

REDFIRE RESOURCES NL

ACN 009 423 858

EXPLORATION LICENCE 8969

(Bauhinia Downs SE 53-3)

**SLAB TOP HILL
NORTHERN TERRITORY**

SECOND ANNUAL REPORT

To 20 February 1997

Prepared by R E Besley

February 1997

OPEN FILE

CR 97/1253

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FIGURE

Figure 1 Slab Top Hill Project Location

PLANS

Airborne Magnetic Survey, Flight Line Locations, *Scale 1:50,000*

Magnetic Intensity, 1st Vertical Derivative, *Scale 1:50,000*

Magnetic Intensity, Stacked Profiles, *Scale 1:50,000*

Stacked Magnetic Profiles, Sheet 6165-III-SW, *Scale 1:25,000*

Stacked Magnetic Profiles, Sheet 6165-III-SE, *Scale 1:25,000*

Stacked Magnetic Profiles, Sheet 6164-IV-SW, *Scale 1:25,000*

PLANS (Contd.)

Stacked Magnetic Profiles, Sheet 6164-IV-NW, *Scale 1:25,000*

Stacked Magnetic Profiles, Sheet 6164-IV-NE, *Scale 1:25,000*

Stacked Magnetic Profiles, Sheet 6164-IV-SE, *Scale 1:25,000*

Stacked Magnetic Profiles, Sheet 6065-II-SE, *Scale 1:25,000*

Stacked Magnetic Profiles, Sheet 6064-I-NE, *Scale 1:25,000*

APPENDIX

Appendix I

Airborne Magnetic Survey Specifications

SUMMARY

The Slab Top Hill diamond project comprised Exploration Licences 8374, 8375 and 8969 (100% owned by Redfire Resources NL) located within the Batten graben in the Northern Territory of Australia.

The Batten Graben is a known diamondiferous province and has been intensively explored for diamonds since the early 1980's by CRAE and the Australian Diamond Exploration Joint Venture, leading to the discovery of the Emu, Coanjula, Abner Range, Merlin, Ivanhoe, Dog Leg Creek and Lancelot Prospects. Diamondiferous Kimberlites have been found by follow-up of anomalous number of diamonds (including micro diamonds) and chromites from stream, loam and drill samples and by loaming and drill testing geophysical and geomorphological anomalies.

The Slab Top Hill Project Exploration Licences cover the north westerly trending Emu Fault Zone and associated west-north westerly trending extensional faults. The intersection of similar structural elements to the south-east of the project area is interpreted to have controlled the emplacement of the Merlin and Emu Kimberlite Fields.

Previous exploration within the project area has consisted of base-metal and oil exploration. Following acquisition by Redfire Resources NL of ELs 8374 and 8375 in 1994, work on the project was funded by Diamond Fields of Australia NL until March 1995, when Redfire Resources NL resumed management. The Diamond Fields of Australia exploration programme consisted of an open-file data review, a helicopter supported reconnaissance survey, geological (structural and stratigraphic) and geomorphological mapping by Dr. R. Russell that identified 26 photo anomalies considered prospective kimberlite targets (EL8374, 8375 only), and an airborne magnetic survey by World Geoscience Corporation (line spacing 200m, sensor height 60m).

Following grant of EL 8969 in February 1995, Redfire Resources N.L. resumed management of the Project and continued exploration with a helicopter assisted regional reconnaissance stream and loam sampling programme. Ground sampling and inspection of photo anomalies and air magnetic anomalies was undertaken during this programme.

Results of this work were reported in the previous Slab Top Hill Project Report (R.E. Besley, February 1996).

A detailed airborne magnetic survey was flown over the area in April 1996 with a variety of detailed data outputs generated. A series of magnetic features that were interpreted as characteristic of pipe shaped intrusives are present in the data.

The overall results of the programmes completed by Redfire Resources N.L. over the Slab Top Hill area were encouraging for the presence of kimberlites although no high quality individual targets were generated at that stage.

A farm-in agreement was negotiated with Ashton Mining Limited on behalf of the partners in the Australian Diamond Exploration Joint venture to undertake additional exploration for diamonds on the Slab Top Hill Project. A sampling programme was undertaken by Ashton Mining Limited across the project area and completed towards the end of 1996. The full results of this programme will be available in the next period.

1. LOCATION AND ACCESS

The Slab Top Hill Project area is located in the SE quadrant of the Bauhinia Downs (SE 53-3) 1:250,000 map sheet between latitudes 16° 25'S to 16° 40'S and longitudes 135° 55'E to 136° 12'E. The project area straddles the boundary between the Batten (6065), Borroloola (6165), Glyde (6164) and Mallapunyah (6065) 1:100,000 map sheets. The project area is located 750km southeast of Darwin and 70km south southwest of Borroloola (Figure 1). The Carpentaria Highway traverses the northwest corner of EL8375. Access to the remainder of the project area is via 4WD station tracks.

2. TENURE

EL8969 was granted to Redfire Resources on 20.2.95 over 52 sub-blocks covering approximately 167 square kilometres. A joint venture agreement was signed with Ashton Mining Limited on 12.9.96 giving Ashton the right to earn a 60% interest in diamond deposits within the licence. Ashton withdraw from EL8969 on 23.12.96.

3. TOPOGRAPHY

The project area is located within a physiographic unit known as the Gulf Fall. Elevation varies from about 40m in the NW corner of EL8375 (the McArthur River floodplain) to 150m along the southern and eastern part of EL8969 and EL8375. The McArthur River flows through the NW part of the Project Area and the Glyde River flows north along the eastern boundary of EL8969. To the south and east outside the project area lies the Bukalara Plateau with an elevation of 150 - 200m, composed of Early Cambrian Bukalara Sandstone. In the east and south east of the project area are outcrops forming low hills and scarps of clastic sediments belonging to the Umbolooga and Batten Subgroups.

The northern and western part of the project area is drained by the McArthur River which flows north easterly towards the Gulf of Carpentaria. The major northerly flowing tributaries entering the McArthur River on its east bank are Eight Mile Waterhole Creek and Bull Creek. Hot Spring Creek and Barney Creek flow east to join the McArthur River floodplain on its west bank, and within the project area, in EL8375, are represented by low energy meandering channels and strings of water holes. The southern and eastern parts of the project area are drained by NE flowing tributaries (Amelia Creek and Cattle Creek) of the northerly flowing Glyde River.

4. REGIONAL GEOLOGY AND STRUCTURE

The Slab Top Hill project area is located within the Batten Graben, a north-trending syn-sedimentary graben about 70km wide which contains up to 10km of extensively faulted and folded lower-mid Proterozoic McArthur Group rocks.

The Exploration Licence lies along and to the west of the Emu Fault zone, a major WNW trending structure. To the east of the Emu Fault and 35km SE of the project area are the Emu and Merlin Kimberlite Fields. A further diamond bearing prospect occurs in the Abner Range on the west side of the Emu Fault, about 23km south of the project area. The main axis of down faulting (down to the west) in the project area occurs along the Emu Fault zone. The fault zone is the main hinge of the Batten Graben. Within the Slab Top Hill project area, Cowdreys Fault parallels the Emu fault. The Emu Fault Zone is complex with some suggestion of lateral movement and WNW supply faults (extensional faults) which parallel the direction of the Calvert fault. The intersection of the Calvert Fault with the Emu Fault to the south east of the project area is interpreted to have controlled the emplacement of the Merlin and Emu Kimberlite Fields.

5. LOCAL GEOLOGY

The exploration licence is underlain by sediments of the Umbolooga and Batten Subgroups of the McArthur Group. These outcropping sediments include variably silicified dolomitic stromatolitic mudstone, sandstones and shales formed after evaporitic sediments (commonly sulphate evaporites).

Within the project area the sediments of the McArthur Group are folded into a broad antiform between the Emu Fault to the east and the Hot Springs Fault to the west.

6. REGIONAL PROSPECTIVITY

The Batten Graben has been intensively explored for diamonds since the discovery of the Emu Pipes by CRAE in the early 1980s. Known diamondiferous prospects occurring within the province are the Agner Range, Emu, Merlin, Coanjula, Dog Leg Creek, Ivanhoe and Lancelot Prospects. Bulk sampling at the Merlin kimberlites by Ashton Mining Limited has established potential viable diamond grades in several pipes. Feasibility studies for production are in progress.

The majority of the pipes found to date are small and it is likely that any new discoveries at Slab Top Hill will require to be integrated with the Merlin project to achieve economic viability.

7. PREVIOUS EXPLORATION

No recorded diamond exploration has been undertaken on this tenement however the area has been subjected to extensive base metal exploration when the HYCC Pb-Zn-Ag deposit was discovered 12km NE of the project area.

8. CURRENT EXPLORATION

Exploration undertaken on the tenement from March 1996 to February 1997 consisted of the following programmes:

- 1) An airborne magnetic survey was flown across the licence area by contractor, World Geoscience Corporation. The survey was flown on east-west lines 200 metres apart with a mean terrain clearance of 60 metres. The survey totalled 1300 line kilometres of acquired data.

A set of plans at 1:50,000 and 1:25,000 scales are enclosed giving stacked profiles of magnetic intensity and first magnetic derivative.

