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CAPRICORN MINING PTY. LTD.
151-155 Dorcas Street,
South Melbourne.
Victoria 3205

REPORT CAP 704

INCLUDING E.L.'s 27/79, 26/79, 28/79, 29/79

FINAL REPORT OF SOUTHEASTERN TASMANIAN COAL PROSPECTS

for

CAPRICORN MINING PTY. LTD.

by

GENERAL GEOLOGICAL SERVICES

Work Order CAP 704

February 1981

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TASMANIAN COAL PROSPECTS
FINAL REPORT

CONTENTS

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TASMANIAN COAL PROSPECTS

FINAL REPORT

1. INTRODUCTION

This report is a culmination of results of desk studies and field investigations exercised by General Geological Services on behalf of Capricorn Mining Pty. Ltd. in connection with the search for coal in four exploration licence areas within southeastern Tasmania.

It further outlines the forward programme which encompasses scout-drilling and geophysical logging for the next six months.

This forward programme has two main objectives:

(1) To determine the margins of the coal areas.

(2) To determine the time stratigraphy of the basin and the lithofacies distribution within the desired horizons.

Capricorn Mining was granted approval to undertake exploration for coal by The Tasmanian Department of Mines on April 16, 1980, as set out in Section 15B of the Mining Act, 1929.

The four designated prospective areas cover an overall area of approximately 3620 square kilometres as shown in Figures 1 to 4.

An outline of their respective dimensions, including their locality and extent, are outlined in Table 1.

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TABLE 1:

Capricorn Mining Survey Areas		Tasmanian Mines Department Exploration Licence Areas.			
No.	Name	EL No.	Land District	Vicinity	Area (m^2)
1	Sandfly	26/79	Buckingham	Sandfly	825
2	Hamilton	27/79	Cumberland, Monmouth & Buckingham	Hamilton	870
3	Colebrook	28/79	Monmouth & Somerset	Colebrook	1,562
4	Cygnet	29/79	Buckingham	Cygnet	360

E.L. 27/79

The framework of the exploration programme as initially proposed is as follows:

Stage	Work Programme	Timing
1	REGIONAL GEOLOGICAL APPRAISAL	12 months
	A. Preliminary reconnaissance	2 months
	B. Detailed geological mapping and sampling	4 months
	C. Geophysical and scout-drilling programmes	6 months
2	ENGINEERING AND RESERVE ECONOMIC STUDIES	6 months (with Stage 1C)
3	DETAILED EVALUATION OF COAL	8 months
4	FEASIBILITY STUDIES	4 months

The geophysical appraisal to date, embraces Stages 1A and 1B and includes a literature research, an extensive field investigation and survey, and analysis of field data.

These topics constitute the subject of this report.

It is envisaged that Stage 1C will commence on the 23rd of February 1981.

Monthly reports have been previously prepared and submitted for each of the four exploration licence areas for the months ended May 31st 1980 until January 31st 1981, inclusive.

Capricorn Mining is meeting its exploration responsibilities in Tasmania through the activity and advice of General Geological Services, who are retained as both administrative and technical managers and consultants for the current coal search and evaluation programme.

(1) ADMINISTRATIVE MANAGEMENT

All administrative matters concerning the programme are under the control of Mr. Colin Glazebrook who is Managing Director of General Geological Services, (155 Dorcas Street, South Melbourne, Victoria 3205).

(2) TECHNICAL MANAGEMENT

Mr. Robin Glenie is engaged as the Project Geologist throughout the duration of the programme and is responsible for its organisation.

The site geologist employed for Stage 1C is Mr. Manual Zapata who is responsible for supervising the scout-drilling programme.

He is supported by Mr. Peter Darby and Mr. Tony Hill in their capacity as geologists.

Mr. John Bishop is employed as the 'on-site' geophysicist and is responsible for interpretation of geophysical logs.

A field office was established during the regional geological appraisal (Stages 1A and 1B) at Claremont, an outer suburb of Hobart. This location permitted efficient access to all the four lease areas.

2. GEOLOGICAL SEARCH AND SURVEY PROGRAMME

2.1 DATA COLLECTION

2.1.1 Literature and data search

An initial collection and review of any relevent literature, with respect to Tasmanian Coal occurrences, was made prior to the application of the exploration licences.

Systematic processing of records, both early and recent, documents, government borelogs and open file material from the Tasmanian Department of Mines in Hobart, and technical libraries in Melbourne allowed us to augment this information for use in the field.

These abovementioned sources provided :-

- papers and maps that dealt with geophysical and regional geological aspects with respect to basinwide rock units of Triassic age.
- major structural elements
- hydrogeology
- bio-stratigraphy
- palaeo - environmental interpretations
- past records of the geology of coal deposits as documents in the form of technical papers, unpublished reports and plans and related documents.
- past and recent mining accounts of coal mines.
- topographic maps
- land ownership plans
- environmental and conservation data.

2.1.2 Photographic and Imagery Cover

Complete stereo-aerial photographic coverage of all selected exploration licences further supplemented existing geological maps. This enabled us to update maps in order to compile an accurate appraisal of the geology.

As a regional overview of the geological framework of the whole of the northern Tasmania, appropriate satellite imagery was ordered from the Australian Department.

2.2 GEOLOGICAL RECONNAISSANCE

An intensive survey of the four lease areas was carried out in April and May of 1980.

Type sections were observed where possible and coal measures of three different ages were observed namely,

1. The Upper Permian Cygnet Coal Measures
2. The Early Triassic Kaoota Coal Measures
3. The Middle (? Late) Triassic Coal Measures

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Orientation surveys were carried out by two field teams respectively, led by Mr. Rob Glenie and a field assistant, and Dr. Alby Link and a field assistant.

Each team was responsible for conducting a reconnaissance on two of the lease areas.

Following initial assessment of area potential, prospective localities were examined in detail either by combined or by interchanged survey parties in order to test opinions and to obtain accurate and co-relateable field evaluations.

Correspondence and personal communication with geologists acquainted with the coal basins within southern Tasmania further aided generalised thoughts on the depositional environment.

Although a model was not conceived, it was recognised that the axis of the basin is in roughly a north-south direction, with sediment to the east of the axis being derived from the outer margins, converging at the axis. Conversely, accumulated sediments to the west of the axis were derived from the west and converged towards the axis of the basin.

A critically limiting factor in the field exploration programme was the overall paucity of outcrop of the prospective stratigraphic units.

Samples taken from the field were sent for proximate analysis and other corresponding tests (see Section 3.3 and Appendix II).

2.3 PREVIOUS MINING AND ENVIRONMENTAL FACTOR EVALUATION

Information from previous records enabled the survey crews to inspect past coal mining operations.

The majority of these old workings provided limited information, due to flooding and collapse of shafts and adits.

Old mineral lease charts were obtained from the following localities:

Sandfly
Mersey and Dulverton
Cygnet

Underground mine plans were obtained for the following coal mines:

- Colebrook
- Dulverton
- Langloh Coal
- Cygnet
- York Plains Coal Mine
- Sandfly
- Tasma Coal Mine

The areas of past mining operations have been examined from the viewpoint of their short and long period impact on aspects of the local environment (including soil and vegetation disturbance, deforestation, spring and seepage interference, run-off and drainage change, stream sedimentation and pollution, landslide and subsidence).

The more direct effects on land ownership and utilization, grazing and apricultural capacity, water rights, forest management, caused by tailing dumps and settling ponds, adits and shafts, drillholes, roads and railways, etc. have also been assessed.

Environmental impact statements were prepared by General Geological Services and submitted to the Tasmanian Department of Mines.

In addition, the Forestry Commission of Tasmania issued Capricorn Mining with a lease over the areas which contain or are occupied by State Forests.

3. EXPLORATION RESULTS AND ASSESSMENTS

3.1 INTERPRETATIONS

Integrated geological interpretations are progressively being assembled from all data obtained from the review of relevant literature on Tasmanian Coal deposits, and from the results of the field survey in the Petro Quest exploration licence areas.

