

CARPENTARIA GOLD PTY. LTD.

TECHNICAL REPORT

No. 105.....

TITLE EXPLORATION LICENCE No.5440 "MANTON'S HILL", N.T.
FIRST ANNUAL REPORT : YEAR ENDED 4th OCTOBER 1988.

**ISSUING
DEPARTMENT** EXPLORATION

AUTHOR P.G. SIMPSON

**INVESTIGATIONS
CONDUCTED BY** P.G. SIMPSON, S.N. SHEARD

SUBMITTED BY P.G. SIMPSON

DATE SEPTEMBER 20th, 1988.

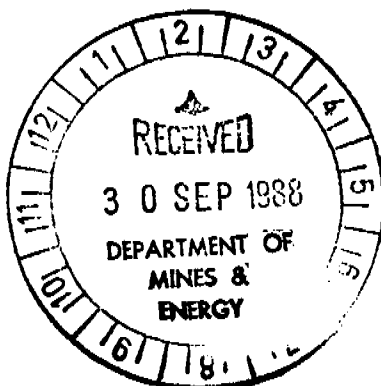
CR 88 / 3 4 5A

CARPENTARIA GOLD PTY. LTD.

EXPLORATION LICENCE NO. 5440 "MANTON'S HILL"

STATEMENT OF EXPENDITURE FOR YEAR ENDED ^{OCTOBER} NOVEMBER 5, 1988

	\$	\$
Administration	1782	
Aerial Surveys	3217	
Consultant Fees	1133	
Field Base Operations	2064	
Outside Services	18	
Operating Labour	3274	
Transport	68	\$11 556
<u>TOTAL - THIS PERIOD</u>		<u>\$11 556</u>
<u>TOTAL - CURRENT TERM</u>		<u>\$11 556</u>
Previously Reported		<u>-</u>
Total Project Expenditure to Date		<u>\$11 556</u>



A.E. Covacich
.....
A.E. Covacich
Administration Superintendent

EXPLORATION LICENCE No. 5440 "MANTON'S HILL" N. T.

FIRST ANNUAL REPORT : YEAR ENDED OCTOBER 4th, 1988

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1. INTRODUCTION AND SUMMARY

Exploration Licence No. 5440 "Manton's Hill" is centred 70km southeast of Darwin in the Northern Territory. It was acquired to search for gold in Early Proterozoic age sediments of the Pine Creek Geosyncline. The area appears not to have been systematically searched for gold before, although CRA Exploration Pty Ltd reported a 0.5 g/t Au sample from Manton's Hill itself in 1979, taken during an extensive base metals search.

Carpentaria Exploration Company Pty Ltd flew a detailed aeromagnetic survey over the EL in December 1987 as a first step in exploring the area for gold. No specific targets have been delineated from this work so far, although evaluation of the data is continuing.

The next step in exploring the Licence is to conduct stream sediment sampling for gold over those parts the area which are amenable to this technique. The western half of the EL is mostly covered by wetlands of the Adelaide River Plains.

This report is written to fulfill NTDME reporting requirements, and to provide a record for the company.

