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Tasman Shale & Coal Company Pty. Ltd.
17-23 Queensbridge Street
South Melbourne, Vic. 3205

Report: TSC 708/2

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MICROFILMED
FIELD REPORT

on

EXPLORATION LICENCE 43/70

PREOLENNA, NORTHWEST TASMANIA

for

TASMAN SHALE & COAL COMPANY PTY. LTD.

and

MINERAL HOLDINGS AUSTRALIA PTY. LTD.

JOINT VENTURE

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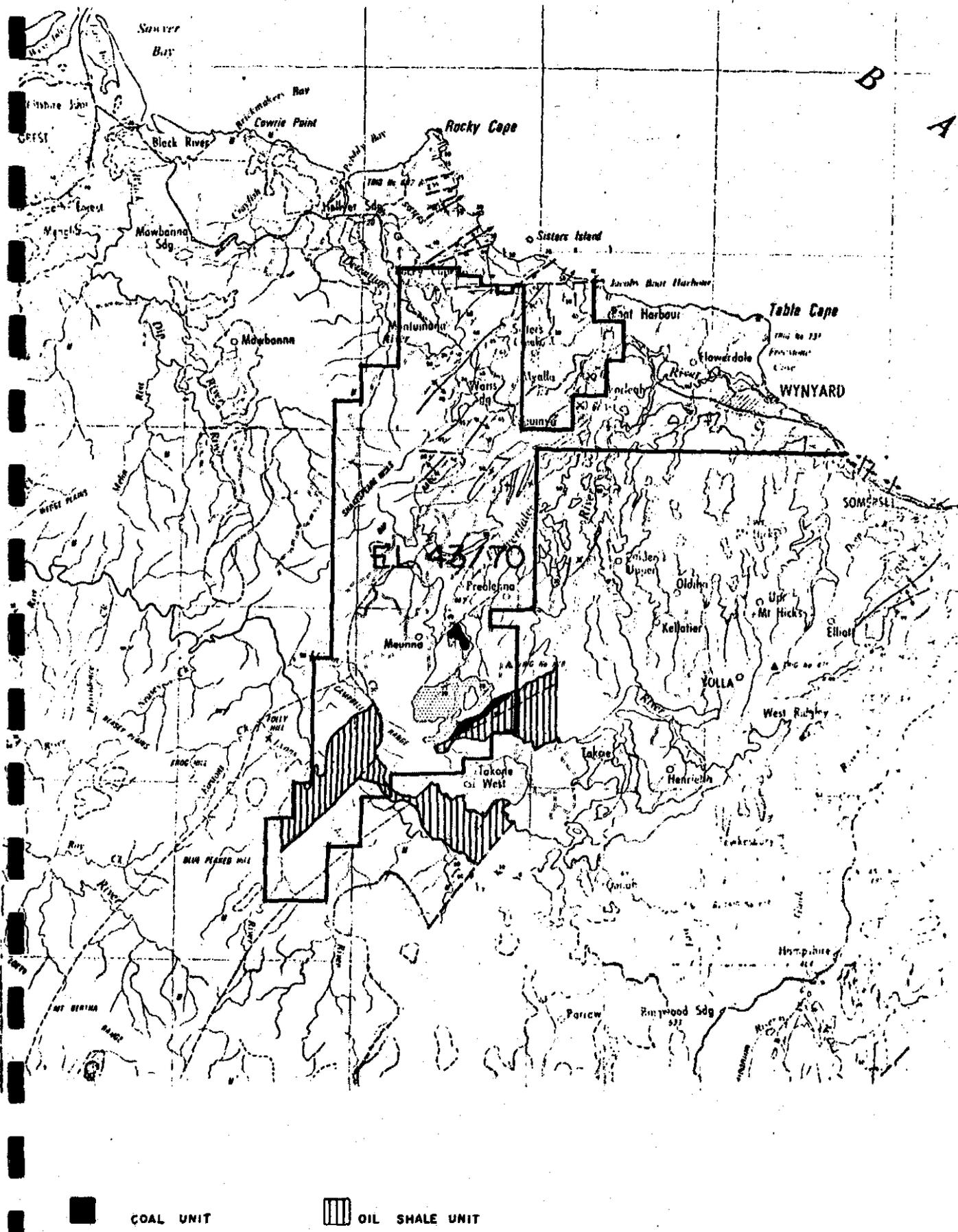


Figure 1. Locality Map - Exploration Licence 43/70
 Scale 1:250 000

PREFACE

This report outlines the operations carried out by General Geological Services, on behalf of Tasman Shale & Coal Company Pty. Ltd., in connection with an investigation of the oil-shale and coal resources of Exploration Licence No. 46/70.