These interpretations provide a basis for the preliminary assessment of the coal potential which completes Stages 1A and 1B of the exploration programme and are used in designing the follow-up Stage 1C field exploration programme.

The major areas of interest deriving from the geological study and preliminary interpretation are as follows :

1. Cygnet Area (ref. Map - Area 4)

Field examination indicated that rock units favourable to the occurrence of black coal are exposed in an extensive area near Cygnet. Several coal beds outcropping in old adits were sampled in addition to a thin seam outcropping on the coast. The coal occurs in siltstones and mudstones of Late Permian age.

2. Kaoota Area (ref. Map - Area 1)

The Kaoota Coal Measures were extensively worked during the early to mid 1900's. Seams could not be followed for long distances because of the faulting which is predominant throughout the area. All old adits were caved in. The coal occurs in siltstones and mudstones of Early Triassic age.

3. Langloh Area (ref. Map - Area 2)
   Macquarie Plains Area(ref. Map - Area 2)
   Colebrook Area (ref. Map - Area 3)
   York Plains Area (ref. Map - Area 3)

Spot samples were collected from outcrop and old mine workings in order to provide comparative analytical data. The coal in each of these areas is of Middle to (?Late) Triassic age and correlates with the Newtown Coal Measures.

3.2 Maps

A series of maps have been initiated showing results of the field geological survey and related economic assessment on base maps at scales of 1:50,000 and 1:100,000.

Additional base sheets already prepared at 1:10,000 scale are too detailed for presenting data compiled at this stage, but will probably be incorporated into later stages of the programme.

The maps will contain the following information:

- Location exploration licence area boundaries
- Past mining areas including processing and testing sites
- Geological date including significant rock units and structural elements
- Coal potential assessment including preliminary estimates of inferred reserves, and overburden ratios.
- Drillhole sites and geophysical traverse lines for next stage
- Land ownership and utilization
- Economic factors including power and water supply, road and rail transport, etc..

The maps show the prospective exploration areas divided into two categories as follows:

(1) Areas initially believed to possess prospective potential for coal: these areas were delineated from the Tasmanian geological survey's 1:250,000 map sheets, and include upper Permian and Triassic stratigraphic units that embrace the coal beds. Some inconsistancies were later found to exist in the mapped units, owing presumably to the different years of production of the source 1:63,360 geological sheets and to the changes in definition of rock units within the relevant Permo-Triassic sequence.

(2) Areas containing inferred coal reserves: these areas were delineated during the Capricorn Mining programme and are the subject of present study and the focus of forward geophysical survey and scout-drilling.

Refer to Appendix I for location plans of each area.

3.3 ASSAYS

Fifteen selected samples of coal have been submitted for chemical analysis and prepared for petrographic examination by The Australian Mineral Development Laboratories (AMDEL).

Proximate analysis (moisture, ash, volatile matter and fixed carbon) and sulphur content were determined. These results appear below in Tables 2 and 3.

In addition, a palynological report was prepared for those samples and appears in Appendix II.

TABLE 2 : ASSAY RESULTS

PROXIMATE COAL ANALYSIS — RESULTS IN PERCENTAGES

AREA 1 : SANDFLY 26/79	1- 1- 1	1- 1- 2	1- 1- 3
	STAN'S ADIT (MOUTH)	STAND'S ADIT (END)	KAOOTA
SAMPLE AS RECEIVED			
MOISTURE	15.09	3.40	2.73
VOLATILE MATTER	24.62	7.03	4.50
FIXED CARBON	44.53	57.44	0.46
ASH	15.76	32.13	92.31
	100.00	100.00	100.00
MOISTURE FREE			
VOLATILE MATTER	29.00	7.28	4.62
FIXED CARBON	52.44	59.46	0.48
ASH	18.56	33.26	94.90
	100.00	100.00	100.00

AREA 2 : HAMILTON 27/79	2- 2- 1	2- 2- 2
	LANGLOH-LAWRENNY ADIT MOUTH	EAST BANK OF DERWENT RIVER, PLENTY
SAMPLE AS RECEIVED		
MOISTURE	3.33	3.78
VOLATILE MATTER	25.76	6.89
FIXED CARBON	56.94	7.46
ASH	13.97	81.88
	100.00	100.00
MOISTURE FREE		
VOLATILE MATTER	26.65	7.16
FIXED CARBON	58.91	7.75
ASH	14.45	85.09
	100.00	100.00

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TABLE 2 (cont.)

PROXIMATE COAL ANALYSIS — RESULTS IN PERCENTAGES

AREA 3 : COLEBROOK 28/79	3- 3- 1 KEMPTON	3- 3- 2 JERUSALEM COAL MINE	3- 3- 3	3- 3- 4 COLAMINE HILL -YORK PLAINS
SAMPLE AS RECEIVED				
MOISTURE	4.66	0.78	5.37	4.30
VOLATILE MATTER	26.17	6.05	7.06	15.70
FIXED CARBON	57.09	10.82	0.38	60.56
ASH	12.08	82.35	87.19	19.45
	100.00	100.00	100.00	100.00
MOISTURE FREE				
VOLATILE MATTER	27.45	6.10	7.46	16.40
FIXED CARBON	59.88	10.90	0.40	63.28
ASH	12.67	82.99	92.14	20.32
	100.00	100.00	100.00	100.00

AREA 4 : CYGNET 29/79	4- 4- 1 GOLDEN BEACH (UPPER SECTION)	4- 4- 2 GOLDEN BEACH (LOWER SECTION)	4- 4- 3 COAL MINE BAY (UPPER)
SAMPLE AS RECEIVED			
MOISTURE	2.80	3.37	2.26
VOLATILE MATTER	5.30	4.42	6.64
FIXED CARBON	20.39	1.92	15.55
ASH	71.51	90.30	75.56
	100.00	100.00	100.00
MOISTURE FREE			
VOLATILE MATTER	5.45	4.57	6.59
FIXED CARBON	20.97	1.99	15.91
ASH	73.58	93.44	77.30
	100.00	100.00	100.00

TABLE 2 (cont.)

PROXIMATE COAL ANALYSIS — RESULTS IN PERCENTAGES

AREA 4 : CYGNET	4- 4- 4 COALMINE BAY (LOWER SECTION)	4- 4- 5 HEENEY'S MINE (ADIT)	4- 4- 6 HEENEY'S MINE
SAMPLE AS RECEIVED			
MOISTURE	1.76	9.29	9.99
VOLATILE MATTER	4.49	18.52	19.76
FIXED CARBON	1.95	54.47	51.48
ASH	91.81	17.71	18.77
	100.00	100.00	100.00
MOISTURE FREE			
VOLATILE MATTER	4.57	29.42	21.95
FIXED CARBON	1.98	60.05	57.19
ASH	93.45	19.53	20.86
	100.00	100.00	100.00

TABLE 3 : SULPHUR PERCENTAGES FOR COAL SAMPLES

ANALYSIS % DRY COAL BASIS

SAMPLE MARK	SULPHUR S
1 - 1 - 1	0.39
1 - 1 - 2	0.43
1 - 1 - 3	< 0.01
2 - 2 - 1	0.60
2 - 2 - 2	0.02
3 - 3 - 1	0.44
3 - 3 - 2	0.06
3 - 3 - 3	0.01
3 - 3 - 4	0.38
4 - 4 - 1	0.21
4 - 4 - 2	0.04
4 - 4 - 3	0.17
4 - 4 - 4	< 0.01
4 - 4 - 5	0.34
4 - 4 - 6	0.36

Method; S2

4. FORWARD PROGRAMME

4.1 OBJECTIVES

The ultimate objectives of the regional appraisal (i.e. Stages 1A, 1B and 1C) are to provide assessments of the following:

(i) Likely maximum and minimum in-situ tonnages (inferred reserces).

(ii) Likely coal quality and its variation.

(iii) Broad variation expected in seam thickness.

(iv) Structure in terms of maximum, minimum and average dips, and degree of faulting.

(v) Range of depths (overburden) at which coal may occur and some broad idea as to the proportions of coal tonnage which is mineable by opencut and underground methods.