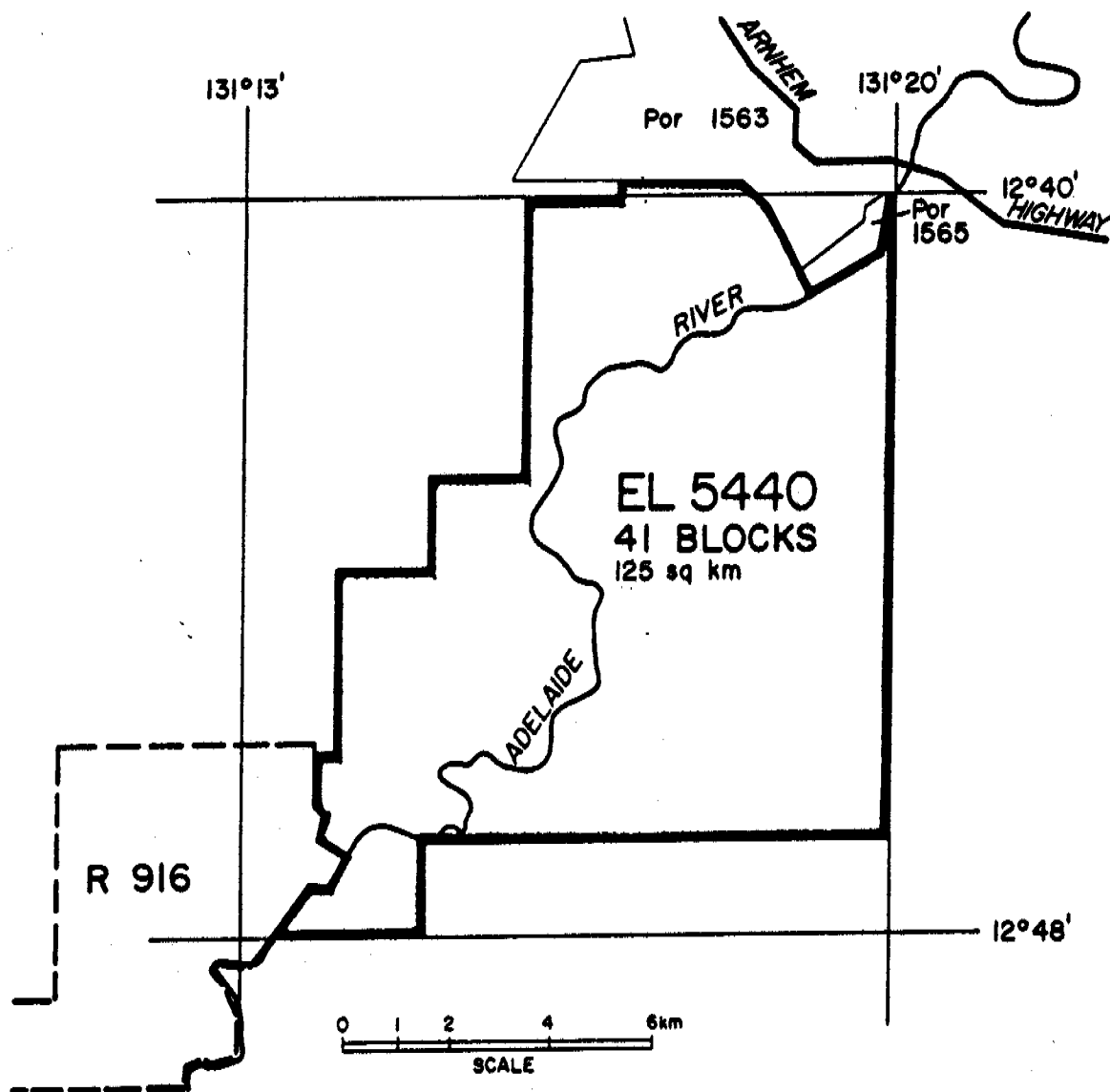
2. LOCATION AND ACCESS

The area is located 70km southeast of Darwin, N.T. south of the Arnhem Highway and mostly east of the Adelaide River. It lies within the Noonamah 1:100 000 sheet area 5172, part of the Darwin 1:250 000 scale map SD52-4. A number of fenceline tracks within the small freehold farming areas give access into the Licence area from the Arnhem Highway, although most of the EL, particularly the Adelaide River floodplains, is inaccessible during the wet season.

3. TENURE

EL5440 was applied for on March 26th, 1987, and granted on 5th October that year to Mount Isa Mines Limited, for a period of six years. The area covered is 125Km² in an irregular shape, as shown on drawing No. 1/6595. The expenditure commitment was set at \$10 000 for the first year of tenure. After granting, the title was transferred to Carpentaria Gold Pty Ltd.

CARPENTARIA GOLD PTY. LTD.



BOUNDARIES OF E.L. 5440 "MANTON'S HILL"

Drawing No. 1/6595

4. HISTORY

CRA Exploration Pty Ltd held this area under EL1468 and explored it for stratiform base metals deposits in 1978. Lines of soil samples were taken at 1km spacings across the elongate fold limbs of the South Alligator Group formations and assayed for copper lead and zinc. Rock chip samples were taken where appropriate. A gold assay of 0.5 g/t Au was returned for a sample taken on the south end of Manton's Hill, which is an isolated hill of Koolpin Formation rocks located in the centre of EL5440, a few km east of the Adelaide River. This result was confirmed by check sampling done in 1979, but this work did not enhance the anomaly and no further exploration was done.

CRA's reports on this work are contained in NTDME open file reports CR79/95 and CR79/129.

5. GEOLOGY

EL5440 is mostly covered by recent flood plains and flat black soil areas. The bedrock geology where exposed consists of large regional scale folds of the Early Proterozoic South Alligator Group Formations, with SE-plunging anticlinal and synclinal folds. The older Wildman Siltstone (Mount Partridge Group) is poorly exposed in the northern parts of the EL, while the Burrell Creek Formation (Finniss River Group) occurs in the south.

The BMR Noonamah 1:100 000 scale preliminary geology map and the recently published edition of the Darwin 1:250 000 scale geology map and explanatory notes (NT Geological Survey) give full descriptions of the regional geology.

6. WORK BY CARPENTARIA GOLD PTY LTD

A request was made to CRA for the pulps of their samples taken in 1978-79, to be assayed for gold, silver and arsenic. CRA agreed to supply the pulps, but it later emerged that these samples had been disposed of, and the idea was abandoned.

A detailed aeromagnetic survey was flown in December 1987 for Carpentaria Gold's sister company, Carpentaria Exploration Company Pty Ltd. The contractor was Aerodata Holdings Ltd, of Perth, W.A. Flight lines were flown north-south, at a line separation of 250m, and at a nominal height above terrain of 70 metres.