The report is essentially a record of the field programme and it does not attempt to provide interpretation or conclusions.

Problems relating to poor access tracks and adverse weather conditions severely curtailed the effectiveness of the drilling and geophysical programmes.

TASMAN SHALE & COAL COMPANY PTY. LTD.

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1. INTRODUCTION1.1 Scope of Report

This report by General Geological Services, prepared on behalf of Tasman Shale & Coal Company Pty. Ltd., contains a record of all field investigations and data studies relating to the coal and oil-shale resources of Exploration Licence 43/70 (Preolenna, Northwest Tasmania).

It deals with the activities of the company during a work programme proposed in December 1980. It is essentially the record of a geophysical and scout-drilling programme.

1.2 Project Objectives

The main objective of the regional appraisal (i.e. Stages 1A, 1B and 1C) was to provide reliable assessments of the following set of parameters governing the existence of economic oil-shale and coal deposits in the licence area.

- (i) Variation in thickness and persistence in distribution of coal and oil-shale seams, with specific data on splitting and coalescence, lensing and pinchouts, interbeds and partings.
- (ii) Chemical and physical properties of the coal and oil-shale in outcrop and drillhole samples.

- (iii) Attitude and dislocation of coal and oil-shale seams in terms of mean dips and degree of folding, faulting and fracturing.
- (iv) Maximum and minimum in-situ tonnages of coal and oil-shale reserves and estimates of opencast and underground tonnages.
- (v) Range of overburden thicknesses and ratios, with indication of oxidation depths due to weathering, cindering due to sill intrusion, and baking due to extrusive flows.
- (vi) Miscellaneous information on groundwater, topographic relief, land utilization, etc..

1.3 Licence Issue and Operator Details

The Minister for Mines granted the Exploration Licence 43/70 to Mineral Holdings Australia Pty. Ltd.. The address of this company is 100 Collins Street, Melbourne, 3000.

Reporting schedules required by the Department of Mines include:

- (i) statement of expenditure at end of each quarter from date of licence,
- (ii) progress report of operations each quarter,
- (iii) complete records of all investigations undertaken during the term of licence, and
- (iv) all information on any part of a licence area surrendered upon relinquishment.

Additional licence details may be obtained from Mineral Holdings Pty. Ltd..

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Tasman Shale & Coal Company Pty. Ltd. were the operator that carried out the geophysical and scout-drilling programmes. The address of this company is 17-23 Queensbridge Street, South Melbourne, 3205.

The location and dimensions of the licence area are shown in Figure 1.

2. EXPLORATION ACTIVITIES AND RESULTS

2.1 Geological Reconnaissance

Initial reconnaissance and drillhole selection in the licence area was completed in January 1980, and was made according to three orders of observation.

- (i) Areas in the vicinity of abandoned coal workings - with a view to delineation of "indicated" and "inferred" reserves.
- (ii) Areas of outcrop and shallow outcrop of Permian coal measures and oil-shale beds - with an aim of finding "prognostic" reserves.
- (iii) Regional survey to assist interpretation of overall depositional environments in order to establish basinal sedimentation patterns.

The entire area of the exploration licence is covered by the Table Cape and Burnie 1: 63 360 published maps. Geological reconnaissance mapping of 1:30 000 scale aerial photographs for Tasman Shale & Coal provided an updated and more detailed topographic representation of the licence area than shown by the published maps.

2.2 Drilling Operations

A summary of drilling equipment, and methods follows.

- (a) Drilling Contractor H. J. Stacpoole,
1 Lindsay Street,
Launceston, Tasmania...7250
- (b) Drilling Rigs Make: Foxmobile
Model: B40L
Rated Depth: 500+ metres at NQ,
(75.8 mm hole diameter)
Draw-works Capacity: main winch 3000 kg

(b) Drilling RigsPlant 1

Make: Foxmobile
 Model: B40L
 Rated Depth: 500+ metres at NQ,
 (75.8 mm hole diameter)
 Draw-works Capacity: main winch 3000 kg

Plant 2

Make: Gemco
 Model: 210D
 Rated Depth: 200+ metres at 75.88 mm
 hole diameter
 Draw-works Capacity: main winch 4000 kg

Table 10 lists the drilling rig used for each drillhole.