Although part of these objectives have been attained following completion of the geological survey (Stages 1A and 1B), some cannot be achieved until completion of the geophysical and scout-drilling programmes (Stage 1C). Thus data concerning inferred coal reserves, grade, seam thickness and overburden, structural situation, mining method viability, environmental constraints, etc. will be provisional estimates.

Stage 1 work is underway at the present time with Stages 1A and 1B completed. As mentioned previously, Stage 1C will commence on the 23rd February 1981.

4.2 GEOPHYSICAL SURVEYS AND SCOUT-DRILLING OPERATIONS

Stage 1C:

Estimated time for completion is six months.

As mentioned previously, one of the major concerns of basin study work is to delineate the margins of the oil shale areas.

The second major task of the basin study is to determine the time-stratigraphy of the basin and the lithfacies distribution within the interesting formations.

In many cases this information can be built up from published geological data and the records of previous coal and water bores. In certain circumstances, however, where there is no previous subsurface information, it may be necessary to undertake a limited programme of stratigraphic drilling to complement field mapping and air photo-interpretation. Any such stratigraphic drillholes will be carefully sited by the field mapping party and the programme will have the objective of intersecting as complete a succession as possible. This implies the siting of the holes to allow for a recognisable overlap in stratigraphy. The results will be carefully correlated between drillholes and against field data using lithology and palaeontology. Relative ages will be obtained by micropalaeontology and palynology, and samples for such studies will be taken at regular intervals in drillholes in order to accurately determine the presence of any disconformities or major breaks in the sequence. Coupled with this programme, consideration will be given to the use of a combination of gravity, magnetic, and shallow seismic reflection techniques to augment and reduce the initial number of stratigraphic drillholes and detailed coal evaluation drillholes in the Stage 3 programme.

A test programme is envisaged during the preliminary reconnaissance stage to see which methods are suitable for the investigation areas. More details of this programme will be presented during application for licence renewal. Samples of drillholes will be carried out and selected assaying done on the coal bearing cores.

4.3 ENGINEERING AND REVERSE ECONOMIC STUDIES

Stage 2:

Estimated time six months to be carried out simultaneously during the latter part of the Stage 1 programme.

From the Regional Geological Appraisal Programme, a preliminary assessment can be made of the potential viability of any coal deposit in the area.

Capital, environmental impact, operating costs, and infra-structure costs will be estimated and set against the likely realisation to give some idea of the size and quality of the target that meeds to be found in order to establish an economic operation. A further geological study can then reassess the situation based on this preliminary economic study and decide whether the chances of finding the required target merit continued exploration.

This assessment is vital as the next stage calls for a detailed evaluation of the coal deposits by an intensive drilling programme. If insufficient target zones are found an area will be surrendered at this time. Good prospects will be reapplied for and a detailed evaluation programme of drilling, sampling, and assaying will be prepared.

5. EXPENDITURE

FOR THE PERIOD - APRIL 31st 1980 - JANUARY 31st 1981

E.L.	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	NOV.	DEC.	JAN.
26/79	3,900	4,068	~~1,133~~ 3044	2,069	4,280	3,550	2,750	2,500	1,720
27/79	4,079	4,011	~~1,049~~ 2162	1,271	2,740	3,850	3,250	2,800	1,820
28/79	3,872	4,460	~~949~~ 1514	1,079	2,390	2,250	1,850	1,950	1,340
29/79	3,808	4,148	~~1,762~~ 1246	892	2,040	2,350	1,850	1,950	1,340

Estimated Costs for Forward Programme

	EL.26/79	EL.27/79	EL.28/79	EL.29/79
Stage 1B (Completion)	4,000	4,000	6,000	4,000
Stage 1C	120,000	140,000	85,000	60,000
Stage 2 (Commencement)	5,000	3,000	6,000	3,000
	$154,000	$197,000	$97,000	$67,000

These costs are the estimated minimum again in keeping with the original submission for the licences.

APPENDIX I

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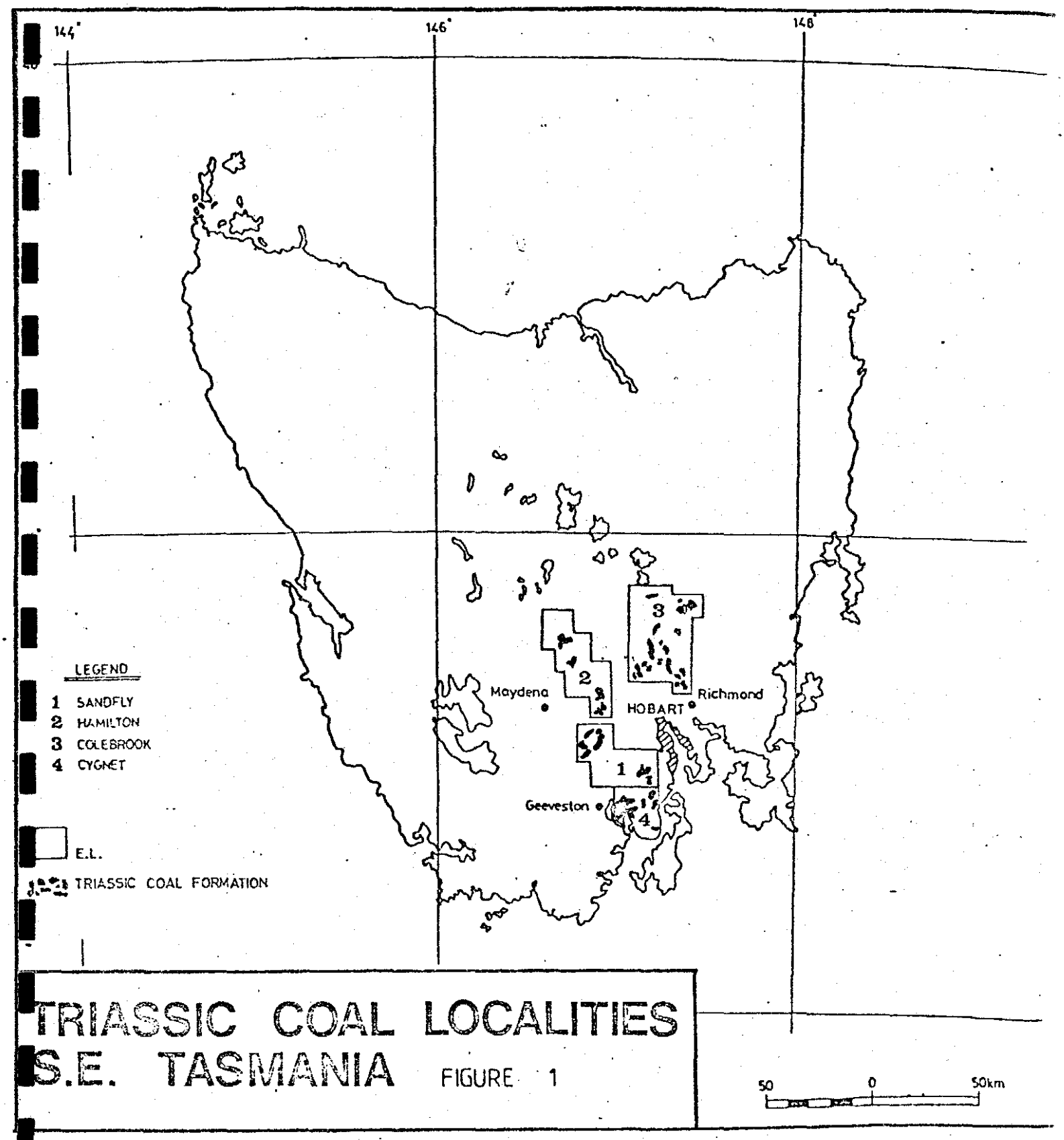

TRIASSIC COAL LOCALITIES S.E. TASMANIA

FIGURE 1

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022 CAPRICORN MINING LTD.