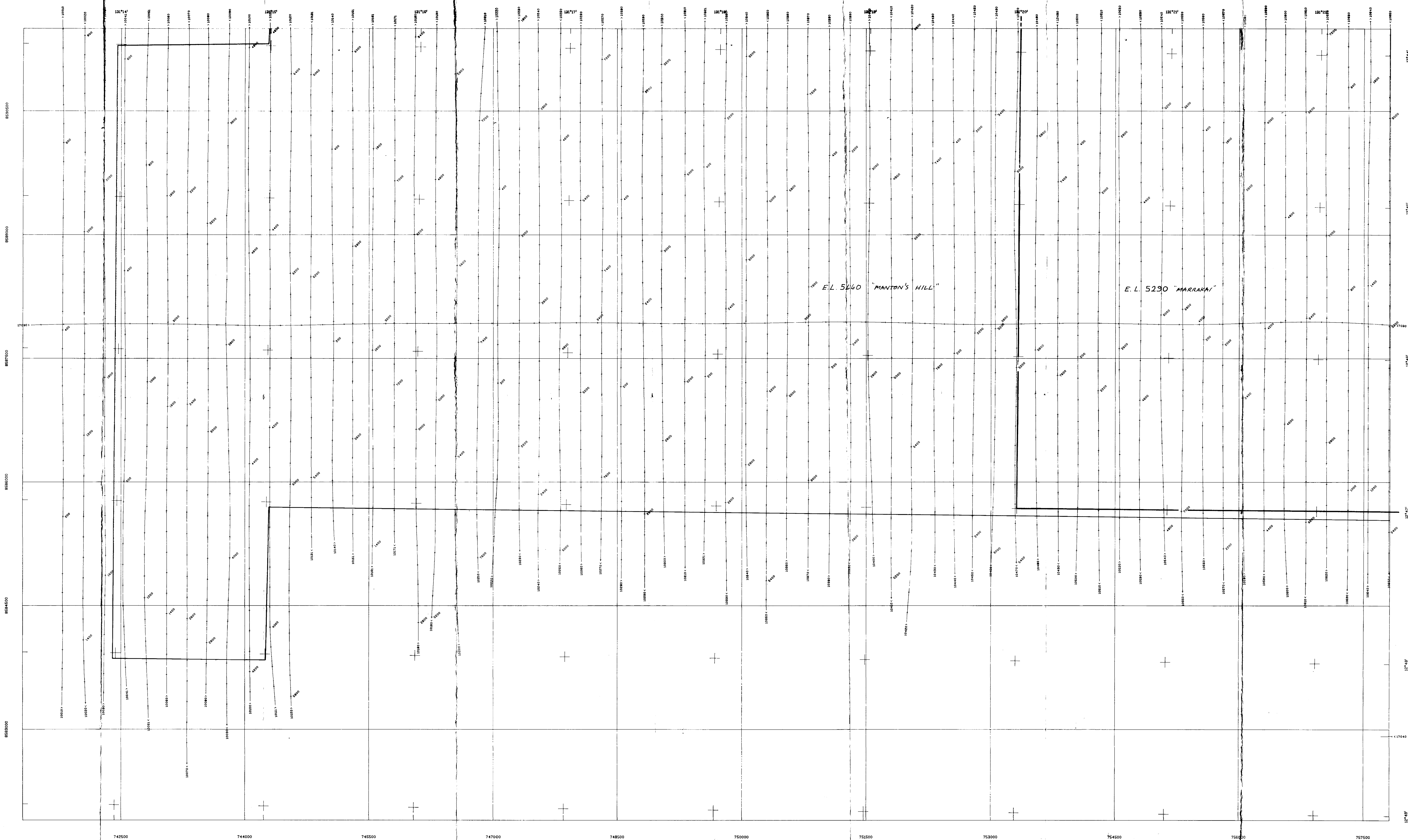
The flight paths are shown plotted on drawings No. 32718 and 32719. Total magnetic intensity contours are shown on drawing Nos. 32725 and 32726.

7. FUTURE WORK

At the time of writing, only preliminary interpretations of the magnetic data have been made, though this work is continuing.

A programme of stream sediment geochemistry is planned for the elevated areas of the EL. This will involve bulk cyanide leach sampling for gold, and minus-80 mesh sampling for other elements.

.....
P. G. Simpson
September 20th 1988.



SURVEY SPECIFICATIONS

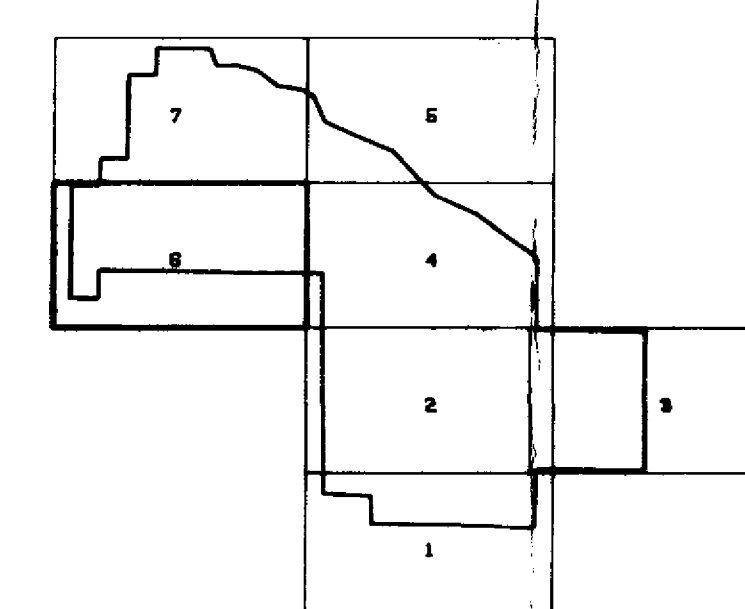
AIRCRAFT
 VH-EKH ROCKWELL COMMANDER 500S
INSTRUMENTS
 SONTREX V201 SPLIT BEAM CESIUM VAPOUR
 Resolution: 0.04 nanotesla
 Cycle rate: 0.20 second
 Sample interval: 12 metres
SPECTROMETER
 GEOMETRIS EXPLORATION CR8008
 Values: 18.75 lines
 Cycle rate: 100 seconds
 Sample interval: 60 metres
DATA ACQUISITION
 8 CHANNEL WYNNIE MC5700 CHART RECORDER
 REMOTE DIGITAL REDUCTION SYSTEM
 HEWLETT PACKARD 9000 SERIES COMPUTER
FLIGHT LINE SPACING
 Traverse lines: 250 and 150 metres
 Tie lines: 5000 metres
FLIGHT LINE DIRECTION
 Traverse lines: 000-180 degrees
 Tie lines: 090-270 degrees
Survey height:
 70 metres - main terrain clearance
 100 metres - minimum
 SYLOS LNF positioning system

AIRBORNE GEOPHYSICAL SURVEY MT BUNDEY

CARPENTARIA EXPLORATION COMPANY PTY LTD
 Surveyed and compiled by REMOTE HOLDINGS LIMITED
 (INCORPORATED IN AUSTRALIA)
RECORDING