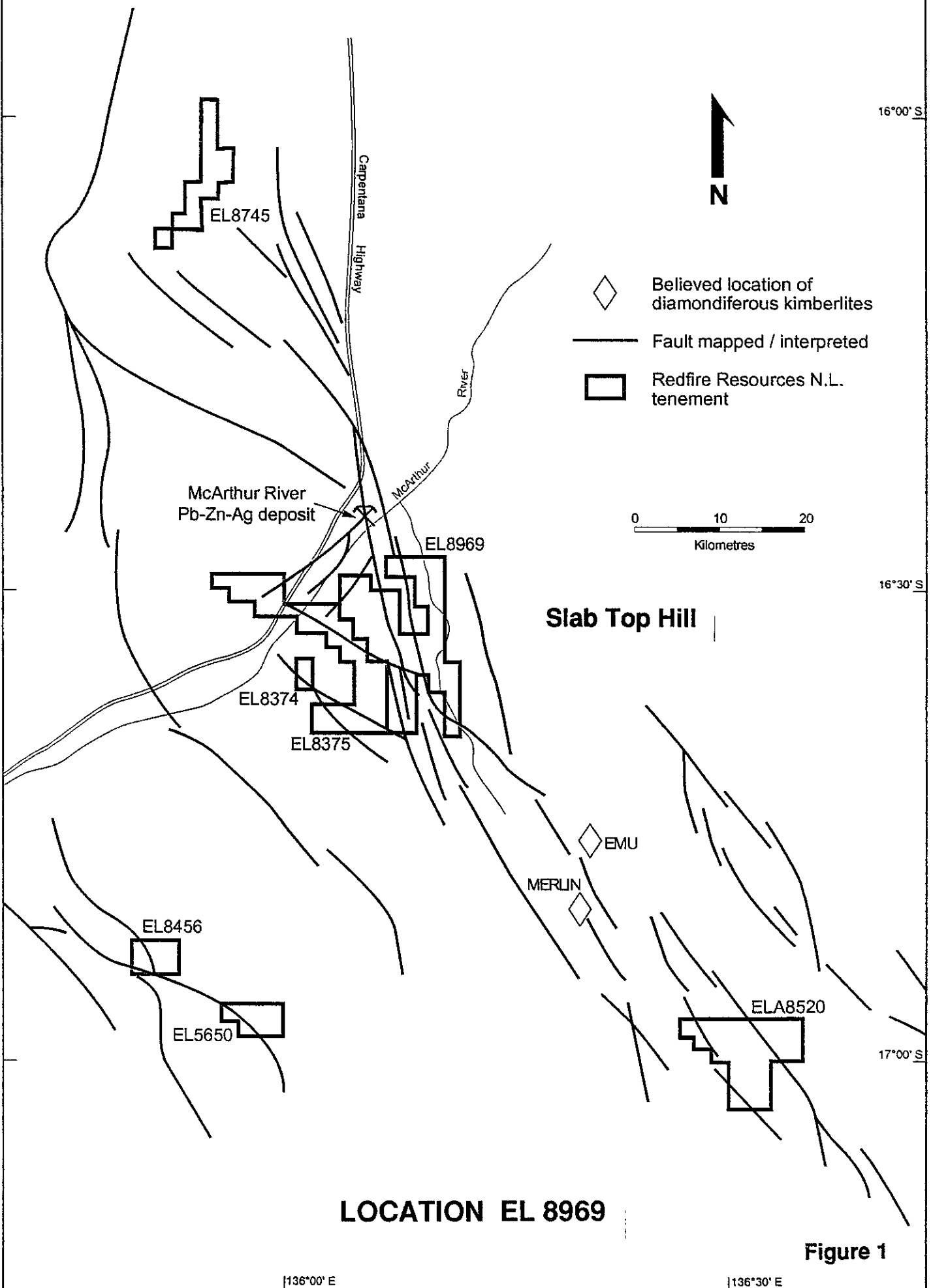
- 2) A helicopter supported programme of loan and stream sediment sampling was undertaken by Ashton Mining Limited across the tenement to test for indicator minerals. In addition, surface samples were taken over individual magnetic anomalies. Full results for the samples have not yet been received and these will be reported in the next Annual Report.

REFERENCES

- Russell, R. 1994 Air and Space photograph Interpretation of EL8375 and EL8374 Batten Graben, Northern Territory.
- Young, D J 1995 Annual Report Exploration Licences 8374, 8375 for the period 25 February 1994 to March 1995.
- Townend, R. 1995 Laboratory Report Sample Numbers P82938 - P82987 (Heavy Mineral Observations) Independent Diamond Laboratories Pty Ltd RR94.20 September 1995.
- Townend, R. 1995 Laboratory Reports for sample number 070210 - 70213, P82953, P82952 (Geochemistry) Independent Diamond Laboratories Pty Ltd 24 October 1995, 14 November 1995.
- Besley, R. 1996 Slab Top Hill Project, Annual Report on ELs 8374, 8375 and 8969, February 1996.