FIGURE 2A

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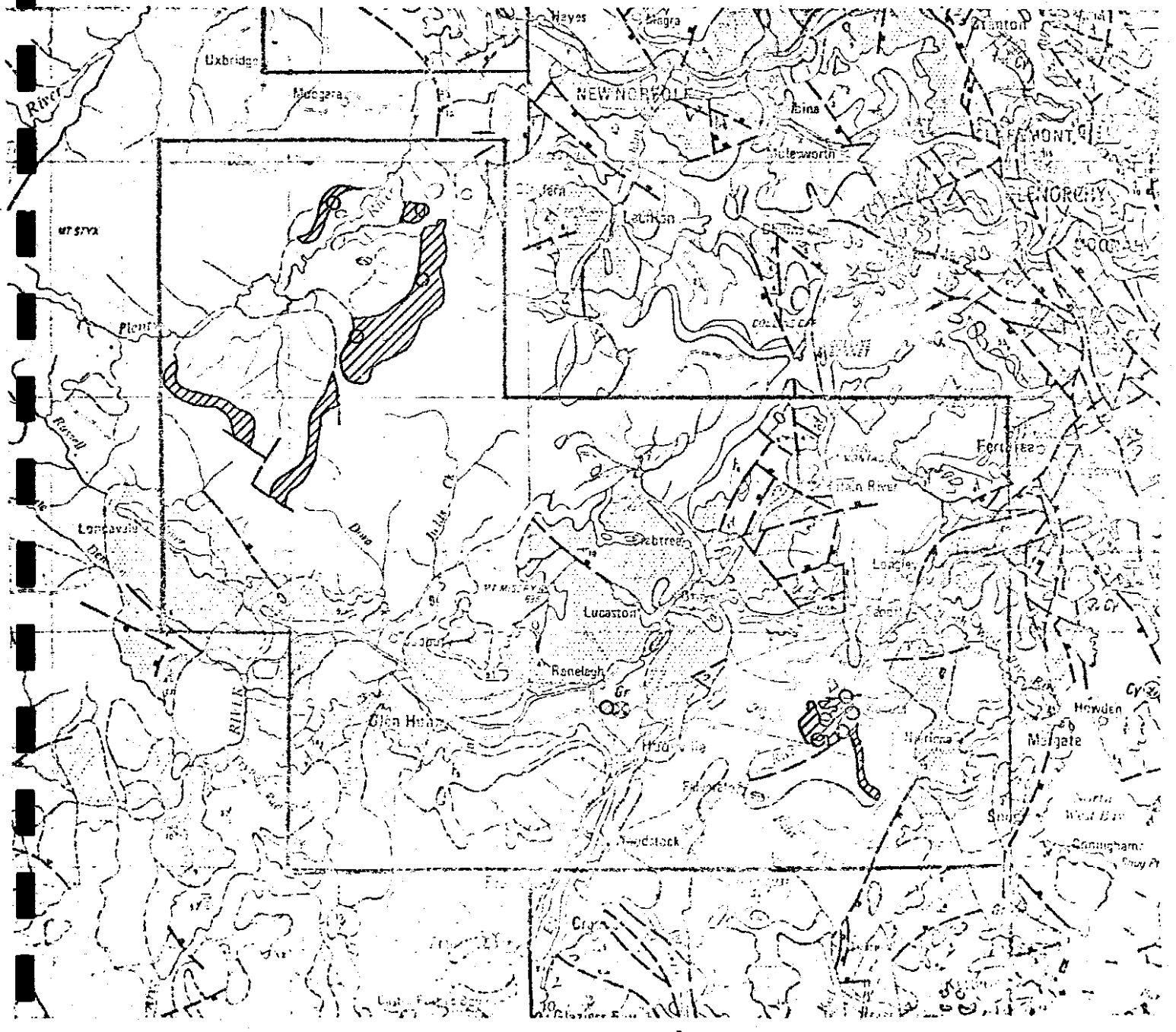
LEGEND

E.L. AREA

TRIASSIC COAL FORMATION

PROPOSED DRILLHOLE SITE



CAPRICORN MINING LTD.

