

# OPEN FILE

CRA Exploration Pty. Ltd.

EL 2331 CHRISTIES CORNER

Author: K.R. ALEXANDER .....

Submitted: K.R. ALEXANDER .....

Accepted by: W.H. JOHNSTON .....

Date: March, 1985

Copy to: CRAE Library, DARWIN  
CRAE Library, CANBERRA

## LOCATION

Katherine SD 53-3

Report No. 12997

The contents of this report remain the property of CRA Exploration Pty. Limited and may not be published in whole or in part nor used in a company prospectus without the written consent of the Company.

CR 85 / 30 1A

1. SUMMARY
2. CONCLUSIONS
3. INTRODUCTION
4. AIRBORNE GEOPHYSICAL SURVEY
5. FOLLOW-UP OF MAGNETIC RESPONSES
  - 5.1 Location of anomalies
  - 5.2 Ground Investigation of Anomalies
6. FOLLOW-UP DRAINAGE SAMPLING
7. REFERENCES
8. KEYWORDS
9. LOCATION
10. LIST OF PLANS

## 1.0 SUMMARY

-----

An airborne geophysical survey was flown over Christies Corner EL 2331 as part of the blanket coverage of the Daly River Basin Survey.

Drainage gravel sample 4BGF8 taken at anomaly F419B in a tributary of the Katherine River produced two chromites. All other loam and drainage sample results were negative.

A repeat gravel sample taken at the same location as sample 4BGF8 also produced 2 chromites. However samples taken further upstream in the same tributary returned negative results while a ground traverse of the area failed to locate any obvious source for the chromites.

Samples taken further upstream in the Katherine River system, outside the EL area have produced chromites similar in morphology to those in sample 4BGF8. It is probable that all these chromites have a similar source, outside the EL area.

## 2.0 CONCLUSIONS

-----

Negative results have been obtained for all samples taken upstream of 4BGF8 and 4BGF159 which reported chromites. Samples 4BGF8 and 4BGF159 lie within the floodplain of the Katherine River. The chromites are similar in morphology to others found upstream in the Katherine River system. The chromites are believed to have been carried into the EL area from an exotic source.

## 3.0 INTRODUCTION

-----

Application for Christies Corner EL 2331 was lodged on 26th October 1979 as part of the blanket coverage of the Daly River Basin Survey. The area was selected for exploration for kimberlite pipes. It consists largely of Cainozoic black soil and alluvium. Outcrop of Cambrian age Tindall and Manbulloo Limestones is restricted to stream channels.

The EL application was partly in conflict with the Jawoyn Land Claim & was not processed. After an amendment to the land claim on 3rd November, 1982 only a small portion in the north-east corner of the ELA remained within the area subject to claim.

Objections to the EL application were received from the Kalano Community, holders of SPL423 and Northwest Beef Industries Ltd., holders of AL 739.

To facilitate grant of title, the EL application was ammended to exclude SPL 423, AL 739 and the area subject to land claim. Title was granted on 16th March, 1984 to an area of 42 blocks (139.146 square km.).

This report describes all work carried out within the boundaries of the original ELA . Work carried out over anomaly F372B just outside the western boundary of the ELA has not been previously reported and is included in this report.

#### 4.0 AIRBORNE GEOPHYSICAL SURVEY

-----

Airborne geophysical survey covered margin of the Daly River Basin on the River, Katherine and Larrimah sheets (see Jenke, 1981.)

Within this area, magnetic gradients were expected to be low with only long wavelength, regular variations from deep basement features, so that any shallow magnetic volcanic intrusion would be easily recognisable.

A contract was awarded to Geometrics International Corporation to fly the area according to the following specifications:-

Line spacing	300m
Line direction	North-south
Tie linespacing	500m
Tie line direction	East West
Flying speed	90 knots (46ms -1)
Mean terraine clearance	80m
Navigation	Visual from 1977 1:60,000 (Katherine) and 1963 1:80,000 (Larrimah) aerial photography enlarged to 1:20,000
Aircraft	Britten-Norman Islander BN-2A

Magnetometer	Geometrics G-803 with a sensitivity of 0.25nT
Spectrometer	Exploration Digrs-3001 measuring the standard energy windows for gamma radiation from Tl208, Bi214 and K40, and stabilised using a Ba133 source
Altimeter	Sperry AA200 Radar Altimeter
Diurnal monitor	Geometrics G-806 base station magnometer
Recording interval	1.0s
Analogue recorders	MARS-6 recording total magnetic field, altimeter, four spectrometer channels and fiducial marks
Digital recorder	<p>Mosley 7100B recording total magnetic field at 25 and 250nT f.s.d. and fiducial marks.</p> <p>For each reading, the following were recorded on magnetic tape;-</p> <p>magnetometer reading  total count reading  K window reading  U window reading  Th window reading</p>
Background checks	Checks of background radiation levels were made at 900m above ground level before and after each flight.
Test lines	A test line 5km long was flown at survey altitude before and after each flight
Hand sample checks	Hand sample checks were carried out before and after each flight.
Data presentation	Separate flight path and stacked magnetic profile maps at a scale of 1:40,000
Data corrections	The magnetic data was levelled and the IGRF removed

The corrected magnetic data were plotted as stacked magnetic profiles to overlie the flight path plans which were at a scale of 1:40,000 on a planimetric base. (Plan Nos. NTd 1267, 1271, 1296 and 1300).

Each sheet area corresponded to a 15' by 15' breakdown of the standard 1:1000 sheet areas.

## 5.0 FOLLOW-UP OF MAGNETIC RESPONSES

---

### 5.1 Location of anomalies

---

The magnetic responses were accurately relocated using a geometrics G-803 magnetometer mounted in a Bell 206 helicopter with the sensor in a bird 30m below the aircraft. The magnetometer readings were displayed on a chart recorder at two scales; either 100 or 1000 nT f.s.d. or 50 and 500 nT f.s.d. The plotted position of the response was relocated as accurately as possible using the 1:20,000 aerial photographs and the area then systematically traversed in a north south direction until the position of the maximum response was located. The helicopter was then landed and a loam sample taken at that spot. Concurrently, notes were made about the local topography, vegetation, outcrop and/or cover. On some occasions where the area of the response was drained by a stream, a drainage sample was taken instead of, or in addition to, the loam sample.

### 5.2 Ground Investigation of Anomalies

---

Aeromagnetic anomaly locations are given on Plan NTd 3854 while sample locations are shown on Plan NTd 3853. Sample results are tabulated in Appendix I while full descriptions of work carried out over each anomaly are given in Appendix 2

#### ANOMALY F363A

---

The helimag system detected a complex dipolar anomaly over an area of limestone outcrop and subcrop. Laterite is probably the source of the anomaly.

Loam sample 4BGF6 returned negative results.

ANOMALY F364B  
-----

A homestead was identified as the source of the response.