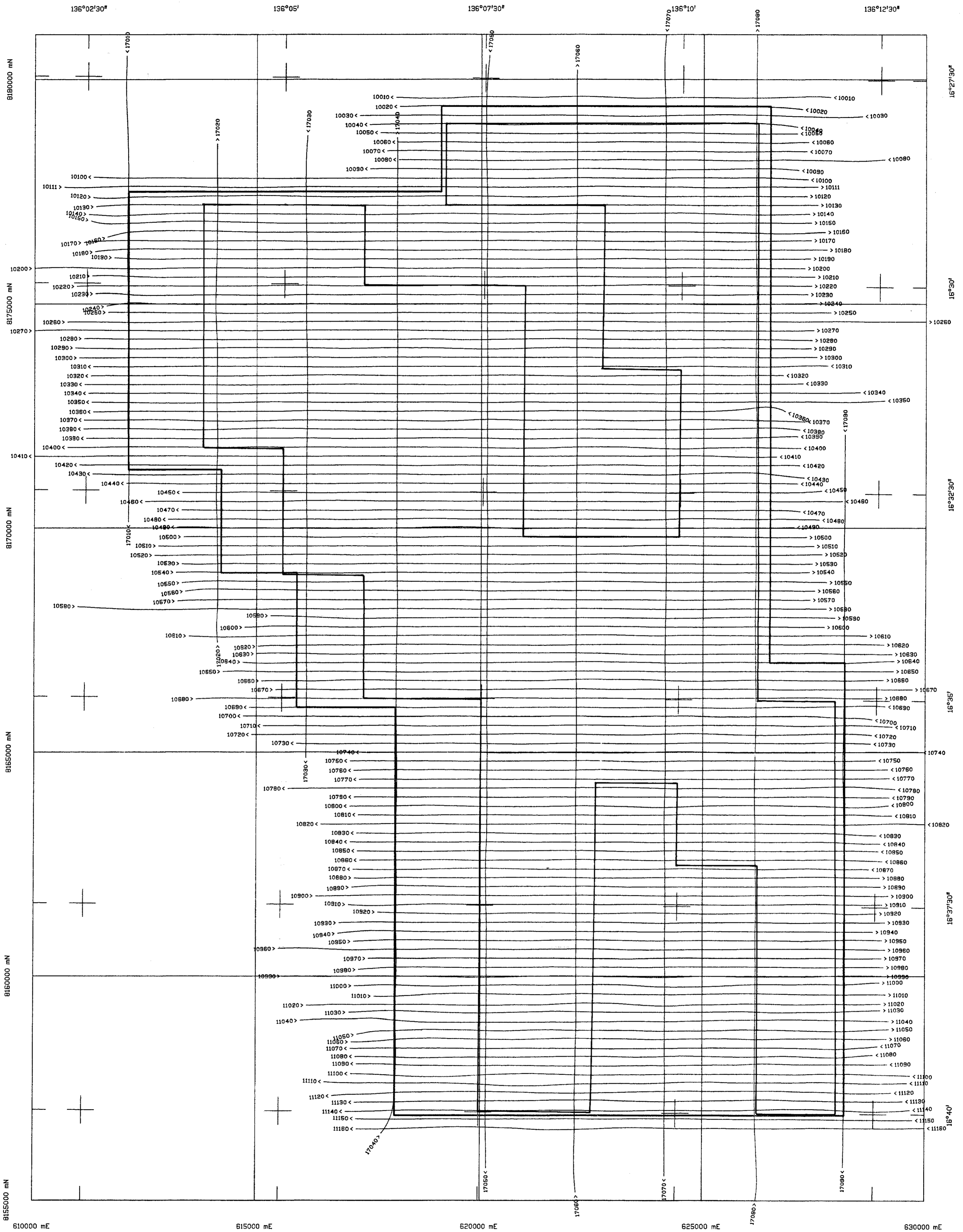
FIGURE 1

BATTEN TROUGH - DIAMOND PROJECT



LOCATION EL 8969

Figure 1



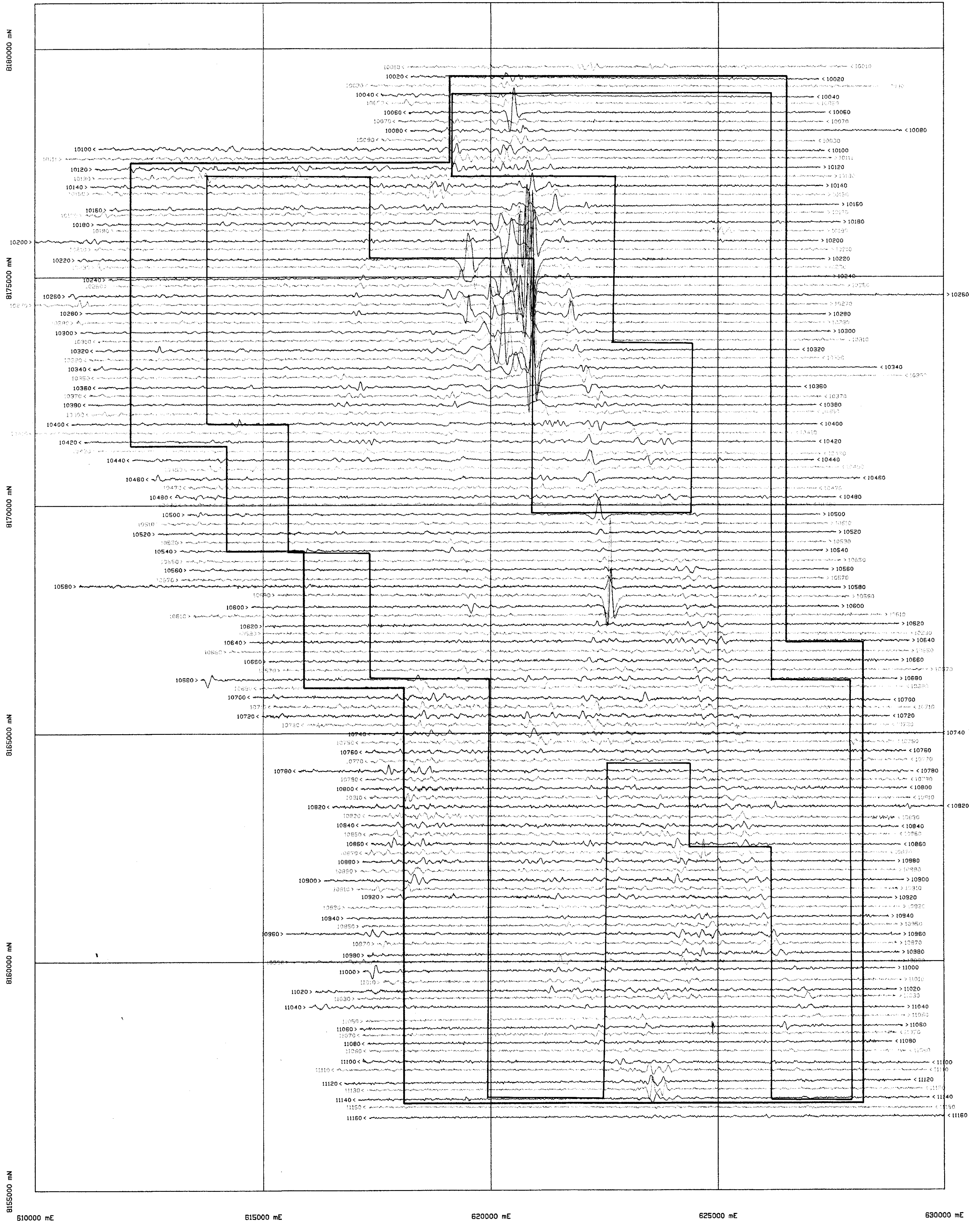
Job 1172.1
 Area McARTHUR RIVER
 Scale 1 : 50000
 Sheet 1

FLIGHT PATH
 labels 100 fiducials
 tics 10 fiducials

EL 8969

Redfire Resources N.L. March 1997

PRELIMINARY ONLY



Job 1172.1
 Area McARTHUR RIVER
 Scale 1 : 50000
 Sheet 1

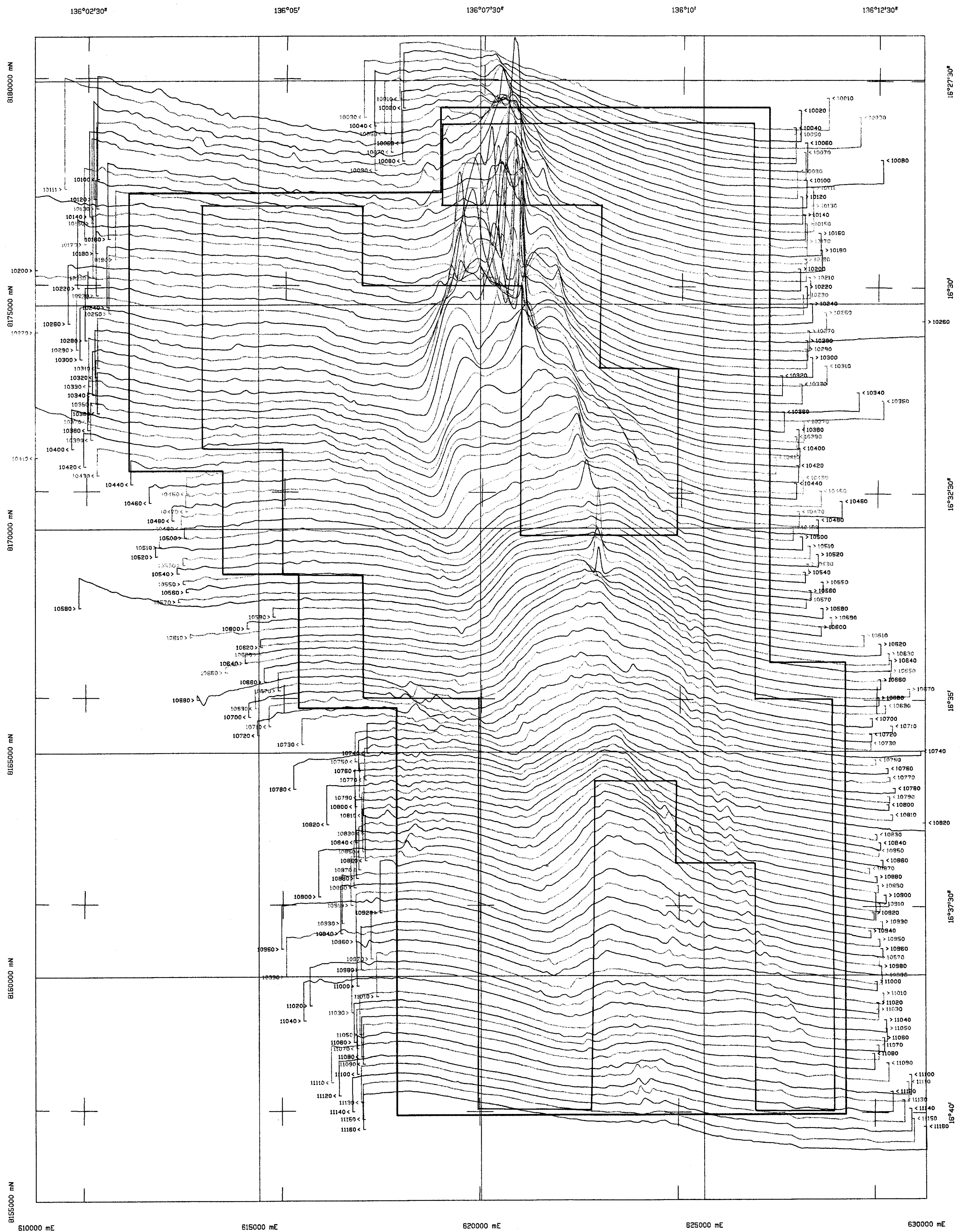
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 base value 0 nT/m
 vertical scale 0.1 nT/m/cm

EL 8969

Redfire Resources N.L. March 1997

PRELIMINARY ONLY

PLOT DATE : 960429



Job 1172.1
 Area McARTHUR RIVER
 Scale 1 : 50000
 Sheet 1

MAGNETIC INTENSITY
 base value 20nT
 vertical scale 10nT/cm

EL 8969

Redfire Resources N.L. March 1997

PRELIMINARY ONLY

136°00'

136°02'30"

136°05'

136°07'30"

16°22'30"

16°25'

16°27'30"

16°30'

817500 mN

8165000 mN

8162500 mN

8160000 mN

8177500 mN

612500 mE

615000 mE

617500 mE

620000 mE

JOB:1074 AIRCRAFT
 VH-RDH CESSNA C206
JOB:1172 AIRCRAFT
 VH-MEH ROCKWELL SHRIKE COMMANDER ACS005

MAGNETOMETER
 Split beam caesium Scintrex VIV2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB:1074 - 6 metres
 SAMPLE INTERVAL JOB:1172 - 7.1 metres

DATA ACQUISITION
 11 CHANNEL RMS GR32R CHART RECORDER
 Picosas PDRS-1000 DIGITAL ACQUISITION SYSTEM

FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres

JOB:1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 000 - 180 degrees
 TIE LINES 090 - 270 degrees

JOB:1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 000 - 180 degrees

SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres

NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
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 PROFILE VERTICAL SCALE 7 nanoteslas/cm

JOB:1074
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 BASE VALUE ADDED 48650 nanoteslas
 REGIONAL FIELD IGRF model 1990 removed

JOB:1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 48640.7 nanoteslas
 REGIONAL FIELD IGRF model 1995 removed

—+— 100 fiducial interval
 —+— 20 fiducial interval

McARTHUR RIVER AIRBORNE GEOPHYSICAL SURVEY

REDFIRE RESOURCES N L

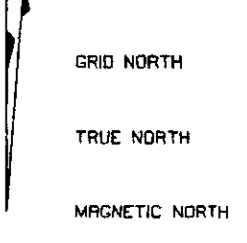
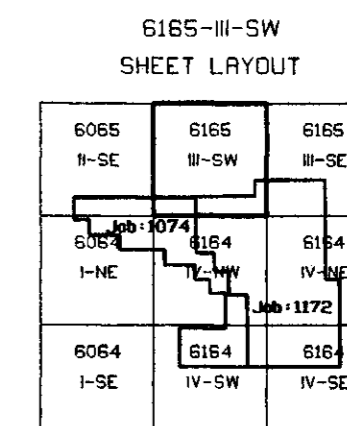
Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
 NOTE: Job 1172 flown 1996 has been merged with Job 1074 flown 1994.



