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CRA EXPLORATION PTY LIMITED

|          |                |      |      |          |
|----------|----------------|------|------|----------|
| D. DIR.  | A.O.           | C.G. | E.O. | D.S.M.   |
|          |                |      |      | Register |
|          | - 3 JUL 1985   |      |      | MAIL     |
|          | DEPT. OF MINES |      |      |          |
| Ref. No. | 7092/85        |      |      |          |

RAPID RIVER WEST EL 4/83, NORTH WEST TASMANIA

RELINQUISHMENT REPORT

Author: I M Clementson

Date: 17 June 1985

Submitted to: T W Dickson

Accepted by:



Copies: CRAE Hobart  
CRAE Canberra  
Department of Mines, Tasmania

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REPORT NO: 13392

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## 1. SUMMARY

Coincident aeromagnetic and INPUT-EM anomalies identified within EL 4/83 were followed-up by mapping, stream sediment and rock sampling and ground magnetics. This work showed that the aeromagnetic anomalies are caused by basic igneous bodies, probably dykes, and that black, pyritic Precambrian shales are the cause of the INPUT-EM anomalies. No anomalous base or precious metal geochemistry was returned from the sediment or rock samples collected. The area has no identifiable ore potential and the Licence is to be relinquished.

## 2. INTRODUCTION

Rapid River West, EL 4/83, lies approximately 30 kilometres north of the township of Savage River and covers 60 square kilometres. It lies on the northwest boundary of another CRAE tenement, EL 1/79 Rapid River (Plan TASH 2648).

EL 1/79 was considered prospective because of the Precambrian metamorphic belt known as the Arthur Lineament and, due to access difficulties, its underexplored status. CRAE conducted an aeromagnetic and radiometric survey of EL 1/79 and discovered two magnetic anomalies (RAPID and RAPID WEST) on the northwest border of that Licence. In order to have complete title over these anomalies, Rapid River West, EL 4/83, was applied for and subsequently granted to CRAE.

Compilation of earlier exploration data revealed that two INPUT-EM anomalies, identified from a 1973 survey by Esso, were coincident or adjacent to the magnetic anomalies. As geophysical modelling and photogeological interpretation indicated that these anomalies were neither surficial effects or basalt caused, a helicopter supported ground follow-up programme of mapping, sampling and ground magnetometry was carried out over a small grid established over the area of the anomalies.

2.

3. CONCLUSIONS

Field observations satisfactorily explained the cause of both the magnetic and INPUT-EM anomalies as basic igneous bodies and conductive black shales respectively. No anomalous geochemistry was associated with either of these features and no reason to continue exploration within the EL can be seen. The Licence should be relinquished.

4. RECOMMENDATIONS

Title to Rapid River West, EL 4/83, should be dropped.

5. GEOLOGY

The EL lies to the west of the Precambrian Arthur Lineament and is composed of relatively unmetamorphosed siltstones, shales and quartzites of the Precambrian Rocky Cape Group. Within the EL these appear to be the equivalents of the Neasey Formation (Longman and Matthews 1961). The contact between these sediments and the Arthur Lineament metamorphics is transitional (Turner 1985). Intruded into the sediments are Precambrian basic (doleritic) dykes and sills.

6. GEOPHYSICS6.1 Previous Geophysical Surveys

The area of the EL has been included in two previous airborne geophysical surveys. The first of these was an aeromagnetic survey flown for Rio Tinto Australian Exploration Pty Ltd in 1958.

The survey was flown by Adastr-Hunting over east-west flight lines at 800m intervals. Sensor altitude was 150 metres (McCarthy 1958).

The second survey was an INPUT electromagnetic (EM) survey flown for Esso Australia Ltd by Geoterrex Ltd in 1974 (Neal 1974). Flight lines were east-west with 1600 metre spacing (some 800 metre infills) at an altitude of 150 metres. Aeromagnetic data was also recorded. Data from this survey has been replotted for use in this investigation.

Regional BMR gravity data is available for the entire area.

6.2 CRAE Geophysical Surveys

An aeromagnetic/radiometric survey was conducted over EL 1/79, Rapid River in February 1982. The survey specifications were:-

|                    |                   |
|--------------------|-------------------|
| Line Spacing       | 250 metres        |
| Line Direction     | East-West         |
| Sensor Height      | 100 metres        |
| Magnetometer Noise | 1 nanoTesla       |
| Crystal Volume     | 16780 c.c.        |
| Contractor         | Austirex Int. Ltd |

The area of EL 1/79 was slightly overflowed to ensure total coverage of the Licence. Magnetic anomalies were identified from plots of total magnetic intensity (Plan TASH 2649).

Two anomalies, RAPID and RAPID WEST were recognised on the northwest border of EL 1/79. As much of these anomalies lay outside this EL, an application was made, and granted, for Rapid River West, EL 4/83, to fully cover these anomalies.

4.

When the Esso INPUT data was replotted it was discovered that two anomalies, 2850/10400 and 2857/10400 were adjacent to, respectively, the RAPID WEST and RAPID magnetic anomalies (Plan TASH 2650). This coincidence of two types of anomaly was regarded as prospective and a ground follow-up programme was carried out to evaluate these anomalies.

## 7. FOLLOW-UP PROGRAMME

### 7.1 Geology

A grid was established over the area of the anomalies; outcrop mapping and logging of shallow (approx 1.2m) soil auger holes showed that the area is composed of a suite of N-S striking fine clastic sediments and minor basic intrusives (Plan TASH 2651). The sediments are grey-buff siltstones and silty sandstones, grey shales and black, carbonaceous and pyrrhotitic/pyritic shales (Appendix II). The basics are severely altered and believed to be relatively thin dolerite dykes or sills (Appendix II). They are strongly magnetic and appear to be conformable with the enclosing sediments. They weather to distinctive red clays. Quartz veining is found in all lithologies but is not unusually abundant.

No evidence of mineralisation was observed. The pyrite/pyrrhotite seen in the shales was euhedral and regarded as syngenetic.

### 7.2 Geophysics

Ground magnetics traverses were completed over the entire grid at a station spacing of 12.5 metres. The profiles are provided as Plans TASH 2653-2656 and

0.4-0.9  
x 10<sup>-3</sup> SI

show that the magnetic responses correlate to mapped and interpreted basic igneous bodies. Measured magnetic susceptibilities of these basics range from  $400 \times 10^{-6}$  to  $900 \times 10^{-6}$  S.I. units over a background of  $< 50 \times 10^{-6}$  S.I. units for the country rocks. This readily explains the ground and aeromagnetic responses.

VLF-EM was used in an attempt to locate the INPUT-EM anomalies. Equipment malfunction resulted in only a partial coverage of the grid but it is confidently believed that the INPUT-EM anomalies are caused by the carbonaceous, pyrrhotitic-pyritic black shales. Petrology revealed that these are graphitic and would be anticipated to produce an EM response.

### 7.3 Geochemistry

As the sources of the magnetic and INPUT anomalies were interpreted as being shallow it was decided that, if of any economic significance, they would have a geochemical expression large enough to be detected by drainage geochemistry. The principal follow-up technique was therefore -80# stream sediment sampling. A total of 34 sediment samples were collected and analysed (Plan TASH 2657, Appendix I). The results showed no base or precious metal values considered to be anomalous. Elevated As (up to 145 ppm) was found in samples collected from ferruginous weeps but this was not regarded as significant based on previous experience of such features.

Hand augered soil samples, C-horizon where possible, were collected at 25 metre intervals over the entire grid. Analyses revealed slightly elevated As associated with black shales. No significant base metal or Au anomalies were returned.

6.

Representative rock samples of the lithologies encountered on the grid were collected and analysed; no base or precious metal anomalism was discovered.

8. DISCUSSION

Rapid River West, EL 4/83, was taken out specifically to follow-up coincident/adjacent aeromagnetic and EM anomalies. The sources of these anomalies have been located and found not to be indicative of economic mineralisation. As no other potential has been recognised and the original exploration objectives have been achieved, no further work is warranted and the Licence should be dropped.

9. REFERENCES

|                                   |      |   |
|-----------------------------------|------|---|
| Longman, M J and<br>Matthews, W L | 1961 | "The Geology of the Bluff Point and<br>Trowutta Quadrangles"<br>Tech. Report No 6, Tas Dept of Mines  |
| McCarthy, E                       | 1958 | "Geophysical Surveys - Tasmania"<br>Unpublished RTAE Report 770   |
| Neal, R C                         | 1974 | "EL 2/73 Pieman River, Tasmania,<br>Completion Report"<br>Esso Australia Ltd, Unpublished Report  |
| Turner, N J                       | 1984 | "Proterozoic Sequences in the Southern<br>Part of the Rocky Cape Region" in<br>Mineral Exploration and Tectonic<br>Processes in Tasmania, GSA |

7.

10. LOCATION

Burnie 1:250 000 Sheet SK55-3

11. KEYWORDS

Geophysics - aeromagnetics, ground magnetics, electromagnetics, INPUT, VLF-EM

Geology - Arthur Lineament, Precambrian, Rocky Cape Group, Neasey Formation, black shales, basics

Geochemistry - rock, stream sediment

12. LIST OF PLANS

| <u>Plan No</u> |  | <u>Scale</u> |
|----------------|--|--------------|
| TASh 2648      | Rapid River West EL 4/83 Location Plan                               | 1:500 000    |
| TASh 2649      | Rapid River West EL 4/83 Total Magnetic Intensity Plan               | 1:50 000     |
| TASh 2650      | Rapid River West EL 4/83 Aeromagnetic and INPUT-EM Anomaly Locations | 1:50 000     |
| TASh 2651      | Rapid River West EL 4/83 Grid Plan<br>Geology and Sample Locations   | 1:5 000      |
| TASh 2652      | Rapid River West EL 4/83 Geological Profiles and Sample Locations    | 1:5 000      |
| TASh 2653      | Rapid River West EL 4/83 Ground Magnetic Profile Line 3800n          | As shown     |

| <u>Plan No</u> |   | <u>Scale</u> |
|----------------|---|--------------|
| TASh 2654      | Rapid River West EL 4/83 Ground Magnetic Profile Line 4000N | As shown     |
| TASh 2655      | Rapid River West EL 4/83 Ground Magnetic Profile Line 4200N | As shown     |
| TASh 2656      | Rapid River West EL 4/83 Ground Magnetic Profile Line 4400N | As shown     |
| TASh 2657      | Rapid River West EL 4/83 Stream Sediment Geochemistry       | 1:5 000      |

13. LIST OF APPENDICES

- Appendix I            Geochemical Sample Ledgers
- Appendix II          Petrological Reports

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APPENDIX I

GEOCHEMICAL SAMPLE LEDGERS

# Australian Laboratory Services PTY. LTD.

135012

Office & Laboratory

32 Strand Street  
Stafford, Q. 4053

PO Box 66  
Evelton Park, Q. 4013  
Phone (07) 424 111  
Telex A1147 4243

CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

Page 1 of 2

Client: CRA EXPLORATION PTY. LIMITED  
Address: LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS.

Batch Number: N143

Contact: MR. I. CLEMENTSON

No. of Samples: 13  
Date Received: 20/12/84  
Date Completed: 29/01/85

Order No: D.P.O. 31964

Sample Type: ROCKS

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Cu<br>ppm<br>IC580 | Pb<br>ppm<br>IC580 | Zn<br>ppm<br>IC580 | Ni<br>ppm<br>IC580 | Co<br>ppm<br>IC580 |
|------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| (989) 301        |                           | 25                 | 50                 | 45                 | 5                  | 10                 |
| (989) 302        |                           | 15                 | 45                 | 45                 | <5                 | 10                 |
| (989) 305        |                           | 35                 | 45                 | 35                 | 10                 | 5                  |
| (989) 308        |                           | 45                 | 45                 | 90                 | 45                 | 15                 |
| (989) 312        |                           | 300                | 80                 | 320                | 105                | 75                 |
| (989) 314        |                           | 80                 | 60                 | 190                | 60                 | 45                 |
| (989) 315        |                           | 15                 | 25                 | 80                 | 10                 | 10                 |
| (989) 320        |                           | 20                 | 55                 | 125                | 5                  | 5                  |
| (989) 323        |                           | 30                 | 55                 | 155                | 15                 | 5                  |
| (989) 327        |                           | 15                 | 40                 | 50                 | 15                 | 10                 |
| (989) 330        |                           | 35                 | 65                 | 45                 | 20                 | 10                 |
| (989) 335        |                           | 10                 | 20                 | 45                 | <5                 | <5                 |
| (989) 343        |                           | 20                 | 25                 | 45                 | 15                 | 10                 |
| Detection Limit: |                           | 2                  | 5                  | 2                  | 5                  | 5                  |

Comments:



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Telex: ALSA 43344

Page 2 of 2

**CRA EXPLORATION PTY. LIMITED**  
LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS.

**Batch Number: M143**

**MR. I. CLEMENTSON**

No. of Samples: 13  
Date Received: 20/12/84  
Date Completed: 29/01/85

**D.P.O. 31964**

Sample Type: **ROCKS**

| SAMPLE NUMBER   | Element Unit Method | Fe % IC580 | Mn ppm IC580 | As ppm IC580 | Ag ppm IC580 | Mo ppm IC580 |
|-----------------|---------------------|------------|--------------|--------------|--------------|--------------|
| (989) 301       |                     | 1.94       | 60           | 4            | 2            | <5           |
| (989) 302       |                     | 1.60       | 45           | <1           | 1            | <5           |
| (989) 305       |                     | 2.66       | 90           | 14           | 1            | 30           |
| (989) 308       |                     | 3.05       | 150          | 34           | 1            | 40           |
| (989) 312       |                     | 15.6       | 1050         | 4            | 4            | <5           |
| (989) 314       |                     | 12.3       | 1300         | <1           | 3            | <5           |
| (989) 315       |                     | 1.55       | 180          | 4            | 1            | <5           |
| (989) 320       |                     | 0.64       | 45           | 3            | 1            | 10           |
| (989) 323       |                     | 1.78       | 70           | 18           | 1            | 25           |
| (989) 327       |                     | 2.31       | 430          | 5            | 1            | <5           |
| (989) 330       |                     | 5.39       | 90           | 120          | 1            | 35           |
| (989) 335       |                     | 0.70       | 30           | <1           | 1            | <5           |
| (989) 343       |                     | 2.58       | 410          | <1           | 1            | <5           |
| Detection Limit |                     | 0.01       | 5            | 1            | 1            | 5            |

Comments

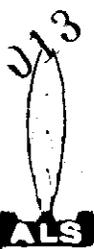


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## 135014

## LABORATORY REPORT

CRA EXPLORATION PTY. LIMITED  
LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS.