(c) Drilling EquipmentPump 1

Type: John Bean, piston
 Proposed Output: 2.8 litres/sec. at 1379 kPa
 Mounted On: skid

Pump 2

Type: John Bean Triplex, piston
 Proposed Output: 2.8 litres/sec. at 1379 kPa
 Diesel Condition: new
 Mounted On: trailer

Air Compressor 1

Type: Rotary screw
 Make: Gardner Denver
 Volume Capacity: 0.32 m³/sec
 Pressure: 828 kPa

Air Compressor 2

Not recorded

Drill rods 1 & 2

Conventional Size: NW
 length available 100 m, diameter
 Wireline Size: NQ, length available 300 m,
 diameter 75.8 mm.

Drill collars 1 & 2

Dimensions: 125 mm

Core barrel 1 & 2

Type: NQTT
 Length: 3.15 m
 Diameter: 47.6 mm

(d) Drilling Details

Hole sizes and depths Refer to Table 1

Cored hole and open hole Refer to Table 1

Core recovery Refer to Table 2

Casing

During drilling: HQ and BQ, (3 3/4 and 2 2/5 inch diameter respectively) casing was used to prevent collapse and to overcome circulation loss.

Left in hole: casing was left in the top section of most holes.

Refer to Table 1 for casing details

Hole status

All holes were abandoned after backfilling and/or following side-wall collapse, then sealed by casing cap or by cement plug.

Hole locations

AMG grid co-ordinates for all drillholes are listed in Table 3.

Drillhole sites are shown on Figure 2.

2.3 Geophysical Logging

Wire-line logging was carried out by Mitre Geophysics Pty. Ltd.. Holes were logged by single point resistance, self potential, gamma, and density systems using a SIE T450 electrically operated logger.

Only two of the six holes were logged because they either collapsed before logging was attempted or were of insufficient depth to warrant wireline logging. A geophysical logging summary is presented in Table 3 below.

Interpretations by Mitre Geophysics Pty. Ltd. are given in Appendix 2. The geophysical logs are included in Enclosure 1.

2.4 Lithological Logging

Examination of descriptions of core and cuttings were carried out by M. Zapata.

Complete lithologic descriptions are included in Appendix 1. Samples consist of both core and rock chips and are stored in a shed at Launceston rented from H. J. Stacpoole, 1 Lindsay Street, Launceston, Tasmania, 7250. They will be removed to the Tasmanian Department of Mines core shed if so required.

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Drillhole	Open Hole		Cored Hole (HQ)		Total Depth (m)	Casing		Casing left in hole		Rig Type
	Diam.	Depth	Diam.	Depth		Diam.	Depth	Diam.	Depth	
	(in.)	(m)	(in.)	(m)		(in.)	(m)	(in.)	(m)	
P-01	5	0 - 1.75				HQ(3 3/4)	0 - 5.00			Fox B40L
	4 1/2	1.75 - 4.75				BQ(2 2/5)	0 - 27.57	5	2.00	
			3	4.75 - 29.57	29.57					
P-02	3 7/8	0 - 8.00				BQ(2 2/5)	0 - 19.57	Not recorded	3.00	"
			3	8.00 - 48.54	48.54	HQ(3 3/4)	0 - 45.09			
P-03	"	0 - 9.00			9.00					Gemco 210D
P-04	"	0 - 5.00				HQ(3 3/4)	0 - 32.32	"	1.70	Fox B40L
			3	5.00 - 53.62	53.62					
P-05	"	0 - 3.50			3.50			"	2.00	Gemco 210D
P-06a	"	0 - 9.25			9.25					Fox B40L
P-06b	"	0 - 19.75			19.75					"

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Table 2: Core Recovery Data

Drillhole	Core Run		Core Recovery	
	Depth (m)	Length (m)	Length (m)	Percentage (m)
P-01	5.00 - 6.70	1.70	1.70	100
	6.70 - 8.90	2.20	2.20	100
	8.90 - 10.89	1.99	1.99	100
	10.89 - 12.57	1.68	1.28	76
	12.57 - 14.02	1.45	1.44	99
	14.02 - 15.57	1.55	1.55	100
	15.57 - 16.77	1.20	1.20	100
	16.77 - 18.57	1.80	1.80	100
	18.57 - 20.72	2.15	2.15	100
	20.72 - 21.57	0.85	0.85	100

Core recovery data not available for the cored section 21.57 - 29.57 metres.

P-02

Core recovery data not available for the cored section 8.00 - 19.57 metres.

