

ANNUAL REPORT E.L. 4360

13th September, 1987
to
12th September, 1988

Licensee:	Ashton Mining Limited
Operator:	Ashton Mining Limited
Sheet Reference:	Calvert Hills (SE 53-8) 1:250,000
Submitted to:	Department of Mines & Energy

Ashton Mining Limited
444 Queen Street
Brisbane 4000

October, 1988

ABSTRACT

During the 1988 field season Ashton Mining Limited as Manager of the A.D.E. Joint Venture explored an area in the Mount Drummond-Calvert Hills-Brunette Downs region of which Exploration Licence 4360 forms a part.

The exploration program aimed at the location of kimberlite pipes, was concentrated to the south and west of Exploration Licence 4360, in E.L's 4352 and 4359, thought to represent the most prospective acreage.

Work carried out in the immediate confines of E.L. 4360 included detailed logging of both follow-up diamond and RAB holes drilled (as part of last year's program) over magnetic anomaly 'C8/9' and geological mapping within the southern portion of the licence area.

It is anticipated that an assessment of all drilling and sampling results in conjunction with detailed geological interpretation of the Coanjula region may lead to additional RAB or follow-up diamond drilling within Exploration Licence 4360.

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1.00 INTRODUCTION

Exploration Licence 4360 covers an area of 1,610 square kilometres (500 blocks) on the Calvert Hills 1:250,000 sheet (refer to Figure 1).

The licence, which was granted to Plenty River Mining Company (N.T.) Limited on 13th September, 1983, is subject to an option agreement with the A.D.E. Joint Venture comprising, Ashton Mining Limited, Aberfoyle Exploration Pty. Limited, Australian Diamond Exploration N.L. and Fibade Pty. Limited. The title was later transferred to Ashton Mining Limited, the transfer being approved by the Department of Mines and Energy on 9th April, 1984.

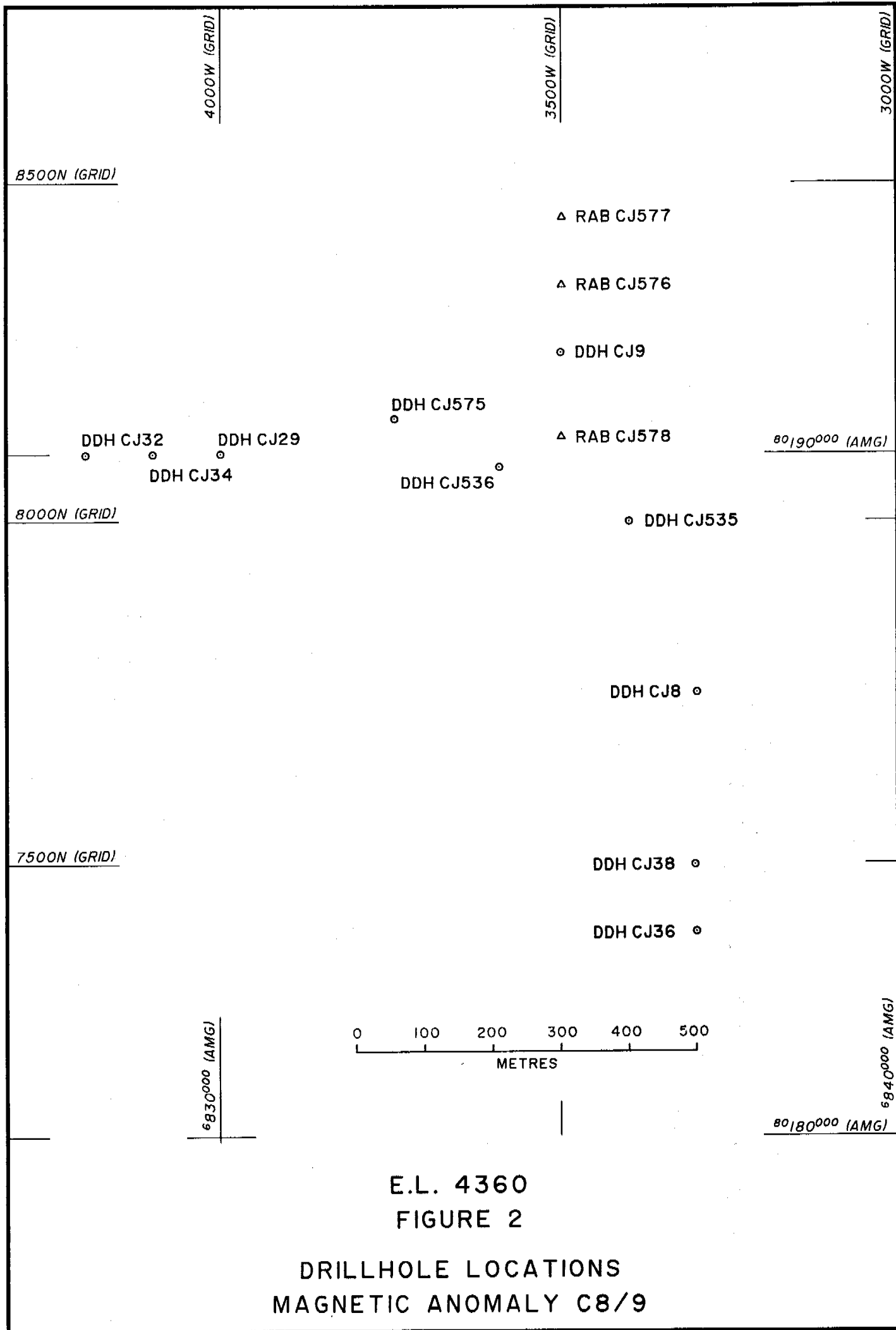
During the fifth year of tenure of the licence work within E.L. 4360 comprised re-examination and detailed logging of both follow-up diamond and RAB holes drilled (as part of last year's exploration program) over magnetic anomaly 'C8/9'.