Page 1 of 1

Batch Number: M143-1

MR. I. CLEMENTSON

No. of Samples: 13  
Date Received: 20/12/84  
Date Completed: 29/01/85

D.P.O. 31964

Sample Type: ROCKS

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Sn<br>ppm<br>XRF 1A | W<br>ppm<br>XRF 1A | Ba<br>ppm<br>XRF 1A | Au<br>ppb<br>PM205 |
|------------------|---------------------------|---------------------|--------------------|---------------------|--------------------|
| (989) 301        |                           | <5                  | <10                | 930                 | <3                 |
| (989) 302        |                           | <5                  | 10                 | 1560                | <3                 |
| (989) 305        |                           | 5                   | 10                 | 720                 | <3                 |
| (989) 308        |                           | <5                  | <10                | 680                 | <3                 |
| (989) 312        |                           | <5                  | <10                | 80                  | <3                 |
| (989) 314        |                           | <5                  | <10                | 40                  | <3                 |
| (989) 315        |                           | <5                  | <10                | 120                 | 10                 |
| (989) 320        |                           | <5                  | <10                | 530                 | 5                  |
| (989) 323        |                           | <5                  | <10                | 520                 | <3                 |
| (989) 327        |                           | <5                  | <10                | 720                 | <3                 |
| (989) 330        |                           | <5                  | <10                | 620                 | <3                 |
| (989) 335        |                           | <5                  | <10                | 720                 | <3                 |
| (989) 343        |                           | <5                  | <10                | 470                 | <3                 |
| Detection Limit: |                           | 5                   | 10                 | 10                  | 3                  |

Comments:



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135015

# LABORATORY REPORT

Page 1

CRA EXPLORATION PTY. LIMITED  
LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS.

Batch Number: M143-E

MR. I. CLEMENTSON

No. of Samples 34  
Date Received 20/12/84  
Date Completed 29/01/85

D.P.O. 31964

Sample Type: STREAM SEDIMENT

| SAMPLE NUMBER    | Element Unit Method | Cu ppm IC580 | Pb ppm IC580 | Zn ppm IC580 | Ni ppm IC580 | Co ppm IC580 |
|------------------|---------------------|--------------|--------------|--------------|--------------|--------------|
| (989) 303        |                     | 15           | 25           | 15           | 10           | 10           |
| (989) 304        |                     | 15           | 25           | 20           | 15           | 15           |
| (989) 306        |                     | 10           | 20           | 15           | 10           | 5            |
| (989) 307        |                     | 15           | 20           | 15           | 15           | 5            |
| (989) 309        |                     | 10           | 20           | 10           | 10           | 5            |
| (989) 310        |                     | 10           | 25           | 10           | 10           | 5            |
| (989) 311        |                     | 10           | 25           | 10           | 10           | 5            |
| (989) 313        |                     | 15           | 25           | 15           | 10           | 10           |
| (989) 316        |                     | 10           | 15           | 10           | 10           | 5            |
| (989) 317        |                     | 10           | 25           | 20           | 10           | 10           |
| (989) 318        |                     | 10           | 25           | 10           | 10           | 5            |
| (989) 319        |                     | 20           | 20           | 35           | 25           | 40           |
| (989) 321        |                     | 10           | 15           | 5            | 10           | <5           |
| (989) 322        |                     | 10           | 30           | 15           | 10           | 10           |
| (989) 328        |                     | 15           | 30           | 15           | 10           | 5            |
| (989) 329        |                     | 10           | 15           | 10           | 15           | 5            |
| (989) 331        |                     | 10           | 20           | 10           | 10           | 5            |
| (989) 332        |                     | 15           | 20           | 10           | 20           | 10           |
| (989) 333        |                     | 10           | 20           | 10           | 10           | 5            |
| (989) 334        |                     | 10           | 20           | 10           | 10           | 5            |
| (989) 336        |                     | 10           | 25           | 15           | 15           | 5            |
| (989) 337        |                     | 10           | 20           | 10           | 10           | 5            |
| (989) 338        |                     | 10           | 20           | 15           | 15           | 5            |
| (989) 339        |                     | 10           | 15           | 10           | 15           | 5            |
| (989) 340        |                     | 20           | 20           | 45           | 30           | 70           |
| (989) 341        |                     | 10           | 20           | 10           | 15           | 5            |
| (989) 342        |                     | 20           | 35           | 10           | 15           | 5            |
| (989) 344        |                     | 10           | 15           | 10           | 20           | 5            |
| (989) 345        |                     | 10           | 20           | 10           | 15           | 5            |
| (989) 346        |                     | 15           | 25           | 10           | 20           | 10           |
| Detection Limit. |                     | 2            | 5            | 2            | 5            | 5            |

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**CRA EXPLORATION PTY. LIMITED**  
LEVEL 4, BELLERIVE QUAY  
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BELLERIVE TAS.

Page 2 of 4

**Batch Number: M143-2**

**MR. I. CLEMENTSON**

No. of Samples: **34**

**D.P.O. 31964**

Sample Type: **STREAM SEDIMENT**

Date Received: **20/12/84**

Date Completed: **29/01/85**

| SAMPLE NUMBER    | Element Unit Method | Fe % IC580 | Mn ppm IC580 | As ppm IC580 | Ag ppm IC580 | Mo ppm IC580 |
|------------------|---------------------|------------|--------------|--------------|--------------|--------------|
| (989) 303        |                     | 1.51       | 165          | 30           | <1           | 5            |
| (989) 304        |                     | 1.88       | 350          | 10           | <1           | 15           |
| (989) 306        |                     | 0.81       | 135          | 12           | <1           | 5            |
| (989) 307        |                     | 1.02       | 50           | 12           | <1           | 35           |
| (989) 309        |                     | 0.75       | 115          | 12           | <1           | 15           |
| (989) 310        |                     | 0.87       | 110          | 16           | <1           | 5            |
| (989) 311        |                     | 1.15       | 200          | 14           | <1           | 15           |
| (989) 313        |                     | 1.50       | 145          | 7            | <1           | 5            |
| (989) 316        |                     | 1.06       | 90           | 12           | <1           | 15           |
| (989) 317        |                     | 1.42       | 280          | 7            | <1           | 5            |
| (989) 318        |                     | 0.90       | 160          | 14           | <1           | 15           |
| (989) 319        |                     | 33.2       | 390          | 90           | 2            | 35           |
| (989) 321        |                     | 0.92       | 60           | 18           | <1           | 10           |
| (989) 322        |                     | 1.92       | 170          | 10           | <1           | 20           |
| (989) 328        |                     | 1.17       | 80           | 9            | <1           | 10           |
| (989) 329        |                     | 1.12       | 55           | 4            | <1           | 45           |
| (989) 331        |                     | 0.91       | 55           | 2            | <1           | 15           |
| (989) 332        |                     | 1.33       | 145          | 20           | <1           | 50           |
| (989) 333        |                     | 0.88       | 70           | 7            | <1           | 15           |
| (989) 334        |                     | 0.96       | 100          | 24           | <1           | 15           |
| (989) 336        |                     | 1.07       | 85           | 6            | <1           | 35           |
| (989) 337        |                     | 0.89       | 80           | 5            | <1           | 15           |
| (989) 338        |                     | 1.29       | 70           | 3            | <1           | 55           |
| (989) 339        |                     | 1.16       | 60           | 2            | <1           | 50           |
| (989) 340        |                     | 46.5       | 4650         | 145          | 2            | 10           |
| (989) 341        |                     | 1.54       | 150          | 7            | <1           | 40           |
| (989) 342        |                     | 1.21       | 95           | 50           | <1           | 15           |
| (989) 344        |                     | 1.19       | 60           | 4            | <1           | 55           |
| (989) 345        |                     | 1.12       | 90           | 8            | <1           | 15           |
| (989) 346        |                     | 1.45       | 115          | 1            | <1           | 60           |
| Detection Limit: |                     | 0.01       | 5            | 1            | 1            | 5            |

Comments:



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135017

# LABORATORY REPORT

Written Part of Report  
Phone: 07 4374 6527  
Telex: ALSV41241

Client: CRA EXPLORATION PTY. LIMITED  
Address: LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS.

Page 3 4

Batch Number: M143-2

Contact: MR. I. CLEMENTSON

No. of Samples: 34  
Date Received: 20/12/84  
Date Completed: 29/01/85

Order No: D.P.O. 31964

Sample Type: STREAM SEDIMENT

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Cu<br>ppm<br>IC580 | Pb<br>ppm<br>IC580 | Zn<br>ppm<br>IC580 | Ni<br>ppm<br>IC580 | Co<br>ppm<br>IC580 |
|------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| (989) 347        |                           | 20                 | 30                 | 15                 | 10                 | 10                 |
| (989) 348        |                           | 10                 | 25                 | 10                 | 15                 | 10                 |
| (989) 349        |                           | 10                 | 20                 | 10                 | 10                 | 5                  |
| (989) 350        |                           | 15                 | 25                 | 10                 | 25                 | 10                 |
| Detection Limit: |                           | 2                  | 5                  | 2                  | 5                  | 5                  |

Comments



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Registered Laboratory No. 825

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CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

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 52 Seaward Street  
 Stafford, Q. 4051  
 (07) 544 4444  
 Fax: (07) 544 4444

135018

135018

Page 4 4

Client: CRA EXPLORATION PTY. LIMITED  
 Address: LEVEL 4, BELLERIVE QUAY  
 CAMBRIDGE ROAD  
 BELLERIVE TAS.

Batch Number: M143-2

Contact: MR. I. CLEMENTSON

No. of Samples: 34

Order No: D.P.O. 31964

Sample Type: STREAM SEDIMENT

Date Received: 20/12/84

Date Completed: 29/01/85

| SAMPLE NUMBER    | Element Unit Method | Fe % IC580 | Mn ppm IC580 | As ppm IC580 | Ag ppm IC580 | Mo ppm IC580 |
|------------------|---------------------|------------|--------------|--------------|--------------|--------------|
| (989) 347        |                     | 1.68       | 95           | <1           | 1            | 10           |
| (989) 348        |                     | 1.56       | 80           | 1            | 1            | 45           |
| (989) 349        |                     | 0.80       | 65           | 4            | <1           | 15           |
| (989) 350        |                     | 1.76       | 115          | <1           | 1            | 70           |
| Detection Limit: |                     | 0.01       | 5            | 1            | 1            | 5            |

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Registered Laboratory No. 825



135019

LABORATORY REPORT

Everton Mar 12 4:00 PM '85  
Phone 413 41 41  
Telex A130 4134

Client: CRA EXPLORATION PTY. LIMITED  
Address: LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS. 7018

Page 1 2

Batch Number: M143-3

Contact: MR. I. CLEMENTSON

No. of Samples: 34  
Date Received: 20/12/84  
Date Reported: 29/01/85

Order No. D.P.O. 31964

Sample Type: STREAM SEDIMENT

| SAMPLE NUMBER    | Element Unit Method | Sn ppm XRF 1A | W ppm XRF 1A | Ba ppm XRF 1A | Au ppb PM205 FA |
|------------------|---------------------|---------------|--------------|---------------|-----------------|
| (989) 303        |                     | <5            | 30           | 240           | <3              |
| (989) 304        |                     | <5            | <10          | 210           | <3              |
| (989) 306        |                     | <5            | 30           | 150           | <3              |
| (989) 307        |                     | <5            | 10           | <10           | <3              |
| (989) 309        |                     | <5            | 10           | 60            | 3               |
| (989) 310        |                     | <5            | 30           | 160           | 30              |
| (989) 311        |                     | <5            | 10           | 50            | 35              |
| (989) 313        |                     | <5            | 20           | 150           | 3               |
| (989) 316        |                     | <5            | <10          | 100           | 3               |
| (989) 317        |                     | <5            | 30           | 70            | <3              |
| (989) 318        |                     | <5            | 10           | 10            | <3              |
| (989) 319        |                     | 10            | <10          | 20            | <3              |
| (989) 321        |                     | <5            | 50           | <10           | <3              |
| (989) 322        |                     | <5            | <10          | 80            | <3              |
| (989) 328        |                     | <5            | 40           | 50            | 3               |
| (989) 329        |                     | <5            | <10          | 60            | <3              |
| (989) 331        |                     | <5            | 50           | 190           | <3              |
| (989) 332        |                     | <5            | <10          | 110           | 40              |
| (989) 333        |                     | <5            | 50           | 120           | 5               |
| (989) 334        |                     | <5            | 50           | 100           | <3              |
| (989) 336        |                     | <5            | <10          | 80            | 3               |
| (989) 337        |                     | <5            | 40           | 60            | 75              |
| (989) 338        |                     | <5            | 10           | 120           | 3               |
| (989) 339        |                     | <5            | 10           | 70            | 3               |
| (989) 340        |                     | <5            | 10           | 130           | 30              |
| (989) 341        |                     | <5            | <10          | 40            | <3              |
| (989) 342        |                     | <5            | 60           | 70            | <3              |
| (989) 344        |                     | <5            | <10          | 80            | <3              |
| (989) 345        |                     | <5            | 60           | 110           | <3              |
| (989) 346        |                     | <5            | <10          | 140           | <3              |
| Detection Limit: |                     | 5             | 10           | 10            | 3               |

1 part 1001

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Registered Laboratory No 825

# Australian Laboratory Services PTY. LTD.

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Tasmania 7244  
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Telex A12121 ALS

135020

## LABORATORY REPORT

Page 2 2

CRA EXPLORATION PTY. LIMITED  
LEVEL 4, BELLERIVE QUAY  
CAMBRIDGE ROAD  
BELLERIVE TAS. 7018

Batch Number: M143-3

Contact: MR. I. CLEMENTSON

No. of Sample: 34  
Date Received: 20/12/84  
Date Completed: 29/01/85

Order No: D.P.O. 31964

Sample Type: STREAM SEDIMENT

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Sn<br>ppm<br>XRF 1A | W<br>ppm<br>XRF 1A | Ba<br>ppm<br>XRF 1A | Au<br>ppb<br>PM205 |
|------------------|---------------------------|---------------------|--------------------|---------------------|--------------------|
| (989) 347        |                           | <5                  | 40                 | 100                 | <3                 |
| (989) 348        |                           | <5                  | <10                | 100                 | <3                 |
| (989) 349        |                           | <5                  | 40                 | 150                 | <3                 |
| (989) 350        |                           | <5                  | 10                 | 130                 | <3                 |
| Detection Limit: |                           | 5                   | 10                 | 10                  | 3                  |

Comments:



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Signatory:

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Registered  
Laboratory  
No. 625

020

135021

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Phone: (07) 352 5577  
Telex: ALSEV 42344

CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

Incorporated  
in Queensland



Page 1 of 10

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Batch Number: F188

Contact: MR. I. CLEMENTSON

No. of Samples: 121  
Date Received: 26/06/85  
Date Completed: 28/06/85

Order No. DPO 35002 Sample Type: SOIL

| SAMPLE NUMBER    | Element Unit Method | Cu ppm IC580 | Pb ppm IC580 | Zn ppm IC580 | As ppm IC580 | Ag ppm IC580 |
|------------------|---------------------|--------------|--------------|--------------|--------------|--------------|
| 1231002          |                     | 10           | 20           | 35           | 9            | 2            |
| 1231004          |                     | <5           | 20           | 10           | 3            | 2            |
| 1231006          |                     | 30           | 50           | 30           | 32           | 1            |
| 1231008          |                     | <5           | 15           | 5            | 5            | <1           |
| 1231010          |                     | <5           | 10           | 10           | 3            | <1           |
| 1231012          |                     | <5           | 10           | 10           | 3            | <1           |
| 1231014          |                     | 210          | 20           | 55           | 2            | <1           |
| 1231016          |                     | <5           | 10           | 5            | 3            | <1           |
| 1231018          |                     | <5           | 10           | 5            | 2            | <1           |
| 1231020          |                     | <5           | 10           | 10           | 2            | <1           |
| 1231022          |                     | <5           | 10           | 10           | 4            | <1           |
| 1231024          |                     | 5            | 10           | 10           | 5            | <1           |
| 1231026          |                     | <5           | 10           | 5            | 5            | <1           |
| 1231028          |                     | <5           | 15           | 25           | 8            | <1           |
| 1231030          |                     | 10           | 20           | 15           | 7            | <1           |
| 1231032          |                     | <5           | 15           | 10           | 3            | <1           |
| 1231034          |                     | 35           | 35           | 20           | 16           | <1           |
| 1231036          |                     | 25           | 30           | 20           | 28           | <1           |
| 1231038          |                     | <5           | 10           | 5            | 4            | <1           |
| 1231040          |                     | 5            | 15           | 5            | 6            | <1           |
| 1231042          |                     | <5           | 10           | 10           | 6            | <1           |
| 1231044          |                     | <5           | 15           | 10           | 4            | <1           |
| 1231046          |                     | 10           | 15           | 30           | 9            | <1           |
| 1231048          |                     | 10           | 20           | 10           | 16           | <1           |
| 1231050          |                     | 10           | 25           | 10           | 12           | <1           |
| 1231052          |                     | 5            | 10           | 5            | 3            | <1           |
| 1231054          |                     | <5           | 10           | 10           | 1            | <1           |
| 1231056          |                     | 15           | 40           | 30           | 50           | <1           |
| 1231058          |                     | <5           | 10           | 10           | 3            | <1           |
| 1231060          |                     | <5           | 10           | 10           | 7            | <1           |
| Detection Limit: |                     | 2            | 5            | 2            | 1            | 1            |

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Signatory:

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135022

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Incorporated  
in Queensland



Page 2 of 10

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Batch Number: F188

Contact: MR. I. CLEMENTSON

No. of Samples: 121  
Date Received: 26/06/85  
Date Completed: 28/06/85

Order No. DPO 35002 Sample Type: SOIL

| SAMPLE NUMBER    | Element Unit Method | AU ppb PM205 | AU ppb CHECKS |  |  |  |
|------------------|---------------------|--------------|---------------|--|--|--|
| 1231002          |                     | 3            |               |  |  |  |
| 1231004          |                     | <3           |               |  |  |  |
| 1231006          |                     | <3           |               |  |  |  |
| 1231008          |                     | <3           |               |  |  |  |
| 1231010          |                     | <3           |               |  |  |  |
| 1231012          |                     | <3           |               |  |  |  |
| 1231014          |                     | <3           |               |  |  |  |
| 1231016          |                     | <3           |               |  |  |  |
| 1231018          |                     | <3           | <3            |  |  |  |
| 1231020          |                     | <3           |               |  |  |  |
| 1231022          |                     | <3           |               |  |  |  |
| 1231024          |                     | <3           |               |  |  |  |
| 1231026          |                     | <3           |               |  |  |  |
| 1231028          |                     | <3           |               |  |  |  |
| 1231030          |                     | <3           |               |  |  |  |
| 1231032          |                     | <3           |               |  |  |  |
| 1231034          |                     | <3           |               |  |  |  |
| 1231036          |                     | 3            |               |  |  |  |
| 1231038          |                     | <3           |               |  |  |  |
| 1231040          |                     | <3           |               |  |  |  |
| 1231042          |                     | <3           |               |  |  |  |
| 1231044          |                     | <3           |               |  |  |  |
| 1231046          |                     | <3           |               |  |  |  |
| 1231048          |                     | <3           |               |  |  |  |
| 1231050          |                     | <3           |               |  |  |  |
| 1231052          |                     | <3           |               |  |  |  |
| 1231054          |                     | <3           |               |  |  |  |
| 1231056          |                     | <3           |               |  |  |  |
| 1231058          |                     | <3           |               |  |  |  |
| 1231060          |                     | <3           |               |  |  |  |
| Detection Limit: |                     | 3            |               |  |  |  |

Comments:



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Signatory: *[Handwritten Signature]*

022

135023

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CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

Office & Laboratory

32 Shand Street  
Stafford, Q. 4053

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Everton Park, Q. 4053

Phone: (07) 352 5577  
Telex: ALSEV 42344

Page 3 of 10

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Batch Number: F188

Contact: MR. I. CLEMENTSON

No. of Samples: 121  
Date Received: 26/06/85

Order No. DPO 35002

Sample Type: SDIL

Date Completed: 28/06/85

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Cu<br>ppm<br>IC580 | Pb<br>ppm<br>IC580 | Zn<br>ppm<br>IC580 | As<br>ppm<br>IC580 | Ag<br>ppm<br>IC580 |
|------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1231062          |                           | <5                 | 5                  | 10                 | 2                  | <1                 |
| 1231064          |                           | <5                 | 5                  | 5                  | 2                  | <1                 |
| 1231066          |                           | <5                 | 5                  | 10                 | 3                  | <1                 |
| 1231068          |                           | <5                 | 5                  | 10                 | 3                  | <1                 |
| 1231070          |                           | 30                 | 10                 | 25                 | 4                  | <1                 |
| 1231072          |                           | 15                 | 15                 | 25                 | 3                  | <1                 |
| 1231074          |                           | <5                 | 15                 | 25                 | 4                  | <1                 |
| 1231076          |                           | 40                 | 30                 | 50                 | 9                  | <1                 |
| 1231078          |                           | 30                 | 20                 | 30                 | 8                  | <1                 |
| 1231080          |                           | <5                 | 10                 | 25                 | 4                  | <1                 |
| 1231082          |                           | 10                 | 15                 | 25                 | 4                  | <1                 |
| 1231084          |                           | <5                 | 5                  | 10                 | <1                 | <1                 |
| 1231086          |                           | <5                 | 10                 | 15                 | 4                  | <1                 |
| 1231088          |                           | 40                 | 15                 | 25                 | 6                  | <1                 |
| 1231090          |                           | 5                  | 10                 | 10                 | 5                  | <1                 |
| 1231092          |                           | <5                 | 5                  | 10                 | <1                 | <1                 |
| 1231094          |                           | <5                 | 10                 | 10                 | 3                  | <1                 |
| 1231096          |                           | 5                  | 10                 | 15                 | 4                  | <1                 |
| 1231098          |                           | <5                 | 10                 | 10                 | 4                  | <1                 |
| 1231100          |                           | <5                 | 10                 | 10                 | 2                  | <1                 |
| 1231102          |                           | <5                 | 5                  | 5                  | 4                  | <1                 |
| 1231104          |                           | <5                 | 5                  | 5                  | 3                  | <1                 |
| 1231106          |                           | 10                 | 20                 | 30                 | 6                  | <1                 |
| 1231108          |                           | 10                 | 15                 | 15                 | 12                 | <1                 |
| 1231110          |                           | <5                 | 10                 | 10                 | 5                  | <1                 |
| 1231112          |                           | 10                 | 30                 | 25                 | 24                 | <1                 |
| 1231114          |                           | <5                 | 10                 | 20                 | 3                  | <1                 |
| 1231116          |                           | <5                 | 5                  | 15                 | 2                  | <1                 |
| 1231118          |                           | <5                 | 5                  | 10                 | 3                  | <1                 |
| 1231120          |                           | 5                  | 10                 | 20                 | 4                  | <1                 |
| Detection Limit: |                           | 2                  | 5                  | 2                  | 1                  | 1                  |

Comments:



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Telex: ALSEV 42344

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Page 4 of 10

Batch Number: F188

Contact: MR. I. CLEMENTSON

No. of Samples: 121

Date Received: 26/06/85

Order No. DPO 35002

Sample Type: SOIL

Date Completed: 28/06/85

| SAMPLE NUMBER    | Element Unit Method | Au ppb PM205 | Au ppb CHECKS |  |  |
|------------------|---------------------|--------------|---------------|--|--|
| 1231062          |                     | <3           |               |  |  |
| 1231064          |                     | <3           |               |  |  |
| 1231066          |                     | <3           |               |  |  |
| 1231068          |                     | <3           |               |  |  |
| 1231070          |                     | <3           |               |  |  |
| 1231072          |                     | <3           |               |  |  |
| 1231074          |                     | <3           |               |  |  |
| 1231076          |                     | 200          |               |  |  |
| 1231078          |                     | <3           |               |  |  |
| 1231080          |                     | <3           |               |  |  |
| 1231082          |                     | <3           |               |  |  |
| 1231084          |                     | <3           |               |  |  |
| 1231086          |                     | <3           |               |  |  |
| 1231088          |                     | <3           |               |  |  |
| 1231090          |                     | <3           |               |  |  |
| 1231092          |                     | <3           |               |  |  |
| 1231094          |                     | <3           |               |  |  |
| 1231096          |                     | <3           |               |  |  |
| 1231098          |                     | <3           |               |  |  |
| 1231100          |                     | <3           |               |  |  |
| 1231102          |                     | <3           |               |  |  |
| 1231104          |                     | <3           |               |  |  |
| 1231106          |                     | I.S.         |               |  |  |
| 1231108          |                     | <3           |               |  |  |
| 1231110          |                     | <3           |               |  |  |
| 1231112          |                     | <3           |               |  |  |
| 1231114          |                     | <3           |               |  |  |
| 1231116          |                     | <3           |               |  |  |
| 1231118          |                     | <3           |               |  |  |
| 1231120          |                     | <3           |               |  |  |
| Detection Limit: |                     | 3            |               |  |  |

\* REPORTED TO BE EXAGGERATED BECAUSE OF VERY SMALL - 80% SAMPLE SIZE. THE "WEIGHTING" FACTOR USED IN CALCULATIONS HAVE OVERSTATED THE Au CONTENT.

Comments:



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Signatory:

024

135025

# Australian Laboratory Services

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CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

Incorporated  
in Queensland

Page 5 of 10

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Batch Number: F188

Contact: MR. I. CLEMENTSON

No. of Samples: 121  
Date Received: 26/06/85  
Date Completed: 28/06/85

Order No. DPD 35002 Sample Type: SOIL

| SAMPLE NUMBER    | Element Unit Method | Cu ppm IC580 | Pb ppm IC580 | Zn ppm IC580 | As ppm IC580 | Ag ppm IC580 |
|------------------|---------------------|--------------|--------------|--------------|--------------|--------------|
| 1231122          |                     | <5           | 5            | 5            | 4            | <1           |
| 1231124          |                     | <5           | 20           | 10           | 3            | <1           |
| 1231126          |                     | 120          | 40           | 125          | 3            | 1            |
| 1231128          |                     | <5           | 15           | 10           | 2            | <1           |
| 1231130          |                     | 15           | 15           | 10           | 10           | <1           |
| 1231132          |                     | 65           | 15           | 25           | 7            | <1           |
| 1231134          |                     | 105          | 20           | 40           | 4            | <1           |
| 1231136          |                     | 10           | 15           | 10           | 6            | <1           |
| 1231138          |                     | 15           | 15           | 15           | 6            | <1           |
| 1231140          |                     | 5            | 10           | 10           | 5            | <1           |
| 1231142          |                     | 5            | 10           | 5            | 2            | <1           |
| 1231144          |                     | 300          | 25           | 130          | 10           | <1           |
| 1231146          |                     | 30           | 15           | 10           | 14           | <1           |
| 1231148          |                     | 40           | 15           | 35           | 4            | <1           |
| 1231150          |                     | <5           | 5            | 5            | 3            | <1           |
| 1231152          |                     | <5           | 5            | 5            | 2            | <1           |
| 1231154          |                     | <5           | 10           | 15           | 6            | <1           |
| 1231156          |                     | <5           | 10           | 30           | 5            | <1           |
| 1231158          |                     | 5            | 15           | 5            | 24           | <1           |
| 1231160          |                     | <5           | 10           | 5            | 2            | <1           |
| 1231162          |                     | <5           | 5            | 10           | 4            | <1           |
| 1231164          |                     | 20           | 10           | 5            | 12           | <1           |
| 1231166          |                     | 15           | 40           | 20           | 40           | <1           |
| 1231168          |                     | 15           | 20           | 30           | 9            | <1           |
| 1231170          |                     | 90           | 90           | <5           | 100          | <1           |
| 1231172          |                     | 35           | 55           | 15           | 20           | <1           |
| 1231174          |                     | <5           | 10           | 5            | 4            | <1           |
| 1231176          |                     | 10           | 10           | 10           | 5            | <1           |
| 1231178          |                     | 35           | 25           | 10           | 55           | <1           |
| 1231180          |                     | 15           | 15           | 10           | 8            | <1           |
| Detection Limit: |                     | 2            | 5            | 2            | 1            | 1            |

Comments:



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025

135026

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## LABORATORY REPORT

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Phone: (07) 352 5577  
Telex: ALSEV 42344

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Page 6 of 10

Contact: MR. I. CLEMENTSON

Batch Number: F188

Order No. DPO 35002

Sample Type: SOIL

No. of Samples: 121  
Date Received: 26/06/85  
Date Completed: 28/06/85

| SAMPLE NUMBER    | Element Unit Method | AU ppb PM205 | AU ppb CHECKS |  |  |
|------------------|---------------------|--------------|---------------|--|--|
| 1231122          |                     | <3           |               |  |  |
| 1231124          |                     | <3           |               |  |  |
| 1231126          |                     | <3           | <3            |  |  |
| 1231128          |                     | <3           |               |  |  |
| 1231130          |                     | <3           |               |  |  |
| 1231132          |                     | <3           |               |  |  |
| 1231134          |                     | <3           |               |  |  |
| 1231136          |                     | <3           |               |  |  |
| 1231138          |                     | <3           |               |  |  |
| 1231140          |                     | <3           |               |  |  |
| 1231142          |                     | <3           |               |  |  |
| 1231144          |                     | <3           |               |  |  |
| 1231146          |                     | <3           |               |  |  |
| 1231148          |                     | <3           |               |  |  |
| 1231150          |                     | <3           |               |  |  |
| 1231152          |                     | <3           |               |  |  |
| 1231154          |                     | <3           |               |  |  |
| 1231156          |                     | <3           |               |  |  |
| 1231158          |                     | <3           |               |  |  |
| 1231160          |                     | <3           |               |  |  |
| 1231162          |                     | <3           |               |  |  |
| 1231164          |                     | <3           |               |  |  |
| 1231166          |                     | <3           |               |  |  |
| 1231168          |                     | <3           |               |  |  |
| 1231170          |                     | <3           |               |  |  |
| 1231172          |                     | <3           |               |  |  |
| 1231174          |                     | <3           |               |  |  |
| 1231176          |                     | <3           |               |  |  |
| 1231178          |                     | <3           |               |  |  |
| 1231180          |                     | <3           |               |  |  |
| Detection Limit: |                     | 3            |               |  |  |

