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SUMMARY REPORT ON COAL DRILLING OPERATIONS  
AT IDA BAY AND STRATHBLANE PLAINS  
SOUTHEASTERN TASMANIA

**MICROFILMED**

Prepared by EARTH RESOURCES AUSTRALIA PTY LIMITED  
for AUSTRALIAN PAPER MANUFACTURERS LIMITED

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Principal Coal Consultant  
June 1976



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1.0	Summary and conclusions	1
2.0	Introduction	3
3.0	Ida Bay Programme	5
3.1	Introduction	5
3.2	Summary of Drilling Results	5
3.2.1	Line 1	5
3.2.2	Line 2	6
3.2.3	DDH 15	6
4.0	Strathblane Plains Programme	7
4.1	Introduction	7
4.2	Summary of Drilling Results	7
4.2.1	Line A	7
4.2.2	Line B	8
4.2.3	Spot Drilling	8

APPENDIX I - Ida Bay Bore Logs

APPENDIX II - Strathblane Plains Bore Logs

TABLE 1 Ida Bay Drilling Data  
 TABLE 2 Strathblane Plains Drilling Data

MAP 1 Ida Bay Area  
 MAP 2 Strathblane Plains Area

FIGURE 1 Line 1 - Ida Bay  
 FIGURE 2 Line 2 - Ida Bay  
 FIGURE 3 Bore DDH 15 - Ida Bay (In text)  
 FIGURE 4 Line A - Strathblane Plains  
 FIGURE 5 Line B - Strathblane Plains  
 FIGURE 6 Spot Drilling - Strathblane Plains  
 FIGURE 7 Symbols for Graphic Logs (In text)



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1.0

SUMMARY AND CONCLUSIONS

The drilling programme has shown that although both the Ida Bay and Strathblane Plain areas are underlain by gently dipping sequences of Triassic sediments, these sequences generally lie below the interval in which potentially economic coal seams occur.

At Ida Bay the sediments dip at some 15° to the west, and the bulk of the plain area is underlain by the non coal-bearing "Basal Sandstone" unit (Ross Sandstone ?). The upper coal-bearing sequence thus occurs only in the extreme west of the area where it is both masked by thick post Triassic sequences and also passes into hilly country associated with doleritic intrusives.

A similar situation exists at Strathblane Plains, and although the dips are more gentle than at Ida Bay, the major part of the plain is again underlain by the "Basal Sandstone". Old records giving the location of reported coal occurrences and shaft and adit positions in the Strathblane area have been shown to be inaccurate, and the only significant coal to occur in the area is noted in the extreme west where the topography is rugged and the sequence is intruded and structurally deformed.

The programme clearly indicated that reserves of open cut coal do not occur in either area. It is further suggested that there is considerable folding and faulting of the coal measures associated with doleritic intrusions, and hence it is highly unlikely that sufficient seam continuity could be established to contemplate underground extraction of coal.

Although there are other areas which perhaps offer similar initial potential to these areas ( see E.R.A. Report of September 1975), it is expected that similar geological conditions to Ida Bay and Strathblane will prevail, and that significant coal occurrences will be found only in proximity to doleritic intrusives where both rugged topography and structural dislocation of the sediments are anticipated. It is known from other coalfields in Australia that coal seams frequently provide a favourable locus for the intrusion of igneous material, and this appears to be the explanation for the close association of the two rock types in southeastern Tasmania.

Conversely it can be argued that under these circumstances, areas of significant sequences of unintruded Triassic sediments are unlikely to contain substantial seams.

In view of the similarity of conditions observed at Ida Bay and Strathblane Plains, it is recommended that the project be abandoned, as the additional exploration effort required to delineate what must be regarded as a rather unlikely situation would be out of proportion to the chances of success.

In view of the conditions observed during this programme, the only area in the state which may warrant investigation with a



greater chance of success is the Fingal - St. Marys area. This area in the northeast of the state is the site of Tasmania's only operating colliery and has not previously been considered during this investigation because of its distance, some 300 km by road from Port Huon.

It is possible that there may be areas, not currently held under lease, which could offer potential for open cut reserves on the relatively small scale envisaged. If it could be established that areas with such potential exist any subsequent exploration expenditure would have to be balanced against the distance from Port Huon and the fact that coal could be purchased from the already existing colliery at Fingal.