Detailed geological mapping within the southern portion of the licence area was undertaken as part of a larger program incorporating Exploration Licences 4342, 4352 and 4359. The work was carried out in an attempt to aid in the evaluation of all previous drilling and sampling results within the Coanjula region.

2.

This report gives a summary of the work completed within E.L. 4360 during the period 13th September, 1987 to 12th September, 1988

A statement of expenditure covering this period is included in the report.



2.00 WORK COMPLETED

Magnetic anomaly 'C8/9' was initially identified through an airborne magnetic survey flown on behalf of the A.D.E. Joint Venture by Geometrics International Incorporation over the entire licence area of E.L. 4360. The magnetic target was subject to follow-up investigations involving a detailed ground magnetic survey and diamond drilling during the 1984/1985 and 1985/1986 field seasons (results of which were presented in previous annual reports for E.L. 4360). Refer to Plan 1 for anomaly and drillhole locations.

As part of last year's exploration activities additional follow-up diamond drilling in conjunction with RAB drilling were completed over anomaly 'C8/9' in an attempt to define structural and stratigraphic relationships associated with the igneous rocks encountered at this locality. The follow-up drilling program (comprising a total of 486 metres) was completed just prior to the close of the fourth year of tenure of the licence and at the time of writing of last year's annual report for Exploration Licence 4360 detailed logging of the diamond and RAB holes remained to be undertaken. This work was completed at the commencement of the licence's fifth term, results of which are herein presented.

Summarized drill logs for RAB holes (CJ576-CJ578 inclusive) and diamond drillholes (CJ535, CJ536 and CJ575) incorporating core recovery and lithological interpretation are given in Appendix 1. The location of the relevant

