



**EXPLORATION LICENCE 7985**  
*GIGANTIC SOUTH*

**SECOND YEAR RELINQUISHMENT REPORT**

**10 JUNE 1993 - 9 JUNE 1995**

*LICENSEES:*

**WESTERN MINING CORPORATION LIMITED**  
A.C.N. 004 184 598

**GIANTS REEF EXPLORATION PTY LTD**  
A.C.N. 009 200 346

TENNANT CREEK 1:250 000  
SE53-14  
TENNANT CREEK 1:100 000  
5798

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J. F. FABRAY  
TENNANT CREEK, N.T.  
AUGUST, 1995

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1. Bouguer gravity data

## SUMMARY

Exploration Licence 7985, *Gigantic South*, is located approximately 35 kilometres east of Tennant Creek. This report details the work completed on the fourteen blocks relinquished on the third anniversary of the EL, 9th June 1995.

The work completed on the relinquished blocks included gridding, a sub-regional gravity survey and an aeromagnetic survey. The relinquished blocks north of latitude 19°34'S and east of longitude 134°29'E were not covered by the gravity or the aeromagnetic surveys, and no work has been done over these blocks.

No anomalies related to mineralisation are evident from the surveys conducted in the areas under report.

## 1. LOCATION

The area which is the subject of this report lies approximately 30 kilometres east of Tennant Creek (Figure 1).

Access is via a four wheel drive track originating near the Tennant Creek microwave repeater and which then follows the 'Lone Star' trend of workings to the 'Gigantic' workings. At the 'Gigantic' the track splits to the south (eventually returning to Nobles Nob), east (to the Gum Ridge trig point and area under report) and north-east.

## 2. TENURE

EL 7712, *Gigantic West*, of 28 blocks was granted to Western Mining Corporation Limited (WMC) (80%) and Giants Reef Exploration Pty Ltd (GRE) (20%) on the 10th June 1993 for a period of 6 years. The EL was applied for to cover prospective ground to the south and east of the JV's Gigantic project area. Giants Reef Exploration Pty Ltd took over as manager/operator of the EL on 1st March 1995.

The fourteen blocks under report were relinquished on the 10th June 1995 which is the second anniversary of the EL.

## 3. REGIONAL GEOLOGY

The regional geology of the Tennant Creek field has been detailed in many recent publications and will not be repeated here. Papers contained in AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp 829-861 would give the reader a good introduction to the regional geology and styles of gold-copper mineralisation of the area.

## 4. WORK UNDERTAKEN

### 4.1 Gridding

A 100 metre spaced north-south AMG grid was extended north and south from the surveyed base line on 7830000mN to cover part of the western relinquished blocks. The location of this grid is shown on figure 2.

### 4.2 Sub-regional gravity survey

A 500 x 500 metre sub regional gravity survey which was begun in 1992 was completed in 1994. A LaCoste-Romberg G747 gravity meter was used in conjunction with three digital barometers.

Comparison to levelled survey points found that the barometer elevations were precise to  $\pm 1$  metre, and often better than  $< 1$  metre. AMG position was controlled using a MAGELLAN NAVPRO GPS unit using version 5000 software.

A gravity base station at 7833002 N, 437200 E was used, with an elevation of 302.19 metres and a gravity value of 978536.56 mgals. This base station has been tied into the BMR base gravity station at Tennant Creek airport.


Only the western relinquished blocks were covered by the gravity survey. The data are presented in Appendix 1. Included are AMG and latitude/longitude co-ordinates, observed and bouguer gravity, time and GMT time shift, earth tide data and elevations. Bouguer gravity is presented in contour form in Figure 3.

#### 4.3 Aeromagnetic survey

In June 1993 part of the area under report was flown with a detailed aeromagnetic survey. Critical specifications of the aeromagnetic survey were:

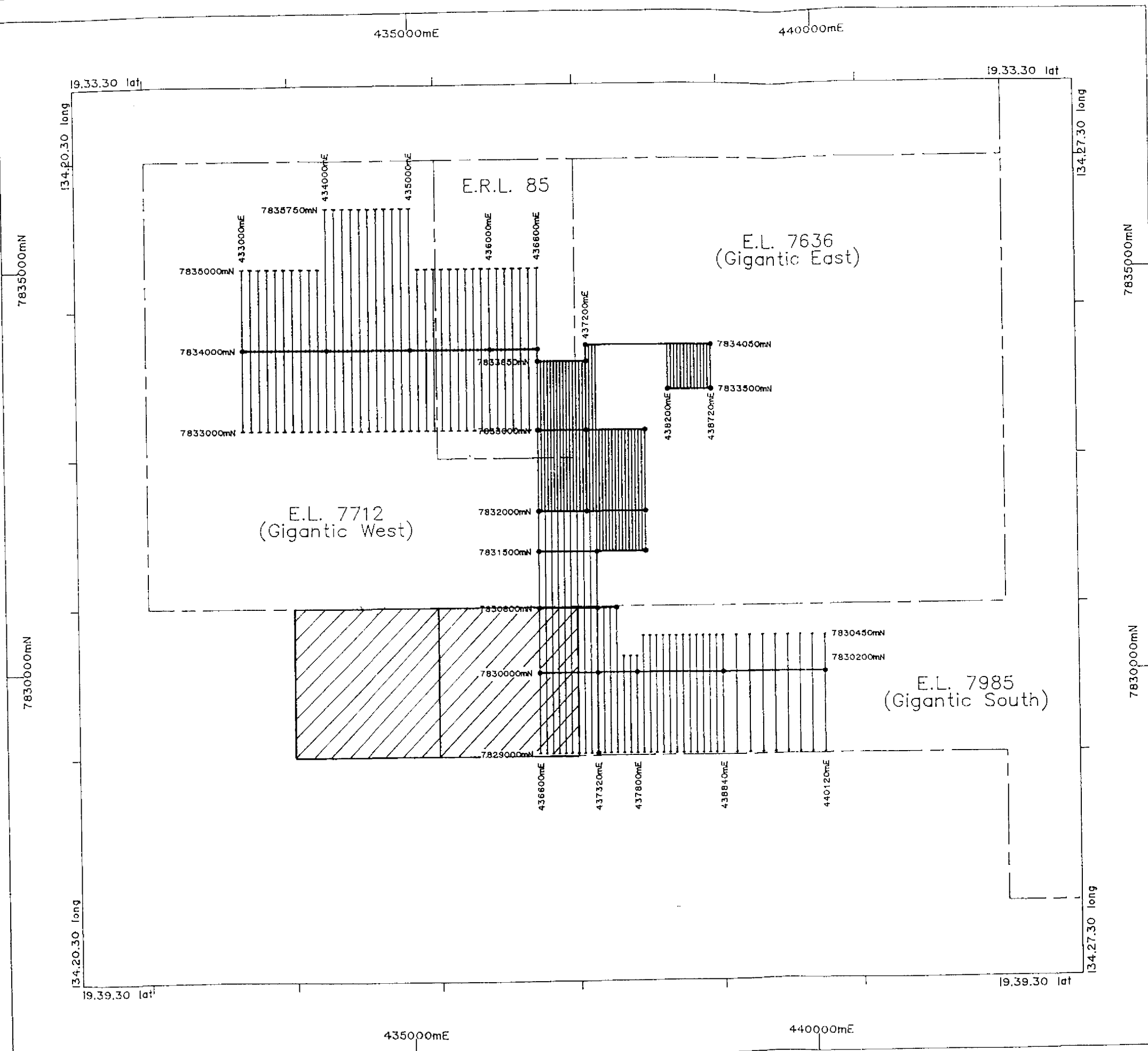
Contractor:	Austirex International Limited (Job Number 2145)
Flight lines:	Traverse lines 80 metre apart, bearing 180 - 360 degrees AMG Tie lines 800 metres apart, bearing 90 - 270 degrees AMG
Mean terrain clearance:	60 metres
Magnetometer:	Split beam caesium Scintrex V2321
Resolution:	0.001 nanotesla
Cycle rate:	0.1 seconds
Sample interval:	6.0 metres
Navigation:	Syledis UHF radio

The 1:10 000 plans showing contours of TMI are given in Figures 4 and 5.