A further alternative fuel source not previously considered but warranting investigation is the oil shale deposit of the Mersey River Valley south of Devonport in the north of the state. Large reserves exist and a proportion of these are stated to be in open cut situations. Yields are around 30 gallons of oil per tonne of oil shale.

Production of oil from oil shale could have several advantages to the Company compared to coal as an energy source viz-

- (i) Possible lower exploration costs in view of the apparent availability of oil shale in open cut situations.
- (ii) Lower end product transport costs
- (iii) Conversion of existing equipment to handle coal as a fuel source would be avoided.

Initial investigations could be carried out into the likely availability of open cut reserves and the economics of distilling and refining on a small scale. Because of the Company's unique requirements, a simple small scale operation could well prove economically feasible.

EARTH RESOURCES AUSTRALIA PTY LIMITED

*M. R. Bunny*  
 M.R.Bunny B.Sc(Hons) M.Aus.I.M.M.



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2.0 INTRODUCTION

The present programme constitutes the final phase of an evaluation of the coal-bearing potential of Southeastern Tasmania conducted for Australia Paper Manufacturers Limited.

The aim of the evaluation was to delineate, if possible, small reserves of open cut fuel coal which could be used as a substitute for fuel oil in the Port Huon Pulp Mill.

Reference should be made to the following reports which have been submitted previously.

- 74/1000 1. ✓ "Assessment of Coal Deposits in Southeastern Tasmania" 97/5  
by M.R.Bunny (E.R.A Report of March 1974)
- 74/1057 2. ✓ "Stage I Investigations - Coal Deposits in Southeastern Tasmania" 97/6  
by M.R.Bunny (E.R.A. Report of November 1974)
- 75/1090 3. ✓ "Stage II Investigations - Catamaran Coal Prospect, Southeastern Tasmania" 97/7  
by P.L.Rasmus (E.R.A Report of May 1975.)
- 75/1105 4. ✓ "Evaluation of Coal Deposits at Ida Bay, west of Southport Lagoon, Tasmania" 93/2  
by M.R.Bunny (E.R.A Report of June 1975)
- 5. " Assessment of Coal Deposits in Southern Tasmania" by P.L.Rasmus (E.R.A Report of September 1975)

In particular the reports numbered 4 and 5 above are particularly pertinent to the present work.

Drilling operations were carried out between February and May 1976 as a final phase of investigations into the coal potential of the Ida Bay and Strathblane Plains areas.

Drilling at Ida Bay in fact completed a programme commenced in 1975 (E.R.A. Report of June 1975).

The Strathblane Plains area was defined as an area of possible potential following preliminary investigations carried out in late 1975 (E.R.A. Report of September 1975).

At Ida Bay 9 holes totalling 274.40 metres were drilled in addition to the work undertaken in 1975 (Ida Bay D.D.H's 6 to 15), while at Strathblane Plains 19 holes were drilled for a total of 528.77 metres.

Drill site locations for the respective areas are shown on maps 1 and 2 accompanying this report, and graphic logs and sections are shown in Figure 1 through 7. Written bore logs accompany the report as Appendices.

Drilling was carried out by H.C.Stacpoole Pty Limited, Drilling



Contractor of Launceston, using a Gemco 210B rig fitted with NMLC diamond coring gear. Open hole drilling was carried out with Tri-cone rock roller bits. Access and site preparation was conducted by P. and L. Seabourne, Timber Contractors, of Dover, using a Caterpillar D5 bulldozer and a John Deere logging skidder.

Supervision of the programme was carried out by Geologists M.R.Bunny, P.L.Rasmus and I.D.Blayden of Earth Resources Australia Pty. Limited, Consulting Geologists.



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3.0 IDA BAY PROGRAMME

3.1 Introduction

Previous investigations in the Ida Bay area (E.R.A. Report of June 1975) assessed the eastern part of the northern end of the plain area. Budgetary considerations at that time necessitated termination of the programme before the upper section of the sedimentary sequence on the eastern side of the plain could be evaluated.

The present programme was designed to complete the initial line of drilling, and to drill at least one more line of holes to the south of the first line. Bore positions for both programmes are shown on Map 1.

The programme has demonstrated conclusively that although a quite thick sequence of Triassic sediments occurs beneath the plain, this does not contain any seams of sufficient thickness or quality to be of interest to A.P.M. Limited., and the area has now been abandoned.