ANOMALY F366B  
-----

The helimag system identified a well defined dipole response up to 135nT. The response is coincident with a sinkhole in an area of outcropping limestone. The sand and mud wash material which fills the sinkhole is the probable source of the anomaly. Loam sample 4BGF7 returned negative results.

ANOMALY F372B  
-----

The helimag system detected a sharp 20nT response against a noisy background. The area consists of soil cover with occasional limestone and sandstone float.

Loam sample 1BGF9 returned negative results.

ANOMALY F398B  
-----

Buildings are the source of the response.

ANOMALY F403B  
-----

The helimag system detected a well defined response of 45nT amplitude over an area of soil cover in open savannah country. Loam sample 1BGF10 returned negative results.

ANOMALY F406B  
-----

A homestead is the source of the response.

ANOMALY F409B  
-----

The source of the response is a homestead.

#### ANOMALY F419B

-----

A single line dipole response was detected by the airborne survey. The helimag system identified a 4nT response over a building and a 13nT dipole over a creek.

A gravel sample taken in the creek contained two fresh, euhedral, +0.4mm chromites. Further investigation of this anomaly is discussed in the next section.

#### ANOMALY F422

-----

The response plots adjacent to a creek crossing on the Victoria Highway and a bridge is assumed to be the source.

#### ANOMALY F425B

-----

The source of the response is a homestead.

#### ANOMALY F430Ba

-----

The source of the response is a homestead.

#### ANOMALY F432B

-----

A house and sheds is the source of the response.

### 6.0 FOLLOW-UP DRAINAGE SAMPLING

-----

The helimag system located airborne magnetic anomaly F419B in a tributary of the Katherine River. Gravel Sample 4BGF8 was collected at the approximate position of the helimag response and returned 2 x + 0.4mm fresh octahedral chromites.

Follow-up gravel sample 4BGF159 was taken at the same locality and it returned 2 x + 0.4mm chromites of similar morphology to those obtained in 4BGF8. Sample 4BGF8, taken further upstream returned negative results. Subsequently six gravel samples (966181-966186) were collected at 19800mE 8392700mN, approximately 600 metres upstream of the 4BGF8, 4BGF159 site. All reported negative for both kimberlitic indicators and microdiamonds.



A ground traverse of the area between the two sample sites was undertaken. No obvious source for the chromites was located.

Reconnaissance drainage samples 768242, -243, -246 and -250 were taken further upstream in the Katherine River system, outside the EL area and returned chromites of similar morphology to those obtained in 4BGF8 and 4BGF159. The source for these chromites is likely to be the Maude Creek Dolerite.

As sample sites 4BGF8 and 4BGF159 lie within the flood backwash zone of the Katherine River it is probable the chromites at these sites are similarly derived from the Maude Creek Dolerite.

#### 7.0 REFERENCES

-----

- |              |      |   |
|--------------|------|---|
| Jenke, G.P.  | 1981 | Final Report King River EL2332<br>Wye River EL2333, Stott Hill EL2335 and<br>Elsey EL2337.<br>CRAE Report No. 10946 |
| Randal, M.A. | 1963 | Katherine, N.T.<br>BMR 1:250,000 Geological Series<br>Explanatory Notes   |

#### 8.0 KEYWORDS

-----

Diamonds, diamond indicators, airborne, geophys-mag, sampling-drainage.

#### 9.0 LOCATION

-----

Katherine SE 53-3	(Manbulloo	5368)
	(Katherine	5369)

# 10.0 LIST OF PLANS

Plan No. -----	Title -----	Scale -----
/ NTd 1267	Residual Magnetic Intensity sheet 5369/3	1:40,000
/ NTd 1271	Recovered Flight Paths sheet 5368/4	"
/ NTd 1296	Recovered Flight Paths sheet 5369/3	"
/ NTd 1300	Residual Magnetic Intensity sheet 5368/4	"
/ NTd 3291	Christies Corner EL 2331 Location Plan	"
/ NTd 3853	Christies Corner EL 2331 and surrounding area. Sample Location Plan	1:1000,000
/ NTd 3854	Christies Corner EL2331 and surrounding area. Airborne Magnetic Anomaly. Location Plan.	"

NO PAPER PLANS - JUST SEPIAS

APPENDIX I

INDICATOR MINERAL SAMPLING DATA

## APPENDIX I

SAMPLE NO. -----	SAMPLE TYPE -----	KIMBERLITIC INDICATORS -----	MICRODIAMONDS -----
1BGF9	loam	nil	x
1BGF10	loam	nil	x
4BGF6	loam	nil	x
4BGF7	loam	nil	x
4BGF8	gravel	2 chromites	x
4BGF159	gravel	2 chromites	x
4BGF160	gravel	nil	x
966181	gravel	nil	nil
966182	gravel	nil	nil
966183	gravel	nil	nil
966184	gravel	nil	nil
966185	gravel	nil	nil
966186	gravel	nil	nil
766251	gravel	nil	nil
766252	gravel	nil	nil
766494	gravel	nil	nil
768242	gravel	285 chromites	nil
768243	gravel	60 chromites	nil
768244	gravel	nil	nil
768245	gravel	nil	nil
768246	gravel	34 chromites	nil
768250	gravel	1 chromite	nil

APPENDIX II

AIRBORNE MAGNETIC ANOMALIES - FULL DETAILS

Anomaly name F 372 B File no. 2

1:100 000 sheet Katherine  
Profile sheet no. 5369/3  
EL number 2328

AMG mE 180650.0  
AMG mN 8405600.0

Sample no. 1BGF9  
Photo no. 5B/154

Line no. 372  
Fid no. 555909  
Amplitude 7.0

Fixed wing response :  
Single line dipole.

Helimag response :  
20 nT sharp response in a noisy area.

Topography :  
Swail in a gently undulating area.

Outcrop / cover :  
Soil and loam with no oversize fraction.  
Limestone and sandstone float with outcrop approx 60m east.

Vegetation :  
Open savannah with moderate undergrowth

Other comments :

Sample type LOAM  
Sampler SB/DA  
Date 28/11/79

#### RESULTS

-----  
DFO 20910  
Nil from +0.8 to +0.4mm

Anomaly name F 403 B File no. 3

1:100 000 sheet Katherine  
Profile sheet no. 5369/3  
EL number 2331

AMG mE 190000.0  
AMG mN 8408450.0

Sample no. 1BGF10  
Photo no. 17A/151

Line no. 403  
Fid no. 611258  
Amplitude 8.0

Fixed wire response :  
A dipole response on at least 7 lines. Strike is approx E-W.

Helina response :  
Well defined response with max amplitude of 45nT.

Topography :  
Flat.

Outcrop / cover :  
Soil cover.

Vegetation :  
Open savannah, cleared to the north.

Other comments :  
Response occurs on the Katherine experimental farm.