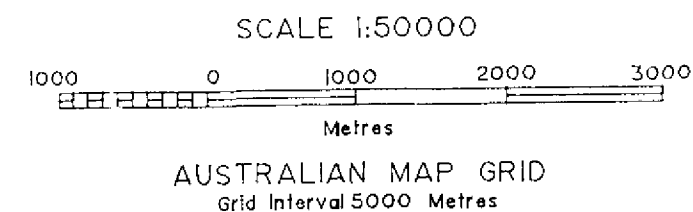


J. F. FABRAY  
SENIOR GEOLOGIST

GIANTS REEF EXPLORATION PTY LTD			
TENNANT CREEK NORTHERN TERRITORY			
PROJECT	EL 7985 - GIGANTIC SOUTH		
MAP REF.	TENNANT CREEK DME 1:100 000 Sheet 52/5 EXTRACT		
SUBJECT	Locations of Relinquished Areas		
DATE	AUTHOR	SCALE	PLAN
AUGUST 1995	J F	1:100 000	FIGURE 1



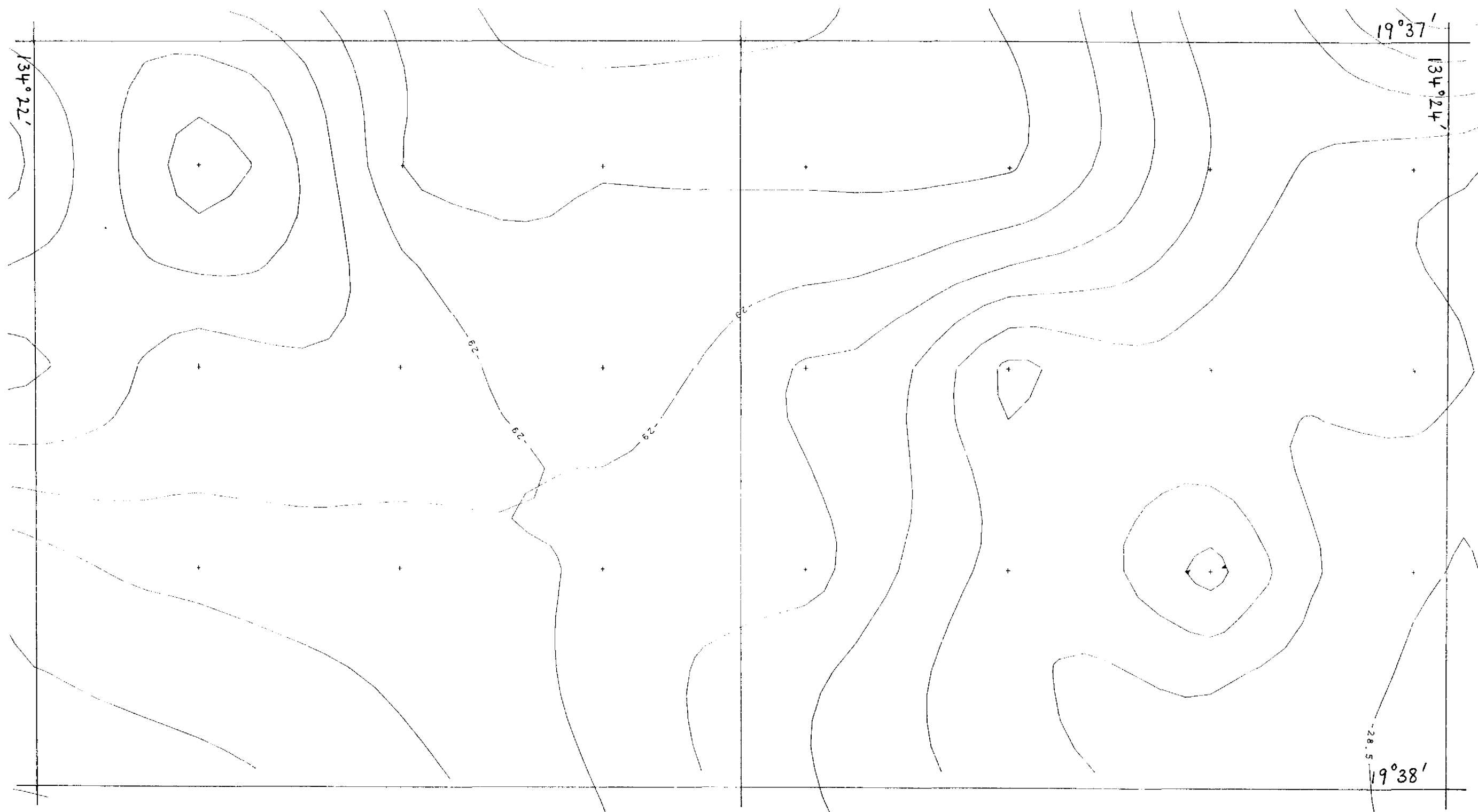
- STAR PICKETS
- FENCE DROPPER
- ||||| BATTER STAKES