3.2 Summary of Drilling

3.2.1 Line 1

Bore DDH 6 This hole was drilled 100 metres west of DDH 5 (Fig 1 and E.R.A. Report of June 1975)

The probable base of the Tertiary and/or Recent sediments in this hole was at 8.50 metres, below which the Triassic coal measure sediments were intersected. Thin bands of inferior coal and carbonaceous mudstone were encountered between 20.25 and 21.37 metres (1.12 m thick), this interval probably correlating with the "seam" in DDH 5. An inferior seam was intersected between 24.50 and 25.87 metres (1.37 m) but this was of no economic significance. The hole was terminated at 28.80 metres.

Bore DDH 7 This hole was sited adjacent to and on the western side of the Catamaran Road. Recent and/or Tertiary sediments extend to a depth of at least 15.50 metres, and possibly to 19.60 metres. An inferior coal seam was intersected between 22.50 and 23.70 metres (1.20 metres thick), but again this was of no commercial significance.

No additional holes were drilled to the west of DDH 7 because of both the proximity of the hilly country and the almost certain increasing thickness of post-Triassic rocks associated with the present drainage system.

Core from bores 6 and 7 gave dip readings ranging from 10° to 20°, with dips of around 15° being the most common. This is consistent with findings from earlier drilling.



3.2.2 Line 2

Bores in this line were numbered according to the sequence of drilling, the west to east sequence being DDH's 10, 11, 9, 8, 12, 13 and 14. Bore spacings are shown on Map 1 and Figure 2.

The most significant factor to emerge from this line is that the "Basal Sandstone" unit (?Ross Sandstone) underlies more of the plain area than is the case for Line 1, suggesting a north-south strike for this unit i.e. not parallel with the NNW-SSE long axis of the plain, as was originally thought to be the case. As this sandstone is devoid of coal, the potential of the southern part of the plain area is thus negligible. This was further demonstrated by DDH 15, further to the south, which again intersected the "Basal Sandstone".

An interesting, albeit academic, point to emerge from Line 2 is that the western dolerite/sediment contact is transgressive and dips to the east (cf. bores DDH 10 and 11), thus dispelling the theory that the dolerite occurs as sills. *no such theory ever held*

Inferior and uneconomic carbonaceous sections were encountered in bores 8, 9 and 11. Coaly material in the other bores in Line 2 represent mainly coalified wood fragments in the "Basal Sandstone" unit, and not seams as such.

The thickness of the "Basal Sandstone" unit in line 2 is in excess of 85 metres (true thickness), and it extends from between bores 8 and 12 across to the eastern edge of the plain where dolerite again occurs.

Bore DDH 15 As stated above, Bore DDH 15, lying to the south of Line 2 (Map 1 and Fig. 3), also intersected the "Basal Sandstone" sequence. This together with the close proximity of dolerite outcrop to the west, precluded the need for additional drilling on this line.



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TABLE I  
IDA BAY 1976 PROGRAMME - DRILLING DATA

BORE NO	TOTAL DEPTH (m)	CORED (m)	OPEN HOLED (m)
6	28.80	7.50	21.30
7	30.00	3.90	26.10
8	30.00	4.70	25.30
9	30.00	6.40	23.60
10	29.00	2.00	27.00
11	21.60	3.20	18.40
12	30.00	4.80	25.20
13	15.00	2.20	12.80
14	30.00	3.00	27.00
15	30.00	3.00	27.00
TOTALS	274.40	40.70	233.70



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DDH 15

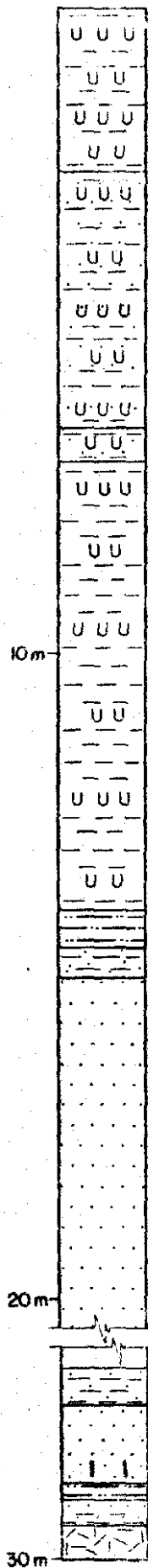


FIGURE 3  
GRAPHIC LOG  
DDH 15

See text Figure  
7 for symbols

5 cm



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4.0 STRATHBLANE PLAINS AREA

4.1 Introduction

Drilling in the Strathblane Plains area was undertaken as a result of discussions and research at the Tasmanian Mines Department and a preliminary field examination (E.R.A. Report of September 1975).