FIGURE 2B

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LEGEND

E.L. AREA

TRIASSIC COAL FORMATION

PROPOSED DRILLHOLE SITE

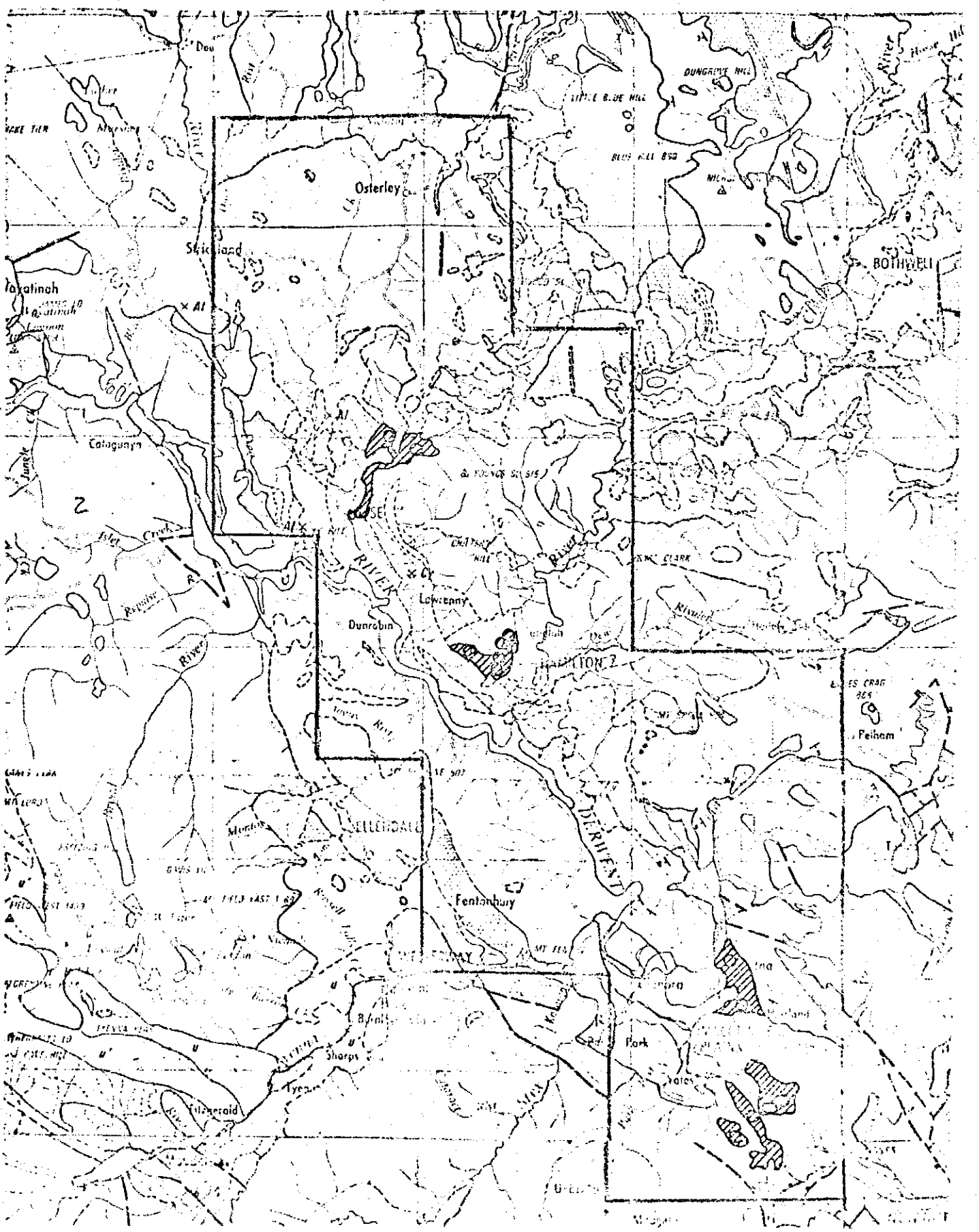

FIGURE 2C

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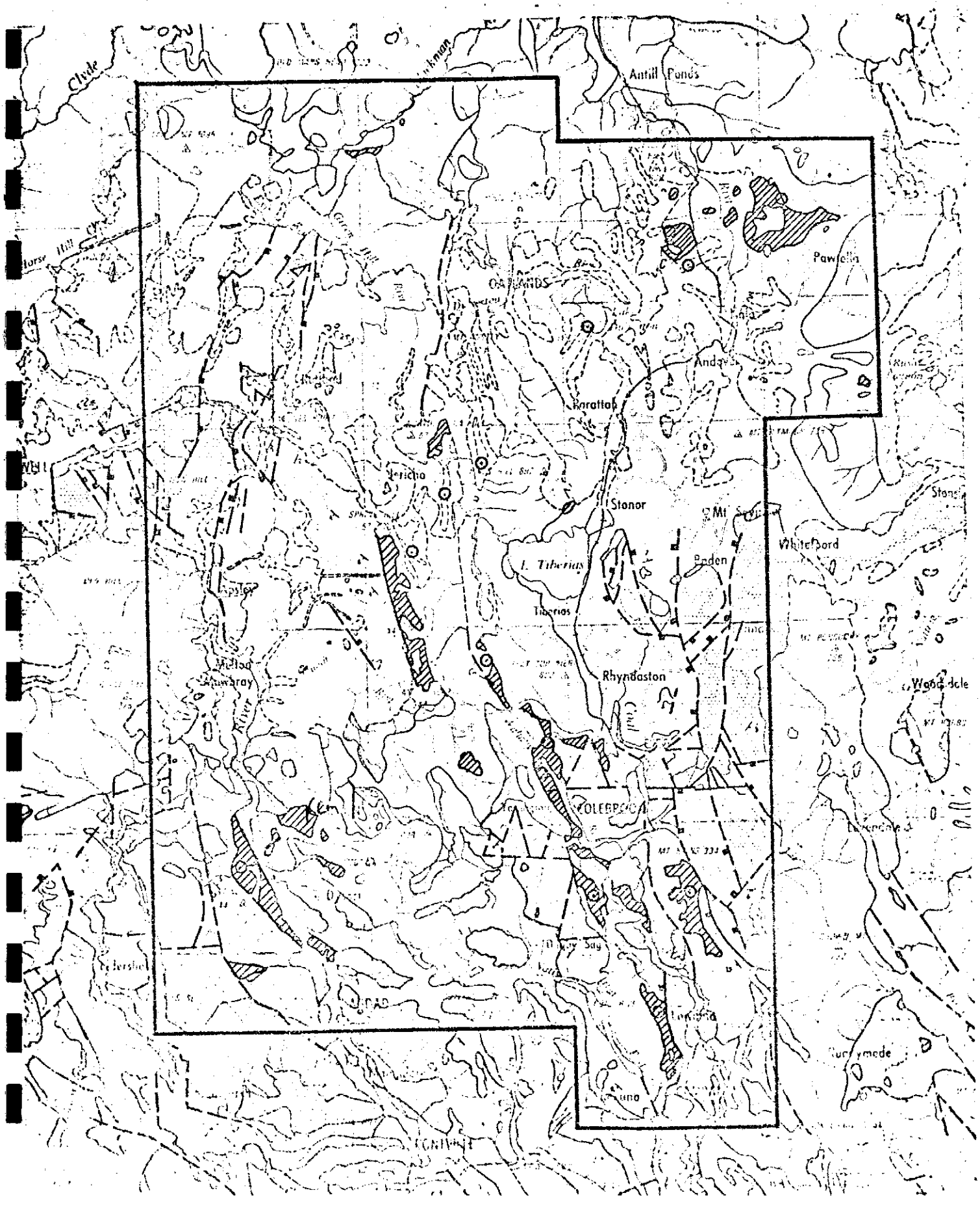
LEGEND

E.L. AREA

TRIASSIC COAL FORMATION

PROPOSED DRILLHOLE SITE



CAPRICORN MINING LTD.

FIGURE 2D

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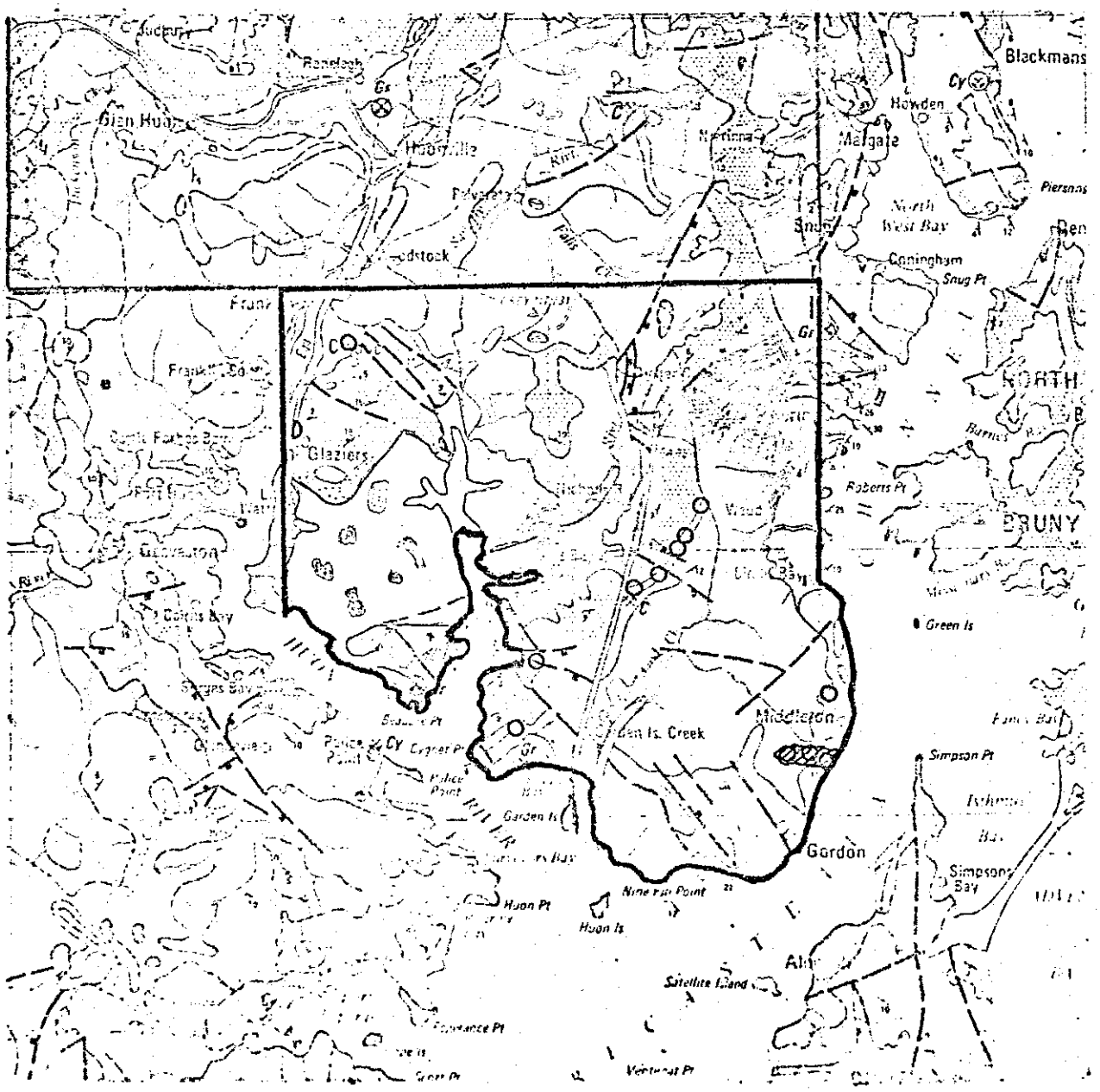
LEGEND

E.L. AREA

PERMIAN AND TRIASSIC COAL FORMATION

PROPOSED DRILLHOLE SITE



APPENDIX II

Palynological Report No. 374

Permian and Triassic Sediments from Tasmania

Introduction

Palynological preparations from 12 samples of coal and carbonaceous sediments were examined in October 1980. Details of the sample locations supplied by General Geological Services were as follows:

1-1-2	Sandfly Mine Kaoota
1-2-1	Sandfly Mine Kaoota (spoil)
2-1-1	Lawreny Mine, Hamilton
2-2-1	Road cutting, Plenty
2-3-1	Rotherwood, Ouse
3-1-1	Old Shaft, Colebrook
3-2-1	Jerusalem Coal Mine, Colebrook
3-3-1	Road cutting, Kempton
3-4-1	Coalmine Hill Mine, York Plains (spoil)
4-1-1	Marine Cliff, Gordon
4-2-1	Marine Cliff, Coal Mine Bay, Cygnet
4-3-1	Heeney Mine, Mount Cygnet.