WESTERN MINING CORPORATION LIMITED  
EXPLORATION DIVISION

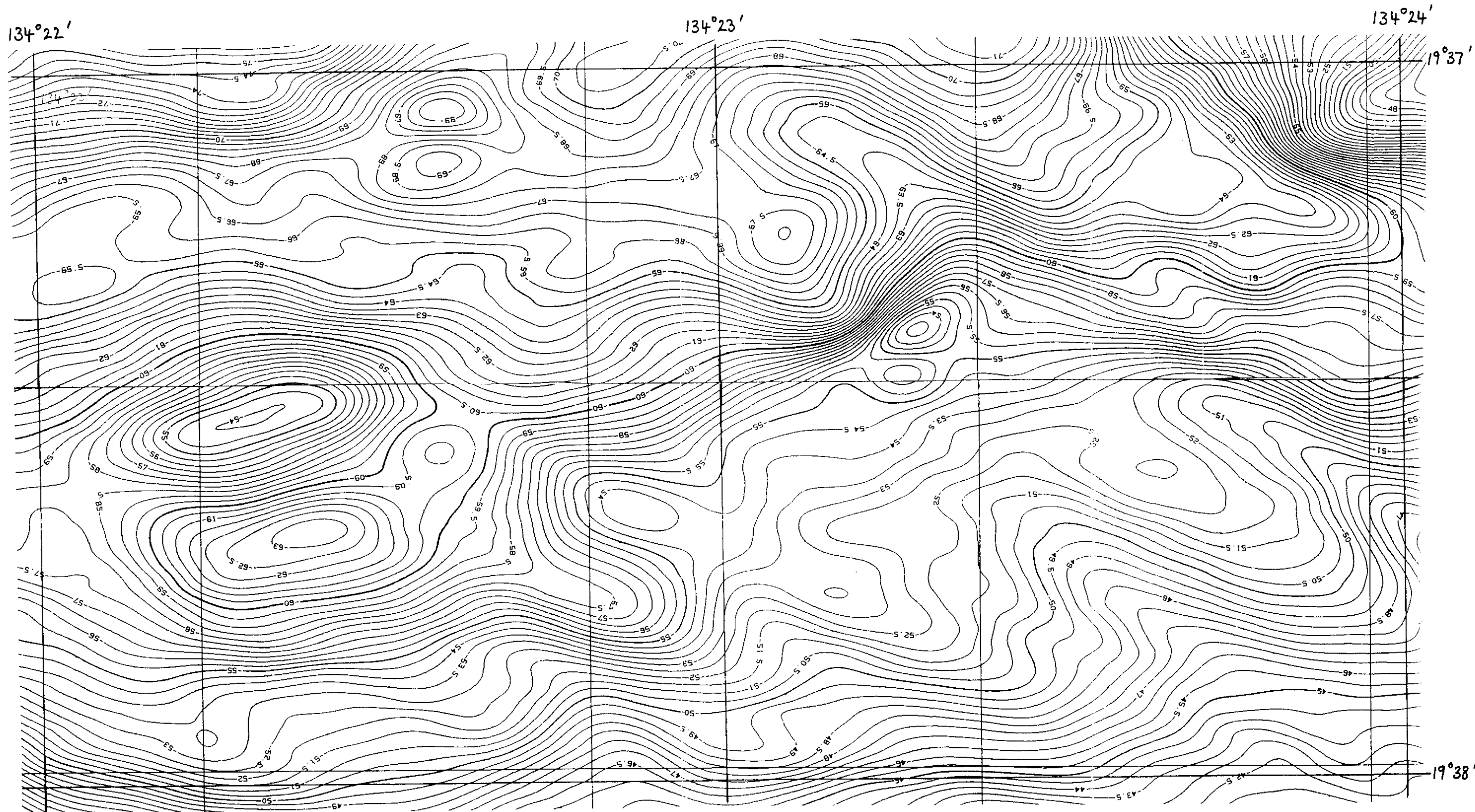
GIGANTIC AREAS  
AMG GRIDDING  
E.L. 7985 - RELINQUISHMENT

DATE: 10-2-94	AUTHOR: M.A. WARD	PLAN NO. 2
SCALE: 1:50000	MAP REF.	