19.57 - 20.52	0.95	0.50	53
20.52 - 21.09	Core recovery data unavailable.		
21.09 - 24.09	3.00	2.62	87
24.09 - 27.09	3.00	0.39	13
27.09 - 30.09	3.00	2.83	94
30.09 - 33.09	3.00	3.00	100
33.09 - 36.09	3.00	3.00	100
36.09 - 39.09	3.00	3.00	100
39.09 - 42.09	3.00	3.00	100
42.09 - 45.09	3.00	3.00	100
45.09 - 48.09	3.00	2.98	99
48.09 - 48.54	0.45	0.43	96

P-03

Non-cored

P-04

5.00 - 6.20	1.20	1.09	91
6.20 - 9.20	3.00	2.95	98
9.20 - 12.20	3.00	3.00	100
12.20 - 14.55	2.35	2.25	96

Drillhole

Drillhole	Core Run		Core Recovery	
	Depth (m)	Length (m)	Length (m)	Percentage (%)
	14.55 - 17.55	3.00	3.00	100
	17.55 - 20.55	3.00	3.00	100
	20.55 - 23.55	3.00	3.00	100
	23.55 - 26.55	2.00	3.00	100
	26.55 - 29.55	3.00	3.00	100
	29.55 - 32.62	3.07	3.07	100
	32.62 - 35.62	3.00	3.00	100
	35.62 - 38.62	3.00	3.00	100
	38.62 - 41.62	3.00	3.00	100
	41.62 - 44.62	3.00	2.95	98
	44.62 - 47.62	Core recovery data unavailable.		
	47.62 - 50.62	"	"	"
	50.62 - 53.62	3.00	3.00	100

P-05

Non-cored

P-06a

Non-cored

P-06b

Non-cored

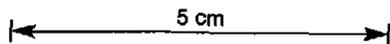
Table 3: Geophysical Logging Summary

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Drillhole	G E O P H Y S I C A L M E T H O D S (metres)					Total Depth metres	Location (AMG)
	Single Point Resistance	Self Potential	Natural Gamma	Density	Caliper		
P-01	0.0 - 28.0	1.3 - 28.0	0.4 - 27.9	1.1 - 27.7		29.57	377,400mE 5,444,800mN
P-02	11.9 - 21.6	11.9 - 21.6	0.4 - 21.4	0.6 - 11.3		48.54	376,650mE 5,443.900mE
P-03		not logged				9.00	375,800mE 5,443,300mN
P-04		collapsed before logging attempted				53.62	375,500mE 5,442,850mN
P-05		not logged				3.50	376,700mE 5,447,700mN
P-06a		" "				9.25	376,550mE 5,447,700mN
P-06b		" "				19.75	376,550mE 5,447,700mN

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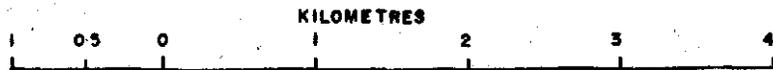
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P-01 ● Drillhole & Number

1 : 50,000

- Preolenna Coal Measures - sandstone with carbonaceous shale and coal seams.
- Inglis Siltstone - mudstone with fossiliferous siltstone at top, and oil shale at base.