Comments:



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Signatory:



Incorporated  
in Queensland

# Australian Laboratory Services PTY. LTD.

CONSULTING ANALYTICAL CHEMISTS

## LABORATORY REPORT

Office & Laboratory

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Stafford, Q. 4053

PO Box 66,  
Everton Park, Q. 4053

Phone: (07) 352 5577  
Telex: ALSEV 42344

Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSHY PARK TAS. 7018

Page 7 of 10

Contact: MR. I. CLEMENTSON

Batch Number: F188

Order No. DPO 35002

Sample Type: SOIL

No. of Samples: 121  
Date Received: 26/06/85  
Date Completed: 28/06/85

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Cu<br>ppm<br>IC580 | Pb<br>ppm<br>IC580 | Zn<br>ppm<br>IC580 | As<br>ppm<br>IC580 | Ag<br>ppm<br>IC580 |
|------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1231182          |                           | <5                 | 20                 | 25                 | 14                 | <1                 |
| 1231184          |                           | <5                 | 15                 | 25                 | 8                  | <1                 |
| 1231186          |                           | <5                 | 15                 | 15                 | 5                  | <1                 |
| 1231188          |                           | <5                 | 10                 | 10                 | 3                  | <1                 |
| 1231190          |                           | <5                 | 5                  | 5                  | 1                  | <1                 |
| 1231192          |                           | <5                 | 25                 | <5                 | 3                  | <1                 |
| 1231194          |                           | <5                 | 10                 | 10                 | 1                  | <1                 |
| 1231196          |                           | <5                 | 10                 | 15                 | 3                  | <1                 |
| 1231198          |                           | 35                 | 15                 | 10                 | 3                  | <1                 |
| 1231200          |                           | 10                 | 10                 | 10                 | 6                  | <1                 |
| 1231202          |                           | <5                 | 10                 | 10                 | 3                  | <1                 |
| 1231204          |                           | 5                  | 15                 | 15                 | 7                  | <1                 |
| 1231206          |                           | <5                 | 10                 | 10                 | 4                  | <1                 |
| 1231208          |                           | <5                 | 20                 | 10                 | 5                  | <1                 |
| 1231210          |                           | 5                  | 15                 | 10                 | 4                  | <1                 |
| 1231212          |                           | <5                 | 10                 | 10                 | 3                  | <1                 |
| 1231214          |                           | <5                 | 10                 | 15                 | 4                  | <1                 |
| 1231216          |                           | <5                 | 5                  | 5                  | 2                  | <1                 |
| 1231218          |                           | <5                 | 10                 | 10                 | 4                  | <1                 |
| 1231220          |                           | <5                 | 10                 | 5                  | 3                  | <1                 |
| 1231222          |                           | <5                 | 5                  | 5                  | 2                  | <1                 |
| 1231224          |                           | <5                 | 15                 | 15                 | 14                 | 1                  |
| 1231226          |                           | <5                 | 30                 | 55                 | 7                  | <1                 |
| 1231228          |                           | <5                 | 5                  | 5                  | 2                  | <1                 |
| 1231230          |                           | 10                 | 10                 | 15                 | 7                  | <1                 |
| 1231232          |                           | 5                  | 15                 | 30                 | 5                  | <1                 |
| 1231234          |                           | 30                 | 45                 | 5                  | 60                 | <1                 |
| 1231236          |                           | 5                  | 15                 | 15                 | 9                  | <1                 |
| 1231238          |                           | <5                 | 5                  | 5                  | <1                 | <1                 |
| 1231240          |                           | <5                 | 10                 | 10                 | 2                  | <1                 |
| Detection Limit: |                           | 2                  | 5                  | 2                  | 1                  | 1                  |

Comments:



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Incorporated  
in Queensland



Client: CRA EXPLORATION PTY. LIMITED  
Address: P.O. BOX 138  
ROSNY PARK TAS. 7018

Page 8 of 10

Batch Number: F188

Contact: MR. I. CLEMENTSON

No. of Samples: 121  
Date Received: 26/06/85  
Date Completed: 28/06/85

Order No. DPO 35002 Sample Type: SOIL

| SAMPLE NUMBER    | Element Unit Method | Au ppb PM205 | Au ppb CHECKS |  |  |
|------------------|---------------------|--------------|---------------|--|--|
| 1231182          |                     | <3           |               |  |  |
| 1231184          |                     | <3           |               |  |  |
| 1231186          |                     | 10           |               |  |  |
| 1231188          |                     | 10           |               |  |  |
| 1231190          |                     | <3           |               |  |  |
| 1231192          |                     | <3           |               |  |  |
| 1231194          |                     | <3           |               |  |  |
| 1231196          |                     | <3           |               |  |  |
| 1231198          |                     | <3           |               |  |  |
| 1231200          |                     | <3           |               |  |  |
| 1231202          |                     | <3           |               |  |  |
| 1231204          |                     | <3           |               |  |  |
| 1231206          |                     | <3           |               |  |  |
| 1231208          |                     | <3           |               |  |  |
| 1231210          |                     | 20           |               |  |  |
| 1231212          |                     | 3            |               |  |  |
| 1231214          |                     | <3           |               |  |  |
| 1231216          |                     | <3           |               |  |  |
| 1231218          |                     | <3           |               |  |  |
| 1231220          |                     | <3           |               |  |  |
| 1231222          |                     | <3           |               |  |  |
| 1231224          |                     | <3           |               |  |  |
| 1231226          |                     | <3           |               |  |  |
| 1231228          |                     | <3           |               |  |  |
| 1231230          |                     | <3           |               |  |  |
| 1231232          |                     | <3           |               |  |  |
| 1231234          |                     | <3           | <3            |  |  |
| 1231236          |                     | 3            |               |  |  |
| 1231238          |                     | 3            |               |  |  |
| 1231240          |                     | <3           |               |  |  |
| Detection Limit: |                     | 3            |               |  |  |

Comments:



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## LABORATORY REPORT

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Phone: (07) 352 5577  
Telex: ALSEV 42344



Client: **CRA EXPLORATION PTY. LIMITED**  
Address: **P.O. BOX 138  
ROSHY PARK TAS. 7018**

Page **9** of **10**

Batch Number: **F188**

Contact: **MR. I. CLEMENTSON**

No. of Samples: **121**

Date Received: **26/06/85**

Date Completed: **28/06/85**

Order No. **DPO 35002** Sample Type: **SOIL**

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Cu<br>ppm<br>IC580 | Pb<br>ppm<br>IC580 | Zn<br>ppm<br>IC580 | As<br>ppm<br>IC580 | Ag<br>ppm<br>IC580 |
|------------------|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 1231242          |                           | <5                 | 10                 | 10                 | 4                  | <1                 |
| Detection Limit: |                           | 2                  | 5                  | 2                  | 1                  | 1                  |

Comments:



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## LABORATORY REPORT

Page 10 of 10

Client: **CRA EXPLORATION PTY. LIMITED**  
Address: **P.O. BOX 138  
ROSNY PARK TAS. 7018**

Batch Number: **F188**

Contact: **MR. I. CLEMENTSON**

No. of Samples: **121**

Date Received: **26/06/85**

Date Completed: **28/06/85**

Order No. **DPO 35002**

Sample Type: **SOIL**

| SAMPLE NUMBER    | Element<br>Unit<br>Method | Au<br>ppb<br>PM205 | Au<br>ppb<br>CHECKS |  |  |  |
|------------------|---------------------------|--------------------|---------------------|--|--|--|
| 1231242          |                           | 3                  |                     |  |  |  |
| Detection Limit: |                           | 3                  |                     |  |  |  |

Comments:



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Signatory:

PROJECT ARTHUR LINEAMENT

GEOCHEMICAL SAMPLING LEDGER

DATES: Dec 1984

TENEMENT RAPID RIVER EL 1/79 / RAPID WEST EL 4/83

LAB. ALS BRISBANE

AREA / PROSPECT RAPID - RAPID WEST AREA MAG

GEOLOGIST M. C. CLEMENTSON

SAMPLE TYPE ROCKS

PAGE NO. 1

| SAMPLE NUMBER    | GRID REF.      | ANALYSES  |    |     |     |    |      |      |     |    |    |    |     |      |    | DPO NUMBER | GEOLOGICAL OBSERVATIONS  | CORRESP. -80 MESH STREAM SAMPLE |
|------------------|----------------|---|----|-----|-----|----|------|------|-----|----|----|----|-----|------|----|------------|--|---------------------------------|
|                  |                | Cu  | Pb | Zn  | Ni  | Co | Fe%  | Mn   | As  | Ag | Mo | Sr | W   | Ba   | Au |            |  |                                 |
| 301              | 3800N<br>6800E | 25  | 50 | 45  | 5   | 10 | 1.94 | 60   | 4   | 2  | <5 | <5 | <10 | 930  | <3 | 3964       | Float: buff grey slightly sandy silts + v. fine grey shaly partings  |                                 |
| 302              | 3800N<br>6925E | 15  | 45 | 45  | <5  | 10 | 1.60 | 45   | <1  | 1  | <5 | <5 | 10  | 1560 | <3 | -          | alc: grey f. g. quartzite + siltstone interbedded. Spalling? ex. quartzite. Dip: 30° to 255m.  |                                 |
| 305              | 3800N<br>7200E | 35  | 45 | 35  | 10  | 5  | 2.66 | 90   | 14  | 1  | 30 | 5  | 10  | 720  | <3 | ..         | Float (down to): dark grey to black shales some strongly pyritic & carbonaceous (very sooty appearance). Pyrite occurs as 1/2 framboids to 3mm & fine disseminated in sheet / part bands // to bedding as subradial stals. |                                 |
| PETROLOGY:-      |                | a carbonaceous phyllite ..... sulphides are present and consist pyrite - the pyrite is suspected to be altered pyrrhotite.  |    |     |     |    |      |      |     |    |    |    |     |      |    |            |  |                                 |
| 308              | 3800N<br>6460E | 45  | 45 | 90  | 45  | 15 | 3.05 | 150  | 34  | 1  | 40 | <5 | <10 | 680  | <3 |            | alc: Black py + carbon shales? app?  |                                 |
| 312              | 4000N<br>7300E | 300   | 80 | 320 | 105 | 75 | 15.6 | 1050 | 4   | 4  | <5 | <5 | <10 | 80   | <3 |            | Float: Ferruginous weathered coarse sand (? b.v.?)   |                                 |
| 314              | 4000N<br>7345E | 80  | 60 | 190 | 60  | 45 | 12.3 | 1300 | <1  | 3  | <5 | <5 | <10 | 40   | <3 |            | Float: mid-dark grey green to porphyritic basaltic igneous rock 40-70 x eggs   |                                 |
| PETROLOGY:-      |                | severely altered basic igneous rock - probably a dolerite. Conspicuous leucosome pseudomorph after primary magnetite and distributed through the rock; no unaltered magnetite was detected. |    |     |     |    |      |      |     |    |    |    |     |      |    |            |  |                                 |
| 315              | 4000N<br>7415E | 15  | 25 | 80  | 10  | 10 | 1.55 | 180  | 4   | 1  | <5 | <5 | <10 | 120  | 10 |            | alc: grey siltstone  |                                 |
| 320              | 4400N<br>6425E | 20  | 55 | 125 | 5   | 5  | 0.64 | 45   | 3   | 1  | 10 | <5 | <10 | 530  | 5  |            | Float: Black slightly py. carb. sh.  |                                 |
| 323              | 4400N<br>7800E | 30  | 55 | 155 | 15  | 5  | 1.78 | 70   | 18  | 1  | 25 | <5 | <10 | 520  | <3 |            | Float: -   |                                 |
| 327              | 4000N<br>6265E | 15  | 40 | 50  | 15  | 10 | 2.31 | 430  | 5   | 1  | <5 | <5 | <10 | 720  | <3 |            | Float: grey siltstone druses   |                                 |
| 330              | 4000N<br>6415E | 35  | 65 | 45  | 20  | 10 | 5.34 | 90   | 120 | 1  | 35 | <5 | <10 | 620  | <3 |            | alc: black carb. py. shale. Magnetic   |                                 |
| 335              | 4000N<br>8195E | 10  | 20 | 45  | <5  | 45 | 0.70 | 30   | <1  | 1  | <5 | <5 | <10 | 720  | <3 |            | alc: banding + shales - minor silts  |                                 |
| 343              | 4200N<br>7920E | 20  | 25 | 45  | 15  | 10 | 2.58 | 410  | <1  | 1  | <5 | <5 | <10 | 470  | <3 |            | alc: dark grey to black bedded siltstone shales  |                                 |
| METHOD DET LIMIT |                |   |    |     |     |    |      |      |     |    |    |    |     |      |    |            |  |                                 |