Sample type LOAM  
Sampler SB/DA  
Date 28/11/79

#### RESULTS

DFD 20910  
Nil from +0.8 to +0.4mm

Anomaly name F 363A File no. 33

1:100 000 sheet Marbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 178100.0  
AMG mN 8389250.0

Sample no. 4BGF6  
Photo no. 7C/180

Line no. 363  
Fid no. 539943  
Amplitude 18.0

Fixed wire response :

A broad dipole response, lesser complex responses on adjacent lines.

Helimag response :

Dipole response, complex shape in places.

Topography :

Flat.

Outcrop / cover :

Limestone outcrop and subcrop.

Vegetation :

Open savannah with little undergrowth.

Other comments :

Helimag response indicates that laterite (or similar) is the probable source of the response.

Sample type LOAM  
Sampler SB/DA  
Date 28/11/79

#### RESULTS

DPD 20910  
Nil from +0.8 to +0.4mm



Anomaly name F 364 B File no. 34  
1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 178400.0  
AMG mN 8392250.0

Sample no. -  
Photo no. 7C/180

Line no. 364  
Fid no. 541125  
Amplitude 10.0

Fixed wing response :  
A complex response on one line.

Helimag response :  
A sharp response over a homestead.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
A homestead was identified as the source of the response.

Sample type -  
Sampler SB/DA  
Date 28/11/79

RESULTS  
-----  
-

Anomaly name F 366 B File no. 35  
1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 179000.0  
AMG mN 8388900.0

Sample no. 4BGF7  
Photo no. 7C/180

Line no. 366  
Fid no. 544231  
Amplitude 9.0

Fixed wire response :  
A single line dipole response in an area of minor noise.

Helimag response :  
A well defined dipole response up to 135 nT.

Topography :  
A sinkhole in a generally flat area.

Outcrop / cover :  
Outcropping limestone surrounds the area of the sinkhole which is filled with sand and mud wash material.

Vegetation :  
Open savannah and low grass.

Other comments :  
The magnetic response is coincident with the sinkhole.

Sample type LOAM  
Sampler SB/DA  
Date 28/11/79

#### RESULTS

-----  
DFO 20910  
Nil from +0.8 to +0.4mm

Anomaly name F 398 B File no. 38

1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 188350.0  
AMG mN 8390600.0

Sample no. -  
Photo no. 19A/183

Line no. 398  
Fid no. 597587  
Amplitude 6.0

Fixed wing response :  
A weak dipole response on 3 lines.

Helimag response :  
A complex response of 10nT over buildings.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
Buildings are the source of the response.

Sample type -  
Sampler SB/DA  
Date 28/11/79

RESULTS  
-----  
-

Anomaly name F 406 B File no. 40

1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 190800.0  
AMG mN 8390100.0

Sample no. -  
Photo no. 19A/183

Line no. 406  
Fid no. 616196  
Amplitude 7.0

Fixed wing response :  
A minor dipole response on 2 lines.

Helimag response :  
A well defined dipole response of 15nT over an homestead.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
A homestead is the source of the response.

Sample type -  
Sampler SB/DA  
Date 28/11/79

RESULTS  
-----  
-

Anomaly name F 409 B File no. 41

1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 191700.0  
AMG mN 8391000.0

Sample no. -  
Photo no. 19A/185

Line no. 409  
Fid no. 621921  
Amplitude 4.0

Fixed wire response :  
A single line dipole response.

Helium response :  
A response of 7nT over an homestead.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
The source of the response is an homestead.

Sample type -  
Sampler SB/DA  
Date 28/11/79

RESULTS  
-----  
-

Anomaly name                      F 419 B                      File no.      42  
1:100 000 sheet                      Manbulloo  
Profile sheet no.                      5368/4  
EL number                              2331

AMG mE                      194750.0  
AMG mN                      8391800.0

Sample no.                              486F8  
Photo no.                              19A/185

Line no.                                      419  
Fid no.                                      633308  
Amplitude                                      5.0

Fixed wind response :  
A single line dipole response.

Helimags response :  
A response of 4nT over a building and a dipole of 13nT over a creek.

Topography :  
A well incised, turbulent, actively eroding, sinuous stream.

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
Trap site was gravel within boulder traps on a clay bottom and  
assessed as moderate.

Sample type                              DRAINAGE  
Sampler                                      SE/DA  
Date    28/11/79

#### RESULTS

-----  
DPD 20910  
2 +0.4mm chromites. Fresh euhedral. Shiny surfaces with occasional  
pits, lustrous fracture, yellow subconchoidal shards.

Anomaly name F422 File no. 43  
1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 195600.0  
AMG mN 8386850.0

Sample no. -  
Photo no. 19A/185

Line no. 422  
Fid no. 636031  
Amplitude 7.0

Fixed wind response :  
A single line dipole response.

Helimas response :  
No helimas follow-up.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
The response plots adjacent to a creek crossing on the Victoria Highway  
and a bridge is assumed to be its source.

Sample type -  
Sampler -  
Date -

RESULTS  
-----  
--

Anomaly name F 425 B File no. 44

1:100 000 sheet Marbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 196550.0  
AMG mN 8392600.0

Sample no. -  
Photo no. 19A/185

Line no. 425  
Fid no. 640036  
Amplitude 12.0

Fixed wire response :  
A single line dipole response.

Helimag response :  
A dipole response of 10nT over a homestead.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
The source of the response is a homestead.

Sample type -  
Sampler SB/DA  
Date 28/11/79

RESULTS  
-----  
-



Anomaly name F 430 Ba File no. 45

1:100 000 sheet Manbulloo  
Profile sheet no. 5368/4  
EL number 2331

AMG mE 198000.0  
AMG mN 8392950.0

Sample no. -  
Photo no. 19A/187

Line no. 430  
Fid no. 647630  
Amplitude 15.0

Fixed wind response :  
A single line dipole response.

Helimag response :  
A response of 5nT over an homestead.

Topography :  
-

Outcrop / cover :  
-

Vegetation :  
-

Other comments :  
A homestead, machinery and sheds are the source of the response

Sample type -  
Sampler JI/SB  
Date 10/2/80

RESULTS  
-----  
-

Anomaly name

F 432 B

File no. 47

1:100 000 sheet

Manbulloo

Profile sheet no.

5368/4

EL number

2331

AMG mE 198550.0

AMG mN 8394400.0

Sample no.

Photo no. 190/187

Line no.

432

Fid no.

649990

Amplitude

10.0

Fixed wing response :

The western-most of a 4 line response trending E-W.

Helimag response :

A very weak response of 5nT over a house and sheds.

Topography :

-

Outcrop / cover :

-

Vegetation :

-

Other comments :

A house and sheds is the source of the response. The area should be checked for enough houses to account for the 4 line response.

