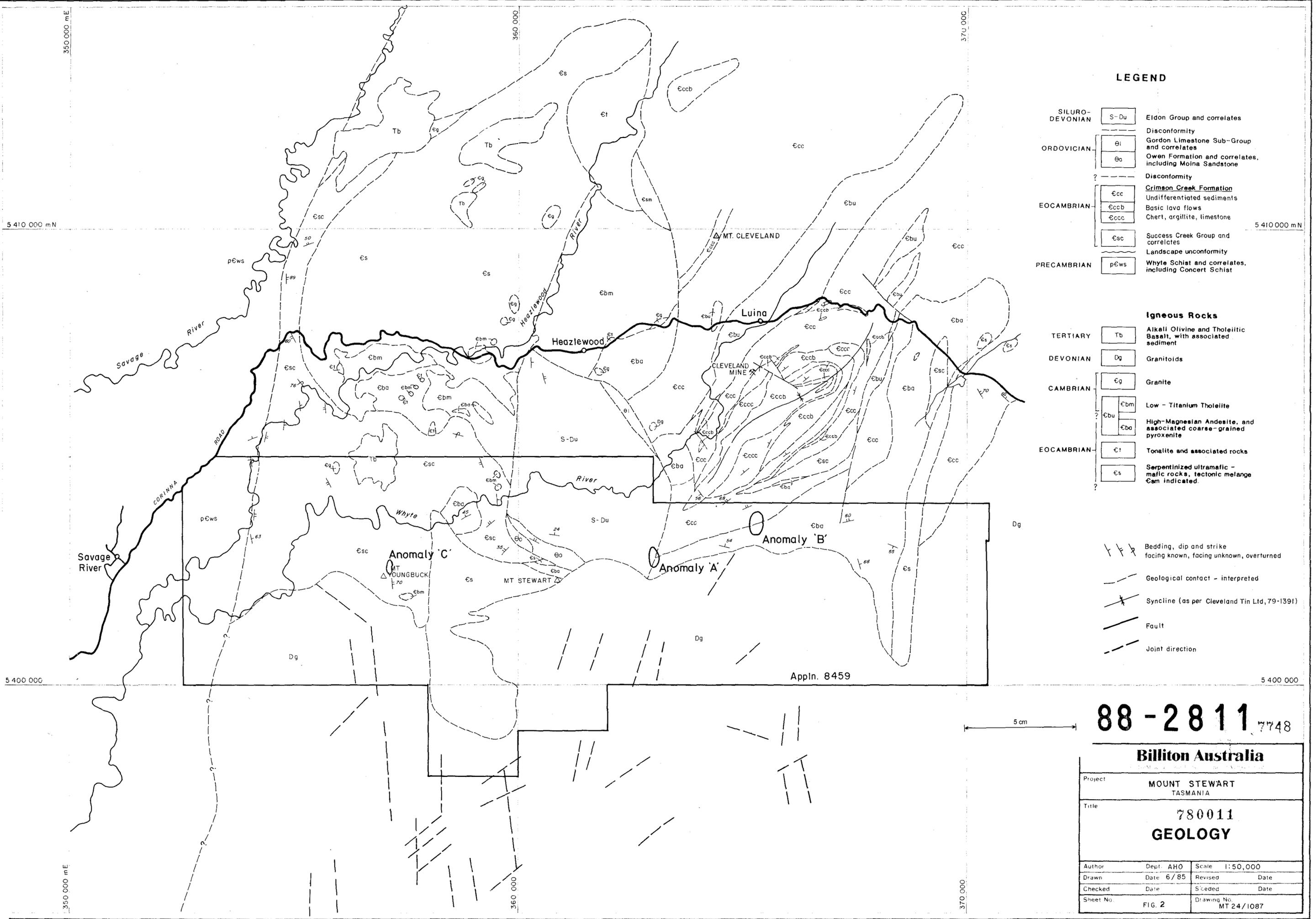
Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project			
MT. STEWART			
Title			
E.L. 31/85 LOCATION PLAN			
Author	DBH	Date	5/88
Scale	1:1500000		
Drawn	OH	Office	DPO
Revised	Date		
Drawing No	0/LD 12/001		Fig No 1



88-2811

Billiton Australia		
MOUNT STEWART TASMANIA		
E.L. 31/85 LOCATION PLAN SURFACE SAMPLES, LOCATION		
Author: Dear AHO	Scale: 1:50,000	
Drawn: Date 6/85	Revised: Date	
Checked: Date	Seeded: Date	
Sheet No: Fig. No. 1	Drawing No: LD12/1002	