FLIGHT PATH RECOVERY MAP

LEGEND
 + 200 Metre Interval
 - 20 Metre Interval

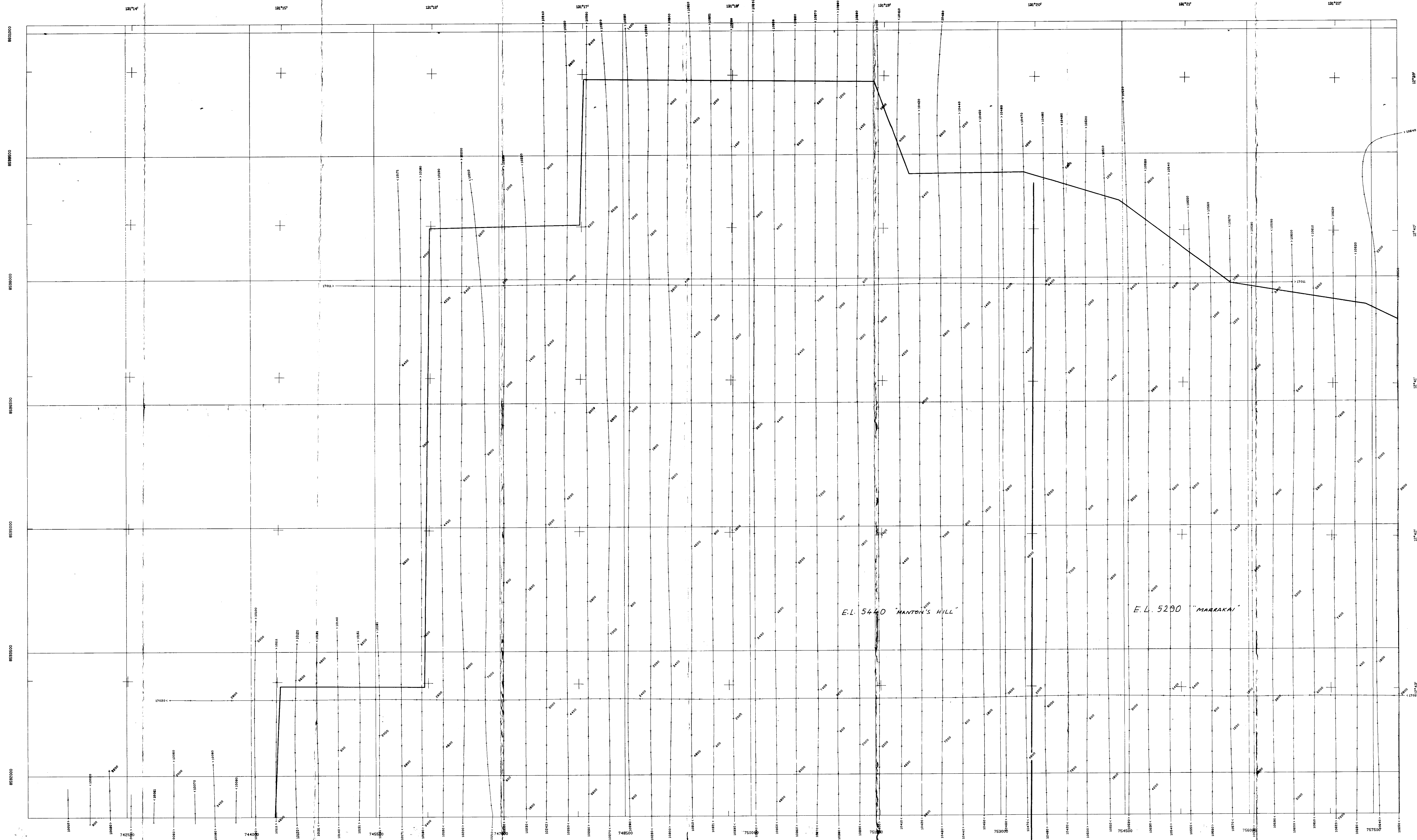


SHEET INDEX
 Sheet No. 6
 Reference sheet: 8888-03 DRAWN

Scale 1:15000
 0 200 400 600 800 1000 1200 1400 1600 metres
 AUSTRALIAN MAP GRID

Dr. No. 32718

8888/345A



SURVEY SPECIFICATIONS

PROJECT
VH-EKH ROCKWELL SHARK COMMANDER 5005
MAGNETOMETER
SCHNITZER 1000 SPLIT BEAM CESSUM VARIOUS
Resolution: 0.04 nanotesla
Cycle rate: 0.20 seconds
Sample interval: 10 metres
SPECTROMETER
GEOMETRICAL EXPLORATION GROUND
Volume: 15.78 litres
Cycle rate: 1.00 seconds
Sample interval: 60 metres
DATA RECOVERY
8 CHANNEL WEATHER MC 5700 CHART RECORDER
RECOVERY DATA ACQUISITION SYSTEM
HEWLETT PACKARD 8000 SERIES COMPUTER
FLIGHT LINE SPACING
Transverse line: 250 and 150 metres
Tie line: 5000 metres
FLIGHT LINE DIRECTION
Transverse line: 090-180 degrees
Tie line: 090-270 degrees
Survey height: 70 metres - mean terrain clearance
INTEGRATION
SYLDES LRP positioning system