Sample type

Sampler

Date

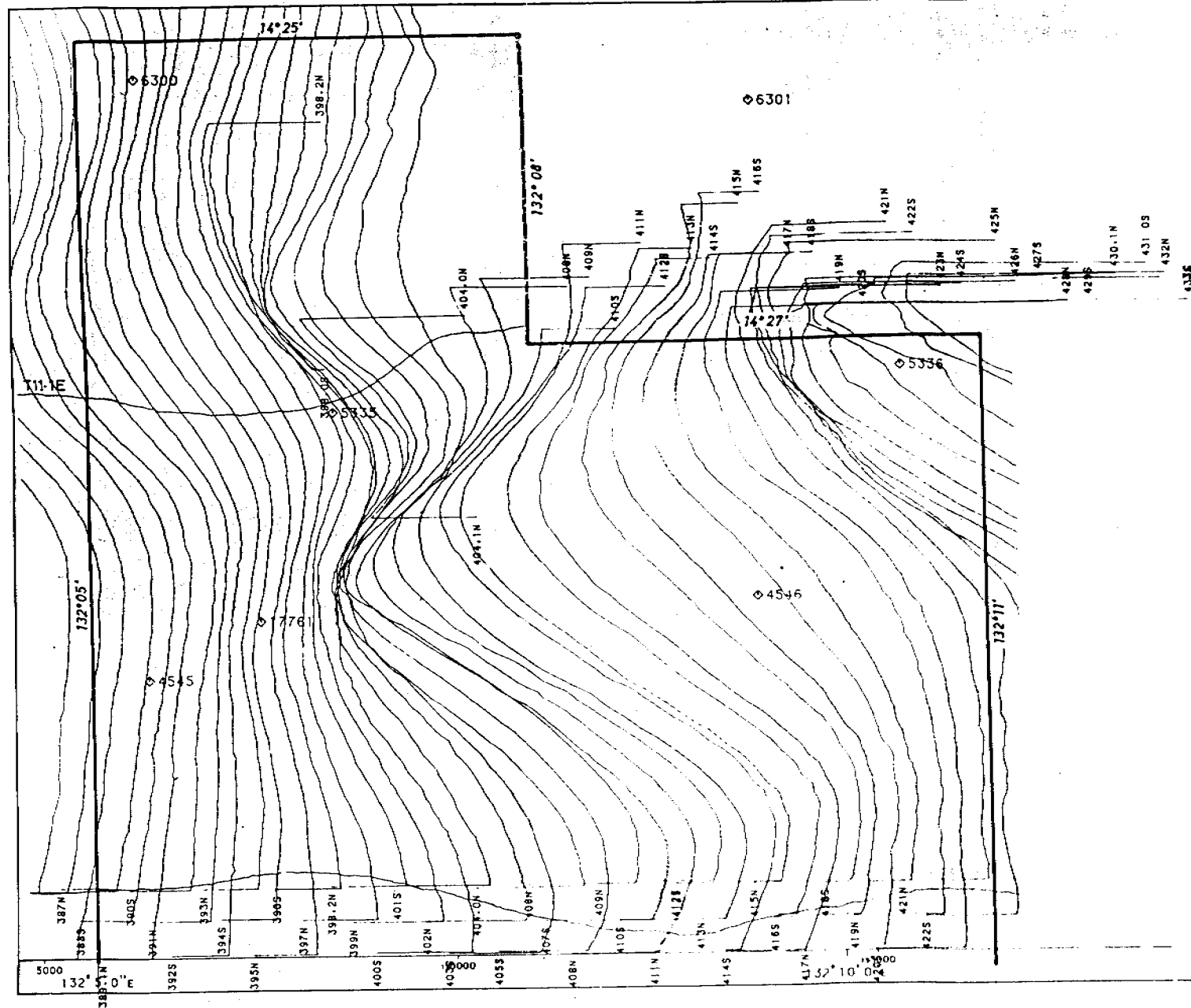
JI/SE

10/2/80

RESULTS

-----

-



14°25'0"S  
6303

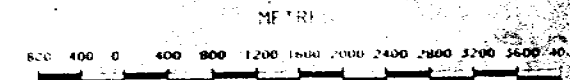
FLORINA PROJECT  
GEOMETRICS JOB NUMBER 9212  
DECEMBER 1979

#### SURVEY SPECIFICATIONS

MAGNETOMETER: GEOMETRICS G-803 PROTON PRECESSION  
SENSITIVITY: 0.25 NANOTESLA  
SAMPLE INTERVAL: 1.0 SECONDS  
FLIGHT LINE DIRECTION: NORTH TO SOUTH  
TIE LINE DIRECTION: EAST TO WEST  
FLIGHT LINE SEPARATION: 300 METRES  
MEAN TERRAIN CLEARANCE: 80 METRES  
ALONG LINE SAMPLING: 50 METRES  
ICRF: REMOVED