LEGEND

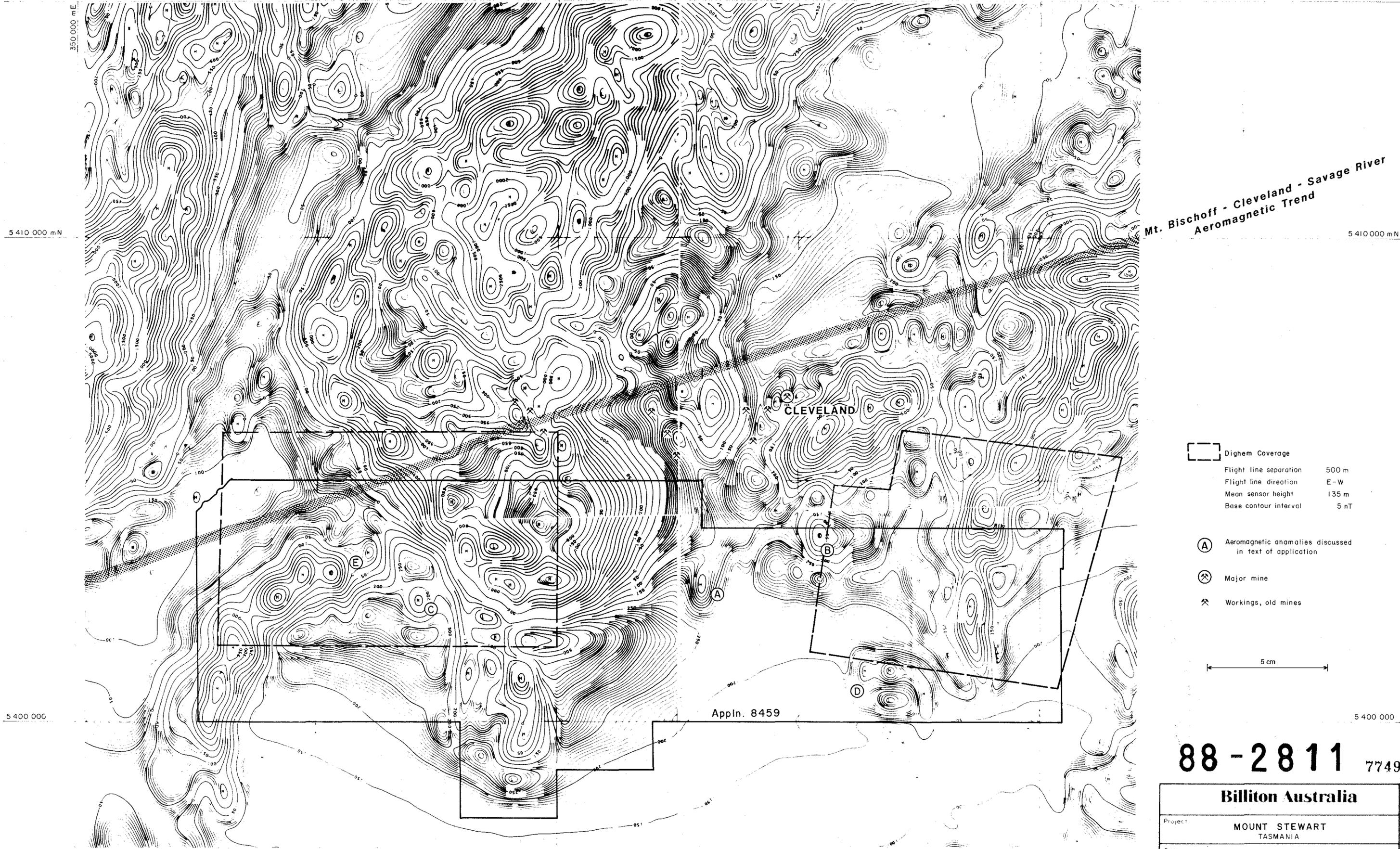
- SILURO-DEVONIAN
 - S-Du Eidon Group and correlates
- ORDOVICIAN
 - Disconformity
 - El Gordon Limestone Sub-Group and correlates
 - Eo Owen Formation and correlates, including Molina Sandstone
- EOCAMBRIAN
 - ? Disconformity
 - Ecc Crimson Creek Formation
 - Eccb Undifferentiated sediments
 - Eccc Basic lava flows
 - Eccc Chert, argillite, limestone
 - Esc Success Creek Group and correlates
 - Landscape unconformity
 - PRECAMBRIAN
 - pCws Whyte Schist and correlates, including Concert Schist

- Igneous Rocks**
- TERTIARY
 - Tb Alkali Olivine and Tholeiitic Basalt, with associated sediment
 - DEVONIAN
 - Dg Granitoids
 - CAMBRIAN
 - Eg Granite
 - Ebm Low - Titanium Tholeiite
 - Ebu High-Magnesian Andesite, and associated coarse-grained pyroxenite
 - Eba
 - EOCAMBRIAN
 - Ei Tonalite and associated rocks
 - Es Serpentinized ultramafic - mafic rocks, tectonic melange
 - Esm indicated.

- Bedding, dip and strike facing known, facing unknown, overturned
- Geological contact - interpreted
- Syncline (as per Cleveland Tin Ltd, 79-1391)
- Fault
- Joint direction

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Billiton Australia			
Project	MOUNT STEWART TASMANIA		
Title	780011 GEOLOGY		
Author	Dept. AHO	Scale	1:50,000
Drawn	Date 6/85	Revised	Date
Checked	Date	Sealed	Date
Sheet No.	FIG. 2	Drawing No.	MT 24/1087



Mt. Bischoff - Cleveland - Savage River
Aeromagnetic Trend

Digheem Coverage
 Flight line separation 500 m
 Flight line direction E-W
 Mean sensor height 135 m
 Base contour interval 5 nT

- A Aeromagnetic anomalies discussed in text of application
- X Major mine
- ✕ Workings, old mines

5 cm

Appln. 8459

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Billiton Australia			
Project		MOUNT STEWART TASMANIA	
Title			
AEROMAGNETIC CONTOURS (TASMANIAN MINES DEPT. SURVEY)			
Author	Dept AHO	Scale	1:50,000
Drawn	Date 6/85	Revised	Date
Checked	Date	Sec'd	Date
Sheet No	FIG. 3	Drawing No	MT 24/1088

780012

370

360 000

350 000 m E
5 410 000 m N
5 400 000
350 000 m E