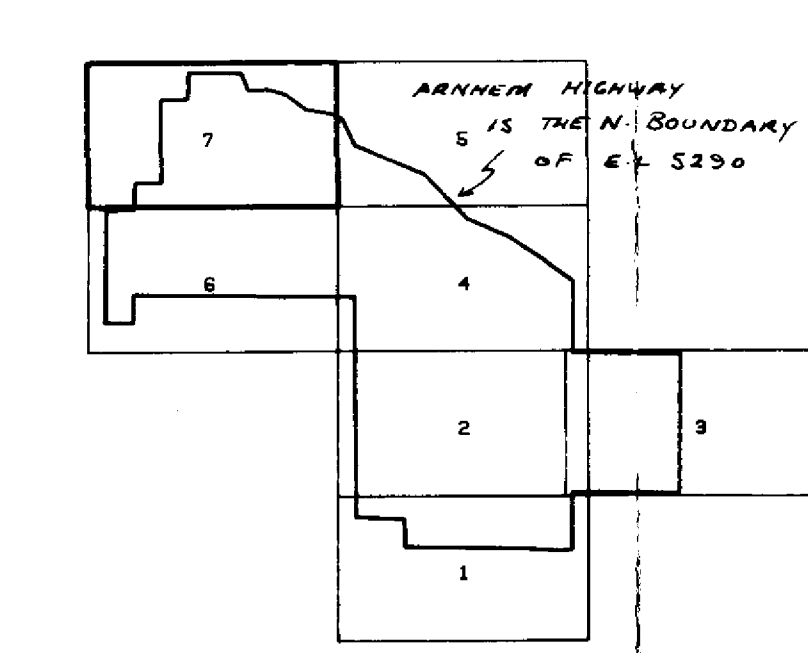
**AIRBORNE GEOPHYSICAL SURVEY
MT BUNDEY
CARPENTARIA EXPLORATION COMPANY PTY LTD**