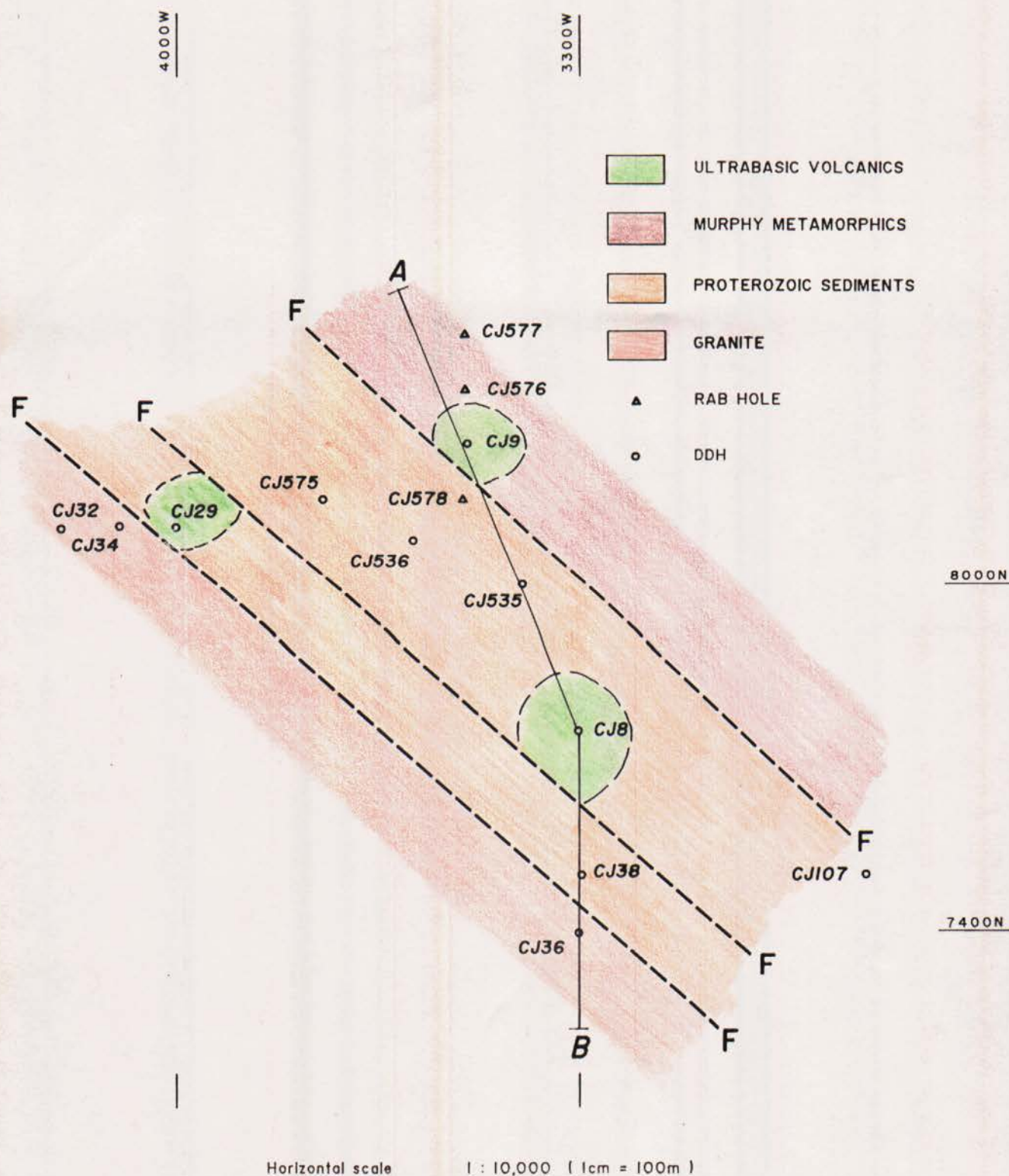


FIGURE 3

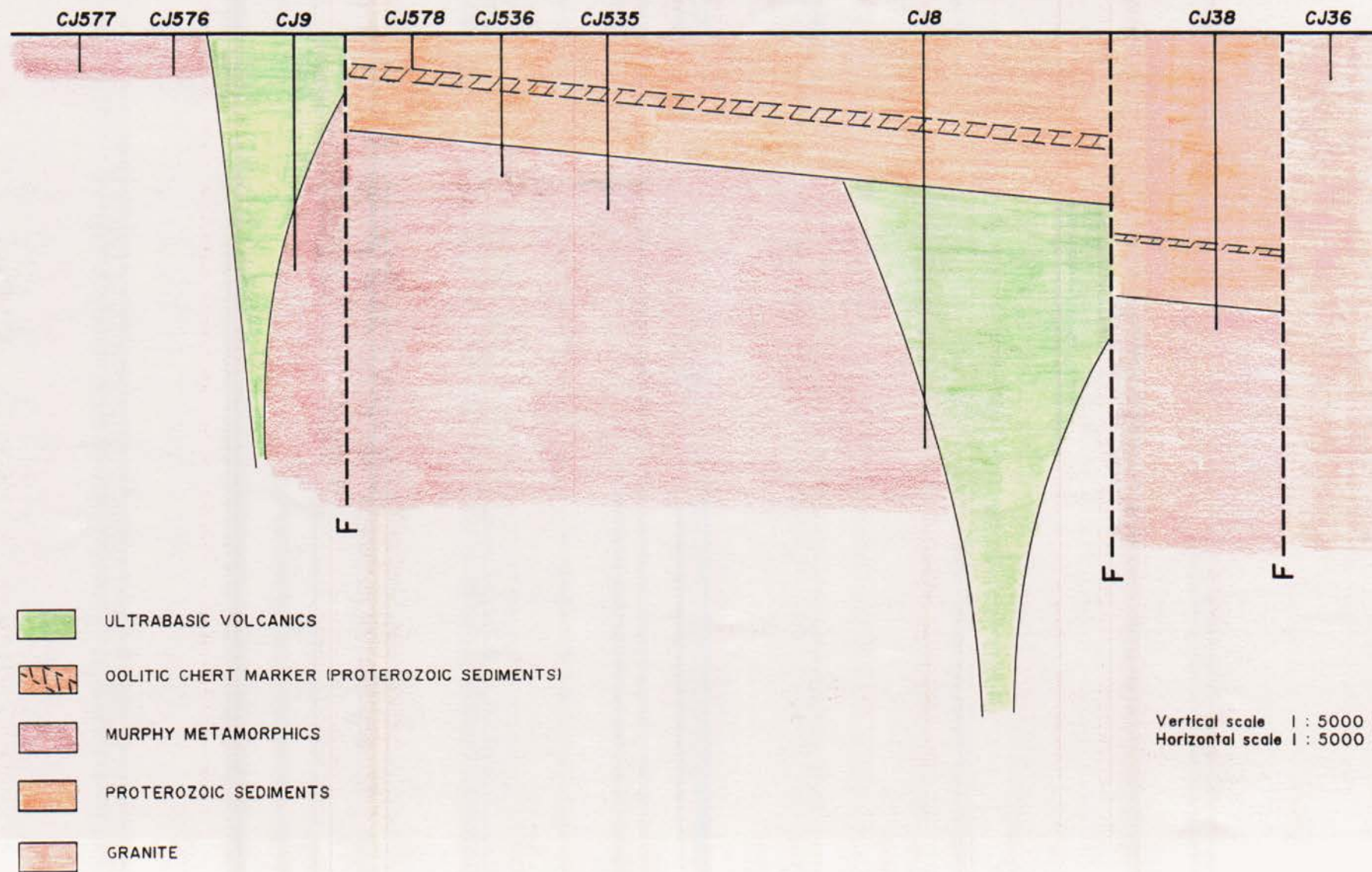
GEOLOGICAL INTERPRETATION
(PLAN VIEW)
MAGNETIC ANOMALY C8/9

NORTH
A

SECTION A-B
MAGNETIC ANOMALY C8/9

SOUTH
B

FIGURE 4



follow-up holes in relation to previous diamond drilling completed over anomaly 'C8/9' is shown in Figure 2.

The main lithologies encountered during the RAB/diamond drilling program included metasediments of the Murphy Metamorphics and Proterozoic sediments comprising sandstones, siltstones and quartzites. Granite basement was intersected in one of the diamond drillholes (CJ575) and at a depth of 115 metres.

No igneous rocks were identified through detailed logging of the drill core and spoil chips and it would appear that three discrete ultrabasic intrusive bodies are present centred on diamond drillholes CJ8, CJ9 and CJ29.

A plan-view (Figure 3) and corresponding cross-section (Figure 4) representing geological interpretation of all drilling results associated with magnetic anomaly 'C8/9' are presented opposite.

Additional work completed within E.L. 4360 during the 1988 field season involved detailed geological mapping concentrated within the southern portion of the licence area. This work was undertaken as part of a larger program to include Exploration Licences 4342, 4352 and 4359 within the Coanjula region.

3.00 FUTURE PROGRAMS

Exploration Licence 4360 forms part of a larger area in which the A.D.E. Joint Venture carried out an exploration program aimed at the location of kimberlite pipes.

Data generated by the 1988 field season's exploration activities within the Coanjula region, which included both RAB and diamond drilling and sampling and detailed geological mapping, is currently being assessed in conjunction with all previous results. It is anticipated that the assessment may determine the need for additional RAB or follow-up diamond drilling within Exploration Licence 4360.