STACKED MAGNETIC PROFILES

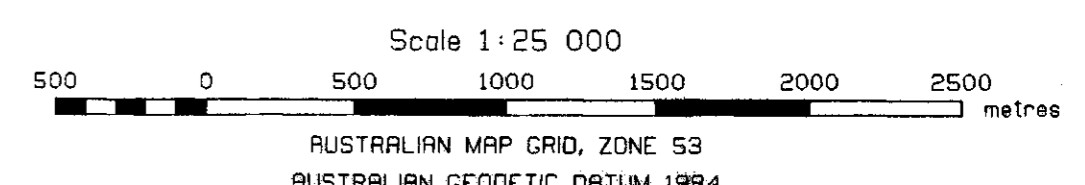
EL 8969

Redfire Resources N.L. March 1997



North point relationships are shown for the centre of the map. Magnetic north is true for 1980.0

GRID/MAGNETIC ANGLE 4°24'58"
 GRID CONVERGENCE 0°18'2.4"
 SECULAR VARIATION 0°01'5" west per year



91

136°07'30"

136°10'

136°12'30"

136°15'

16°25'30"

16°25'

16°27'30"

16°30'

8187500 mN

8185000 mN

8182500 mN

8180000 mN

10000
10020
10040
10060
10080
10100
10120
10140
10160
10180
10200
10210

<10010
<10020
<10030
<10040
<10050
<10060
<10070
<10080
<10090
<10100
<10110
<10120
<10130
<10140
<10150
<10160
<10170
<10180
<10190
<10200
<10210

622500 mE

625000 mE

627500 mE

630000 mE

632500 mE

JOB: 1074 AIRCRAFT
 VH-ROH CESSNA C206
JOB: 1172 AIRCRAFT
 VH-MEH ROCKWELL SHARKE COMMANDER AC5005

MAGNETOMETER
 Split beam caesium Scintrex VM2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB: 1074 - 6 metres
 SAMPLE INTERVAL JOB: 1172 - 7.1 metres

DATA ACQUISITION
 11 CHANNEL RMS G333A CHART RECORDER
 Picodas PDAS-1000 DIGITAL ACQUISITION SYSTEM

FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres
JOB: 1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 180 degrees
 TIE LINES 090 - 270 degrees
JOB: 1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 090 - 180 degrees
 SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres

NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
 PROFILE BASE VALUE 48855 nanoteslas
 PROFILE VERTICAL SCALE 7 nanoteslas/cm
JOB: 1074
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 REGIONAL FIELD IGRF model 1990 removed
JOB: 1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 48840.7 nanoteslas
 REGIONAL FIELD IGRF model 1995 removed

— 100 fiducial interval
 — 20 fiducial interval

McARTHUR RIVER
AIRBORNE GEOPHYSICAL SURVEY
REDFIRE RESOURCES N L

Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
 NOTE: Job 1172 flown 1996 has been merged with Job 1074 flown 1994.



STACKED MAGNETIC PROFILES

EL 8969

Redfire Resources N.L. March 1997

6165-III-SE SHEET LAYOUT

6065 II-SE	6165 II-SW	6165 II-SE
6064 I-NE	6164 I-NE	6164 IV-SE
6064 I-SE	6164 IV-SW	6164 IV-SE

GRID NORTH
 TRUE NORTH
 MAGNETIC NORTH

North point relationships are shown for the centre of the map. Magnetic north is true for 1980.0

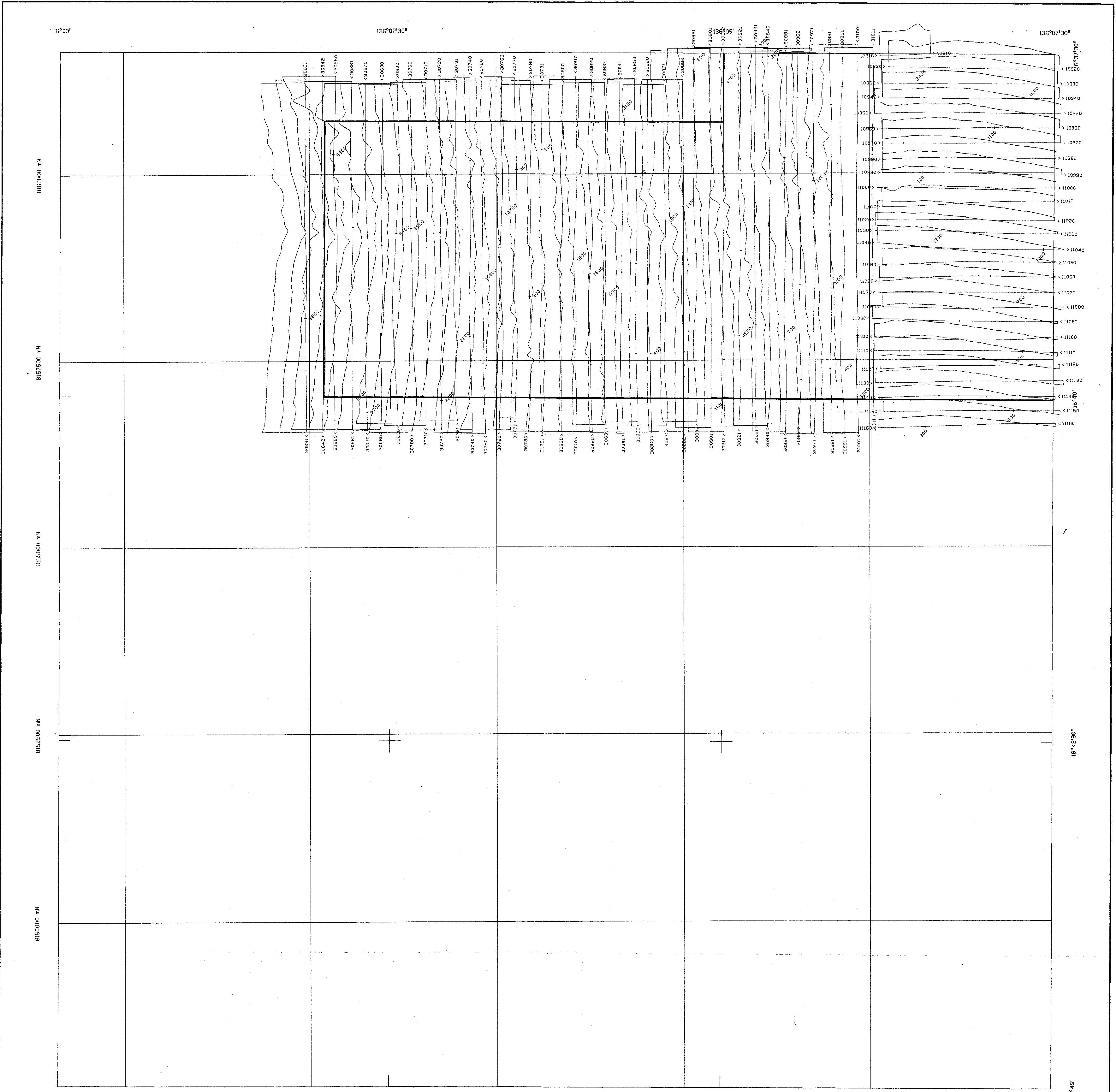
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Scale 1:25 000

500 0 500 1000 1500 2000 2500 metres

AUSTRALIAN MAP GRID, ZONE 53
 AUSTRALIAN GEODETIC DATUM 1984

51



607500 mE 610000 mE 612500 mE 615000 mE 617500 mE

JOB: 1074 AIRCRAFT
 VH-RW CESSNA C206
JOB: 1172 AIRCRAFT
 VH-MH ROCKWELL SHRIKE COMMANDER AC5005
MAGNETOMETER
 Split beam cesium Scintrex VM2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB:1074 - 6 metres
 SAMPLE INTERVAL JOB:1172 - 7.1 metres
DATA ACQUISITION
 11 CHANNEL RMS G33R CHART RECORDER
 Picodas PDRS-1000 DIGITAL ACQUISITION SYSTEM
FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres
JOB: 1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 000 - 180 degrees
 TIE LINES 090 - 270 degrees
JOB: 1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 000 - 180 degrees
 SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres
NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
 PROFILE BASE VALUE 48855 nanoteslas
 PROFILE VERTICAL SCALE 7 nanoteslas/cm
JOB: 1074
 PARALLAX CORRECTION 0.42 fiducial
 BASE VALUE ADDED 48880 nanoteslas
 REGIONAL FIELD IGRF model 1990 removed
JOB: 1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 48840.7 nanoteslas
 REGIONAL FIELD IGRF model 1995 removed
 --- 100 fiducial interval
 --- 20 fiducial interval

McARTHUR RIVER AIRBORNE GEOPHYSICAL SURVEY

REDFIRE RESOURCES N L

Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
 NOTE: Job:1172 flown 1996 has been merged with Job:1074 flown 1994.