Surveyed and compiled by: REPODATA HOLDINGS LIMITED
DECEMBER 1987 - JANUARY 1988

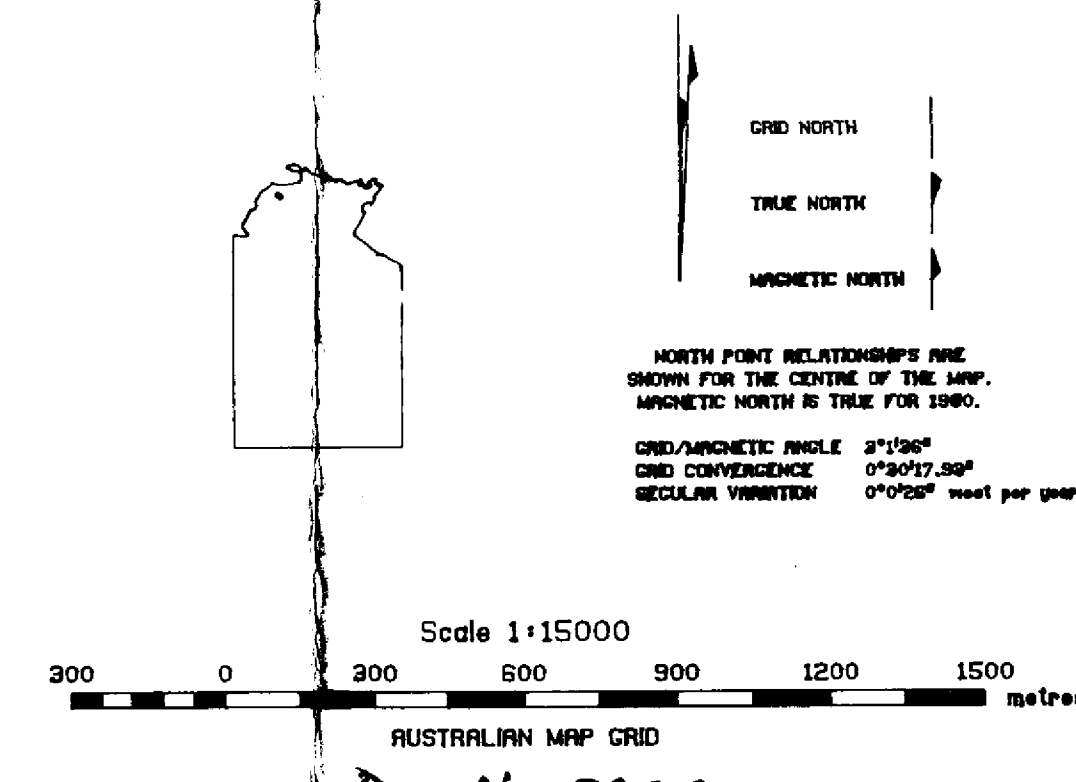
REPODATA

FLIGHT PATH RECOVERY MAP

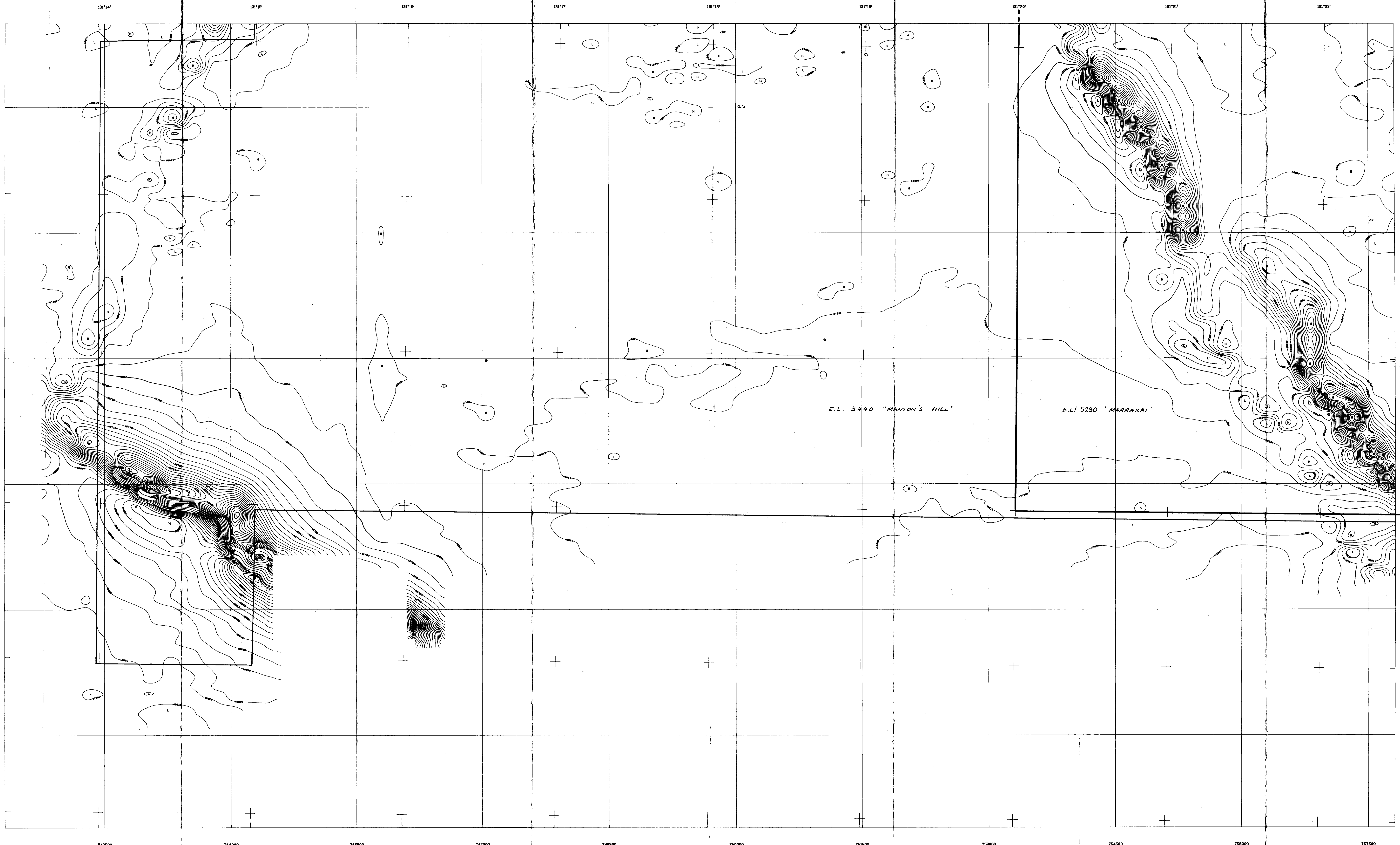
LEGEND
--- 200 Metre Interval
--- 20 Metre Interval



SHEET INDEX
Sheet No. 7
Reference sheet: 3025-04 DPM



Dr. No. 32719
6188/345A



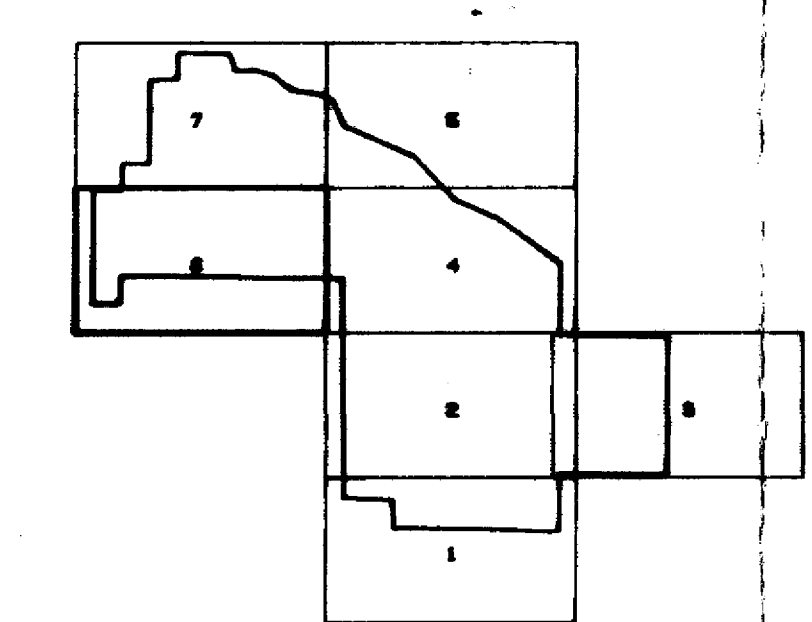
SURVEY SPECIFICATIONS

AIRCRAFT
 WH-CH ROCKWELL SHWEE COMMANDER 500S
MAGNETOMETER
 SCHMIDT VDDI SPLIT BEAM CRYSTAL VAPOR
 Resolution: 0.04 nT/mT
 Cycle rate: 0.50 second
 Sample interval: 12 metres
SPECTROMETER
 GEOMETRIC EXPLORATION SYSTEM
 Values: 16.78 Hz
 Cycle rate: 1.00 second
 Sample interval: 60 metres
DATA ACQUISITION
 8 CHANNEL ANALOGIC AC 8700 CHART RECORDER
 RECORDED DIGITAL ACQUISITION SYSTEM
 HEWLETT PACKARD 9000 SERIES COMPUTER
FLIGHT LINE SPACING
 Traverse line: 250 and 150 metres
 Tie line: 5000 metres
FLIGHT LINE DIRECTION
 Traverse line: 000-180 degrees
 Tie line: 090-270 degrees
 Survey height: 70 metres - mean terrain clearance
NAVIGATION
 SYLDES USF positioning system