It was concluded from this initial work that the plain area here may be underlain by relatively gently dipping coal measure sediments similar to the Ida Bay area. Any economic seams which might occur would thus be amenable to open cut extraction.

After completion of the Ida Bay drilling programme the drilling rig was shifted to the Strathblane Plains area where 19 holes for a total of 528.77 metres were drilled. Limited trenching carried out during the preparation of access tracks demonstrated that the post-Triassic sediments were generally too thick for costeaning to be utilised as a prospecting technique without severe disruption to the environment. Areas originally planned to be investigated by this method were drilled instead.

Two lines of holes (Lines A and B) and 5 randomly located holes were drilled in the programme. Line A, at the southern end of the area, comprised 7 holes (west to east - DDH's 1,2,19,3,4,6 and 5), while Line B towards the north of the area also consisted of 7 holes (west to east - DDH's 7,8,9,10,11,12 and 13).

An additional 5 holes were randomly located at sites of possible interest (DDH's 14,15,16,17,18).

4.2 Summary of Drilling Results

4.2.1 Line A (Map 2, Figure 4)

DDH 1 was sited adjacent to the sediment/dolerite contact on the eastern side of the Creekton Road, and it intersected 0.50 metres of weathered coal and shale between 1.50 and 2.00 metres. This interval possibly correlates with the 0.50 metre seam noted at outcrop some 400 metres to the north (see Map 2). This latter is also in close proximity to the sediment/dolerite contact. The bore continued in sediments to its total depth of 30.00 metres, although no further coaly sequences were intersected.

DDH 2 is 80 metres east of DDH 1, and apart from 0.17 metres of coal at 7.50 metres, intersected shale and sandstone sequences to the total depth of 28.70 metres.

Hole DDH 19 was subsequently drilled some 60 metres east of DDH 2 to further investigate the coal interval, and 0.12 metres of coal underlain by 0.08 metres of carbonaceous mudstone was intersected at 6.80 metres. This was undoubtedly the same interval intersected by DDH 2 and a gentle westerly apparent dip is indicated.

The remainder of the bores in Line A failed to intersect coal



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and encountered a predominantly sandy sequence, almost certainly the "Basal Sandstone" sequence, a characteristic gray-green quartz-lithic sandstone which underlies the coal measures. Drilling further to the east was thus not warranted and the line was abandoned.

4.2.2 Line B (Map 2, Figure 5)

Apart from 0.15 metres of coal in DDH 12, this line proved to be barren. Dips appear to be essentially horizontal, apart from cross bedded sandstones, and this is supported not only by the core observations but also by correlation of the "Basal Sandstone" sequence (see Figure 5).

4.2.3 Spot Drilling

Since Lines A and B suggested that the main plain area comprised only the very basal section of the coal measure sequence and the underlying "Basal Sandstone", five random holes were sunk close to the break in slope i.e. closer to the sediment/dolerite contact. DDH 14, to the north of Line B, demonstrated the existence of a similar sequence to that in Line B, with the "Basal Sandstone" occurring at a depth of 2.00 metres, and in this case suggesting a very gentle southerly apparent dip. DDH's 15, 16, 17 and 18 were sited on the western side of the area, and again no coal was intersected. DDH 17 encountered dolerite at a depth of 17 metres and DDH 18 encountered dolerite from 3.00 to 6.00 metres.

This final spot drilling eliminated areas of possible open cut potential in the Strathblane Plains area, and further work was not undertaken.