STACKED MAGNETIC PROFILES

EL 8969

Redfire Resources N.L. March 1997

6164-IV-SW
SHEET LAYOUT

GRID NORTH

TRUE NORTH

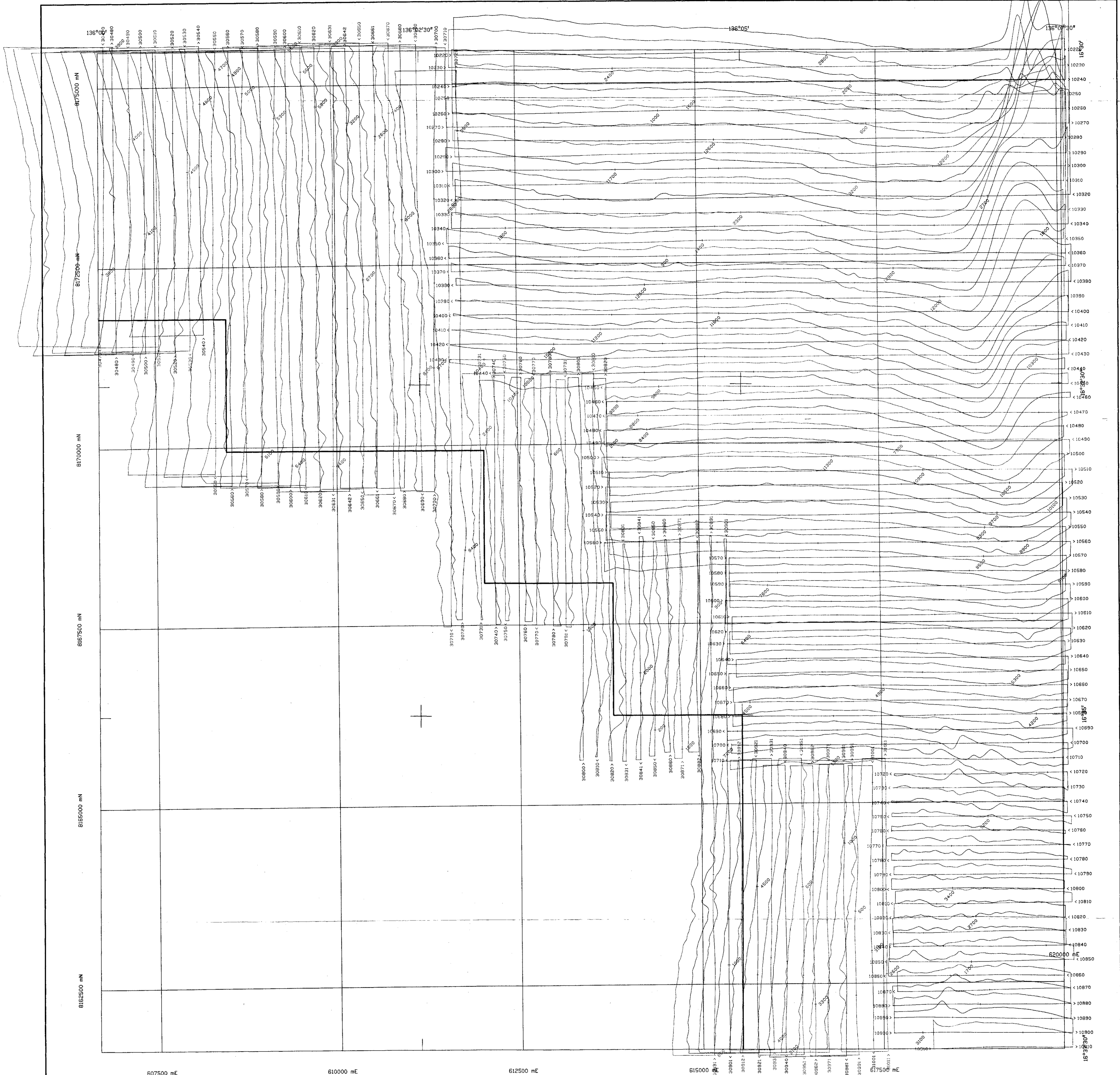
MAGNETIC NORTH

North point relationships are shown for the centre of the map.
Magnetic north is true for 1980.0

GRID/MAGNETIC ANGLE 4°20'12"
 GRID CONVERGENCE 0°18'18.47"
 SECULAR VARIATION 0°0'15" west per year

Scale 1:25 000

AUSTRALIAN MAP GRID, ZONE 53
 AUSTRALIAN GEODETIC DATUM 1984



JOB-1074 AIRCRAFT
 VH-RM CESSNA C206
JOB-1172 AIRCRAFT
 VH-MH ROCKWELL SHRIKE COMMANDER RC500S
MAGNETOMETER
 Split beam cesium Scintrex VM2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB-1074 - 6 metres
 SAMPLE INTERVAL JOB-1172 - 7.1 metres

DATA ACQUISITION
 11 CHANNEL RMS GR33A CHART RECORDER
 Picodas PDS-1000 DIGITAL ACQUISITION SYSTEM

FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres

JOB-1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 180 degrees
 TIE LINES 090 - 270 degrees

JOB-1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 090 - 180 degrees

SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres

NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
 PROFILE BASE VALUE 48855 nanoteslas
 PROFILE VERTICAL SCALE 7 nanoteslas/cm

JOB-1074
 PARALLAX CORRECTION 0.42 fiducial
 BASE VALUE ADDED 48880 nanoteslas
 REGIONAL FIELD IGRF model 1990 removed

JOB-1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 48840.7 nanoteslas
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— 100 fiducial interval
 --- 20 fiducial interval

McARTHUR RIVER AIRBORNE GEOPHYSICAL SURVEY

REDFIRE RESOURCES N L

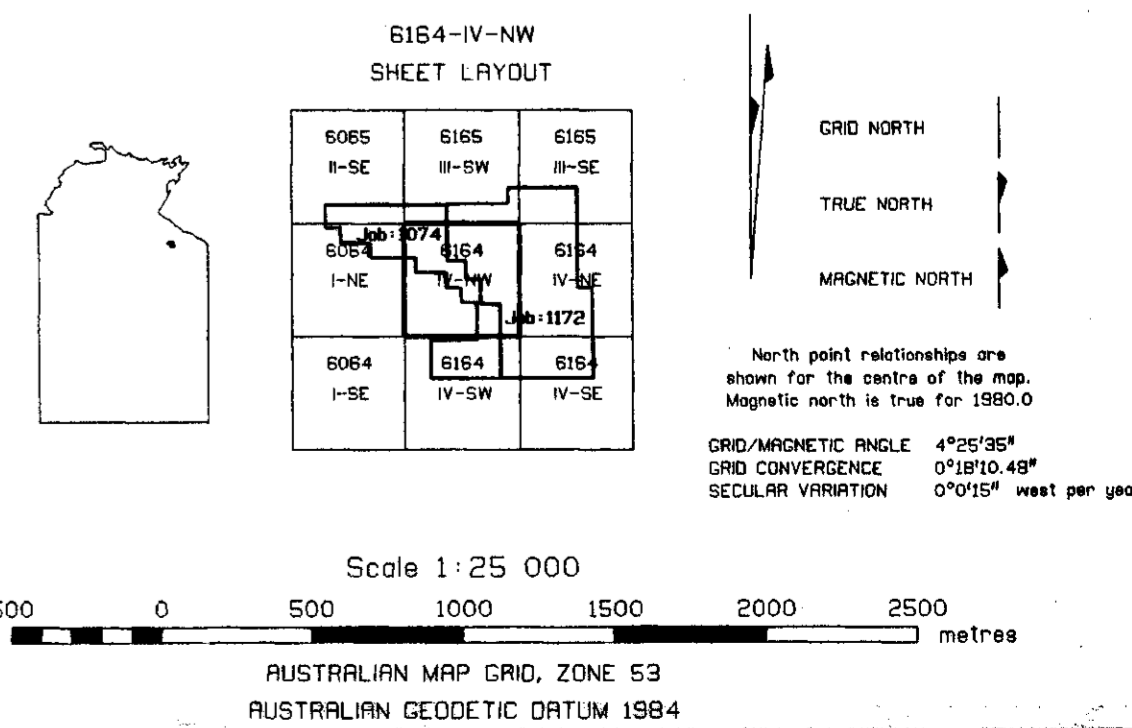
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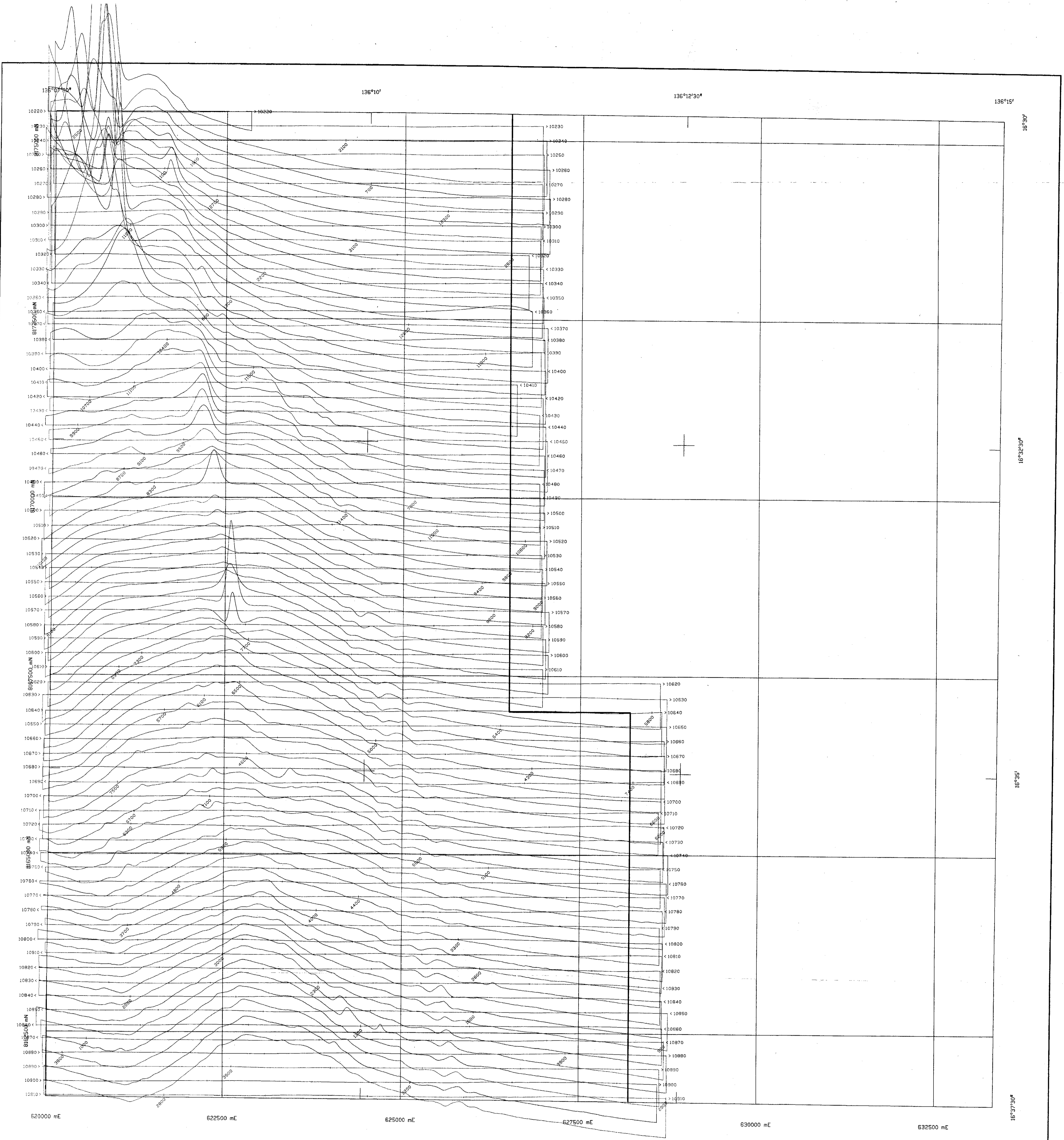