SCALE 1 : 50,000

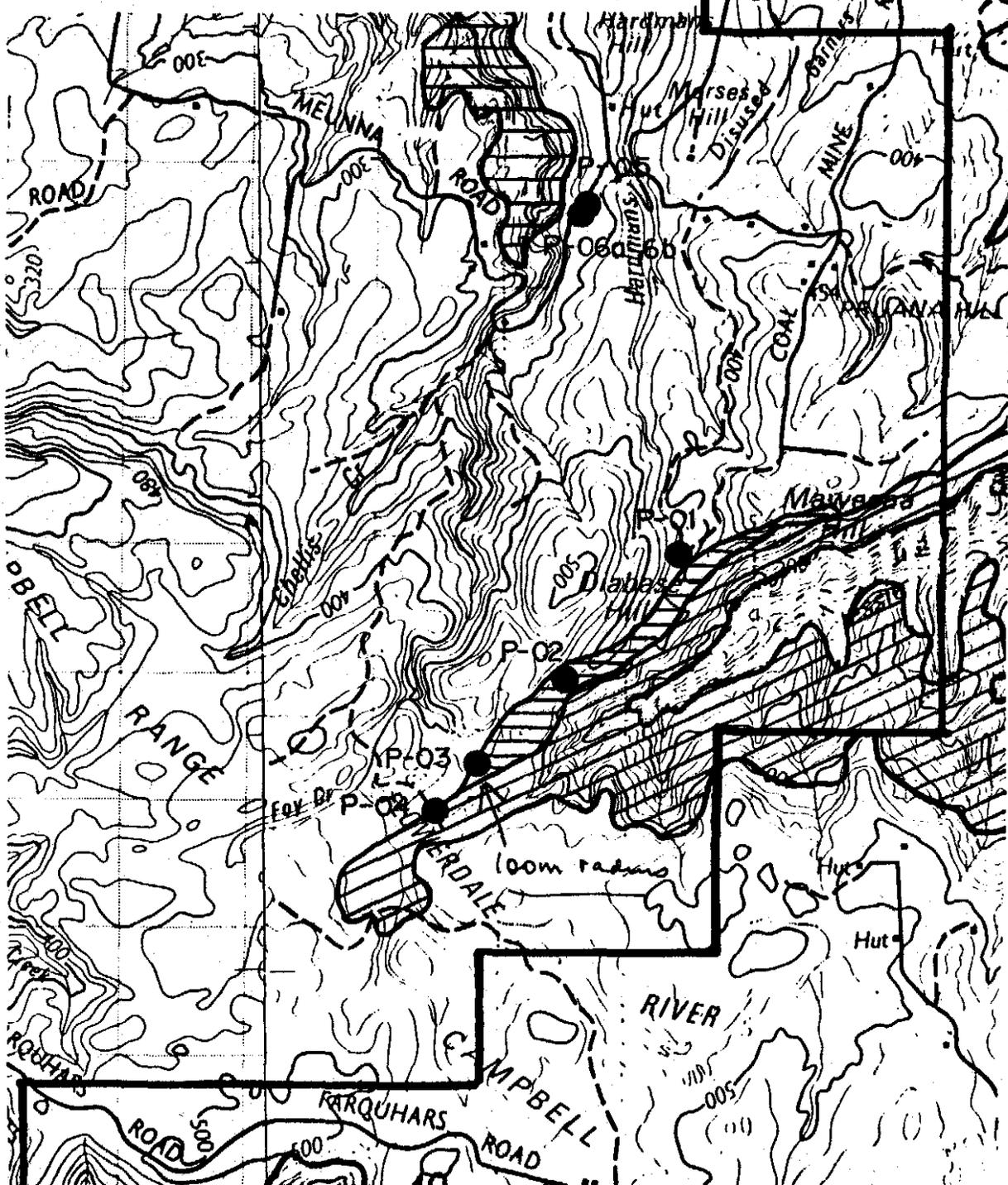


Figure 2 : Locality Map - Drillholes

3. DRILLING COSTS

P-01	Rig Site Move	300.00
	Open-holed section	
	0 - 5.00 m	125.00
	Cored Section 5.00 - 29.57	1,228.50
	Casing 0 - 27.57 m	137.85
	Water Cartage	90.00
	Bentonite	40.00
	Casing left in hole	60.00
	Working time	80.00
		<hr/>
		2,061.35
P-02	Rig Site Move	300.00
	Open-holed section	
	0 - 8.00 m	200.00
	Cored Section 8 - 48.54 m	2,027.00
	HQ Casing 19.57 - 45.09 m	127.60
	Water Cartage	315.00
	Bentonite	30.00
	Casing left in hole	150.00
	Working time	80.00
	Standby	60.00
		<hr/>
		3,527.45
P-03	Establishment fee	700.00
	Rig Site Move	300.00
	Open-holed section	
	0 - 9.00 m	252.00
	Water Cartage	60.00
		<hr/>
		1,312.00
P-04	Rig Site Move	300.00
	Open-holed section	
	0 - 5.00 m	110.00
	Cored Section 5.00 - 53.32 m	2,416.00
	HQ Casing 0 - 32.32 m	161.00
	Water Cartage	150.00
	Casing left in hole	51.00
	Bentonite	20.00
	Standby	360.00
		<hr/>
		3,568.60

P-05	Rig Site Move	300.00
	Open-holed Section	
	0 - 3.50 m	98.00
	Water Cartage	60.00
	Bentonite	10.00
	Casing left in hole	60.00
		<hr/>
		528.00
P-06a	Rig Site Move	300.00
	Open holed Section	
	0 - 9.25 m	203.50
	Water Cartage	60.00
	Standby	60.00
		<hr/>
		623.50
P-06b	Site Establishment Fee	700.00
	Down the hole hammer	
	0 - 19.75 m	790.00
	Rig Site Move	300.00
		1,790.00

$\$ 13,409$ for 172.93m (total work)
 i.e. $\$ 77.54/m$ average
 (around $\$ 50/m$ cost @ $\$ 25/m$ open hole
 actual drilling costs)

APPENDIX I

LITHOLOGIC LOGS

by General Geological Services

Drillholes P-01, P-02, P-03, P-04, P-05
P-06a and P-06b.