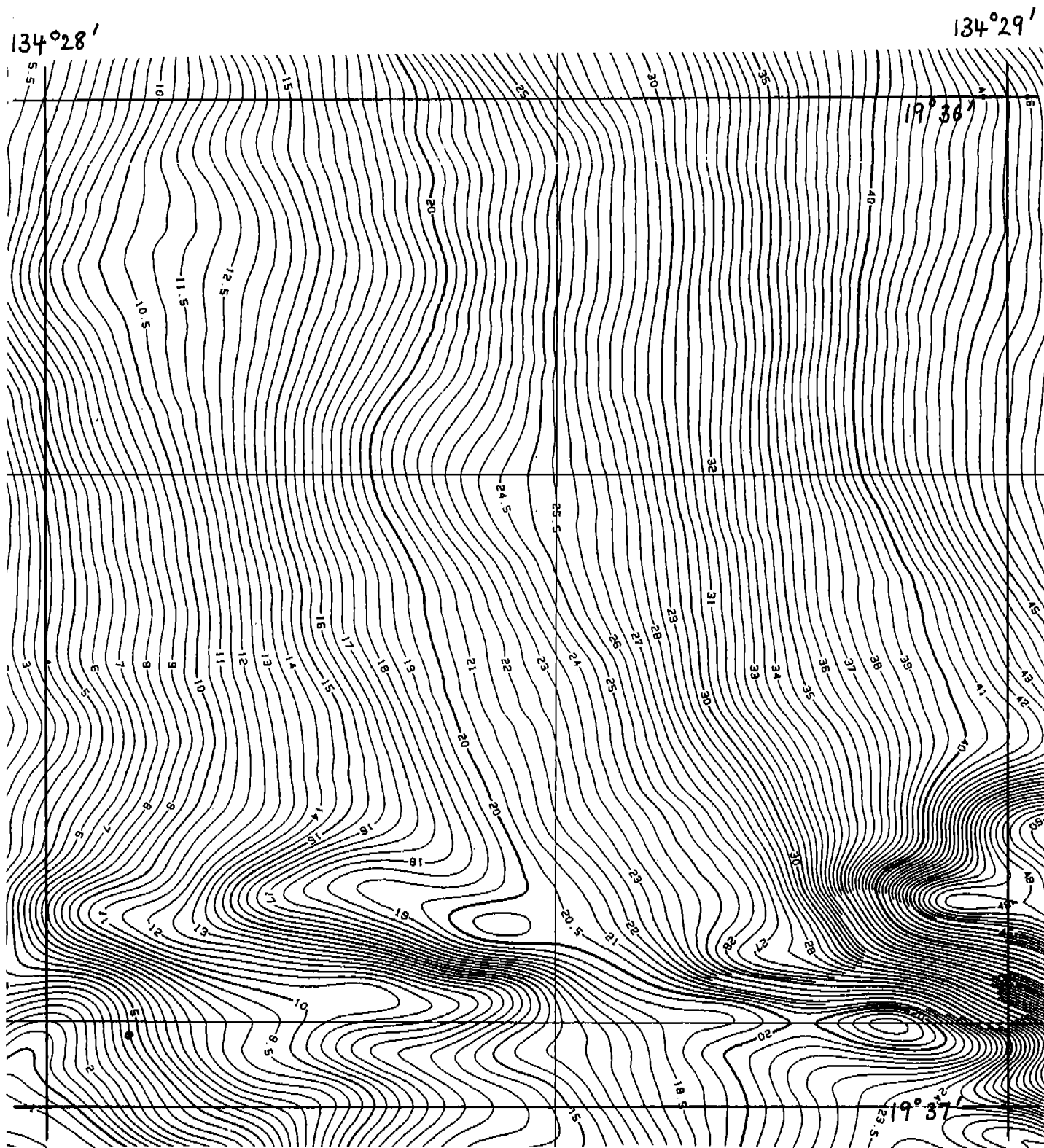


GIANTS REEF EXPLORATION PTY LTD			
TENNANT CREEK NORTHERN TERRITORY			
PROJECT	EL 7985 - GIGANTIC SOUTH		
MAP REF.	TENNANT CREEK		
SUBJECT	Bouger Gravity Contour Map		
DATE	AUTHOR	SCALE	PLAN
AUGUST 1995	J F	1:10 000	FIGURE 3





GIANTS REEF EXPLORATION PTY LTD			
TENNANT CREEK NORTHERN TERRITORY			
PROJECT	EL 7985 - GIGANTIC SOUTH		
MAP REF.	TENNANT CREEK		
SUBJECT	Aeromagnetic Contours TMI (Western Blocks)		
DATE	AUTHOR	SCALE	PLAN
AUGUST 1995	J F	1:10 000	FIGURE 4