STACKED MAGNETIC PROFILES

EL 8969

Redfire Resources N.L. March 1997





JOB: 1074 AIRCRAFT
 V4-ROH CESSNA C206
JOB: 1172 AIRCRAFT
 V4-MEH ROCKWELL SHIRKE COMMANDER RC500S
MAGNETOMETER
 Split beam cesium Schtrax VIV2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB: 1074 - 6 metres
 SAMPLE INTERVAL JOB: 1172 - 7.1 metres
DATA ACQUISITION
 11 CHANNEL AMS GR339A CHART RECORDER
 Picosas PDPS-1000 DIGITAL ACQUISITION SYSTEM
FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres
JOB: 1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 000 - 180 degrees
 TIE LINES 090 - 270 degrees
JOB: 1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 000 - 180 degrees
SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres
NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
 PROFILE BASE VALUE 48855 nanoteslas
 PROFILE VERTICAL SCALE 7 nanoteslas/cm
JOB: 1074
 PARALLAX CORRECTION 0.42 fiducial
 BASE VALUE ADDED 48880 nanoteslas
 REGIONAL FIELD IGRF model 1990 removed
JOB: 1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 48840.7 nanoteslas
 REGIONAL FIELD IGRF model 1995 removed
 --- 100 fiducial interval
 --- 20 fiducial interval

McARTHUR RIVER
AIRBORNE GEOPHYSICAL SURVEY
REDFIRE RESOURCES N L
 Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
 NOTE: Job: 1172 flown 1998 has been merged with Job: 1074 flown 1994.



STACKED MAGNETIC PROFILES

EL 8969

Redfire Resources N.L. March 1997

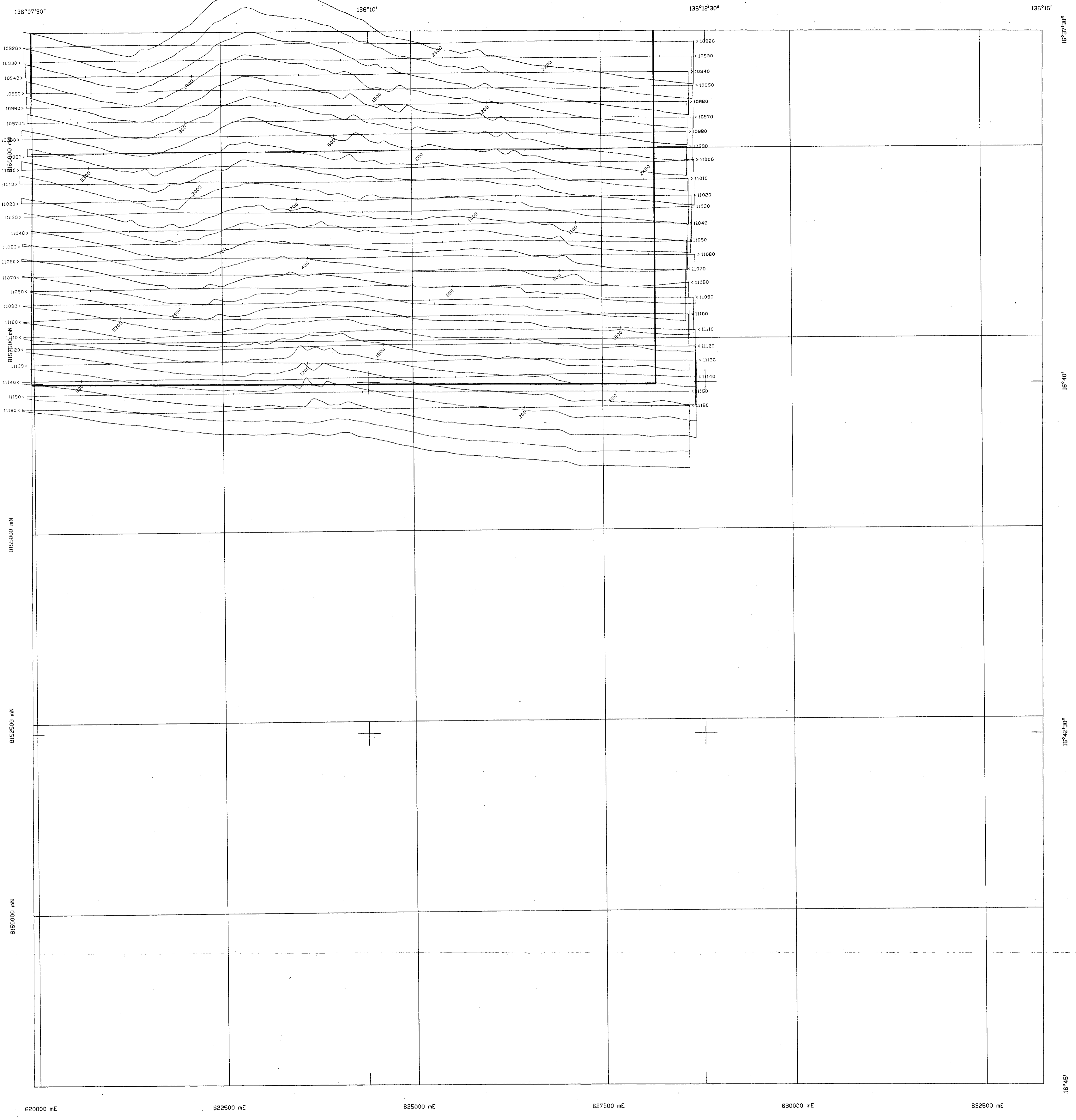
6154-IV-NE
 SHEET LAYOUT

6055 I-SC	6165 II-SW	6165 II-SE
6064 I-NE	6174 III-SW	6174 III-SE
6064 I-SC	6184 IV-SW	6184 IV-SE

North point relationships are shown for the centre of the map. Magnetic north is true for 1990.0
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 GRID CONVERGENCE 0°20'18.80"
 SECULAR VARIATION 0°0'16" west per year

GRID NORTH
 TRUE NORTH
 MAGNETIC NORTH

Scale 1:25 000
 500 0 500 1000 1500 2000 2500 metres
 AUSTRALIAN MAP GRID, ZONE 53
 AUSTRALIAN GEODETIC DATUM 1984



**McARTHUR RIVER
AIRBORNE GEOPHYSICAL SURVEY
REDFIRE RESOURCES N L**

Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
NOTE: Job 1172 flown 1993 has been merged with Job 1074 flown 1994.