PROJECT ARTHUR LINEAMENT

GEOCHEMICAL SAMPLING LEDGER

DATES : December 1984

TENEMENT RAPID RIVER EL 179; RAPID R. WEST EL 483

LAB. ALS BRISBANE

AREA / PROSPECT RAPID-RAPID WEST AEROMAG FOLLOWUP GEOLOGIST I.M. CLEMENTSON

SAMPLE TYPE STREAM SEDIMENTS

PAGE NO. 1

| SAMPLE NUMBER | GRID REF.      | ANALYSES |    |    |    |    |      |     |    |    |    |    |     |     |    |   |  | DPO NUMBER | GEOLOGICAL OBSERVATIONS | CORRESP. -80 MESH STREAM SAMPLE |  |  |       |   |        |
|---------------|----------------|----------|----|----|----|----|------|-----|----|----|----|----|-----|-----|----|---|--|------------|-------------------------|---------------------------------|--|--|-------|---|--------|
|               |                | Cu       | Pb | Zn | Ni | Co | Fe%  | Mn  | As | Hg | Mo | Sr | W   | Ba  | Au |   |  |            |                         |                                 |  |  |       |   |        |
| 989303        | 3800N<br>6925E | 15       | 25 | 15 | 10 | 10 | 1.51 | 165 | 30 | <1 | 5  | <5 | 30  | 240 | <3 | ✓ |  |            |                         |                                 |  |  | 31964 | -40" Flot. - gneissite + sh grey/ll<br>shale Low Fe stain R. P. 1/2 m wide      | 989303 |
| 304           | 3800N<br>7010E | 15       | 25 | 20 | 15 | 15 | 1.88 | 350 | 10 | <1 | 15 | <5 | <10 | 210 | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" Flot. shale grey sh / lat Minor<br>Fe. B' bar trap 1/2 m wide Low Fe       | 304    |
| 306           | 3800N<br>6605E | 10       | 20 | 15 | 10 | 5  | 0.8  | 135 | 12 | <1 | 5  | <5 | 30  | 150 | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" Qz and silite Flot. R. P. 1/2 m wide<br>No stain 1/3 m Mod. organic        | 306    |
| 307           | 3800N<br>6450E | 15       | 20 | 15 | 15 | 5  | 1.02 | 50  | 12 | <1 | 35 | <5 | 10  | <10 | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" Qz and silite Flot. 1/2 m wide<br>Minor Fe stain                           | 307    |
| 309           | 3800N<br>6545E | 10       | 20 | 10 | 10 | 5  | 0.75 | 115 | 12 | <1 | 15 | <5 | 10  | 60  | 3  | ✓ |  |            |                         |                                 |  |  |       | -40" Qz, mineral Flot. 1/2 m wide<br>No stain. Veg. trap. Steep banks           | 309    |
| 310           | 4000N<br>6945E | 10       | 25 | 10 | 10 | 5  | 0.87 | 110 | 16 | <1 | 5  | <5 | 30  | 160 | 30 | ✓ |  |            |                         |                                 |  |  |       | -40" sh. silite Br. silite<br>No stain. Low Fe. Poor trap site                  | 310    |
| 311           | 4000N<br>7025E | 10       | 25 | 10 | 10 | 5  | 1.15 | 200 | 14 | <1 | 15 | <5 | 10  | 50  | 35 | ✓ |  |            |                         |                                 |  |  |       | -40" Sil. mineral Flot. Heavy<br>Qz. Fe stain. Good trap                        | 311    |
| 313           | 4000N<br>7345E | 15       | 25 | 15 | 10 | 10 | 1.50 | 145 | 7  | <1 | 5  | <5 | 20  | 150 | 3  | ✓ |  |            |                         |                                 |  |  |       | -40" V. qz. Hect. sh. small basic volc.<br>Minor Fe stain 1/2 m wide Low flow   | 313    |
| 316           | 4400N<br>7075E | 10       | 15 | 10 | 10 | 5  | 1.05 | 90  | 12 | <1 | 15 | <5 | <10 | 100 | 3  | ✓ |  |            |                         |                                 |  |  |       | -40" V. qz. sh. minor basic volc. Flot.<br>Mod Fe stain. Dend. incised Mod trap | 316    |
| 317           | 4400N<br>7025E | 10       | 25 | 20 | 10 | 10 | 1.47 | 280 | 7  | <1 | 5  | <5 | 30  | 70  | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" U. qz. Sil. sh. Flot. Mod Fe<br>sh. 1/2 m wide Low flow Steep              | 317    |
| 318           | 4400N<br>6650E | 10       | 25 | 10 | 10 | 5  | 0.90 | 160 | 14 | <1 | 15 | <5 | 10  | 10  | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" Qz. sh. at Flot. Br. silite - 15 m<br>Mod Fe stain. Fair - good trap       | 318    |
| 319           | 4400N<br>6650E | 20       | 20 | 35 | 25 | 40 | 332  | 390 | 90 | 2  | 35 | 10 | <10 | 20  | <3 | ✓ |  |            |                         |                                 |  |  |       | Grab sample. Ferruginous<br>wrap at side of crest                               | 319    |
| 321           | 4400N<br>7675E | 10       | 15 | 5  | 10 | <5 | 0.92 | 60  | 18 | <1 | 10 | <5 | 50  | <10 | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" Qz. sh. Flot. No stain<br>Poor trap. 1/2 m wide                            | 321    |
| 322           | 4400N<br>7800E | 10       | 30 | 15 | 10 | 10 | 1.92 | 170 | 10 | <1 | 20 | <5 | <10 | 80  | <3 | ✓ |  |            |                         |                                 |  |  |       | -40" Gneiss + blk. silite Flot. Mod<br>Fe stain. Sil. sh. Mod trap              | 322    |
| METHOD        |                |          |    |    |    |    |      |     |    |    |    |    |     |     |    |   |  |            |                         |                                 |  |  |       |   |        |
| DET. LIMIT    |                |          |    |    |    |    |      |     |    |    |    |    |     |     |    |   |  |            |                         |                                 |  |  |       |   |        |

031

135032

PROJECT ACTING LINEAMENT  
 TENEMENT RAPID RIVER E1179, RAPID R WEST E1483  
 AREA / PROSPECT RAPID - RAPID WEST AEROMAG.

GEOCHEMICAL SAMPLING LEDGER

DATE: DECEMBER 1984  
 LAB. ALS BRISBANE  
 PAGE NO. 1/1

GEOLOGIST P.A. TERRY SAMPLE TYPE STREAM SEDIMENTS

| SAMPLE NUMBER | GRID REF.      | ANALYSES |    |    |    |    |      |     |    |    |    |    |     |     |    |    |       | DPO NUMBER  | GEOLOGICAL OBSERVATIONS | CORRESP. -80 MESH STREAM SAMPLE |
|---------------|----------------|----------|----|----|----|----|------|-----|----|----|----|----|-----|-----|----|----|-------|---|-------------------------|---------------------------------|
|               |                | Cu       | Pb | Zn | Ni | Co | Fe%  | Mn  | As | Ag | Mo | Sn | W   | Ba  | Au | Ag |       |   |                         |                                 |
| 328           | 4000N<br>6370E | 15       | 30 | 15 | 10 | 5  | 1.7  | 80  | 9  | <1 | 10 | <5 | 40  | 80  | 3  | ✓  | 31964 | -40" Deeply incised G10:30:52<br>c. 02 3m wide clay/bn bank<br>Mottled sandy channel site<br>Float: 95% gr, 5% dk<br>yellow weathered shale.      | 328                     |                                 |
| 329           | 4000N<br>6415E | 10       | 15 | 10 | 15 | 5  | 1.12 | 55  | 4  | <1 | 45 | <5 | <10 | 60  | <3 | ✓  |       | Unexcavated (-60" approx) G30:55%<br>S10: C 1:0 3 1m wide<br>Deeply incised. B' rock bar site<br>Float 90% gr 10% black sh/ole<br>dk black shale. | 329                     |                                 |
| 331           | 4000N<br>6500E | 10       | 20 | 10 | 10 | 5  | 0.91 | 55  | 2  | <1 | 15 | <5 | 50  | 140 | <3 | ✓  |       | Unexcavated. CL 100% S. wide<br>Dry. Colluvial banks weakly<br>incised. No dk. No org.  | 331                     |                                 |
| 332           | 4000N<br>6625E | 15       | 20 | 10 | 20 | 10 | 1.33 | 145 | 20 | <1 | 50 | <5 | <10 | 110 | 40 | ✓  |       | -40" No dk. Coll. banks. Mod<br>incised. Gravelly site. Mottled<br>G30:540 S+C:300-T:<br>Float 40% gr 60 F. org. act.                             | 332                     |                                 |
| 333           | 4200N<br>6615E | 10       | 20 | 10 | 10 | 5  | 0.88 | 70  | 7  | <1 | 15 | <5 | 50  | 120 | 5  | ✓  |       | Unexcavated grab sample. S+C:100%<br>Weakly incised. No float. No drain<br>coll banks   | 333                     |                                 |
| 334           | 4200N<br>6695E | 10       | 20 | 10 | 10 | 5  | 0.96 | 100 | 24 | <1 | 15 | <5 | 50  | 100 | <3 | ✓  |       | Unexcavated weakly incised 1-3m wide<br>Dry. Coll banks S+C:100%<br>No float. No dk.  | 334                     |                                 |
| 336           | 3995N<br>7590E | 10       | 25 | 15 | 15 | 5  | 1.07 | 85  | 6  | <1 | 35 | <5 | <10 | 80  | 3  | ✓  |       | Unexcavated Dry. Mod incised. High<br>gradient. S+C:100% No dk<br>Coll. residual banks. Sample grey clay  | 336                     |                                 |
| 337           | 4036N<br>7600E | 10       | 20 | 10 | 10 | 5  | 0.89 | 80  | 5  | <1 | 15 | <5 | 40  | 60  | 75 | ✓  |       | Unexcavated Dry 1m wide. No dk<br>S+C:100% Residual/coll banks<br>Sample is grey clay.  | 337                     |                                 |

METHOD  
 DET. LPH

PROJECT ARTHUR LINEAMENT  
 TENEMENT RAPID RIVER EL 179 - RAPID R WEST EL 4183  
 AREA / PROSPECT RAPID - RAPID W AEROMAG

GEOCHEMICAL SAMPLING LEDGER

GEOLOGIST P A TEMSY SAMPLE TYPE STREAM SEDIMENTS

DATES: DECEMBER 1984  
 LAB. ALS BRISBANE  
 PAGE NO. 2/

033

| SAMPLE NUMBER | GRID REF.      | ANALYSES |    |    |    |    |      |      |     |    |    |    |     |     |    |   | DPO NUMBER | GEOLOGICAL OBSERVATIONS  | CORRESP. -80 MESH STREAM SAMPLE |  |
|---------------|----------------|----------|----|----|----|----|------|------|-----|----|----|----|-----|-----|----|---|------------|--|---------------------------------|--|
|               |                | Cu       | Pb | Zn | Ni | Co | Fe%  | Mn   | Pb  | Ag | Mo | Sr | W   | Ba  | Au |   |            |  |                                 |  |
| 989338        | 4070N<br>7600E | 10       | 20 | 15 | 15 | 5  | 1.29 | 70   | 3   | <1 | 55 | <5 | 10  | 120 | 3  | ✓ | 31964      | Unusual Dry Zn No dc High<br>oxidized (w) Si-Cu: 100% No<br>float Coll-mud banks Sample<br>is grey clay  | 989338                          |  |
| 339           | 4165E<br>7600E | 10       | 15 | 10 | 15 | 5  | 1.16 | 60   | 2   | <1 | 50 | <5 | 10  | 70  | 3  | ✓ |            | Unusual Dry Mud in incision<br>In No dc Si-Cu: 100% Coll-<br>mud banks Sample is grey<br>brown silt clay No stain  | 339                             |  |
| 340           | 4108N<br>7600E | 20       | 20 | 45 | 30 | 70 | 46.5 | 4650 | 145 | 2  | 10 | <5 | 10  | 130 | 30 | ✓ |            | Grab sample of ferruginous<br>mud at spring  | 340                             |  |
| 341           | 4112N<br>7600E | 10       | 20 | 10 | 15 | 5  | 1.54 | 150  | 7   | <1 | 40 | <5 | <10 | 40  | <3 | ✓ |            | Unusual No flow D.S. Dead<br>incised No stain etc f.g. rot<br>+ graphitic clasts Float: rot<br>+ v. qz. G10: S20 Si-Cu: 70                                       | 341                             |  |
| 342           | 4200N<br>7650E | 20       | 35 | 10 | 15 | 5  | 1.21 | 95   | 50  | <1 | 15 | <5 | 60  | 70  | <3 | ✓ |            | Unusual Deeply incised Coll<br>etc banks (dark grey shales)<br>15m wide Float 10% qz, silt<br>rot 30% G45: S20: Si-Cu:<br>34: 01 Sample black<br>mud over gravel | 342                             |  |
| 344           | 4200N<br>7630E | 10       | 15 | 10 | 20 | 5  | 1.19 | 60   | 4   | <1 | 55 | <5 | <10 | 80  | <3 | ✓ |            | Unusual Dead incised<br>In Dry Clay-rich mud<br>Coll-mud banks No etc  | 344                             |  |
| 345           | 4200N<br>7490E | 10       | 20 | 10 | 15 | 5  | 1.12 | 90   | 8   | <1 | 15 | <5 | 60  | 110 | <3 | ✓ |            | Broad channel No etc Braided<br>Float: qz + f.g. rot G15 S40<br>S120 C114 01 Clay rich<br>unusual sample   | 345                             |  |
| 346           | 4200N<br>7415E | 15       | 25 | 10 | 20 | 10 | 1.45 | 115  | 1   | <1 | 60 | <5 | 10  | 140 | <3 | ✓ |            | Unusual 3m wide Deeply incised<br>Rapid banks No float Dry   | 346                             |  |
| METHOD        | DET. LIMIT     |          |    |    |    |    |      |      |     |    |    |    |     |     |    |   |            |  |                                 |  |

135034

PROJECT ARTHUR LINEAMENT  
 TENEMENT RAPID RIVER EL1179-RAPID R WEST EL1424  
 AREA / PROSPECT RAPID-RAPID W. AEROMAG

GEOCHEMICAL SAMPLING LEDGER

GEOLOGIST P. A. TENCH SAMPLE TYPE STREAM SEDIMENTS

DATES : 24 DECEMBER  
 LAB. ALS DRISBANE  
 PAGE NO. 3/3

| SAMPLE NUMBER | GRID REF.                 | ANALYSES |    |    |    |    |      |     |    |    |    |    |     |     |    |     |       | DPO NUMBER   | GEOLOGICAL OBSERVATIONS | CORRESP. -80 MESH STREAM SAMPLE |
|---------------|---------------------------|----------|----|----|----|----|------|-----|----|----|----|----|-----|-----|----|-----|-------|--|-------------------------|---------------------------------|
|               |                           | Cu       | Pb | Zn | Ni | Co | Fe%  | Mn  | As | Ag | Mg | Sn | W   | Ba  | Al | ppb |       |  |                         |                                 |
| 989347        | <sup>4200N</sup><br>7360E | 20       | 30 | 15 | 10 | 10 | 1.68 | 95  | <1 | 1  | 10 | <5 | 40  | 100 | <3 | ✓   | 31964 | Unrav. 10m vegetated valley<br>No defined channel No old residual<br>banks G1 S20 SL+CL 78.01.<br>Dry  | 989347                  |                                 |
| 348           | <sup>4200N</sup><br>7030E | 10       | 25 | 10 | 15 | 10 | 1.56 | 80  | 1  | 1  | 45 | <5 | <10 | 100 | <3 | ✓   |       | Unrav. 2m wide. Deeply<br>incised Alluv. residual<br>banks. Flout: speckled<br>"phyllite" (= black carbon sh/b)<br>+ qz. G5 S20 SL 50<br>CL 24 01. Site: dry filled<br>channels. | 348                     |                                 |
| 349           | <sup>4200N</sup><br>6915E | 10       | 20 | 10 | 10 | 5  | 0.80 | 65  | 4  | <1 | 15 | <5 | 40  | 150 | <3 | ✓   |       | Unrav. Broad pointy defined<br>channel. No flow. No bank<br>SL+CL: 100%. All coll banks.   | 349                     |                                 |
| 350           | <sup>4200N</sup><br>6845E | 15       | 25 | 10 | 25 | 10 | 1.76 | 115 | <1 | 1  | 70 | <5 | 10  | 130 | <3 | ✓   |       | Unrav. Dry. Coll banks.<br>Deeply incised but no qz<br>Broad (5m) vegetation<br>choked channel. SL+CL: 100%<br>Top gravel + sand.  | 350                     |                                 |

METHOD  
DET 11/91

034

135035

APPENDIX II

PETROLOGICAL REPORTS

036

135037

Central Mineralogical Services



39 Beulah Road  
Norwood, S.A. 5067  
Telephone 42 5659

Mr. I.M. Clementson  
C.R.A. Exploration Pty. Ltd.  
P.O. Box 138  
ROSNY PARK / TAS. 7018

11th January, 1985

REPORT CMS 85/1/3

|                 |                   |
|-----------------|-------------------|
| YOUR REFERENCE: | D.P.O. No. 31966  |
| DATE RECEIVED:  | 7th January, 1985 |
| SAMPLE NOS.:    | 3 Samples         |
| SUBMITTED BY:   | I.M. Clementson   |
| WORK REQUESTED: | Petrology         |

Copy to:  
The Chief Geologist  
C.R.A. Exploration Pty. Ltd.  
G.P.O. Box 384D  
MELBOURNE / VIC. 3001

The Chief Geologist  
C.R.A. Exploration Pty. Ltd.  
P.O. Box 656  
FYSHWICK / A.C.T. 2609

The Administration Officer  
C.R.A. Exploration Pty. Ltd.  
P.O. Box 138  
ROSNY PARK / TAS. 7018

*H.W. Fander*  
H.W. Fander, M. Sc.