**CR85/301 B**

NORTHERN TERRITORY  
GEOLOGICAL SURVEY

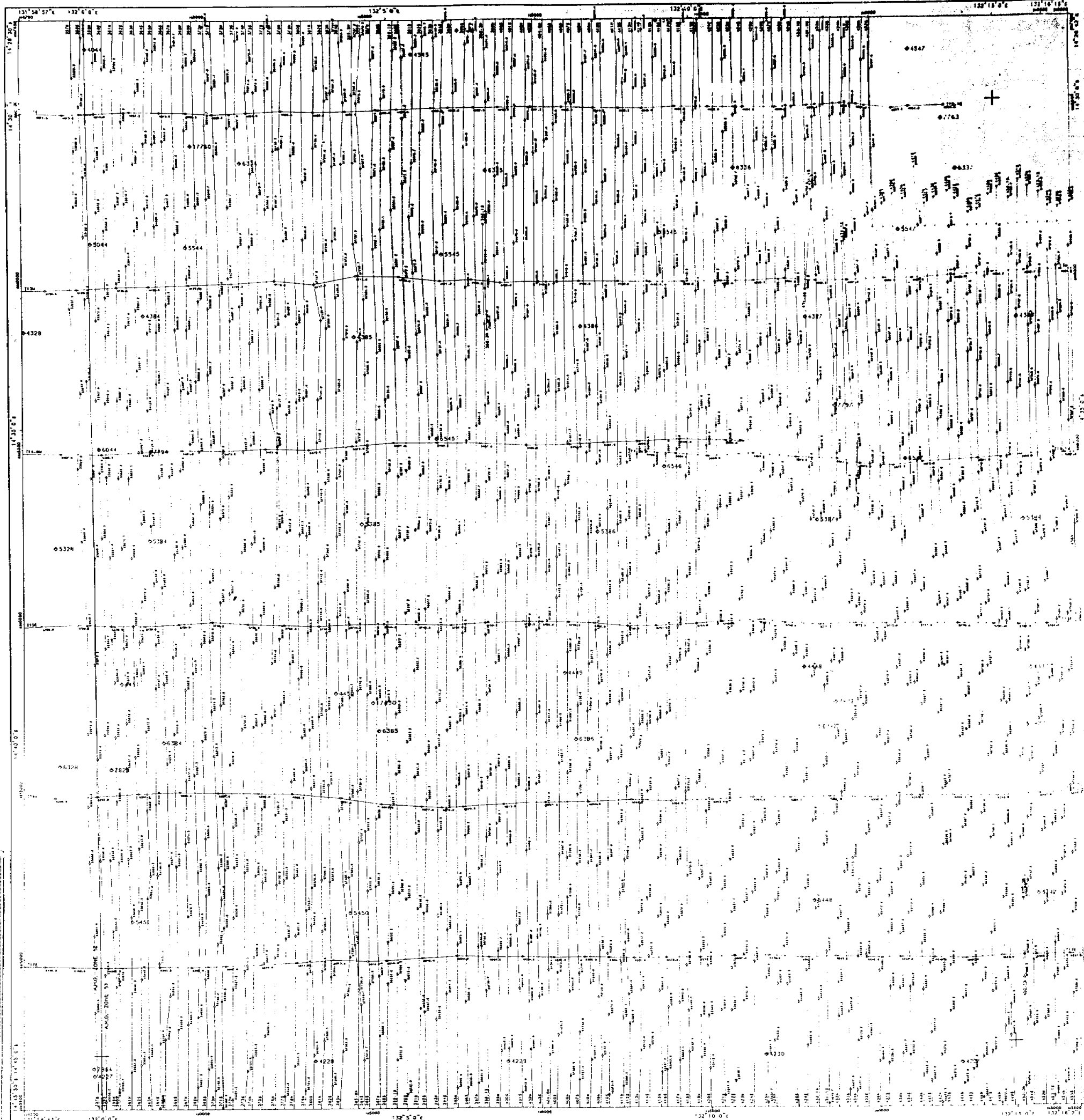


CRA EXPLORATION PTY LTD

FLORINA PROJECT  
RESIDUAL MAGNETIC INTENSITY

SCALE:	1:40,000	DATE:	1-12-79
DRAWN:		REVN:	PLAN NO
CHECKED:			NTG 126
APPROVED:			

EARTH SCIENCE COMPUTER SERVICES PTY LTD SYDNEY, AUSTRALIA



FLORINA PROJECT  
 GEOMETRIC JOB NUMBER 8212  
 DECEMBER 1979

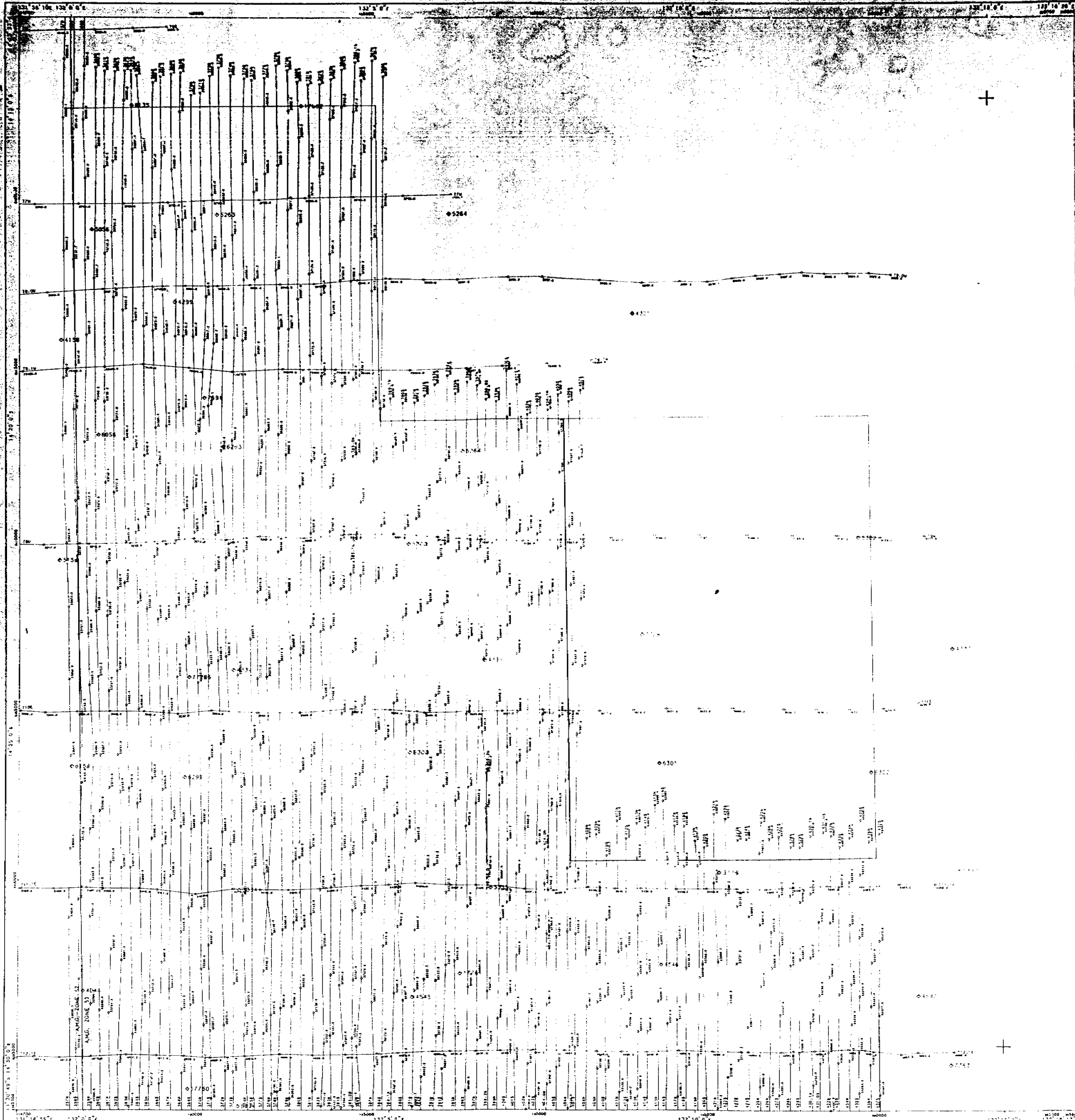
SURVEY SPECIFICATIONS

MAGNETOMETER: GEOMETRICS G-803 PROTON PRECESSION  
 SENSITIVITY: 0.25 NANOTESLA  
 SAMPLE INTERVAL: 1.0 SECONDS  
 FLIGHT LINE DIRECTION: NORTH TO SOUTH  
 LINE DIRECTION: EAST TO WEST  
 FLIGHT LINE SEPARATION: 300 METRES  
 MEAN TERRAIN CLEARANCE: 80 METRES  
 ALONG LINE SAMPLING: 50 METRES  
 LOGS: REMOVED

CR85/301 B  
 NORTHERN TERRITORY  
 GEOLOGICAL SURVEY

CRA EXPLORATION PTY LTD		
FLORINA PROJECT RECOVERED FLIGHT PATHS		
SCALE: 1:40,000	DATE: 1-12-79	
DRAWN: REYN	PLAN NO:	
CHECKED:		
APPROVED:		NTS 1271