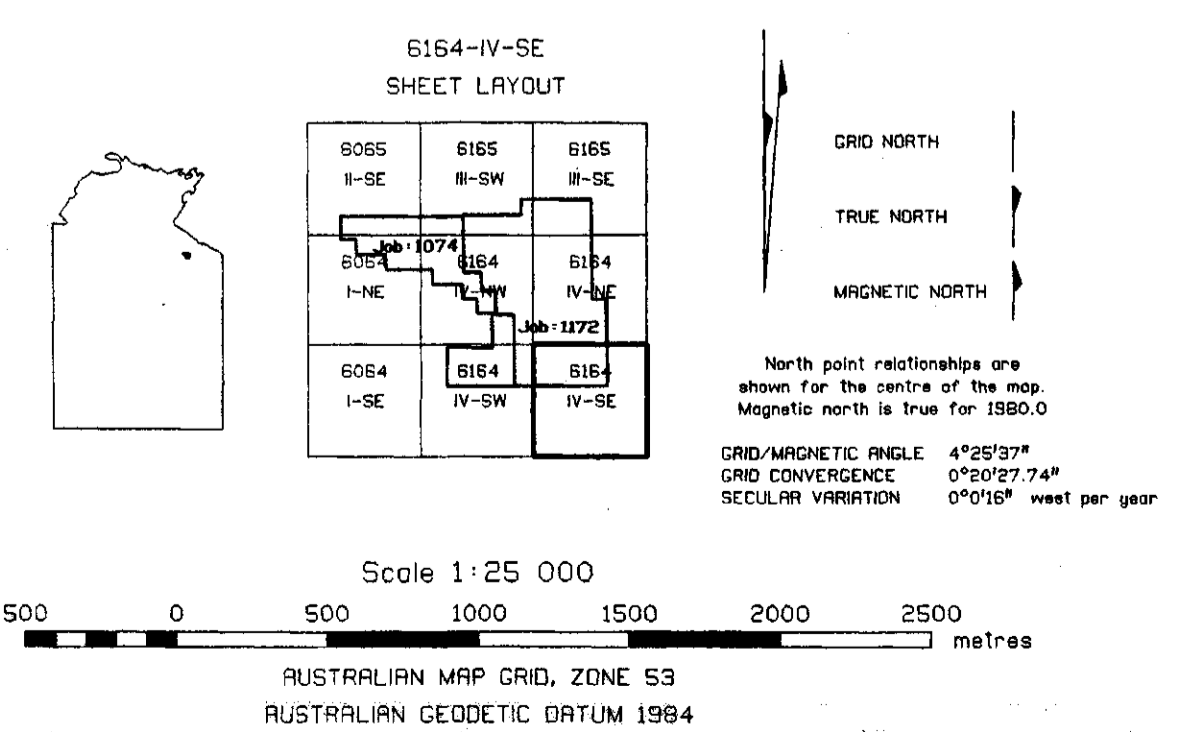
STACKED MAGNETIC PROFILES

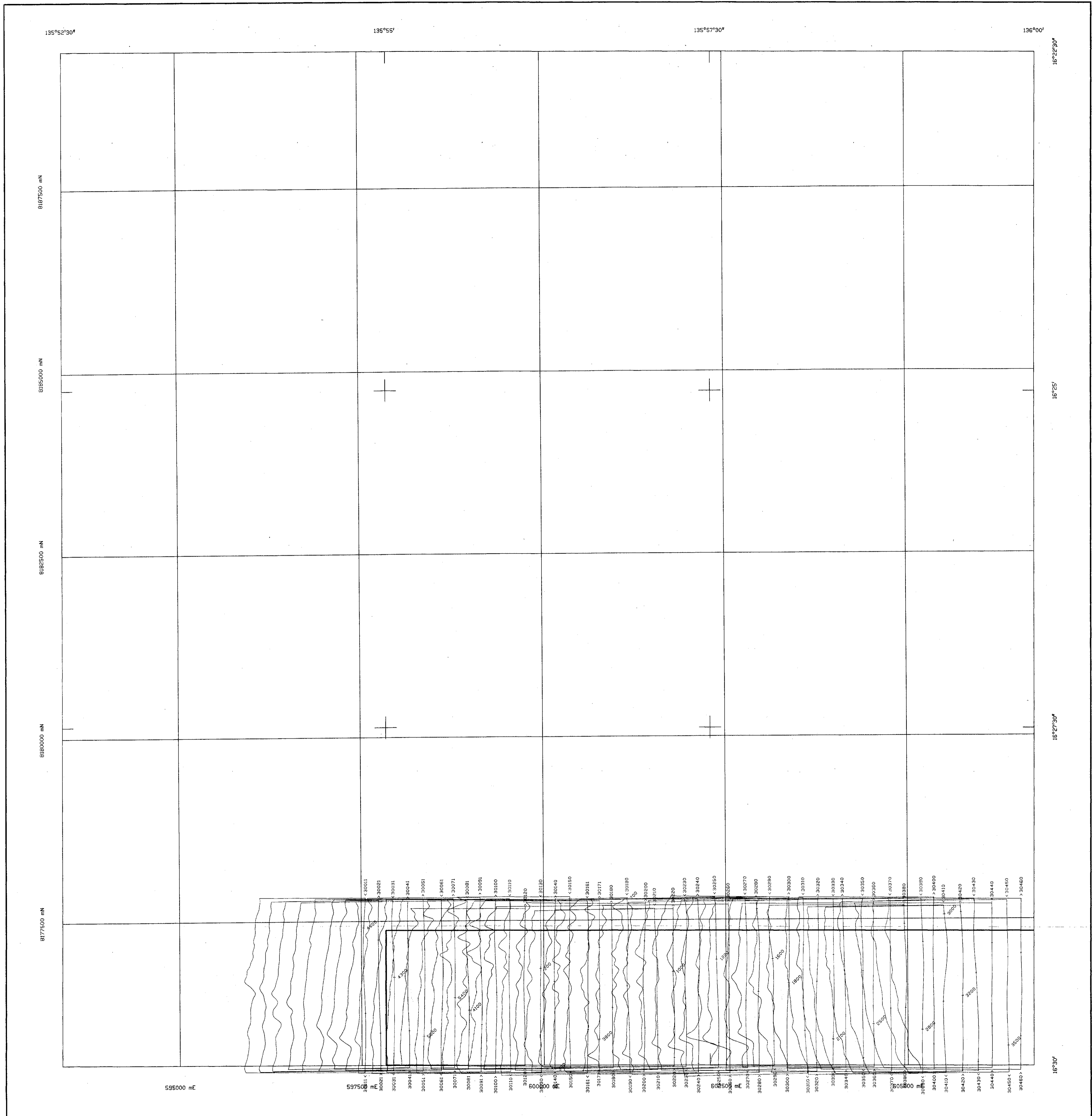
EL 8969

Redfire Resources N.L. March 1997

JOB: 1074 AIRCRAFT
VH-ADH CESSNA C206
JOB: 1172 AIRCRAFT
VH-MEH ROCKWELL SHARK COMMANDER ACS005
MAGNETOMETER
Split beam cesium Scintrex VM2321-CS2
RESOLUTION 0.001 nanotesla
CYCLE RATE 0.1 second
SAMPLE INTERVAL JOB:1074 - 6 metres
SAMPLE INTERVAL JOB:1172 - 7.1 metres
DATA ACQUISITION
1) CHANNEL RMS G833A CHART RECORDER
Picodas PDAS-1000 DIGITAL ACQUISITION SYSTEM
FLIGHT LINE SPACING
TRAVERSE LINES 200 metres
TIE LINES 2000 metres
JOB: 1074 FLIGHT LINE DIRECTION
TRAVERSE LINES 000 - 180 degrees
TIE LINES 090 - 270 degrees
JOB: 1172 FLIGHT LINE DIRECTION
TRAVERSE LINES 090 - 270 degrees
TIE LINES 000 - 180 degrees
SURVEY HEIGHT
MEAN TERRAIN CLEARANCE 60 metres
NAVIGATION
DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
PROFILE BASE VALUE 48955 nanoteslas
PROFILE VERTICAL SCALE 7 nanoteslas/cm
JOB: 1074
PARALLAX CORRECTION 0.42 fiducial
BASE VALUE ADDED 48880 nanoteslas
REGIONAL FIELD IGRF model 1990 removed
JOB: 1172
PARALLAX CORRECTION -1.1 fiducial
BASE VALUE ADDED 48840.7 nanoteslas
REGIONAL FIELD IGRF model 1995 removed
--- 100 fiducial interval
--- 20 fiducial interval





JOB:1074 AIRCRAFT
 VIV-104 CESSNA C306
JOB:1172 AIRCRAFT
 VIV-104 CESSNA C306
MAGNETOMETER
 Split beam cesium Scintrex VIV2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB:1074 - 6 metres
 SAMPLE INTERVAL JOB:1172 - 7.1 metres

DATA ACQUISITION
 11 CHANNEL RMS GR33A CHART RECORDER
 Picodes PDRS-1000 DIGITAL ACQUISITION SYSTEM
FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres

JOB:1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 000 - 180 degrees
 TIE LINES 090 - 270 degrees

JOB:1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 000 - 180 degrees

SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres

NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
 PROFILE BASE VALUE 49855 nanoteslas
 PROFILE VERTICAL SCALE 7 nanoteslas/cm

JOB:1074
 PARALLAX CORRECTION 0.42 fiducial
 BASE VALUE ADDED 49850 nanoteslas
 REGIONAL FIELD IGRF model 1990 removed

JOB:1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 49840.7 nanoteslas
 REGIONAL FIELD IGRF model 1995 removed

— 100 fiducial interval
 — 20 fiducial interval

McARTHUR RIVER AIRBORNE GEOPHYSICAL SURVEY REDFIRE RESOURCES N L

Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
 NOTE: Job:1172 flown 1996 has been merged with Job:1074 flown 1994.