APPENDIX 1

Drillhole : CJ535

Magnetic anomaly : C8/9

Grid position : 3400W , 8000N

Open hole ; overburden, Proterozoic mudstone, siltstone and quartzite

Proterozoic
banded chert breccia and quartzite

Brecciated oolitic chert marker bed

Proterozoic
banded chert breccia and quartzite

Proterozoic
dolomitic siltstones and shales, brecciated in places

Metasediments
grey, massive, siltstone and greywacke

End of hole 145.5m

DEPTH (metres)
Scale 1:1000

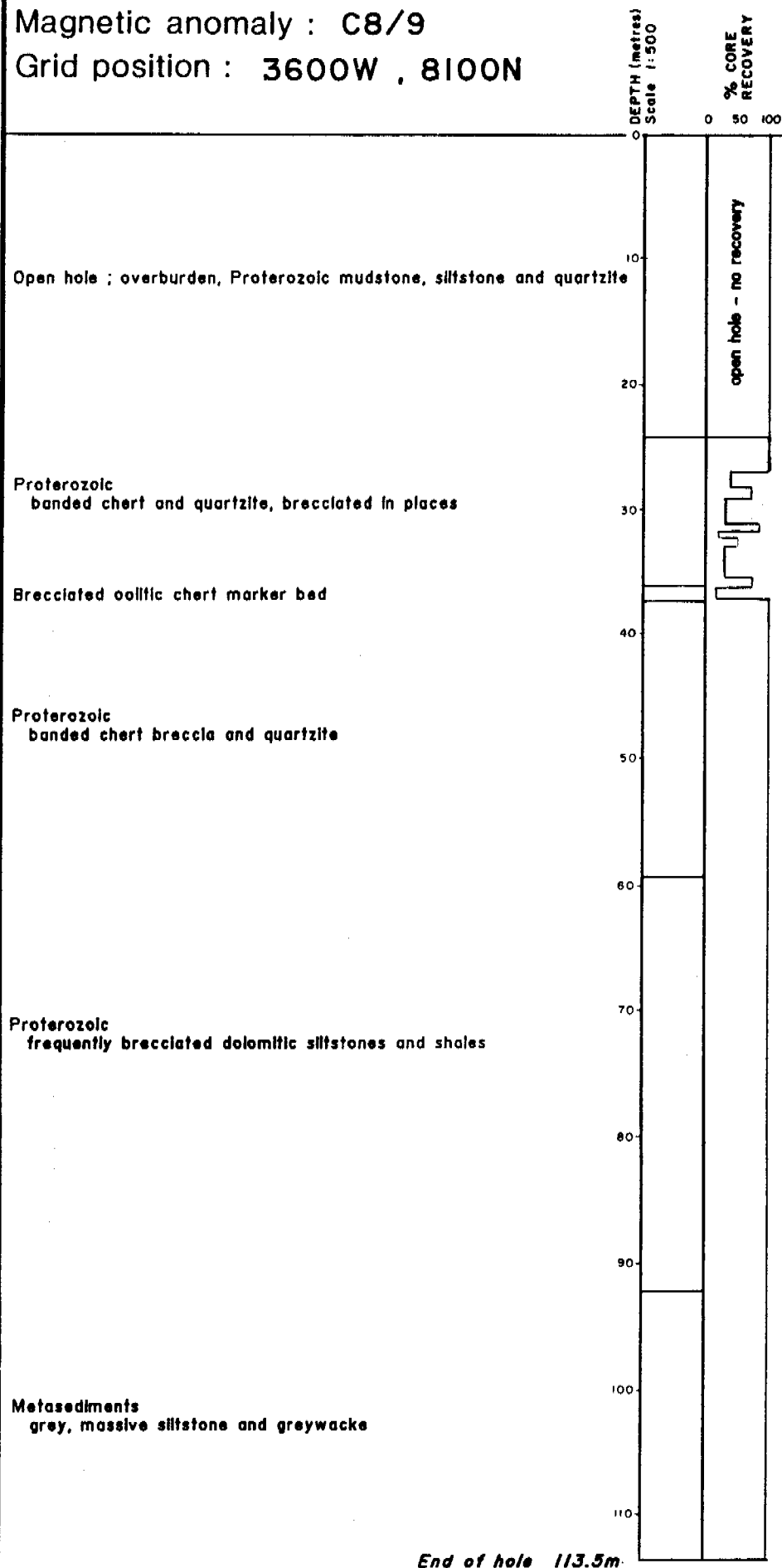
0 50 100
% CORE
RECOVERY

open hole
no recovery

open
hole

Overburden : includes black soil, unconsolidated to semiconsolidated (Cretaceous?) and other sediments.