KATHERINE - SHEET 5369/3



FLOW FOR CRA EXPLORATION PTY LTD  
GEOMETRICS JOB NUMBER 9212  
DECEMBER 1979

SURVEY SPECIFICATIONS

GEOMETRICS: GEOMETRICS 0-803 PROTON PRECESSION  
SENSITIVITY: 0.25 HANDESLAB  
SAMPLE INTERVAL: 1.0 SECONDS  
FLIGHT LINE DIRECTION: NORTH TO SOUTH  
FLIGHT LINE SEPARATION: EAST TO WEST  
FLIGHT LINE SEPARATION: 300 METRES  
MEAN TERRAIN CLEARANCE: 80 METRES  
ALONG LINE SAMPLING: 50 METRES  
CONF: REMOVED

CR85/301 B  
NORTHERN TERRITORY  
GEOLOGICAL SURVEY

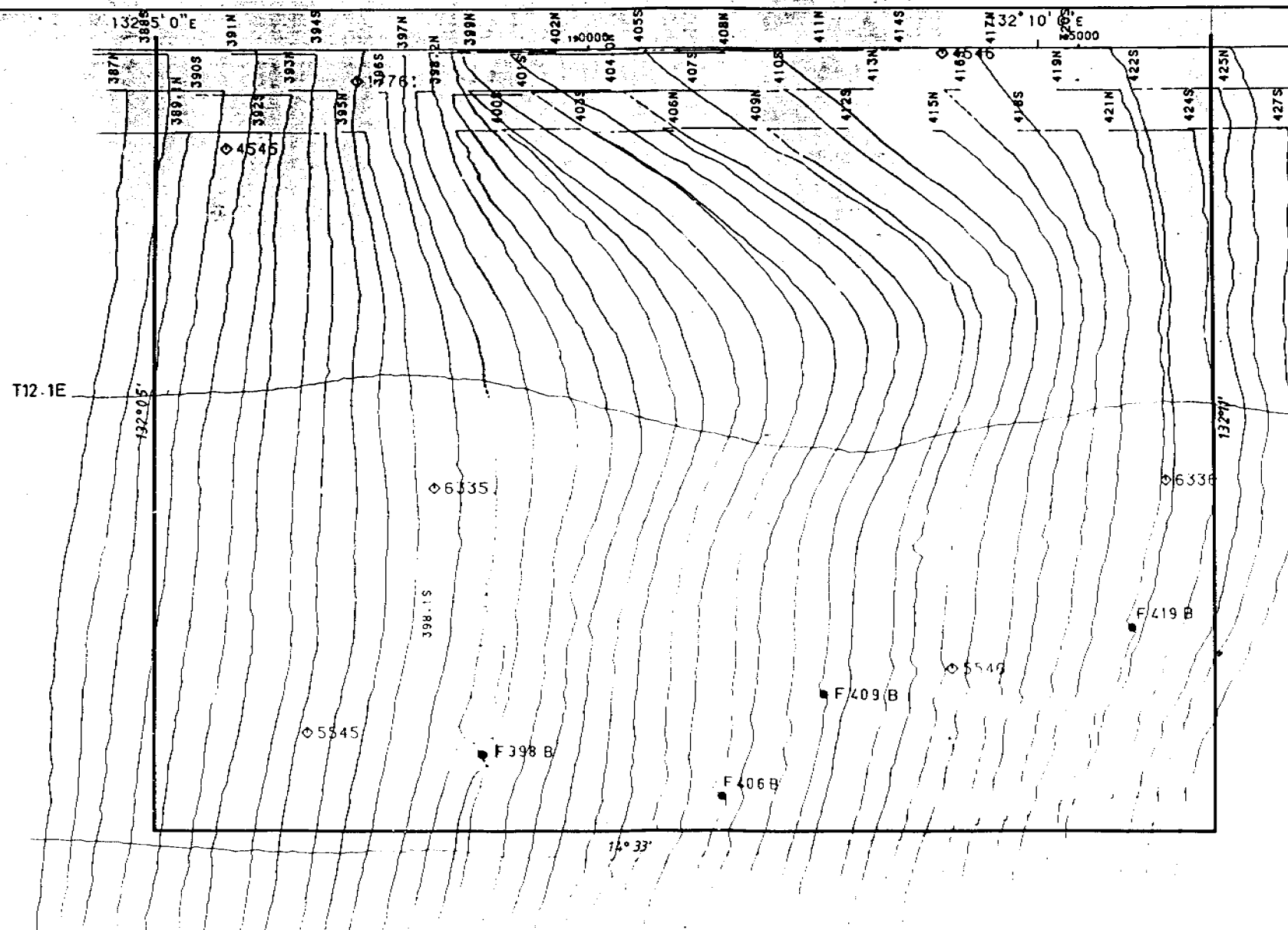


CRA EXPLORATION PTY LTD

FLORINA PROJECT  
RECOVERED FLIGHT PATHS

SCALE: 1:40,000	DATE: 1-12-79
DRAWN: REYN	PLAN NO
CHECKED:	
APPROVED:	

NT 121 N

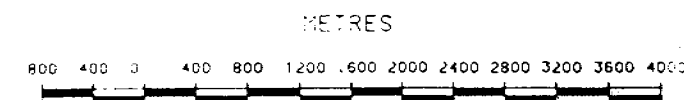


FLOW FOR CRA EXPLORATION PTY LTD  
GEOMETRICS JOB NUMBER 9212  
DECEMBER 1979

**SURVEY SPECIFICATIONS**

MAGNETOMETER:	GEOMETRICS G-803 PROTON PRECESSION
SENSITIVITY:	0.25 NANOTESLAS
SAMPLE INTERVAL:	1.0 SECONDS
FLIGHT LINE DIRECTION:	NORTH TO SOUTH
TIE LINE DIRECTION:	EAST TO WEST
FLIGHT LINE SEPARATION:	300 METRES
MEAN TERRAIN CLEARANCE:	80 METRES
ALONG LINE SAMPLING:	50 METRES
1GRF:	REMOVED

BASE LEVEL	0.0 NANOTESLAS
VERTICAL SCALE	20.0 NANOTESLAS/CM



CRA EXPLORATION PTY LTD

FLORINA PROJECT  
RESIDUAL MAGNETIC INTENSITY

SCALE:	1:40,000	DATE:	1-12-79
DRAWN:		REVN	PLAN NO
CHECKED:			
APPROVED:			