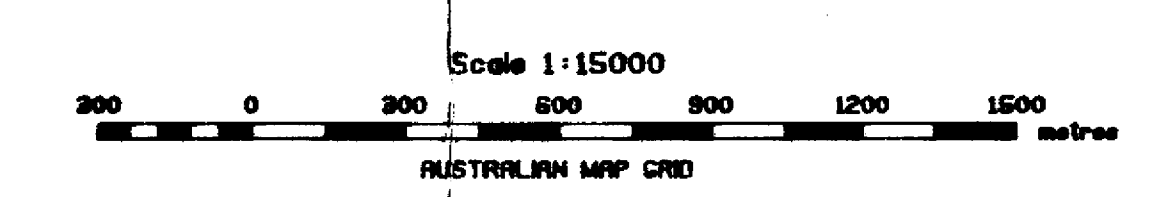
**AIRBORNE GEOPHYSICAL SURVEY
 MT BUNDEY
 CARPENTARIA EXPLORATION COMPANY PTY LTD**
 Surveyed and compiled by: PROSPECTA HOLDINGS LIMITED
 DECEMBER 1987 - JANUARY 1988
PERIODATA

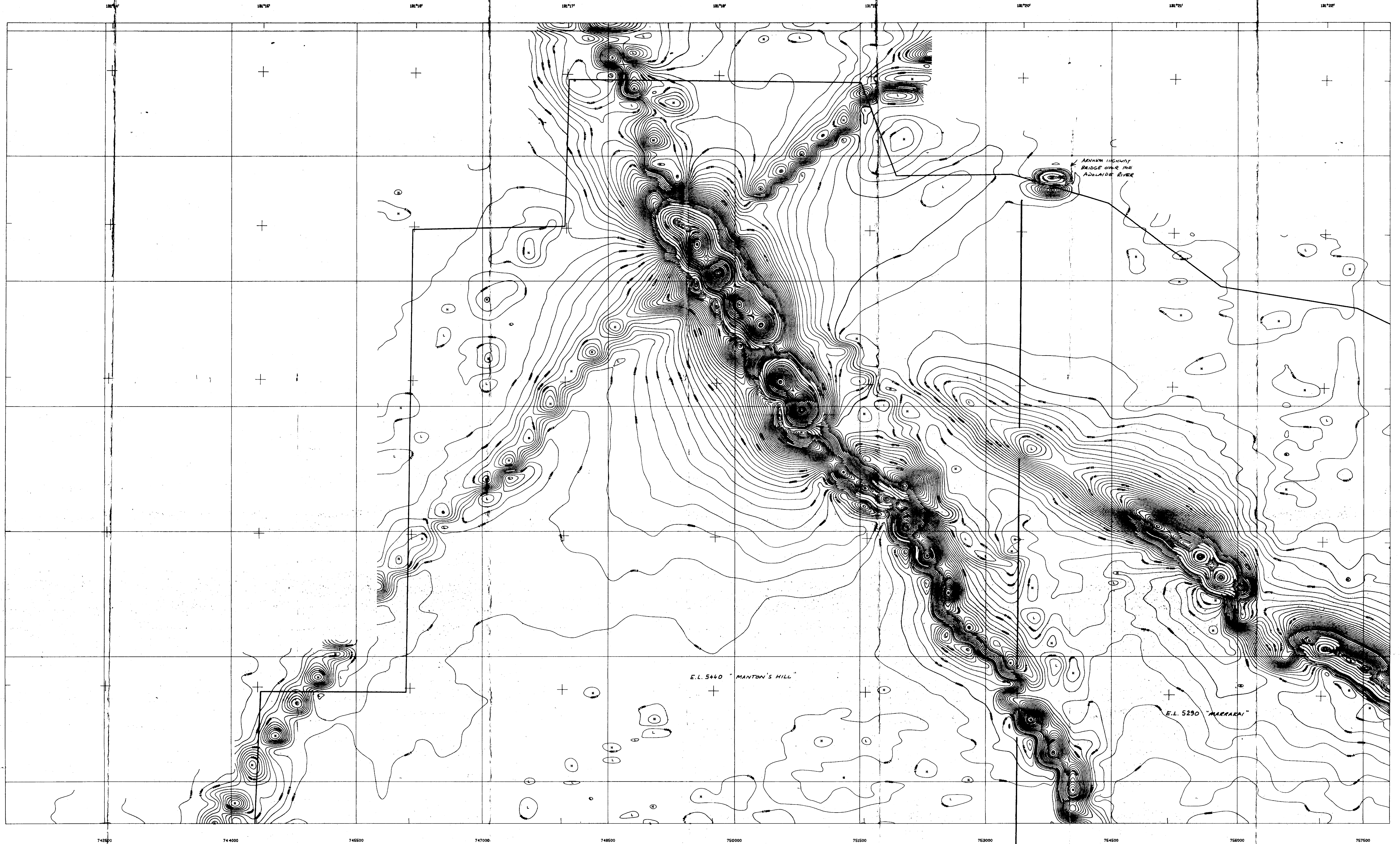
TOTAL FIELD MAGNETIC CONTOUR MAP

DATA PROCESSING
 REGIONAL FIELD: The effect of the 1997 model, IGRF and IGRF-97 model, 1995-1998 has been removed.
 GRID CELL SIZE: 60 metres
 CONTOUR INTERVAL: 10 metres
 MINIMUM CONNECTION: 1.00 metres



SHEET INDEX
 Sheet No. 6
 Reference sheet: 8882-04 DWHN





SURVEY SPECIFICATIONS

AIRCRAFT
VH-EH ROCKWELL SWIRE COMMANDER 500B
MAGNETOMETER
SCINTREX VDSI SPCT 5000 CERAM VAPOUR
Resolution: 0.04 nanoTesla
Cycle rate: 0.20 second
Sample Interval: 12 metres
SPECTROMETER
GEOMETRICAL EXPLORATION DRIBBLES
Values: 18.75 Hz
Cycle rate: 1.00 second
Sample Interval: 80 metres
DATA ACQUISITION
8 CHANNEL WITTEK MC 8700 CHART RECORDER
RECORDING DIGITAL RECORDING SYSTEM
HEWLETT PACKARD 8000 SERIES COMPUTER
FLIGHT LINE SPACING
Traverse line: 250 and 180 metres
To line: 5000 metres
FLIGHT LINE DIRECTION
Traverse line: 000-180 degrees
To line: 090-270 degrees
Survey height: 70 metres - mean terrain clearance
NAVIGATION
STYLON LMF positioning system