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DRILLHOLE P-01

<u>Depth (m)</u>	<u>Lithologic Description</u>
0.00 - 2.00	<u>Soil</u> : brown to off-white; silty; clayey; contains grains of sub-rounded to rounded sand.
2.00 - 3.40	<u>Sandy Siltstone</u> :
3.40 - 4.40	<u>Sandstone</u> : contains 40% sandy siltstone.
4.40 - 5.00	<u>Sandstone</u> : contains 30% sandy siltstone.
5.00 - 6.70 (Run 1)	<u>Sandstone</u> : light grey with some black carbonaceous particles; soft to medium hard; fine to medium grained, angular to sub-rounded; poorly sorted - with occasional quartz and feldspar granule fragments; moderately cemented, moderate porosity, slightly calcareous; predominantly argillaceous matrix, micaceous, fossiliferous.
6.70 - 8.90 (Run 2)	<u>Sandstone</u> : light grey; soft to medium hard; fine to medium grained; moderately sorted; moderately cemented, moderate porosity, occasionally calcareous; argillaceous matrix, micaceous, slightly carbonaceous.
8.90 - 10.89 (Run 3)	<u>Sandstone</u> : light grey; fine to medium grained; poorly sorted - with occasionally quartz granule fragments; moderately cemented, calcareous in part; micaceous, slightly carbonaceous, occasionally feldspathic; contains minor varve fragments.
10.89 - 12.57 (Run 4)	<u>Sandstone</u> : as above; slightly bioturbated.
12.57 - 14.02 (Run 5)	<u>Sandstone</u> : light grey to grey, with some black carbonaceous particles; fine to medium grained, sub-angular to rounded; poorly sorted; moderately cemented, occasionally calcareous; argillaceous matrix, micaceous; contains varve fragments and slaty remnants throughout.
14.02 - 15.57 (Run 6)	<u>Sandstone</u> : light grey; fine to medium grained; moderately sorted; well cemented; calcareous in part; argillaceous matrix, micaceous; contains occasional carbonaceous wisps.
15.57 - 16.77 (Run 7)	<u>Sandstone</u> : light grey to dark grey; fine to medium grained; moderately sorted; well cemented, slightly calcareous; argillaceous matrix, micaceous; contains increasing carbonaceous wisps.

Depth (m)

Lithologic Description

16.77 - 18.57
(Run 8)

Sandstone: light grey, occasionally dark grey; medium grained to occasionally fine grained; moderately sorted; calcareous in part, well cemented; argillaceous matrix, slightly bioturbated, slightly lithic; contains carbonaceous wisps.

18.58 - 20.72
(Run 9)

Sandstone: light grey; moderately sorted - with quartz granule fragments; lithic matrix, slightly micaceous, pyritic and calcitic in part, slightly feldspathic; bioturbated; contains minor varve fragments, and minor pebbles.

20.72 - 21.57
(Run 10)
21.57 - 29.57

Sandstone: as above

Sandstone: fine to medium grained; poorly sorted - with quartz granule fragments; moderately cemented; pyritic, slightly lithic, feldspathic; varve and tillite fragments evident towards base of unit; contains occasional carbonaceous blebs and minor pebbles.