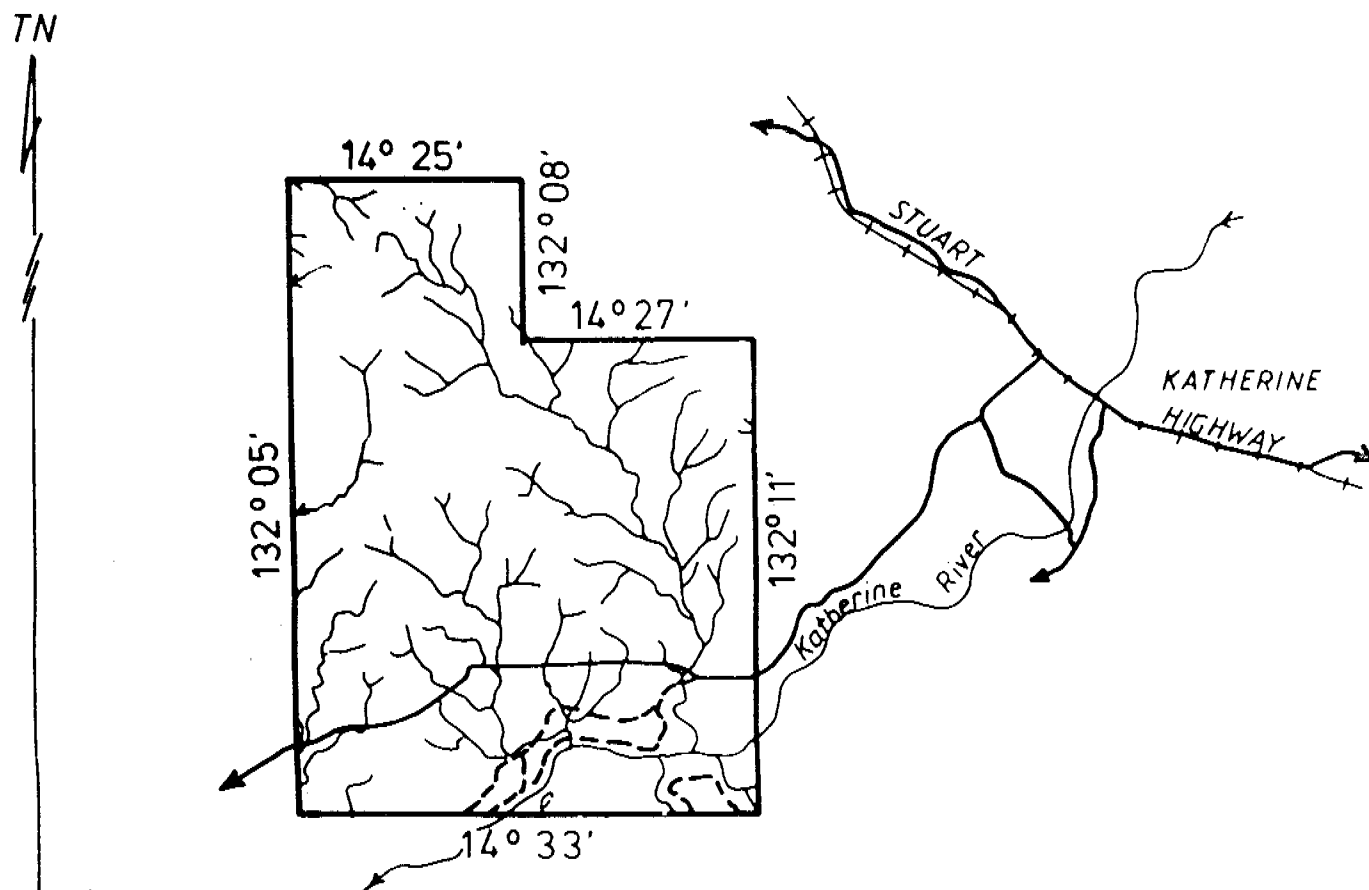
NTD 130

CR85/301 B

NORTHERN TERRITORY  
GEOLOGICAL SURVEY



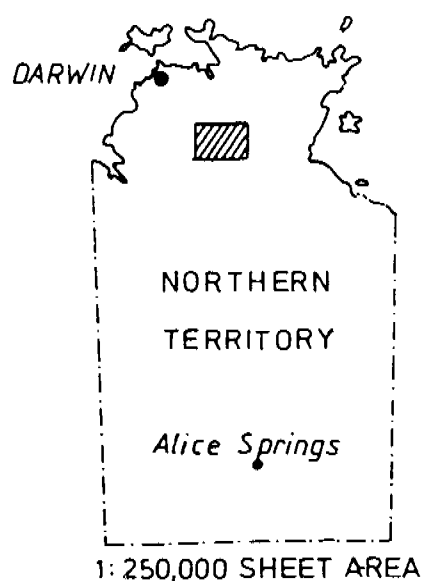
Radiant 1120-METRIC GERMANY



AREA: 42 BLOCKS  
139.146 sq. kilometres

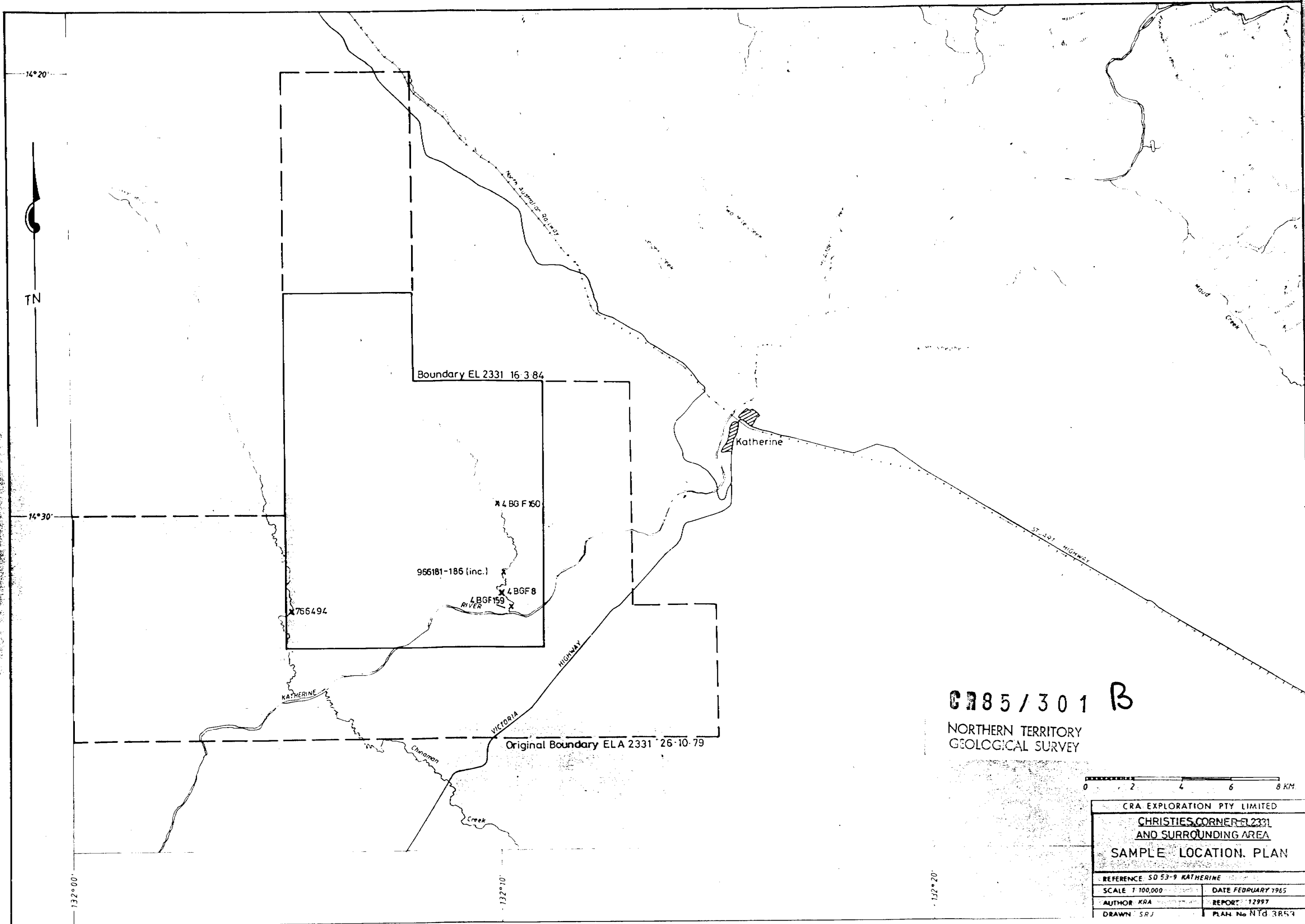
**CR85 / 301 B**

NORTHERN TERRITORY  
GEOLOGICAL SURVEY



0 2 4 6 8 10 12 14 16 18 KM

CRA EXPLORATION PTY LIMITED	
LOCATION PLAN	
<b>CHRISTIES CORNER</b>	
ELA 2331	
NORTHERN TERRITORY	
REFERENCE <i>KATHERINE SD53-9</i>	
SCALE 1: 250,000	DATE <i>DECEMBER 1983</i>
AUTHOR <i>KRA</i>	REPORT <i>12997</i>
DRAWN <i>SRJ</i>	PLAN No <i>NTd 3291</i>