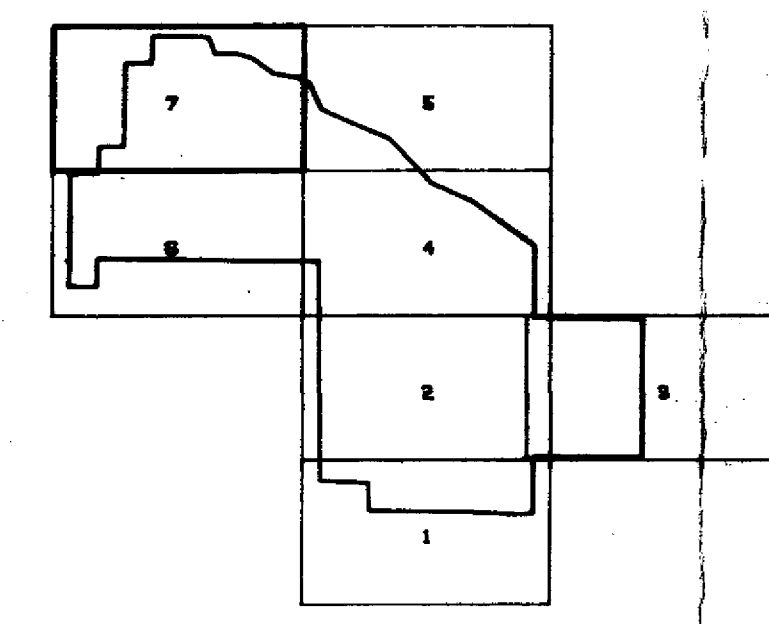
**AIRBORNE GEOPHYSICAL SURVEY
MT BUNDEBY**

CARPENTARIA EXPLORATION COMPANY PTY LTD
Surveyed and compiled by CARPENTARIA HOLDINGS LIMITED
DECEMBER 1987 - JANUARY 1988

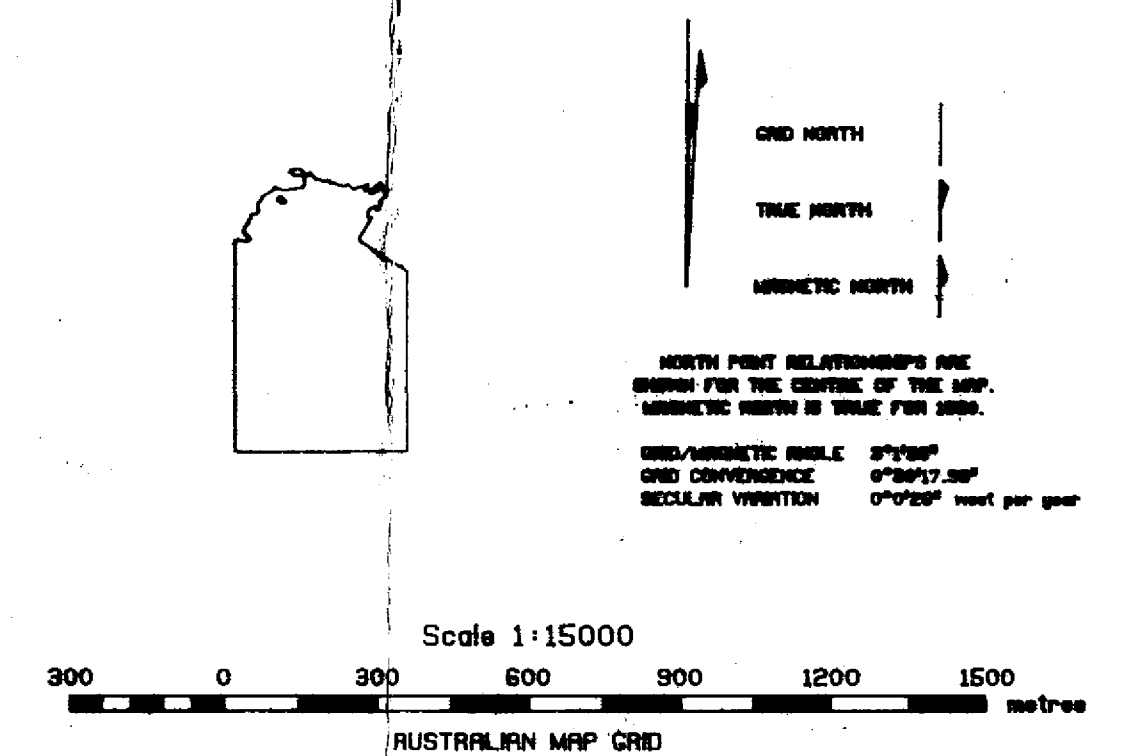
RECORDS

TOTAL FIELD MAGNETIC CONTOUR MAP

DATA PROCESSING
REGIONAL FIELD The effect of the IGF model
LINE and REGIONAL VARIATION MODEL
1980-1990 has been removed.
GRID CELL SIZE 50 metres
CONTOUR INTERVAL 5 nanoTesla
PARALLAX CORRECTED 1.80 minutes



SHEET INDEX
Sheet No. 7
Reference sheet: 3052-04 DRAWN



Dr. No. 32726

CR88/345A