Drillhole : DDHCJ536
Magnetic anomaly : C8/9
Grid position : 3600W , 8100N

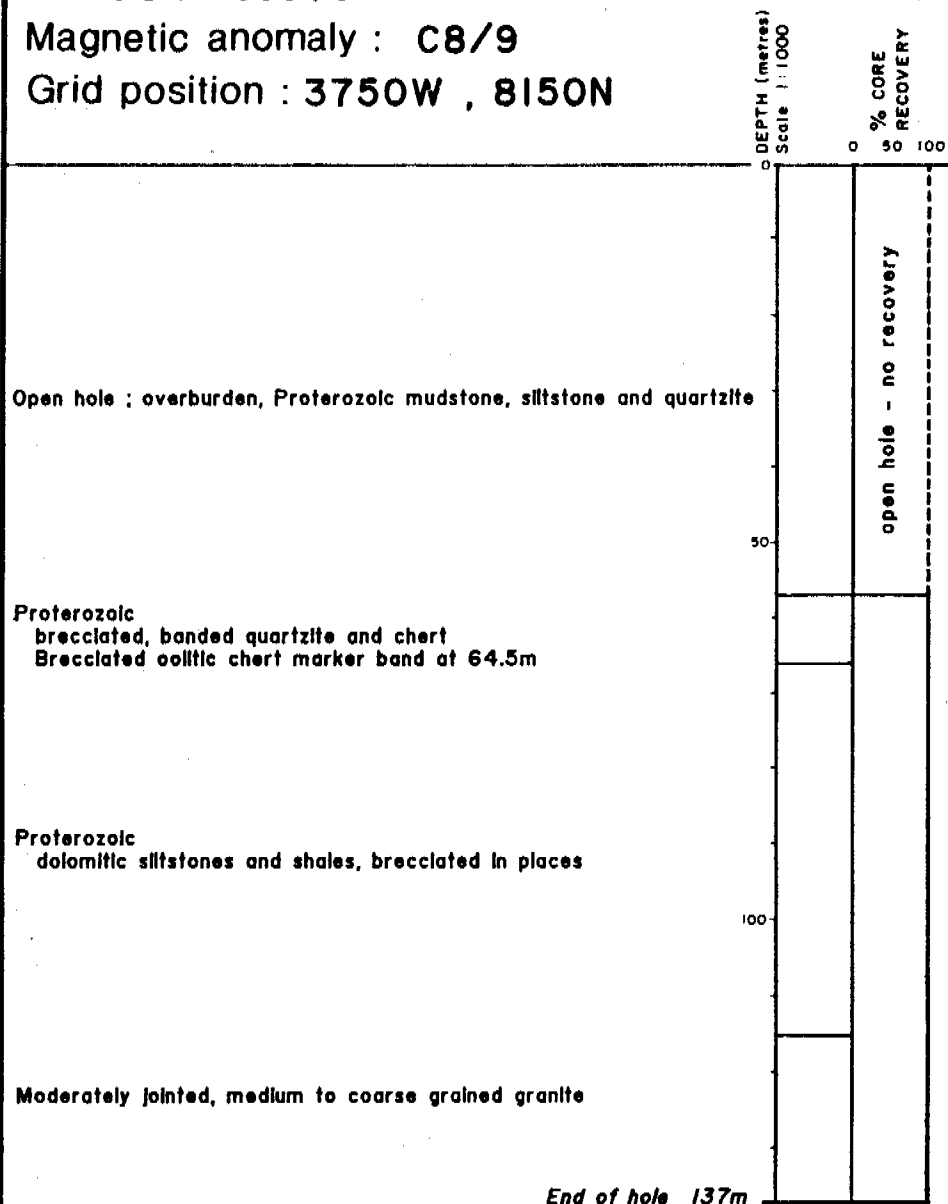


* Overburden : Includes black soil, unconsolidated to semiconsolidated Cretaceous(?) and other sediments.

Drillhole : CJ575

Magnetic anomaly : C8/9

Grid position : 3750W , 8150N



Overburden : includes black soil, unconsolidated to semiconsolidated Cretaceous(?) and other sediments.

Drillhole : RABCJ576
Magnetic anomaly : C8/9
Grid position : 3500W , 8350N

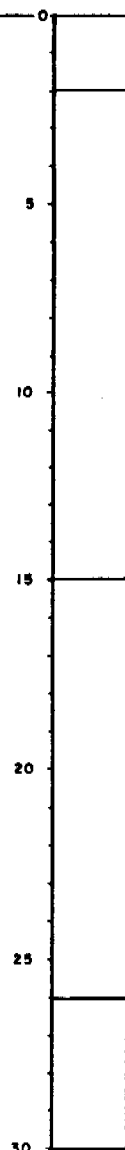
DEPTH (metres)
Scale 1:200

Black soil

Pale yellow to pale green silt and calcrete

Grey mudstone, minor sand

Very fine friable sand



Drillhole : RABCJ577
Magnetic anomaly : C8/9
Grid position : 3500W , 8450N

DEPTH (metres)
Scale 1:200

Black soil

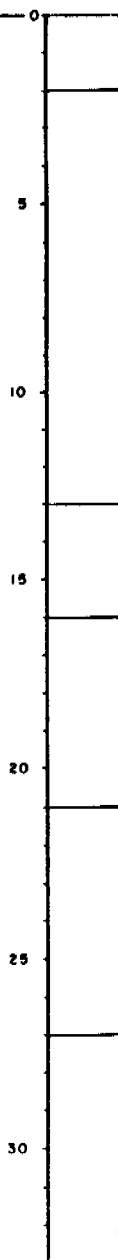
Pale yellow to pale green calcrete and silt

Brown mudstone

Grey mudstone

White, very fine grained, friable sand

Orange-brown, micaceous metasediments
(Proterozoic)