29.57 T.D.

DRILLHOLE P-02

<u>Depth (m)</u>	<u>Lithologic Description</u>
0.00 - 8.00	Not recorded
8.00 - 9.55	<u>Sandstone</u> : light grey to dark grey; medium to coarse grained; moderately sorted - with occasional quartz granule fragments; well cemented, slightly calcareous; slightly lithic, micaceous in part, feldspathic matrix; bioturbated: contains carbonaceous wisps throughout.
9.55 - 12.38	<u>Sandstone</u> : light grey to grey with black carbonaceous particles, occasionally yellow; rounded to sub-rounded, medium to coarse grained; moderately sorted; moderately cemented; argillaceous matrix, calcitic, bioturbated in part; pebbly in places: contains carbonaceous blebs and fragments of varves and slate.
12.38 - 15.20	<u>Sandstone</u> : light grey to grey; medium grained; poorly sorted; moderately cemented; argillaceous in part, slightly bioturbated, occasionally calcitic, slightly lithic, micaceous in part, feldspathic matrix; pebbly: contains varve fragments and slatey remnants in ground mass.
15.20 - 15.37	Core loss
15.37 - 17.34	<u>Sandstone</u> : light grey to grey; medium to coarse grained; poorly sorted - with occasional quartz granule fragments; moderately cemented; fair porosity; slightly carbonaceous; slightly lithic, micaceous, feldspathic: contains varve fragments and slatey remnants throughout.
17.34 - 18.37	Core loss
18.37 - 19.21	<u>Sandstone</u> : light grey; medium grained; moderately sorted; poorly cemented; slightly lithic, feldspathic.
19.21 - 19.57	Core loss
19.57 - 20.07	<u>Sandstone</u> : light grey; fine to medium grained; moderately sorted; moderately cemented; slightly calcareous; bioturbated, carbonaceous wisps throughout.
20.07 - 20.52	Core loss
20.52 - 21.09	<u>Open Holed</u> : sample lost.

Depth (m)Lithologic Description

21.09 - 23.71

Sandstone: light grey; angular to sub-rounded, medium to coarse grained; poorly sorted; moderately cemented, calcareous in places; occasionally pebbly, slightly micaceous, lithic in part, feldspathic.

23.71 - 24.26

Sandstone: as above; friable; argillaceous matrix; pebbly throughout.

24.26 - 26.60

Core loss

26.60 - 27.09

Sandstone: light grey; fine to medium grained; argillaceous in part.

27.09 - 30.09

Sandstone: off-white to grey with occasional black carbonaceous particles; fine grained; well sorted; well cemented, slightly calcareous; lithic matrix.

30.09 - 33.09

Sandstone: light grey; fine grained; well sorted; well cemented, kaolinitic in part, lithic; grades into a siltstone towards base of unit.

33.09 - 36.09

Siltstone: light grey; well sorted - with occasional quartz granule fragments; well cemented, calcareous in part; slightly kaolinitic, occasionally pebbly, lithic matrix: contains varve fragments and in places grades into a sandy siltstone.

36.09 - 39.09

Sandstone: light grey to dark grey; fine grained; moderately sorted; well cemented, slightly calcareous; lithic matrix, highly fossiliferous.

39.09 - 42.09

Sandstone: light grey to grey; fine grained, occasionally coarse grained at top of unit; well sorted; well cemented, calcareous in part; lithic, bioturbated; calcitic veinlets along fractures; occasional carbonaceous wisps: contains abundant fossil fragments throughout and tillite laminations at 41.37 - 41.40 m.

42.09 - 42.90

Sandstone: as above; fine grained; moderately sorted: contains occasional fossil remnants.

42.90 - 43.60

Sandy Siltstone: light grey to dark grey; well sorted; well cemented; lithic, micaceous, argillaceous matrix: contains occasional calcite veinlets.

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Depth (m)Lithologic Description

43.60 - 45.09

Sandstone: light grey; medium to coarse grained becoming fine grained towards base of unit; moderately sorted; moderately cemented; slightly argillaceous, feldspathic matrix; occasional carbonaceous blebs, minor calcitic inclusions, occasional fragments of varves; contains minor fragments of tillite towards base of unit.

45.09 - 48.09

Sandstone: light grey; medium to coarse grained; moderately sorted; well cemented, slightly calcareous; micaceous, predominantly lithic, slightly feldspathic; contains minor carbonaceous blebs and sporadic varve fragments.

48.09 - 48.54

Sandstone: as above; fine to medium grained; well sorted; well cemented, calcareous; lithic, micaceous throughout.

48.54 T.D.

DRILLHOLE P-03

<u>Depth (m)</u>	<u>Lithologic Description</u>
0.00 - 1.50	<u>Soil</u> : brown to cream, occasionally milky; silty and clayey; contains minor grains of clear sand; sub-rounded to rounded.
1.50 - 3.50	<u>Sandy Siltstone</u> : light grey; argillaceous matrix.
3.50 - 4.50	60% <u>Sandy Siltstone</u> : as above 40% <u>Sandstone</u> : light grey; sub-rounded to rounded; micaceous; slightly calcareous; contains carbonaceous mottling.
4.50 - 5.00	50% <u>Sandy Siltstone</u> : as above 50% <u>Sandstone</u> : as above
5.00 - 5.50	65% <u>Sandstone</u> : as above 35% <u>Sandy Siltstone</u> : as above
5.50 - 9.00	<u>Sandstone</u> : light grey with occasional black carbonaceous particles; sub-rounded to rounded; poorly sorted with occasional quartz granules; moderately cemented, slightly calcareous; micaceous, argillaceous matrix.
9.00 T.D.	