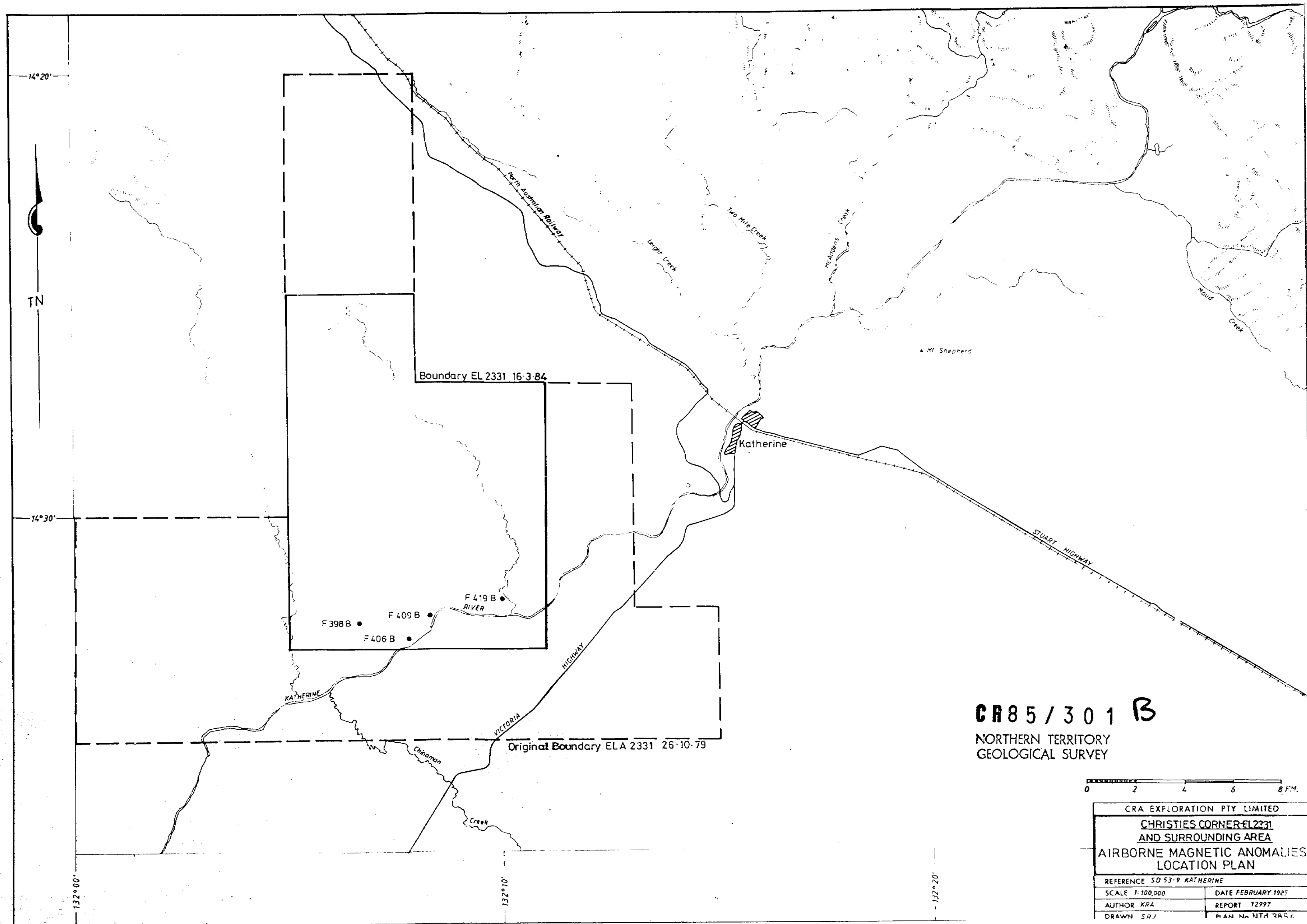
**C185/301 B**

NORTHERN TERRITORY  
GEOLOGICAL SURVEY

0 2 4 6 8 KM

CRA EXPLORATION PTY LIMITED	
CHRISTIES CORNER EL 2331 AND SURROUNDING AREA	
SAMPLE LOCATION PLAN	
REFERENCE: SD 53-9 KATHERINE	
SCALE 1:100,000	DATE FEBRUARY 1965
AUTHOR KRA	REPORT 12997
DRAWN SRJ	PLAN No NTd 3853





**CR85/301 B**

NORTHERN TERRITORY  
GEOLOGICAL SURVEY

0 2 4 6 8 K.M.

CRA EXPLORATION PTY LIMITED	
CHRISTIES CORNER-EL 2331	
AND SURROUNDING AREA	
AIRBORNE MAGNETIC ANOMALIES	
LOCATION PLAN	
REFERENCE SD 53-9 KATHERINE	
SCALE 1:100,000	DATE FEBRUARY 1985
AUTHOR KRA	REPORT 12997
DRAWN SRJ	PLAN No NTA 2857