Three rock samples were received for petrographic study; thin-sections were prepared and examined, and are described below.

989305

(T.S. 52424)

This is a carbonaceous phyllite, i.e. an incipiently metamorphosed black shale.

The rock consists of subparallel streaks of fine sericite-chlorite dispersed through a semi-opaque ultrafine matrix of carbon (perhaps subgraphite) and recrystallized clays, with occasional coarser quartz grains or patches; silt-sized quartz grains are evenly scattered through the rock.

There are conformable zones of bleached rock, in which carbonaceous material has been removed; within these zones are fragments of boudinaged quartz-sulphide veins, arranged "en echelon". The sulphides are porous and compact pyrite - the porous pyrite is suspected to be altered pyrrhotite.

989314

(T.S. 52425)

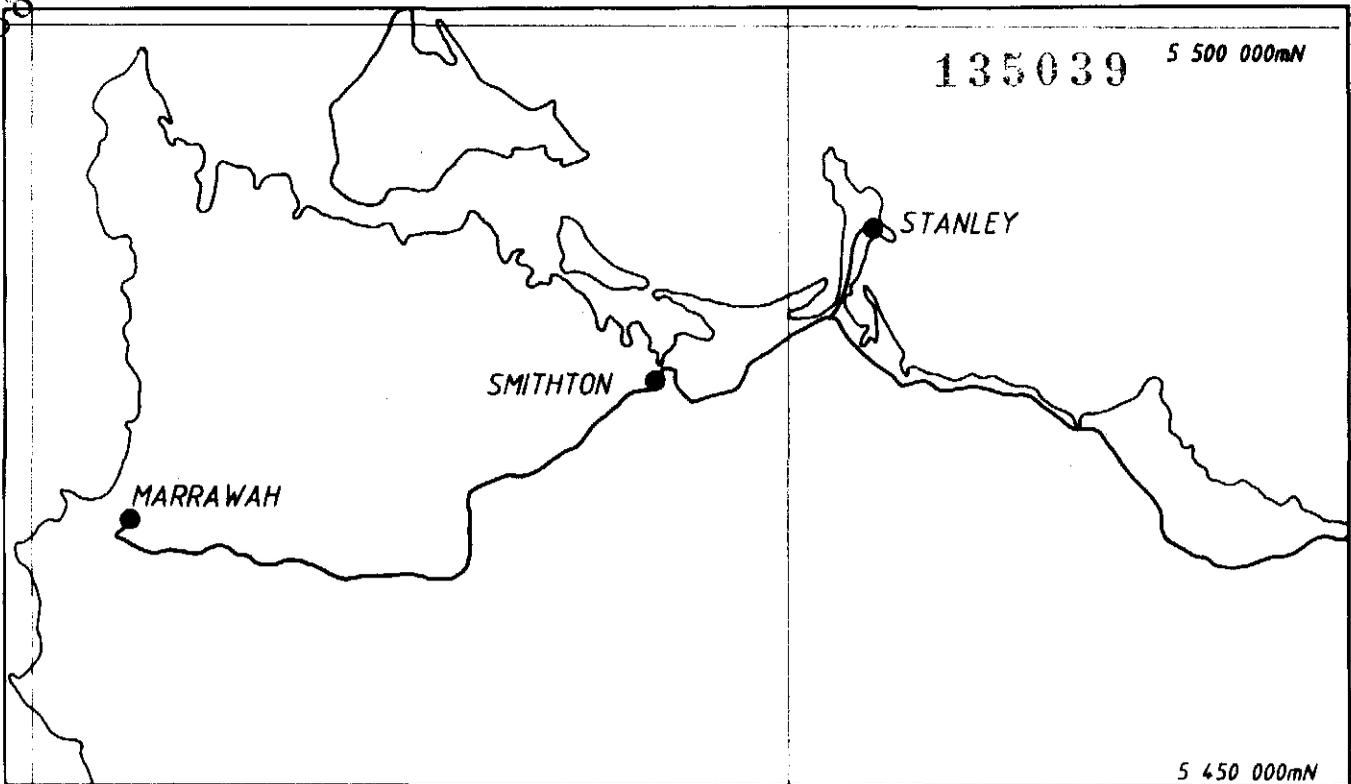
This is a severely altered igneous rock, and present mineral assemblages and relict textures suggest a basic type, probably a dolerite.

Although most of the rock now consists of secondary minerals, laths of andesine have survived in places, though penetrated by, and riddled with, chlorite. Elsewhere, the plagioclase is represented by quartz-sericite-chlorite pseudomorphs. Chlorite is very abundant, as pseudomorphs after ferromagnesian minerals and filling interstices. Conspicuous leucoxene pseudomorphs after primary magnetite are distributed through the rock; no unaltered magnetite was detected.

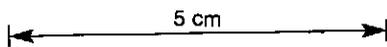
038

135039

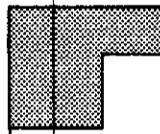
5 500 000mN



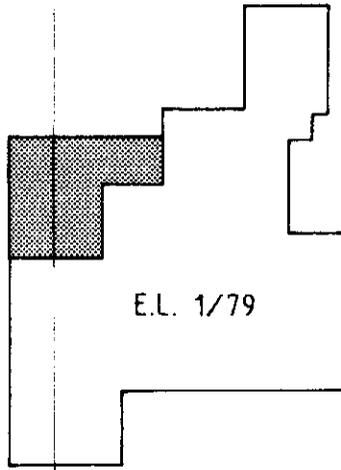
5 450 000mN



E.L.  
4/83



E.L. 1/79



WARATAH

SAVAGE  
RIVER

5 400 000mN

335 000mE

330 000mE

CRA EXPLORATION PTY. LIMITED

RAPID RIVER WEST  
E.L. 4/83  
LOCATION PLAN

|        |               |                    |
|--------|---------------|--------------------|
| REF.   | SK55 - 3      |                    |
| SCALE  | 1 : 500 000   | DRAWN R.T.         |
| AUTHOR | I.M.C.        | REPORT No. 13392   |
| DATE   | 14 - 6 - 1985 | PLAN No. TASH 2648 |

185040

5 435 000 N

5 cm

LEGEND

MAGNETIC CONTOUR INTERVAL - 5 NANOTESLA  
GRID MESH - 90m X 90m  
SEARCH RADIUS - 1000m

- 500 NANOTESLA CONTOUR
- 100 NANOTESLA CONTOUR
- 20 NANOTESLA CONTOUR
- 5 NANOTESLA CONTOUR

345 000 E

5 430 000 N

350 000 E

CRA EXPLORATION PTY. LIMITED

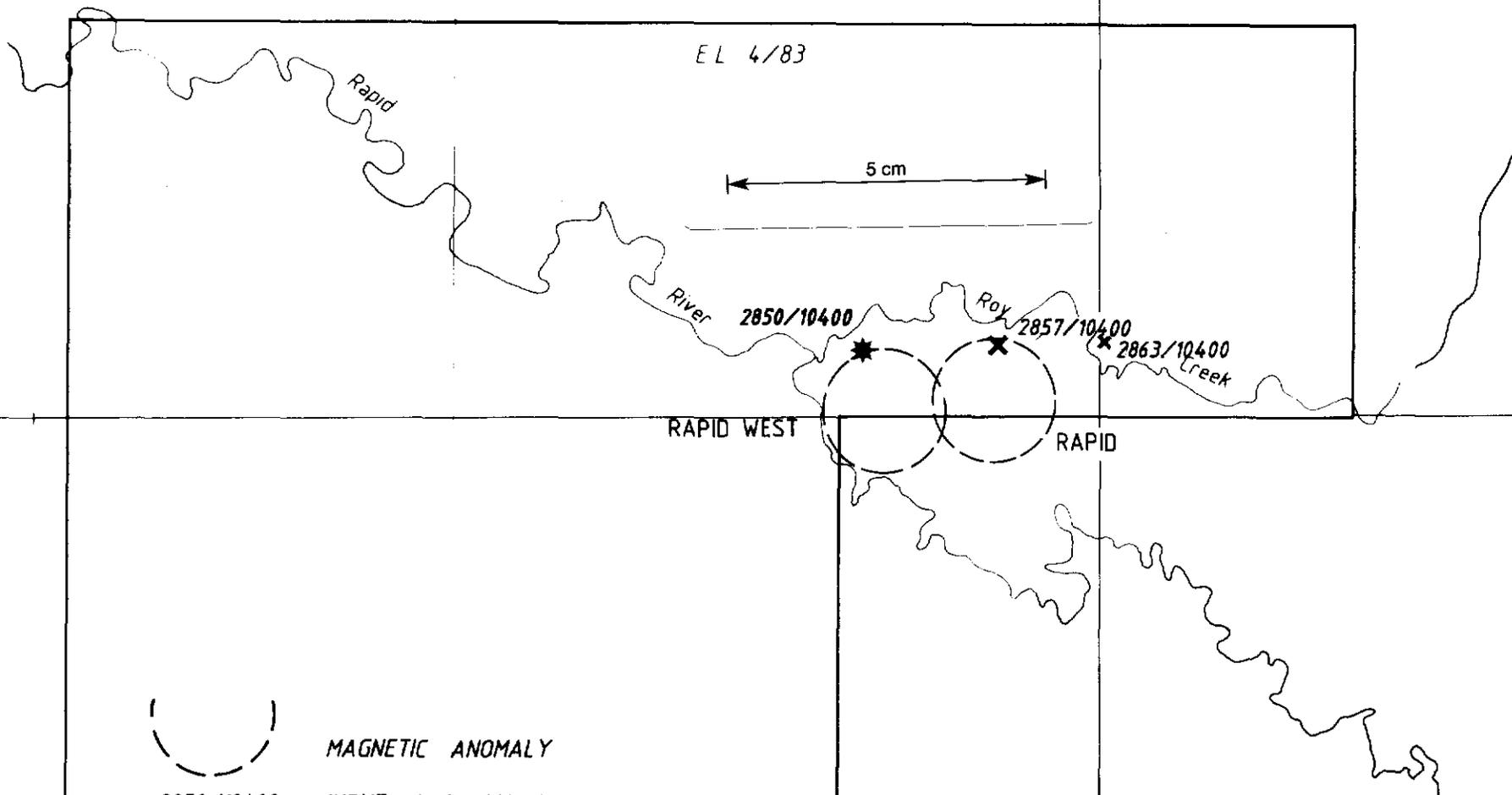
RAPID RIVER WEST E.L. 4/83  
TOTAL MAGNETIC  
INTENSITY PLAN

|        |               |                    |
|--------|---------------|--------------------|
| REF.   | SK55 - 3      |                    |
| SCALE  | 1 : 50 000    | DRAWN R.T.         |
| AUTHOR | I.M.C.        | REPORT No. 13392   |
| DATE   | 17 - 6 - 1985 | PLAN No. TASH 2649 |

135041

EL 4/83

5 cm



MAGNETIC ANOMALY

2850/10400

INPUT ANOMALY ( Fiducial/Line No. )



5 Channel Anomaly with very slow decay.



5 Channel Anomaly with very fast decay.



4 Channel Anomaly with very fast decay.

5 430 000 mN

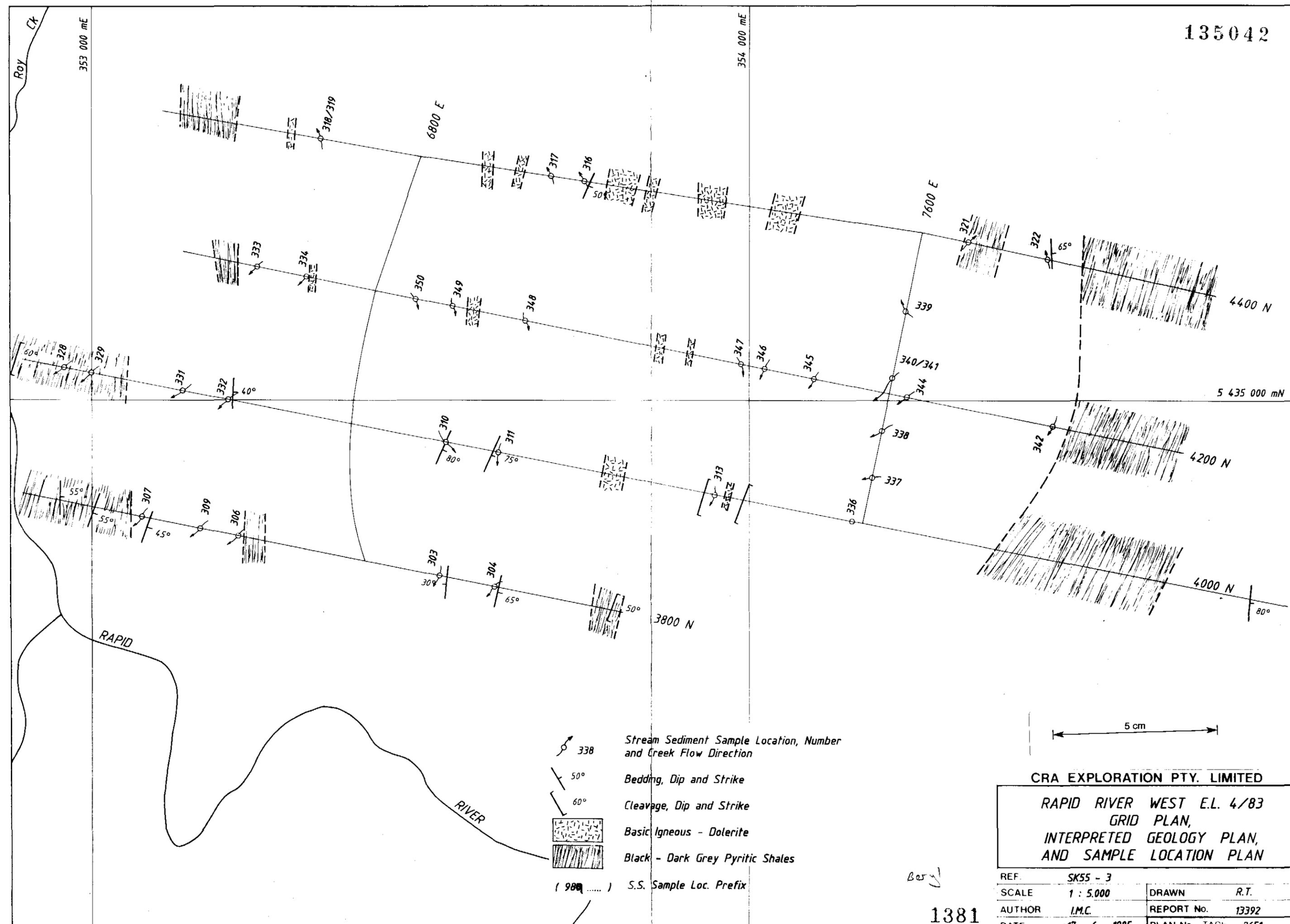
CRA EXPLORATION PTY. LIMITED

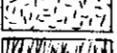
RAPID RIVER WEST E.L. 4/83  
 AEROMAGNETIC & INPUT E.M.  
 ANOMALY LOCATIONS

|        |               |                    |
|--------|---------------|--------------------|
| REF    | SK55 - 3      |                    |
| SCALE  | 1 : 50 000    | DRAWN R.T.         |
| AUTHOR | I.M.C.        | REPORT No. 13392   |
| DATE   | 17 - 6 - 1985 | PLAN No. TASH 2650 |