GIANTS REEF EXPLORATION PTY LTD			
TENNANT CREEK NORTHERN TERRITORY			
PROJECT	EL 7985 - GIGANTIC SOUTH		
MAP REF.	TENNANT CREEK		
SUBJECT	Aeromagnetic Contours TMI (Eastern Block)		
DATE	AUTHOR	SCALE	PLAN
AUGUST 1995	J F	1:10 000	FIGURE 5

## **APPENDIX 1**

### **BOUGUER GRAVITY DATA**

Western Mining Corporation - Exploration Division  
Tennant Creek Joint Venture  
Gravity data for EL 7985  
WMC + open file data  
1993

Base station location: 437200 E, 7833002 N  
Base station gravity value: 978522.19 mgal  
Base station elevation: 310.50 m  
Gravity meter: LaCoste-Romberg G747

Survey Id	Line Time Id	Station No	Line No	Easting	Northing	Elevation	Raw Dial Divisions	Observed Gravity	Bouguer	Latitude	Longitude	AMG Zone	Density	Date	GMT Time Shift (hr)	Earth Tide
GS	0	1101	1090	437000.0	7830500.0	317.870	2179.220	978523.076	-28.636	-19.619550	134.399177	53	2.67		-9.5	0.052
GS	0	1111	1091	436500.0	7830500.0	314.240	2179.760	978523.629	-28.796	-19.619534	134.394408	53	2.67		-9.5	0.052
GS	0	1118	1092	436000.0	7830500.0	314.840	2179.340	978523.198	-29.108	-19.619518	134.389640	53	2.67		-9.5	0.052
GS	0	1124	1093	435500.0	7830500.0	314.940	2179.310	978523.167	-29.119	-19.619502	134.384872	53	2.67		-9.5	0.051
GS	0	1129	1094	435000.0	7830500.0	315.430	2179.230	978523.084	-29.105	-19.619485	134.380104	53	2.67		-9.5	0.050
GS	0	1135	1095	434500.0	7830500.0	315.820	2179.160	978523.012	-29.099	-19.619469	134.375336	53	2.67		-9.5	0.049
GS	0	1141	1096	434000.0	7830500.0	315.720	2179.620	978523.482	-28.648	-19.619452	134.370567	53	2.67		-9.5	0.048
GS	0	1234	1105	434000.0	7830000.0	316.280	2179.470	978523.310	-28.967	-19.623970	134.370550	53	2.67		-9.5	0.029
GS	0	1240	1106	434500.0	7830000.0	315.960	2179.560	978523.399	-28.942	-19.623987	134.375318	53	2.67		-9.5	0.026
GS	0	1246	1107	435000.0	7830000.0	316.400	2179.350	978523.181	-29.075	-19.624004	134.380086	53	2.67		-9.5	0.023
GS	0	1253	1108	435500.0	7830000.0	316.020	2179.610	978523.444	-28.887	-19.624020	134.384855	53	2.67		-9.5	0.020
GS	0	1300	1109	436000.0	7830000.0	315.670	2179.990	978523.829	-28.572	-19.624036	134.389623	53	2.67		-9.5	0.016
GS	0	1306	1110	436500.0	7830000.0	315.290	2179.990	978523.826	-28.651	-19.624052	134.394392	53	2.67		-9.5	0.012
GS	0	1312	1111	437000.0	7830000.0	316.610	2179.700	978523.525	-28.693	-19.624068	134.399160	53	2.67		-9.5	0.009
GS	0	1340	1115	436500.0	7829500.0	316.320	2179.880	978523.692	-28.840	-19.628570	134.394375	53	2.67		-9.5	0.009
GS	0	1347	1116	436000.0	7829500.0	317.240	2179.880	978523.688	-28.662	-19.628554	134.389606	53	2.67		-9.5	0.013
GS	0	1354	1117	435500.0	7829500.0	317.340	2179.590	978523.386	-28.944	-19.628538	134.384838	53	2.67		-9.5	0.018
GS	0	1401	1118	435000.0	7829500.0	318.280	2179.370	978523.156	-28.988	-19.628522	134.380069	53	2.67		-9.5	0.022
GS	0	1407	1119	434500.0	7829500.0	317.470	2179.470	978523.255	-29.047	-19.628505	134.375301	53	2.67		-9.5	0.026
GS	0	1414	1120	434000.0	7829500.0	317.890	2179.370	978523.148	-29.071	-19.628489	134.370532	53	2.67		-9.5	0.030