Only three of the maceration residues yielded recognisable plant microfossils. These were 2-1-1, 3-1-1 and 4-2-2 and of these only 2-1-1 contained spores and pollen grains that were well enough preserved to identify with confidence. The only organic material in the other 8 samples was abundant opaque or nearly opaque carbonised fragments and the sediments appear to have been heated beyond the temperature at which the derivatives of sporopollenin are totally decomposed. In my experience this is frequently so in Tasmanian Late Permian and Triassic sequences.

Sample 2-1-1

Spores and pollen grains were abundant in the maceration residues although most specimens were poorly preserved and difficult to free from the coal

substance. The assemblage does not appear diverse but this may be because only the common species could be identified unequivocally.

Forms identified:

Aratrisporites spp. DOMINANT
Falcisporites australis (de Jersey) COMMON
Alisporites parvus de Jersey
Cycadopites sp.
Lundbladispora denmeadi (de Jersey)
Dictyophyllidites mortoni (de Jersey)
Osmundacidites sp.

Age

The assemblage is undoubtedly Middle or early Late Triassic but it is difficult to give a firmer opinion that this, partly because of the poor quality of the assemblage and partly because of the lack of adequate standards for comparison. Playford (1965) found Aratrisporites to be abundant only in the Tiers Formation in the Poatina section and for this reason a Middle Triassic age is favoured for Sample 2-1-1. However, more data from the Tasmanian Triassic are needed before more definite conclusions are drawn.

8th October 1980.

B.E. Balme

Reference

Playford, G. (1966) : Plant microfossils from Triassic sediments near Poatina, Tasmania. J. geol. Soc. Aust. 12 (2), 173-210.

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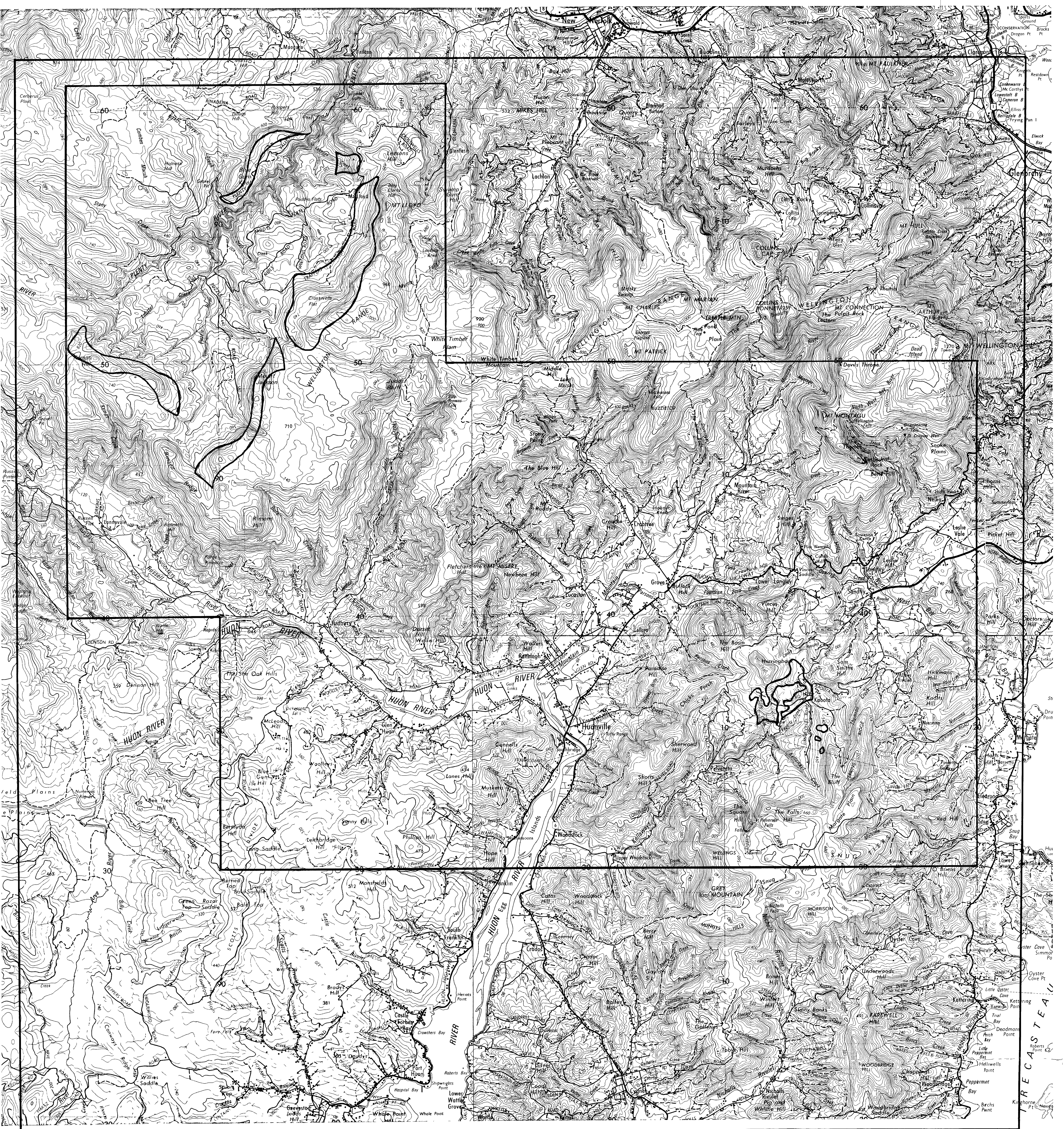
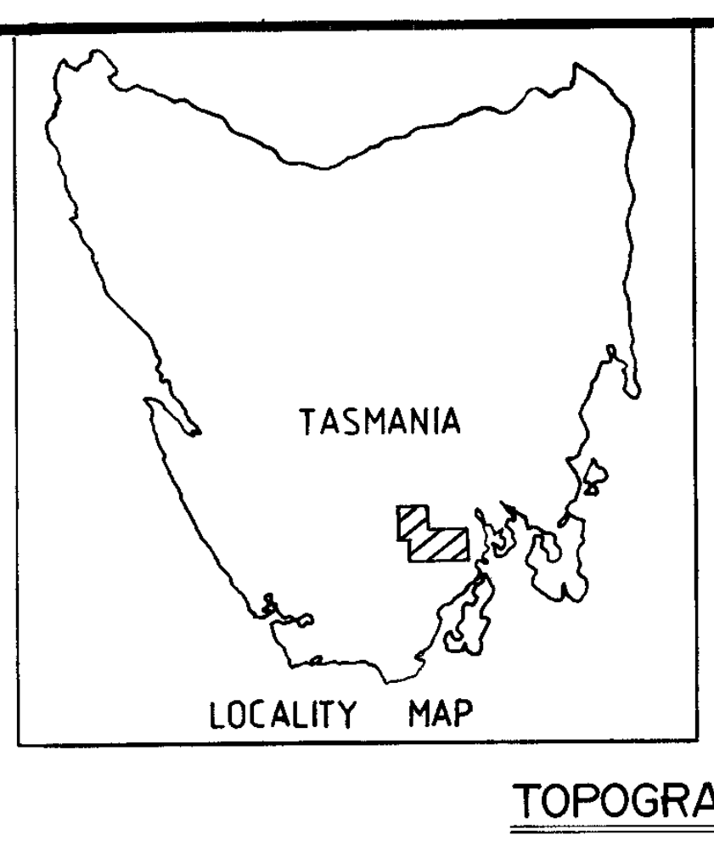