85 2437

040

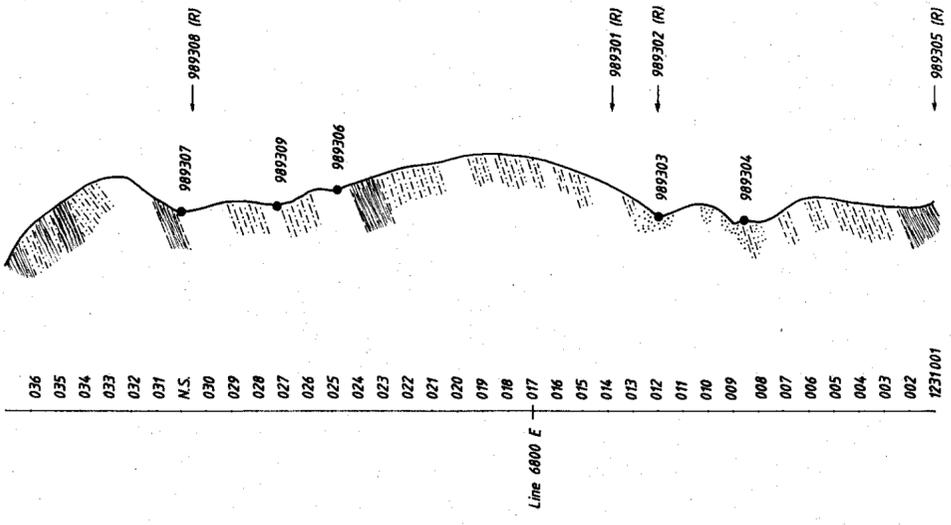
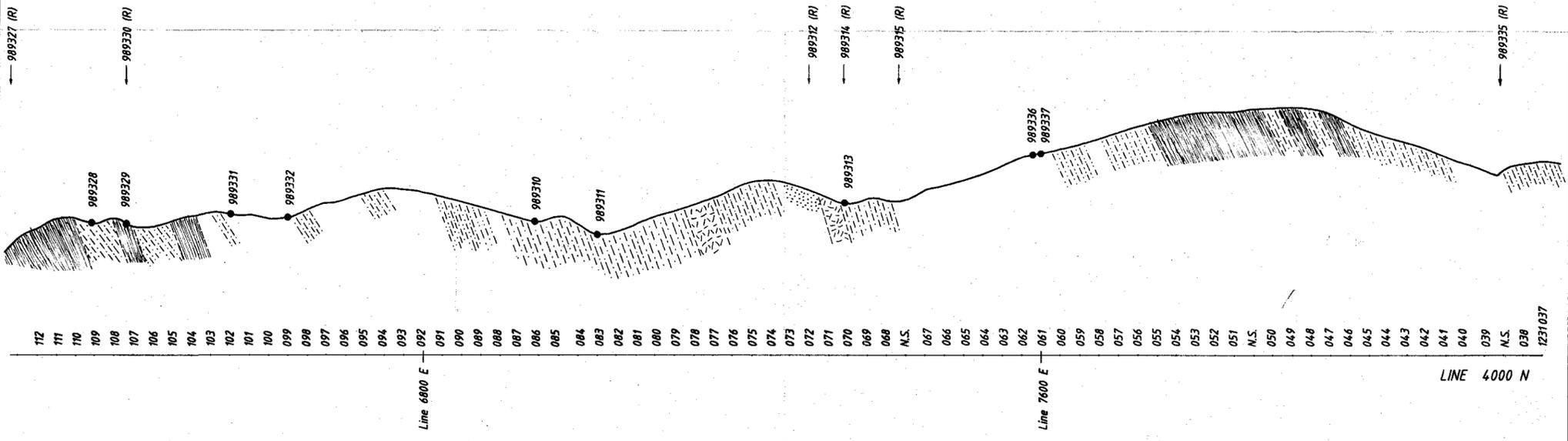
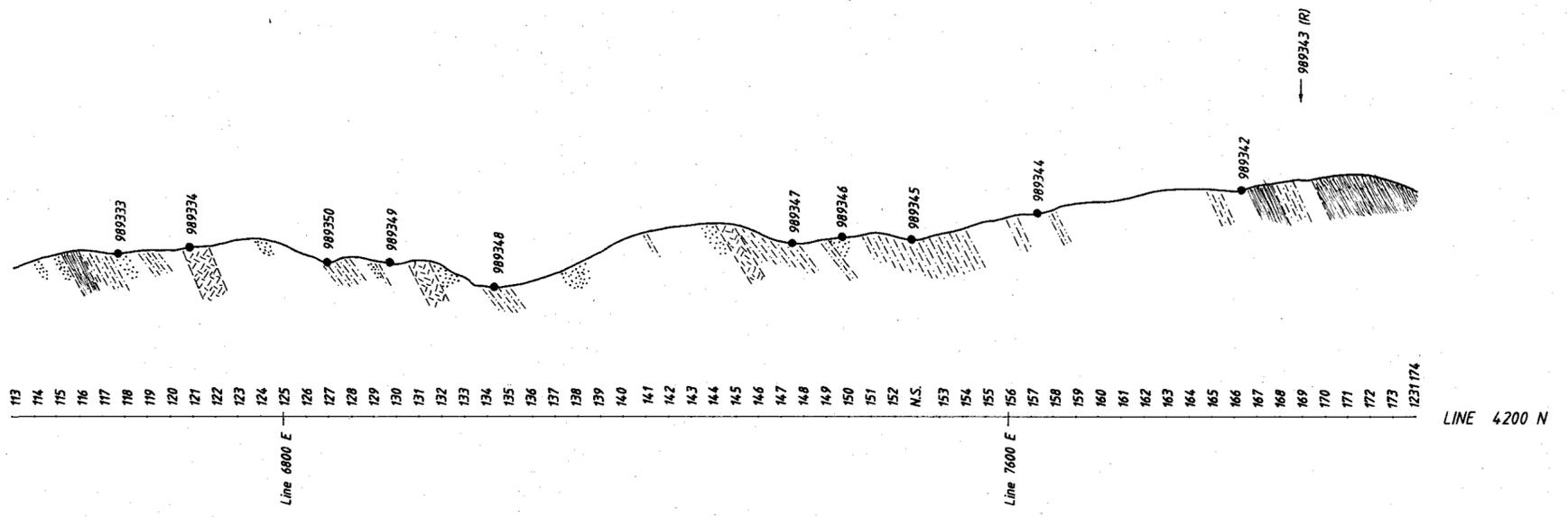
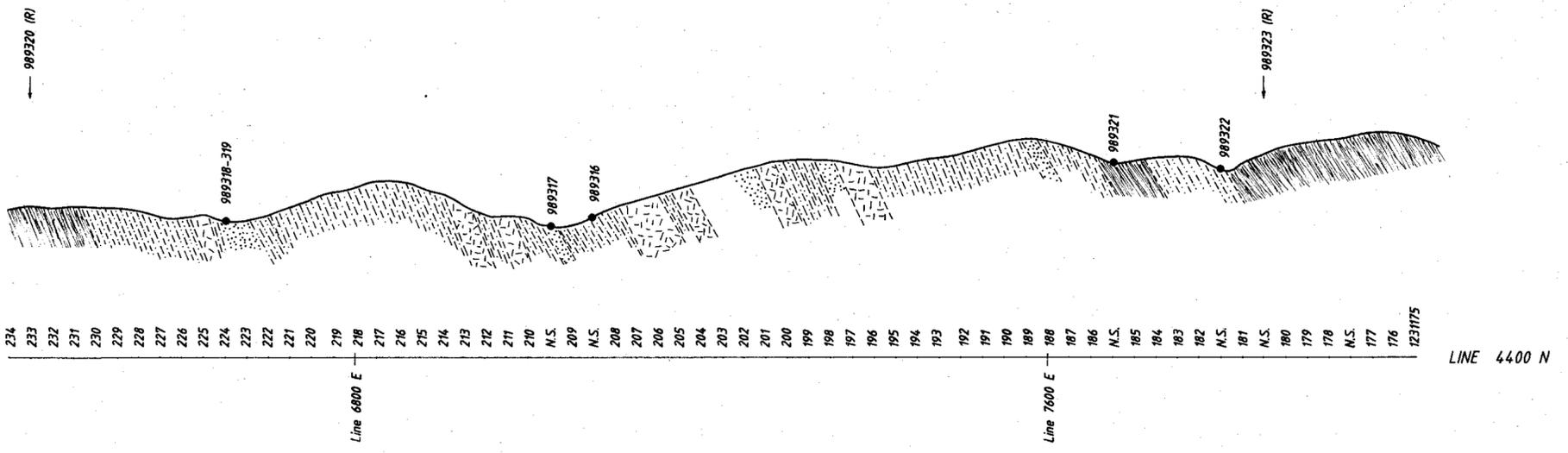


-  338 Stream Sediment Sample Location, Number and Creek Flow Direction
-  50° Bedding, Dip and Strike
-  60° Cleavage, Dip and Strike
-  Basic Igneous - Dolerite
-  Black - Dark Grey Pyritic Shales
-  ( 980 ..... ) S.S. Sample Loc. Prefix

CRA EXPLORATION PTY. LIMITED

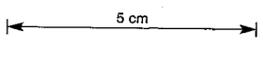
RAPID RIVER WEST E.L. 4/83  
 GRID PLAN,  
 INTERPRETED GEOLOGY PLAN,  
 AND SAMPLE LOCATION PLAN

|        |           |            |           |
|--------|-----------|------------|-----------|
| REF.   | SK55 - 3  | DRAWN      | R.T.      |
| SCALE  | 1 : 5,000 | REPORT No. | 13392     |
| AUTHOR | I.M.C.    | PLAN No    | TASh 2651 |
| DATE   | 17 6 1985 |            |           |



- KEY**
-  BLACK PYRITIC SHALES
  -  LIGHT GREY - BUFF SILTSTONES
  -  BUFF SILTSTONES - FINE SANDSTONES
  -  MED. GR. SANDSTONES
  -  ALTERED DOLERITE
  -  989305 (R) ROCK SAMPLE
  -  989304 STREAM SED. SAMPLE
  -  1231001 SOIL SAMPLE

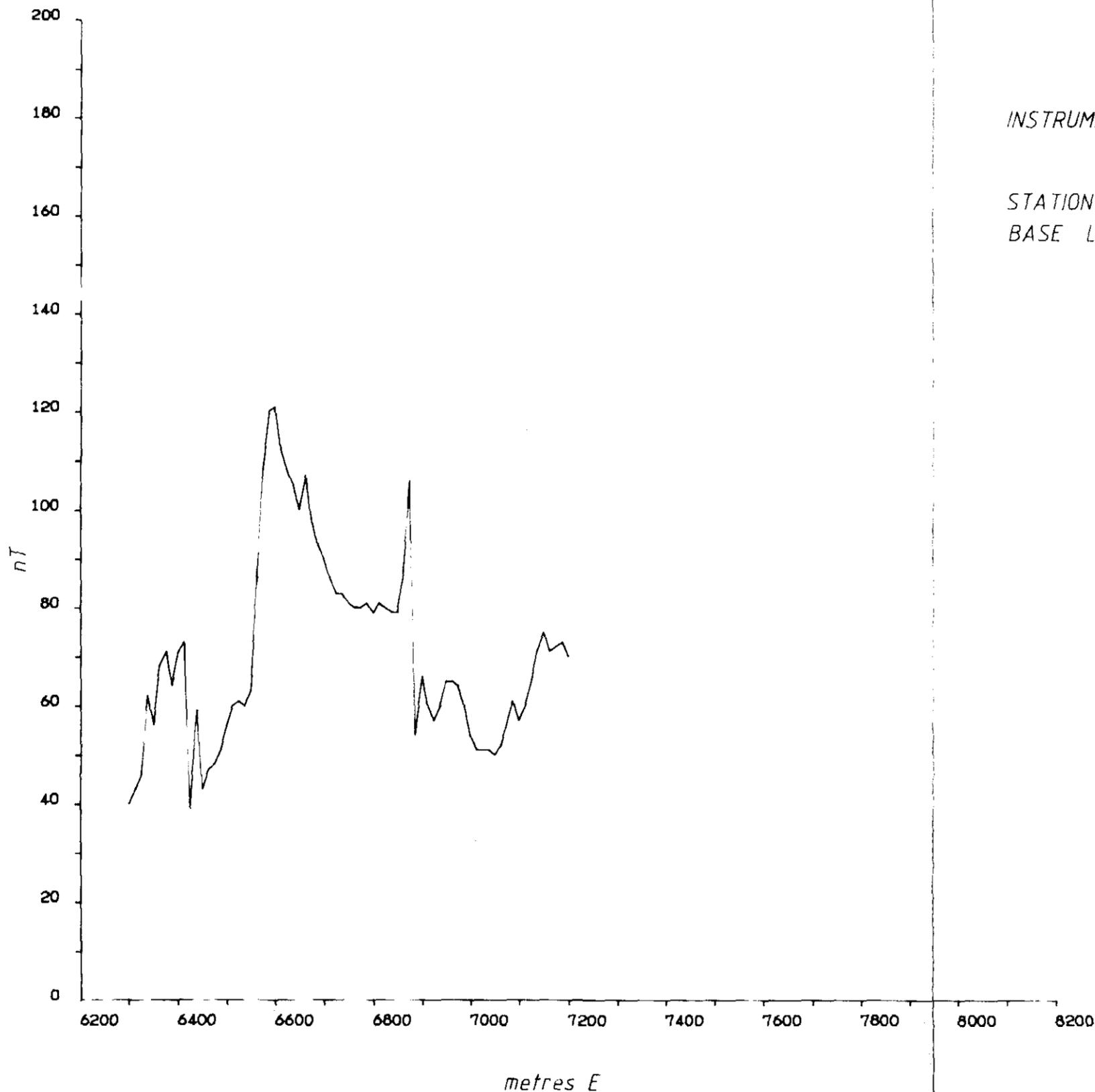
135043



|   |                    |
|---|--------------------|
| CRA EXPLORATION PTY. LIMITED  |                    |
| RAPID RIVER WEST E.L. 4/83<br>GEOLOGICAL PROFILES<br>AND SAMPLE LOCATIONS |                    |
| REF. SK55 - 3   |                    |
| SCALE 1 : 5000  | DRAWN R.T.         |
| AUTHOR I.M.C.   | REPORT No. 13392   |
| DATE 19 - 6 - 1985  | PLAN No. TASH 2652 |