STACKED MAGNETIC PROFILES

EL 8969

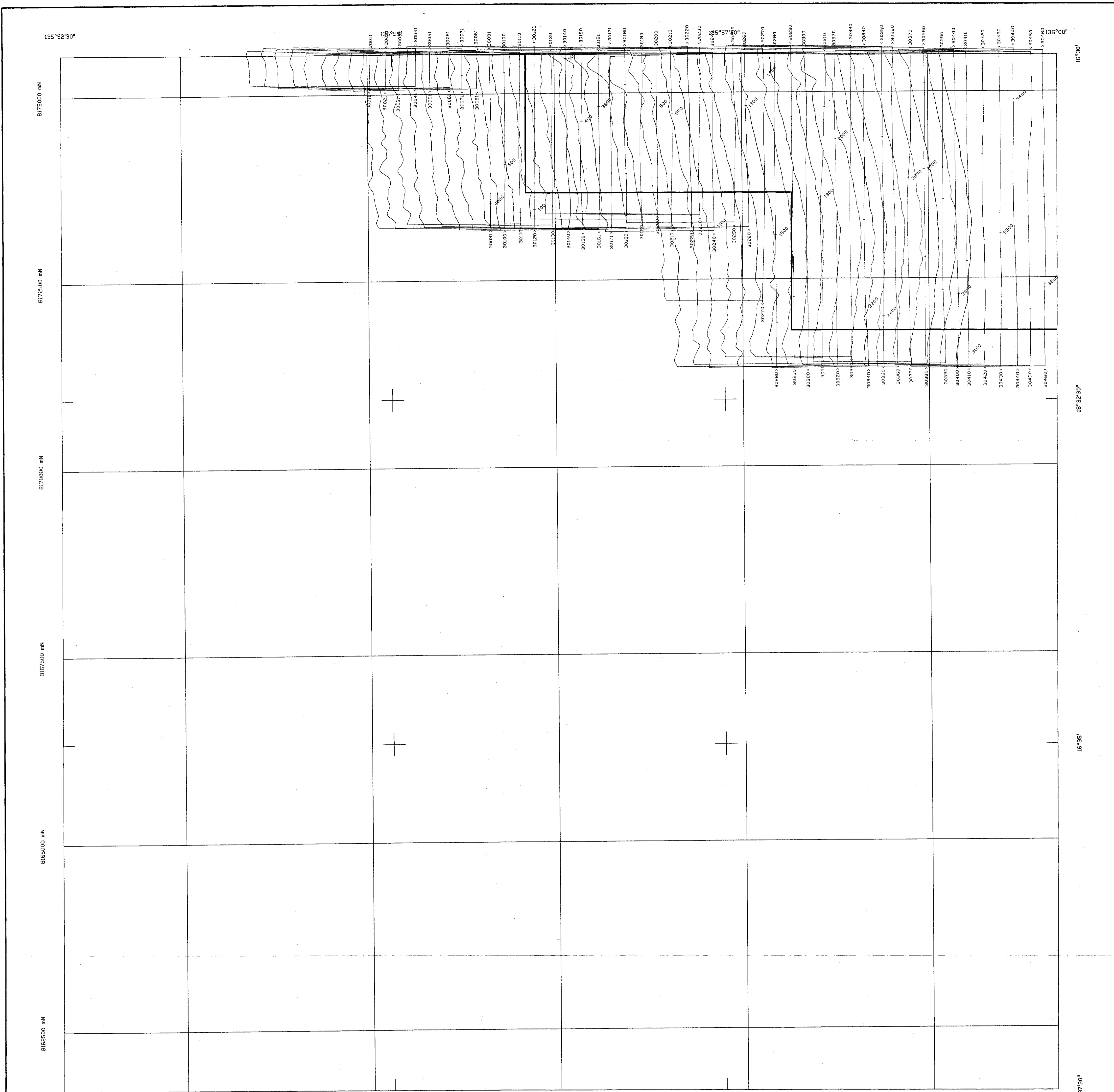
Redfire Resources N.L. March 1997

6065-II-SE
 SHEET LAYOUT

GRID NORTH
 TRUE NORTH
 MAGNETIC NORTH
 North point relationships are shown for the centre of the map. Magnetic north is true for 1980.0
 GRID/MAGNETIC ANGLE 4°25'32"
 GRID CONVERGENCE 0°15'55.10"
 SECULAR VARIATION 0°0'1.4" west per year

Scale 1:25 000

AUSTRALIAN MAP GRID, ZONE 53
 AUSTRALIAN GEODETIC DATUM 1984



JOB: 1074 AIRCRAFT
 VH-RDH CESSNA C206
JOB: 1172 AIRCRAFT
 VH-MEH ROCKWELL SHRIKE COMMANDER RC500S

MAGNETOMETER
 Split beam cesium Scintrex W2321-CS2
 RESOLUTION 0.001 nanotesla
 CYCLE RATE 0.1 second
 SAMPLE INTERVAL JOB: 1074 - 6 metres
 SAMPLE INTERVAL JOB: 1172 - 7.1 metres

DATA ACQUISITION
 11 CHANNEL RMS GR33R CHART RECORDER
 Picodas PDAS-1000 DIGITAL ACQUISITION SYSTEM

FLIGHT LINE SPACING
 TRAVERSE LINES 200 metres
 TIE LINES 2000 metres

JOB: 1074 FLIGHT LINE DIRECTION
 TRAVERSE LINES 000 - 180 degrees
 TIE LINES 090 - 270 degrees

JOB: 1172 FLIGHT LINE DIRECTION
 TRAVERSE LINES 090 - 270 degrees
 TIE LINES 000 - 180 degrees

SURVEY HEIGHT
 MEAN TERRAIN CLEARANCE 60 metres

NAVIGATION
 DIFFERENTIAL GPS SATELLITE POSITIONING

DATA PROCESSING
 PROFILE BASE VALUE 48955 nanoteslas
 PROFILE VERTICAL SCALE 7 nanoteslas/cm

JOB: 1074
 PARALLAX CORRECTION 0.42 fiducial
 BASE VALUE ADDED 48960 nanoteslas
 REGIONAL FIELD IGRF model 1990 removed

JOB: 1172
 PARALLAX CORRECTION -1.1 fiducial
 BASE VALUE ADDED 48940.7 nanoteslas
 REGIONAL FIELD IGRF model 1995 removed

—+— 100 fiducial interval
 — — 20 fiducial interval

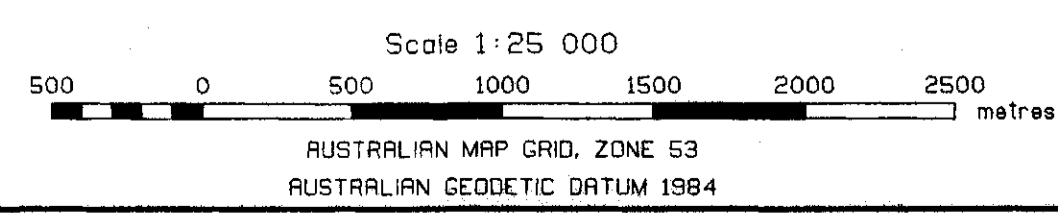
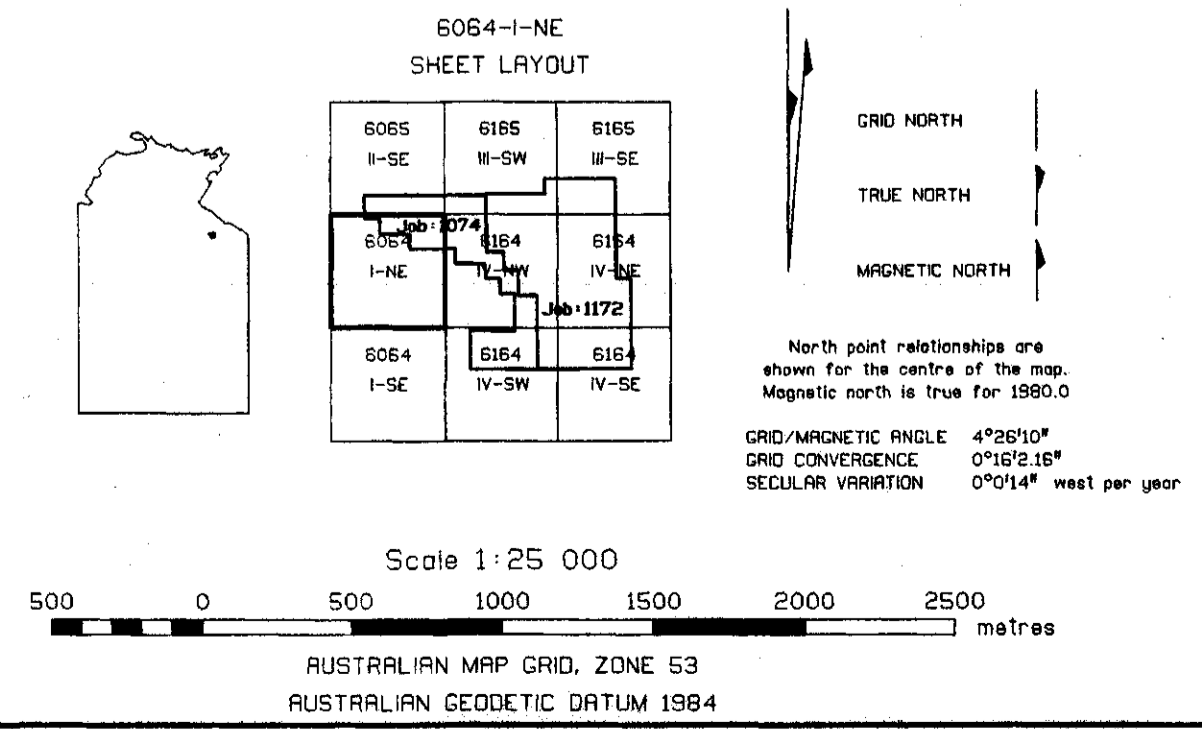
McARTHUR RIVER AIRBORNE GEOPHYSICAL SURVEY REDFIRE RESOURCES N L

Surveyed and compiled by WORLD GEOSCIENCE CORPORATION
 NOTE: Job: 1172 flown 1995 has been merged with Job: 1074 flown 1994.

STACKED MAGNETIC PROFILES

EL 8969

Redfire Resources N.L. March 1997



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APPENDIX 1

APPENDIX 1

AIRBORNE MAGNETIC SURVEY SPECIFICATIONS

Survey Name:	Slab Top Hill Project Area
Flight Line Spacing	200m
Flight Line Direction	North - South
Tie Line Spacing	200m
Tie Line Direction	East-West
Sensor Height	60m
Magnetometer	Scintrex V1W 2321 / CS2 split beam cesium vapour sensor and pre-amp with a Picodas magnetometer sample Interval 6m
Magnetometer Cycle Rate	0.1 seconds
S Cycle Rate	1 second