AREA 1



TASMANIAN E.L AREA 1
BASE MAP

Scale 1 50,000

1 0 1 2 3 4
KILOMETRES

HORIZONTAL DATUM AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM AUSTRALIAN HEIGHT DATUM
PROJECTION TRANSVERSE MERCATOR

0L3030

Company CAPRICORN MINING LTD	
Area 1	E L 26/79
Work N° 704	Author
Date	Drawn

TOPOGRAPHIC DATA

- Highway
- Road
- Track
- Contour Interval 20metres
- Waterway
- Railway

GEOLOGICAL DATA

- Geophysical Boundaries
- Bedding & Dip
- Anticline Folding
- Syncline Folding
- Faults
- Bore showing S L, N°, Depth (m)
- DDH showing S L, N°, Depth(m)

MINING & DEVELOPMENT

- ☐ Units Prospected
- ☐ Units with Inferred Reserves
- ☐ Underground Mining Areas
- ☐ Open Cut Areas

EXPLORATION DATA

- Shaft showing S L, N°, Depth in metres
- Adit
- Costean, Depth in metres
- Open Cut Existing
- 200°≈280°E~15°, Suggested drill holes, Depth, Direction & Inclination
- Suggested Costeans
- Geophysical Survey Line, Gravity(G), Seismic(S), Magnetic (M)
- Anomaly & Depth to Top
- Sample Location

NOTE TOPOGRAPHIC BASE COMPILED FROM TASMANIAN LANDS DEPARTMENT 1 50 000 SHEETS
GEOLOGICAL DATA DERIEVED FROM TASMANIAN MINES DEPARTMENT 1 63 360 SHEETS

5 cm

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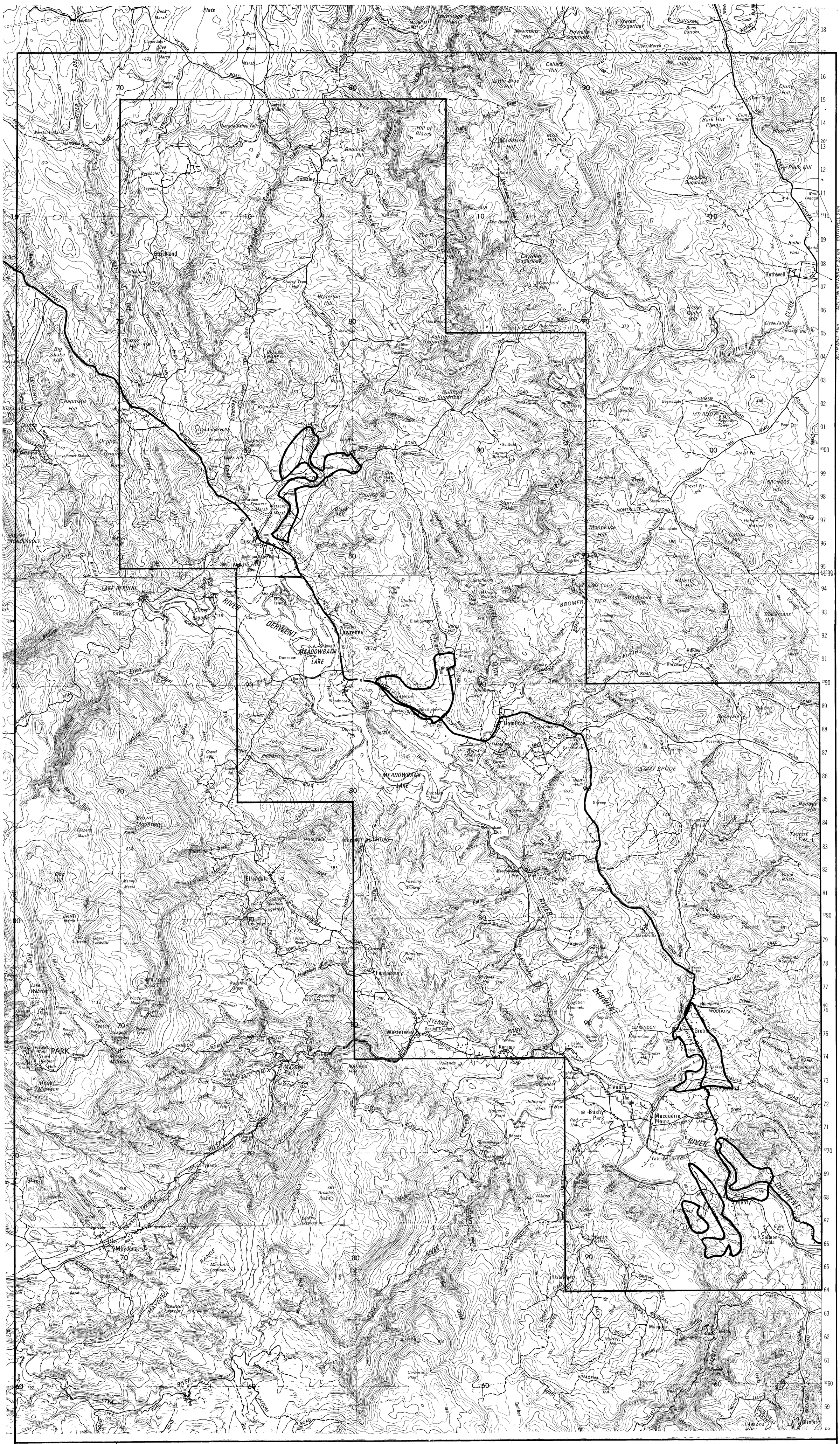
3006



TASMANIAN E L AREA 2
BASE MAP

Scale 1 50,000

0 1 2 3 4
KILOMETRES

HORIZONTAL DATUM AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM AUSTRALIAN HEIGHT DATUM
PROJECTION TRANSVERSE MERCATOR

5cm

Company CAPRICORN MINING LTD	
Area 2	E L 27/79
Work N° 704	Author
Date	Drawn

LOCALITY MAP

TOPOGRAPHIC DATA

- Highway
- Road
- Track
- Contour Interval 20metres
- Waterway
- Railway

GEOLOGICAL DATA

- Geophysical Boundaries
- Bedding & Dip
- Anticline Folding
- Syncline Folding
- Faults
- Bore showing S L, N°, Depth (m)
- D D H showing S L, N°, Depth (m)

MINING & DEVELOPMENT

- Units Prospected
- Units with Inferred Reserves
- Underground Mining Areas
- Open Cut Areas

EXPLORATION DATA

- Shaft showing S L, N°, Depth in metres
- Adit
- Costean, Depth in metres
- Open Cut Existing
- 200°-280°E-15°, Suggested drill holes, Depth, Direction & Inclination
- Suggested Costeans
- Geophysical Survey Line, Gravity(G), Seismic(S), Magnetic (M)
- Anomaly & Depth to Top
- Sample Location

NOTE TOPOGRAPHIC BASE COMPILED FROM TASMANIAN LANDS DEPARTMENT 1 50 000 SHEETS
GEOLOGICAL DATA DERIVED FROM TASMANIAN MINES DEPARTMENT 1 63 360 SHEETS

013034

3007

3008

TASMANIAN E.L. AREA 3
BASE MAP

Scale 1 50,000

1 0 1 2 3 4
KILOMETRES

HORIZONTAL DATUM AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM AUSTRALIAN HEIGHT DATUM
PROJECTION TRANSVERSE MERCATOR

LOCALITY MAP

Company CAPRICORN MINING LTD	
Area 3	E L 28/79
Work N° 704	Author
Date	Drawn

TOPOGRAPHIC DATA

- Highway
- Road
- Track
- Contour Interval 20metres
- Waterway
- Railway

GEOLOGICAL DATA

5 cm

- Geophysical Boundaries
- Bedding & Dip
- Anticline Folding
- Syncline Folding
- Faults
- Bore showing S L, N°, Depth (m)
- D D H showing S L, N°, Depth(m)