Drillhole : RABCJ578
Magnetic anomaly : C8/9
Grid position : 3500W , 8150N

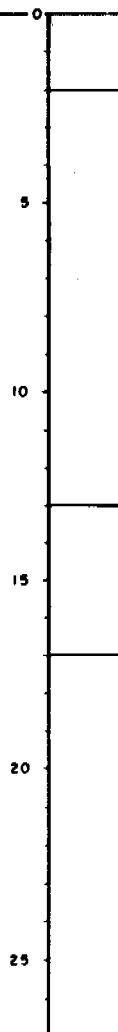
DEPTH (metres)
Scale 1:200

Black soil

Calcrete and silt

Brown-yellow sandy clay

Brown, hard, interbedded, quartzite and siltstone
(Proterozoic)



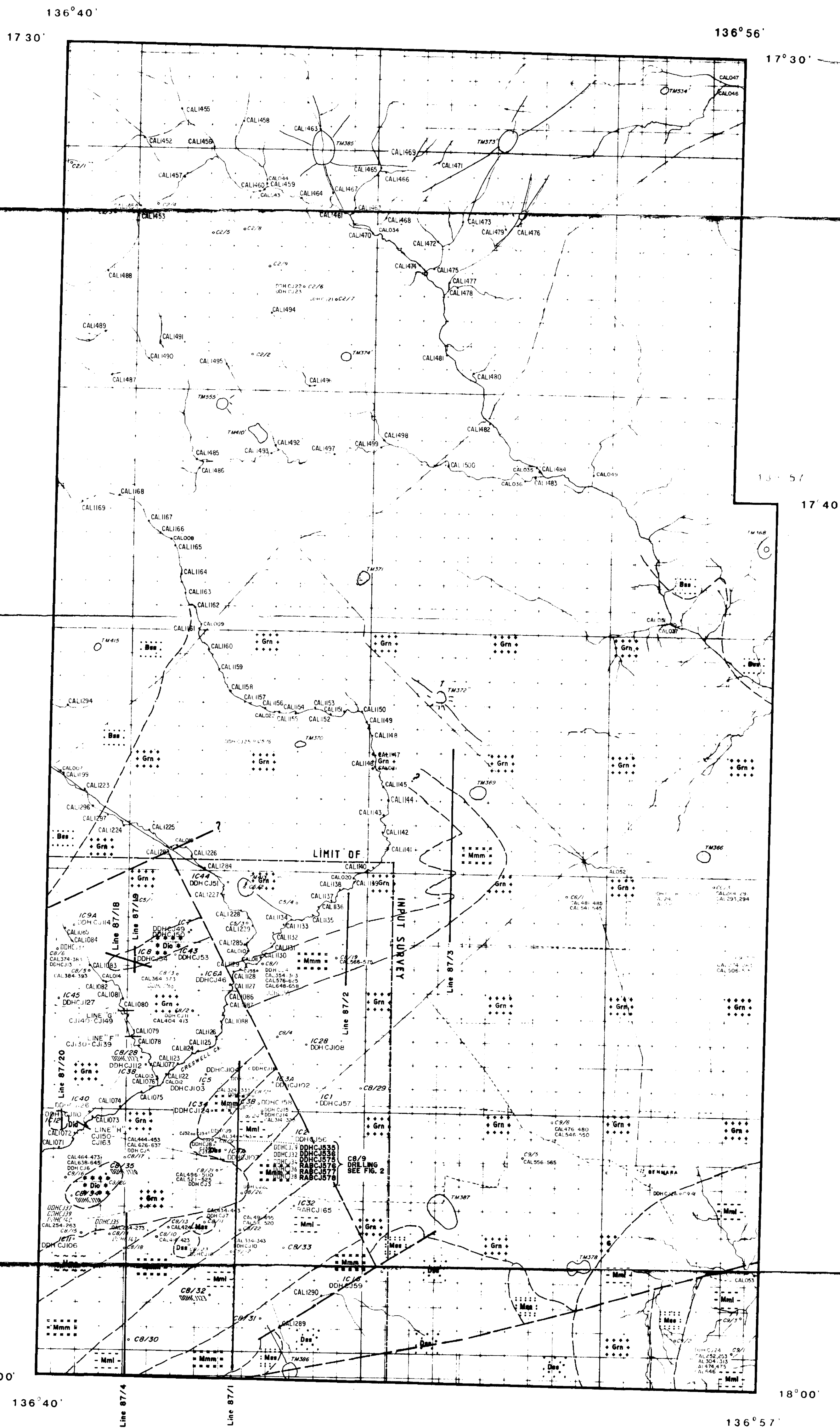
APPENDIX 2

A.D.E. JOINT VENTURE

EXPLORATION LICENCE NO. 4360

EXPENDITURE PERIOD 13.09.87 TO 12.09.88

	\$
Staffing	1,696.73
Contractors	4,577.72
Consumables	329.94
Transport	785.82
Other	4,373.79
Expenditure for the period:	\$11,764.00