DRILLHOLE P-04

<u>Depth (m)</u>	<u>Lithologic Description</u>
0 - 1.50	<u>Clay</u> : dark grey; soft; sticky; carbonaceous in part and micaceous throughout.
1.50 - 5.00	<u>Shale</u> : dark grey; friable in part; fissile; argillaceous, carbonaceous throughout and micaceous.
5.00 - 9.20	<u>Sandstone</u> : light grey to off-white; friable in part; fine grained to occasionally medium grained; moderately cemented; sucrosic texture; micaceous, feldspathic matrix; slightly argillaceous; fair porosity; contains carbonaceous stringers.
9.20 - 14.72	<u>Sandstone</u> : light grey to off-white; fine grained; moderately sorted; moderately cemented; sucrosic texture; micaceous, feldspathic matrix; bioturbated: contains carbonaceous bands throughout.
14.72 - 17.55	<u>Mudstone</u> : dark grey; moderately hard, splintery; slightly pyritic, micaceous throughout, carbonaceous in places.
17.55 - 20.55	<u>Mudstone</u> : as above; occasionally pebbly.
20.55 - 23.55	<u>Mudstone</u> : dark grey; hard, blocky to occasionally splintery; calcareous in part; micaceous throughout; contains sporadic calcite veinlets and occasionally grades into siltstone.
23.55 - 26.55	<u>Mudstone</u> : dark grey; moderately hard, blocky; slightly carbonaceous, micaceous throughout; contains calcite veinlets and grades into underlying bed.
26.55 - 29.55	<u>Siltstone</u> : dark grey; moderately sorted; well cemented; micaceous, carbonaceous in part, argillaceous matrix: contains calcite veinlets throughout.
29.55 - 32.62	<u>Siltstone</u> : as above: pebbly in places; contains occasional calcite veinlets.
32.62 - 35.62	<u>Siltstone</u> : as for 26.55 - 29.55 metres.
35.62 - 38.62	<u>Siltstone</u> : dark grey; moderately sorted; well cemented, slightly calcareous; micaceous, carbonaceous, bioturbated in part, argillaceous matrix: contains occasional calcite veinlets and is slightly pebbly.

Depth (m)Lithologic Description

38.62 - 41.62

Siltstone: as above; less pebbly.

41.62 - 44.62

Sandy Siltstone: light grey to dark grey; moderately sorted; well cemented; carbonaceous in places, micaceous, slightly pebbly, argillaceous matrix: grades into a fine grained sandstone towards base of bed.

44.62 - 50.62

Sandy Siltstone: as above; dark grey.

50.62 - 53.62

Siltstone: dark grey; moderately soft; moderately sorted; well cemented; slightly carbonaceous, micaceous, slightly bioturbated, argillaceous matrix: contains occasional fossil remnants.

53.62 T.D.

027

752028

DRILLHOLE P-05

Depth (m)

Lithologic Description

0.00 - 2.40

Soil: red-brown; silty, loamy; contains weathered basalt fragments.

2.40 - 3.50

Basalt: predominantly talus.

3.50 T.D.

028

752029

DRILLHOLE P-06a

Depth (m)

Lithologic Description

0.00 - 9.25

Basalt: dark grey; fine grained.

9.25 T.D.

029

752030

DRILLHOLE P-06b

Depth (m)

Lithologic Description

0.00 - 8.00

Clayey Soil: red-brown to yellow; loamy in part; with 40% clay particles; soft, sticky, argillaceous matrix; contains abundant weathered basalt fragments.

8.00 - 11.30

Weathered Basalt: as above; frequent basaltic debris.

11.30 - 19.75

Basalt: dark grey, fine grained.

19.75 T.D.

030

752031

APPENDIX 2

**GEOPHYSICAL LOGGING REPORT - "A Report on Geophysical
Well-Logs for Oil-Shale,
Tasmania."**

by Mitre Geophysics Pty. Ltd. TCR 82-1788

Geophysical logs for the drillholes P-01 and P-02 are enclosed.

Submitted separately as 82-1788