85-2437 1382

RAPID RIVER: RAPID GRID LINE 3800N GMAG



INSTRUMENT: GEOMETRICS G856  
 PROTON PRECESSION MAGNETOMETER

STATION SPACING: 12.5 metres  
 BASE LEVEL: 62 000nT

135044

5 cm

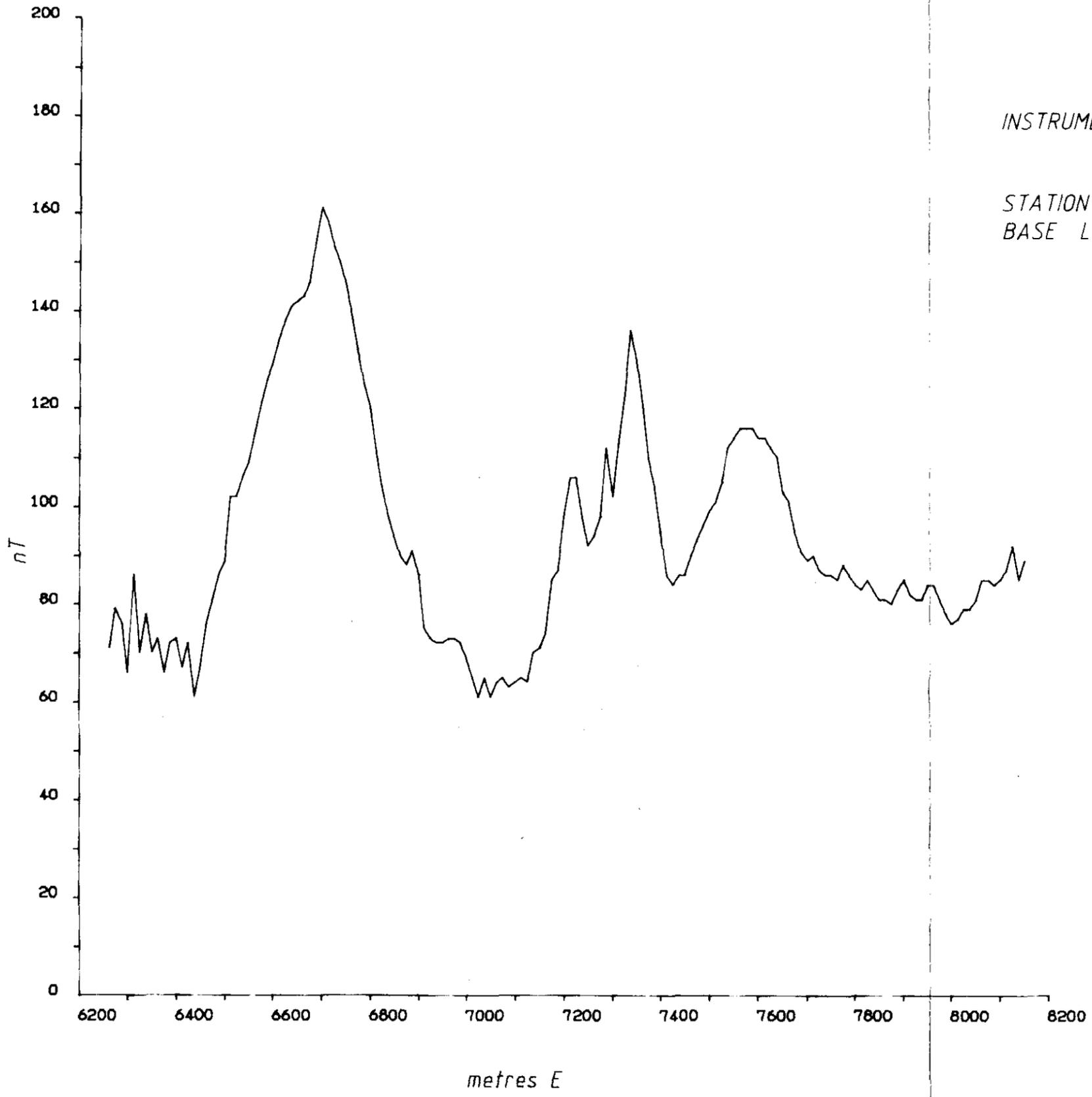
CRA EXPLORATION PTY. LIMITED

RAPID RIVER WEST E.L. 4/83  
 GROUND MAGNETIC PROFILE  
 LINE 3800 N 1383

|        |               |            |           |
|--------|---------------|------------|-----------|
| REF.   | SK55 - 3      | DRAWN      | T. vS.    |
| SCALE  | As Shown      | REPORT No. | 13392     |
| AUTHOR | T. vS.        | PLAN No.   | TASh 2653 |
| DATE   | 17 - 6 - 1985 |            |           |

85-2437

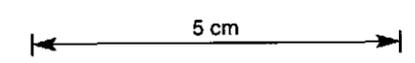
RAPID RIVER: RAPID GRID LINE 4000N GMAG



INSTRUMENT: GEOMETRICS G856  
 PROTON PRECESSION MAGNETOMETER

STATION SPACING: 12.5 metres  
 BASE LEVEL: 62000nT

135045

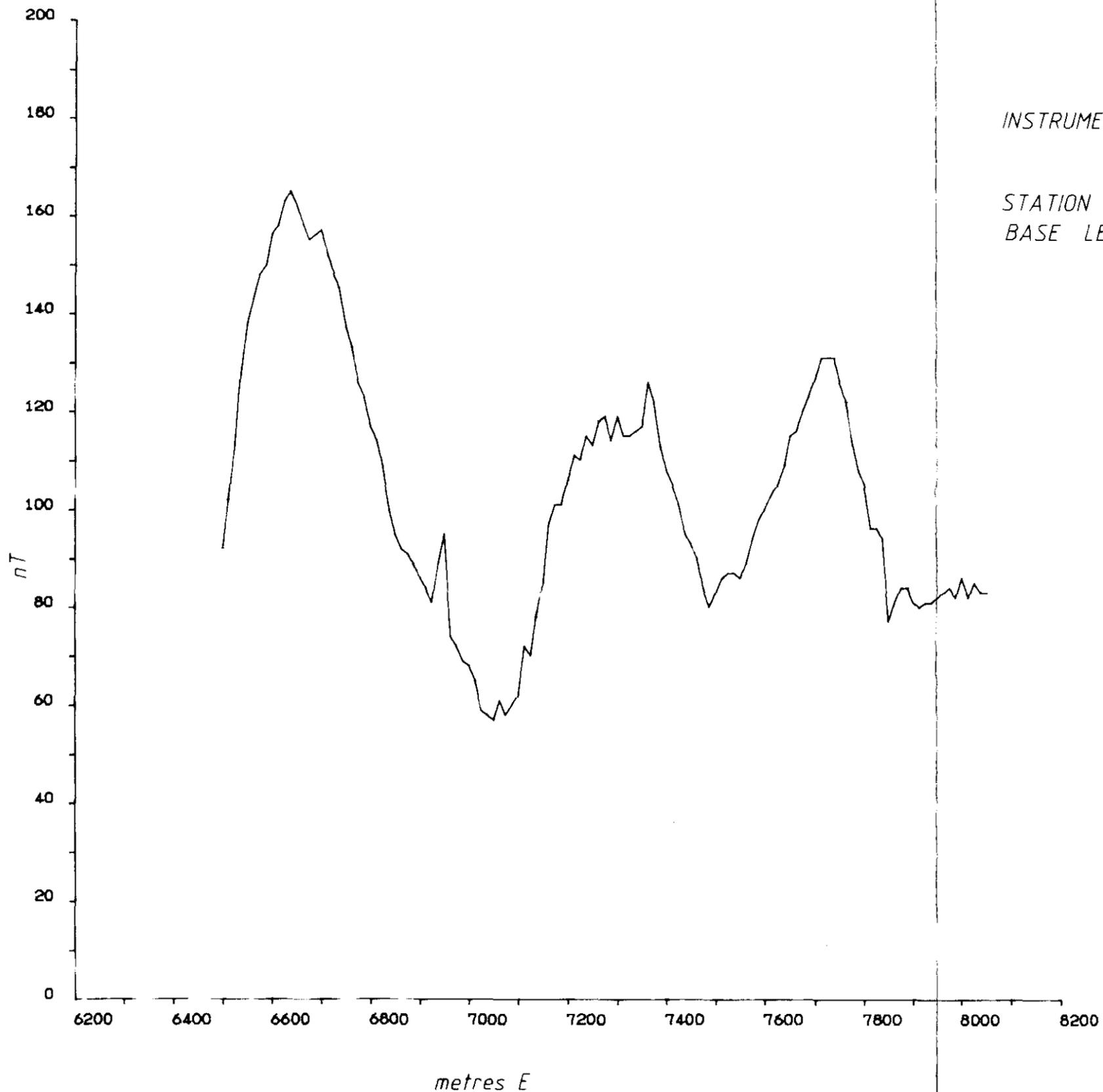


CRA EXPLORATION PTY. LIMITED  
 RAPID RIVER WEST E.L. 4/83  
 GROUND MAGNETIC PROFILE  
 LINE 4000 N 1384

|        |               |            |           |
|--------|---------------|------------|-----------|
| REF.   | SX55 - 3      |            |           |
| SCALE  | As Shown      | DRAWN      | T. v.S.   |
| AUTHOR | T. v.S.       | REPORT No. | 13392     |
| DATE   | 17 - 6 - 1985 | PLAN No.   | TASh 2654 |

85-2437

RAPID RIVER: RAPID GRID LINE 4200N GMAG



INSTRUMENT: GEOMETRICS G856  
 PROTON PRECESSION MAGNETOMETER

STATION SPACING: 12.5 metres  
 BASE LEVEL: 62000nT

135046

5 cm

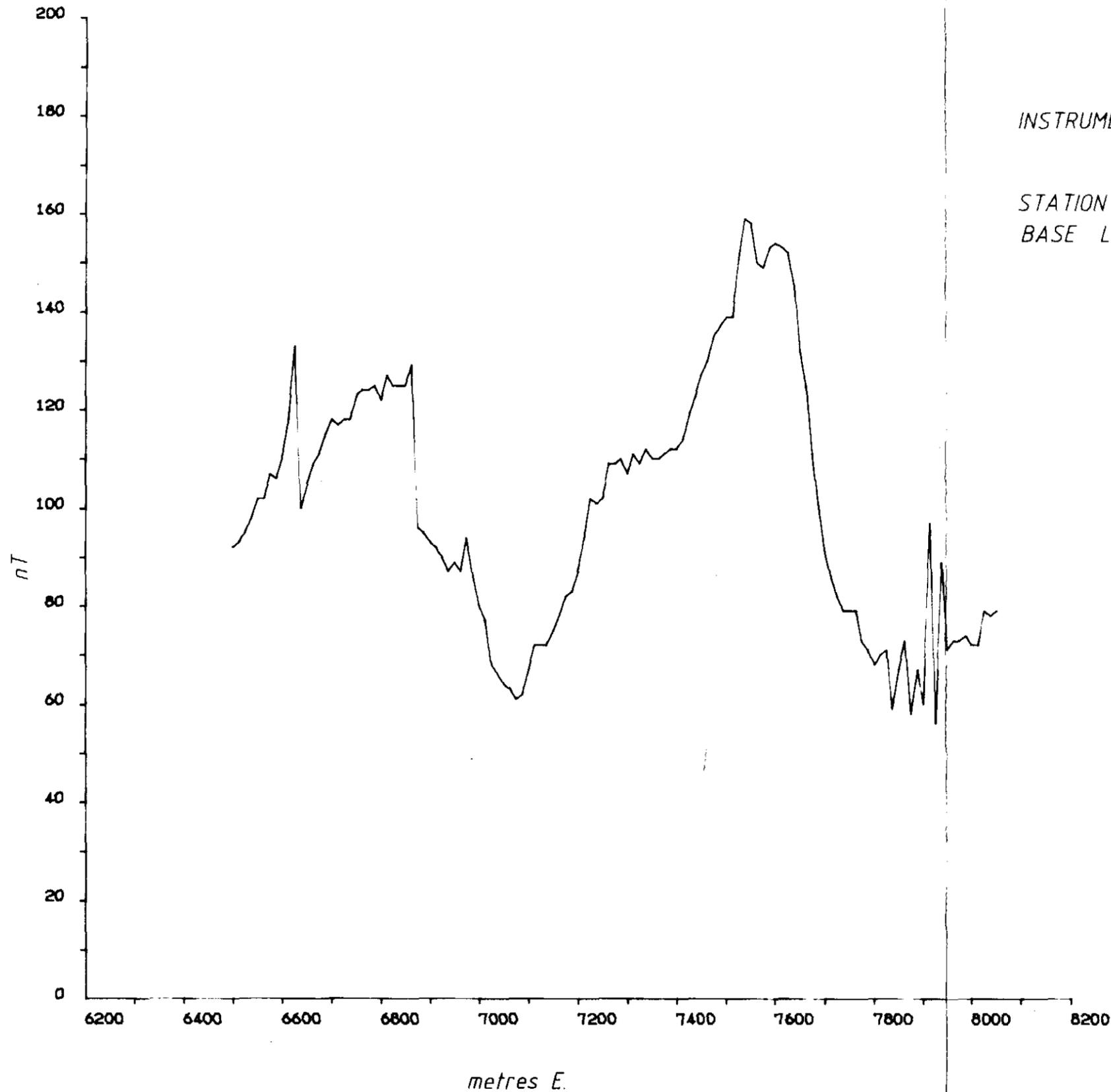
CRA EXPLORATION PTY. LIMITED

RAPID RIVER WEST E.L. 4/83  
 GROUND MAGNETIC PROFILE  
 LINE 4200 N 1385

|        |               |            |           |
|--------|---------------|------------|-----------|
| REF.   | SK55 - 3      |            |           |
| SCALE  | As Shown      | DRAWN      | T. vS.    |
| AUTHOR | T. vS.        | REPORT No. | 13392     |
| DATE   | 17 - 6 - 1985 | PLAN No.   | TASh 2655 |

85-2437

RAPID RIVER: RAPID GRID LINE 4400N GMAG



INSTRUMENT: GEOMETRICS G856  
 PROTON PRECESSION MAGNETOMETER

STATION SPACING: 12.5 metres  
 BASE LEVEL: 62 000nT

135047

5 cm

CRA EXPLORATION PTY. LIMITED

RAPID RIVER WEST E.L. 4/83  
 GROUND MAGNETIC PROFILE  
 LINE 4400 N 1386

|        |               |            |           |
|--------|---------------|------------|-----------|
| REF.   | SK55 - 3      |            |           |
| SCALE  | As Shown      | DRAWN      | T. v.S.   |
| AUTHOR | T. v.S.       | REPORT No. | 13392     |
| DATE   | 17 - 6 - 1985 | PLAN No.   | TASh 2656 |

85-2437