PREVIOUSLY REPORTED (OCTOBER, 1984 & OCTOBER, 1985)

- CAL 082 Gravel sample
- CAL 434-443 Loam samples
- DDHC 107 Diamond drillhole
- CB/11 Known magnetic bodies
- TM 386 Thematic mapper anomaly

PREVIOUSLY REPORTED (OCTOBER, 1987)

- Line 87/3 Rotary air blast drill line
- DDHC 1035 Diamond drillhole

PREVIOUSLY REPORTED (OCTOBER, 1986)

- CAL 085 Gravel sample
- DDHC 1066 Diamond drillhole drilled on Input anomaly
- "F" Rotary air blast drill line
- CB/32 Additional magnetic targets
- IC 16 Input survey anomaly
- RABC 165 Rotary air blast drillhole
- DDHC 1073 Diamond drillhole testing additional magnetic target
- DDHC 1055 Follow-up diamond drillhole on previously drilled, magnetic anomaly
- DDHC 1041 Diamond drillhole testing known magnetic body not previously drilled
- DDHC 1052 Diamond drillhole drilled on thematic mapper anomaly

- Bss Bukara Sandstone
- Mss Mittibadi Sandstone - quartzites
- Dss Dolomitic shales and siltstones
- Diol Diolite/ biotite/ amphibole syenogabbro/ diorite
- Ngr Nicholson granite
- Mmm Murphy Metamorphics (epidote-amphibole facies)
- Mmm Murphy Metamorphics (middle to upper greenschist facies)
- Mmm Murphy Metamorphics (lower greenschist facies)

CR89/265

ASHTON MINING LIMITED
A.D.E. JOINT VENTURE
E.L. 4360
SAMPLE, ANOMALY AND
DRILLHOLE LOCATIONS
PLAN 1
0 1 2 3 4 5 KM
Scale 1:100 000
ASHTON MINING LIMITED OCTOBER, 1988

REPORT NO

SECURITY

REPORT TITLE

ANNUAL REPORT E.L. 4360

13 SEPTEMBER 1987 to 12 SEPTEMBER 1988

AUTHOR(S)

ASHTON MINING LIMITED

PUBLISHER

PLACE OF PUB'N

BRISBANE

DATE OF PUB'N OCTOBER 1988

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PAGES OF TEXT 5

ACCOMPANIMENTS

1 PLAN, 4 FIGURES, 2 APPENDICES

DRILL CORE Y

LICENCE NO.

E.L. 4360

PROJECT YEAR(S)

1987, 1988

LICENSEE(S)

ASHTON MINING LIMITED

JOINT VENTURE(S)

A.D.E. JOINT VENTURE

OPERATOR(S)

ASHTON MINING LIMITED

1:1 000 000

NEWCASTLE WATERS SE 53

1: 250 000

CALVERT HILLS SE 53-8

1: 100 000

COANJULA 6262

1: 50 000

6262-I, 6262-II, 6262-III, 6262-IV

PROSPECT NAME(S)

SITE LOCATION

LAT:

LONG:

TECTONIC UNIT

GEORGINA BASIN

MAJOR TERM

☐ PETROLEUM GEOLOGY

☐ METALLIFEROUS MINERALS

☒ NONMETALLIFEROUS MINERALS

MINOR TERMS

DIAMOND EXPLORATION

DRILLING

☐ GEOPHYSICS

☐ GEOCHEMISTRY

GENERAL

- ☐ DIAMOND
☐ PERCUSSION
☐ AUGER
☐ ROTARY

AERIAL SURVEYS

- ☐ MAGNETIC
☐ RADIOACTIVITY
☐ EM SURVEYS

GROUND

- ☐ EM SURVEY METHOD
☐ IP SURVEY METHOD
☐ SEISMIC SURVEYS
☐ RESISTIVITY SVYS
☐ GEOPHYSICAL ANOM
☐ GRAVITY SURVEYS

SAMPLING

- ☐ STREAM SEDIMENT
☐ SOIL
☐ ROCK CHIP
☐ WATER

OTHER

- ☐ DRAINAGE TESTING
☐ DRILL CORE ANALYSIS
☐ ASSAYING
☐ GEOCHEMICAL ANOM

- ☒ GEOL MAPPING
☐ PHOTOGEOLOGY
☐ GRIDING
☐ METHODS
☐ REGIONAL GEOLOGY
☐ LOCAL GEOLOGY
☐ STRATIGRAPHY
☐ RECONNAISSANCE
☒ LOGGING

NOTES

ABSTRACT YES

INDEXED BY/DATE

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