MINING & DEVELOPMENT

- Units Prospected
- Units with Inferred Reserves
- Underground Mining Areas
- Open Cut Areas

EXPLORATION DATA

- Shaft showing S L, N°, Depth in metres
- Adit
- Costean, Depth in metres
- Open Cut Existing
- 200°–280°E~15°, Suggested drill holes, Depth, Direction & Inclination
- Suggested Costeans
- Geophysical Survey Line, Gravity(G), Seismic(S), Magnetic(M)
- Anomaly & Depth to Top
- Sample Location

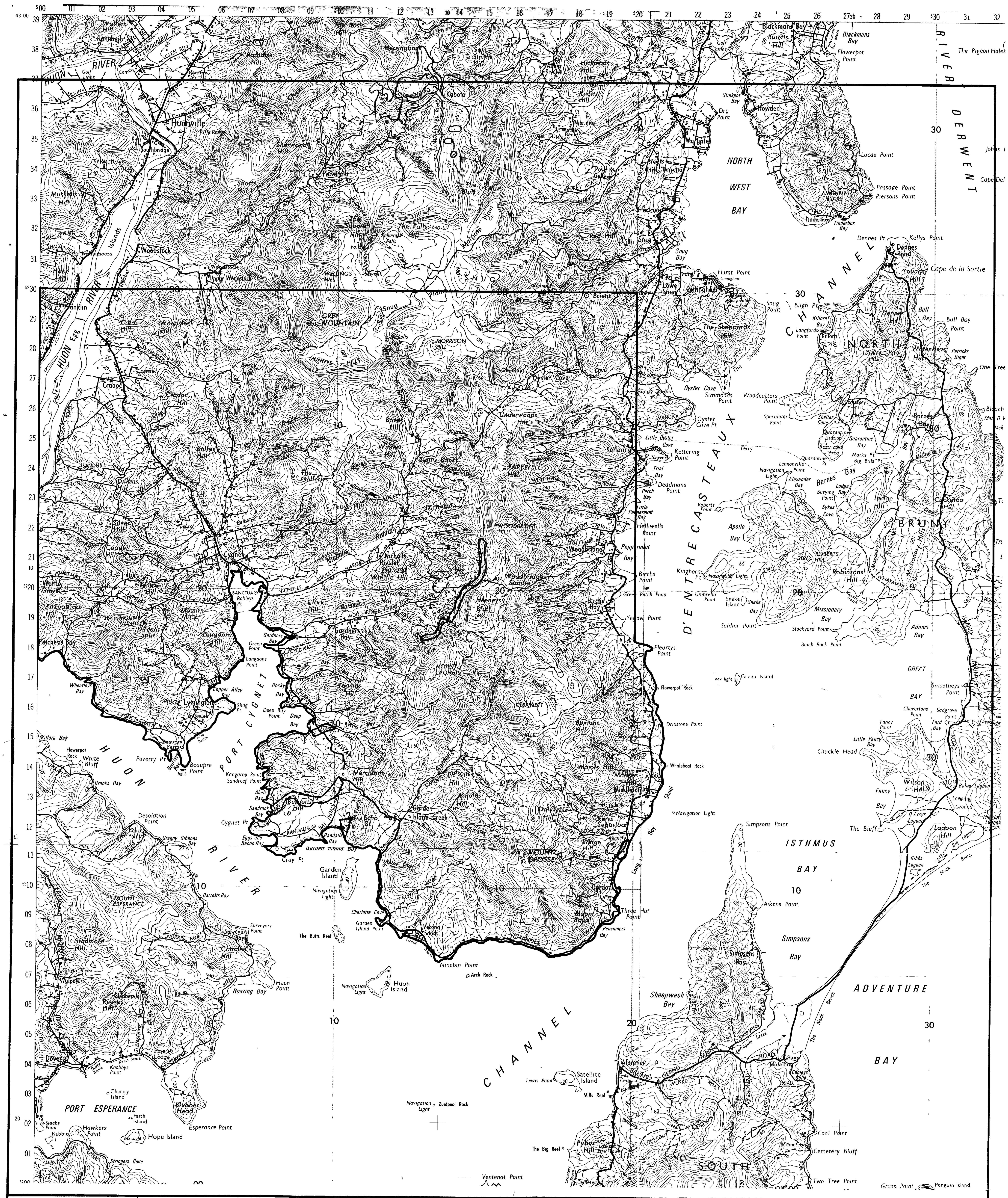
NOTE TOPOGRAPHIC BASE COMPILED FROM TASMANIAN LANDS DEPARTMENT 1 50 000 SHEETS
GEOLOGICAL DATA DERIEVED FROM TASMANIAN MINES DEPARTMENT 1 63 360 SHEETS

013032

81-1513

3008

3009



013033

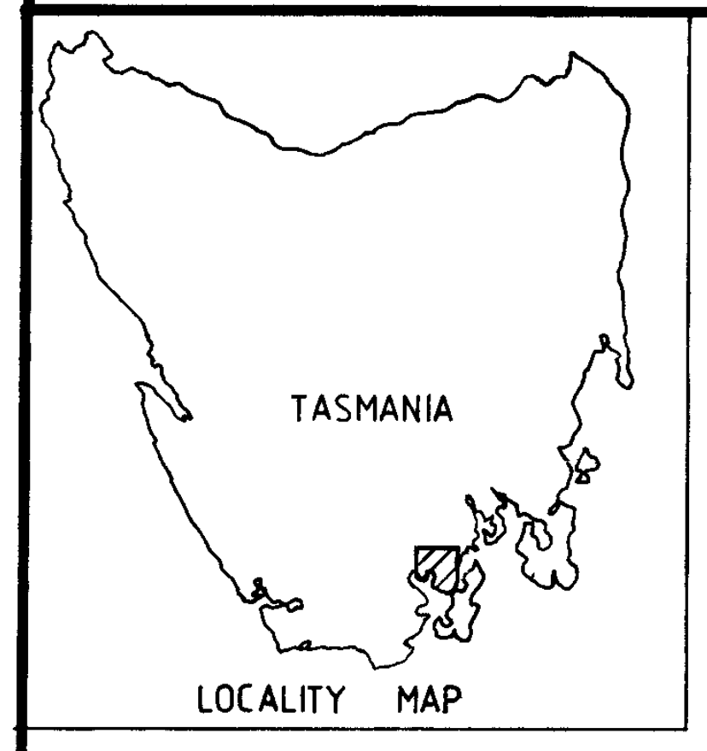
TASMANIAN E L AREA 4
BASE MAP

Scale 1 50,000

HORIZONTAL DATUM AUSTRALIAN GEODETIC DATUM 1966
VERTICAL DATUM AUSTRALIAN HEIGHT DATUM
PROJECTION TRANSVERSE MERCATOR

81-1513

Company CAPRICORN MINING LTD	
Area 4 E L 29/79	
Work N° 704 Date	Author Drawn



LOCALITY MAP

TOPOGRAPHIC DATA

- Highway
- Road
- Track
- Contour Interval 20metres
- Waterway
- Railway

GEOLOGICAL DATA

- Geophysical Boundaries
- Bedding & Dip
- Anticline Folding
- Syncline Folding
- Faults
- Bore showing S L, N°, Depth (m)
- D D H showing S L, N°, Depth(m)

MINING & DEVELOPMENT

- ☐ Units Prospected
- ☐ Units with Inferred Reserves
- ☐ Underground Mining Areas
- ☐ Open Cut Areas

EXPLORATION DATA

- Shaft showing S L, N°, Depth in metres
- Adit
- Costean, Depth in metres
- Open Cut Existing
- 200°280°E~15°, Suggested drill holes, Depth, Direction & Inclination
- Suggested Costeans
- Geophysical Survey Line, Gravity(G), Seismic(S), Magnetic (M)
- Anomaly & Depth to Top
- ② Sample Location

NOTE TOPOGRAPHIC BASE COMPILED FROM TASMANIAN LANDS DEPARTMENT 1 50 000 SHEETS
GEOLOGICAL DATA DERIEVED FROM TASMANIAN MINES DEPARTMENT 1 63 360 SHEETS