TABLE II  
STRATHBLANE PLAINS 1976 DRILLING PROGRAMME DATA

BORE NO	TOTAL DEPTH (m)	CORED (m)	OPEN HOLED (m)
1	30.00	3.00	27.00
2	28.70	3.00	25.70
3	28.88	1.88	27.00
4	29.00	2.00	27.00
5	30.00	3.00	27.00
6	30.00	0.00	30.00
7	30.00	1.50	28.50
8	29.92	1.42	28.50
9	29.50	1.00	28.50
10	30.07	1.57	28.50
11	30.06	1.56	28.50
12	29.94	1.44	28.50
13	27.00	0.00	27.00
14	30.00	0.00	30.00
15	30.00	0.00	30.00
16	30.00	0.00	30.00
17	18.00	0.00	18.00
18	30.00	6.00	24.00
19	7.70	1.50	6.20
TOTALS	528.77	28.87	499.90



GRAPHIC LOG SYMBOLS

Sedimentary rocks

Lithological Symbol	Lithological Description	Abbreviation
	Cobble to boulder conglomerate	Cbl-blk Cgl
	Granule to pebble conglomerate and conglomerate in general.	gran-pbl cgl cgl
	Breccia	Bc
	Medium to very coarse sandstone and sandstone in general	m-vc Ss Ss
	Very fine to fine sandstone	vf-f Ss
	Siltstone	Sis
	Claystone	Cs
	Mudstone	Ms
	Shale	Sh
	Graded unit eg. Mudstone at to through fine to coarse sandstone to conglomerate at base.	grad unit
	Thin bed of sediment (<0.6m thick) shown in true stratigraphic position within another litho-unit. eg. thin mudstone band within a sandstone unit.	

Mixtures of these rock types may be depicted by the appropriate combinations of the corresponding symbols



Note : Solid vertical line to represent 1/10 units; position across column gives ratio.



Laminite - Laminae generally <1cm thick eg. Fine sandstone and siltstone laminite, sandstone : siltstone ratio 1:1.

Lmt



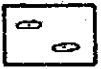
Interbedded unit - beds generally >1cm thick eg. sandstone and siltstone interbedded in ratio 2/1

IB unit



Chert or cherty unit

Cht



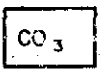
Concretions, geodes, nodules etc in general.

concr, gd, nod

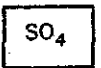


Oolites and pisolites in general

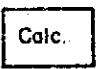
Ool, pisol



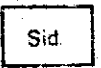
Carbonate in general



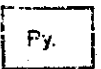
Sulphate in general



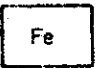
Calcite or calcareous unit



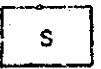
Siderite or sideritic unit



Pyrite or pyritic unit



Limonite, ironstone etc



Sulphur or sulphide in general

These mineral symbols may be shown either -  
 (i) On their own to depict a unit consisting of the mineral represented, or  
 (ii) In combination with other rock symbols if the mineral is a minor or significant component of the rock unit represented.



IGNEOUS AND MISCELLANEOUS ROCKS



Igneous rocks in general

Ig



Dolerite

Dol



Pyroclastic rocks, coarse grained (>2mm grain size) includes granule to breccia tuff.

C Pycl



Pyroclastic rocks, fine grained (<2mm in grain size) or tuff

F Pycl



Metamorphic rocks in general

Met



Basement in general, undifferentiated.

Bm



Limestone in general.

Le



Soil, dirt, alluvium etc



eg (1) Clay



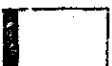
eg (2) Sand



Unknown unit - core loss, not drilled etc



Break in graphic log indicating part of sequence not shown.



Cored interval.



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COAL AND RELATED ROCKS

Abbreviation



Coal in general, or seam in which coal comprises more than 70% of the seam. For seams of intercalated coal and non coal bands the ratio of the accumulated thickness of each rock type (maximum of three) is shown by the proportionate subdivision of the column with the dominant rock type at the left.



eg. (1) Seam of 60% coal bands and 40% carbonaceous claystone bands.



eg. (2) Seam of 50% siltstone bands and 30% coal bands and 20% claystone bands.



Thin coal band <0.6m in thickness - shown as a thick black line.



Carbonaceous unit eg. carbonaceous claystone. When shown as part of an interbanded unit, only one vertical line need be shown as in seam eg. (1) above).

Carb  
eg. Carb  
cs.



Coal, cindered.

Coal, cnd



Coal conglomerate or breccia.

Coal, cgl  
Coal, bc



Bituminous or oil shale.

Bit Sh  
Osh












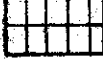


Pellet claystone

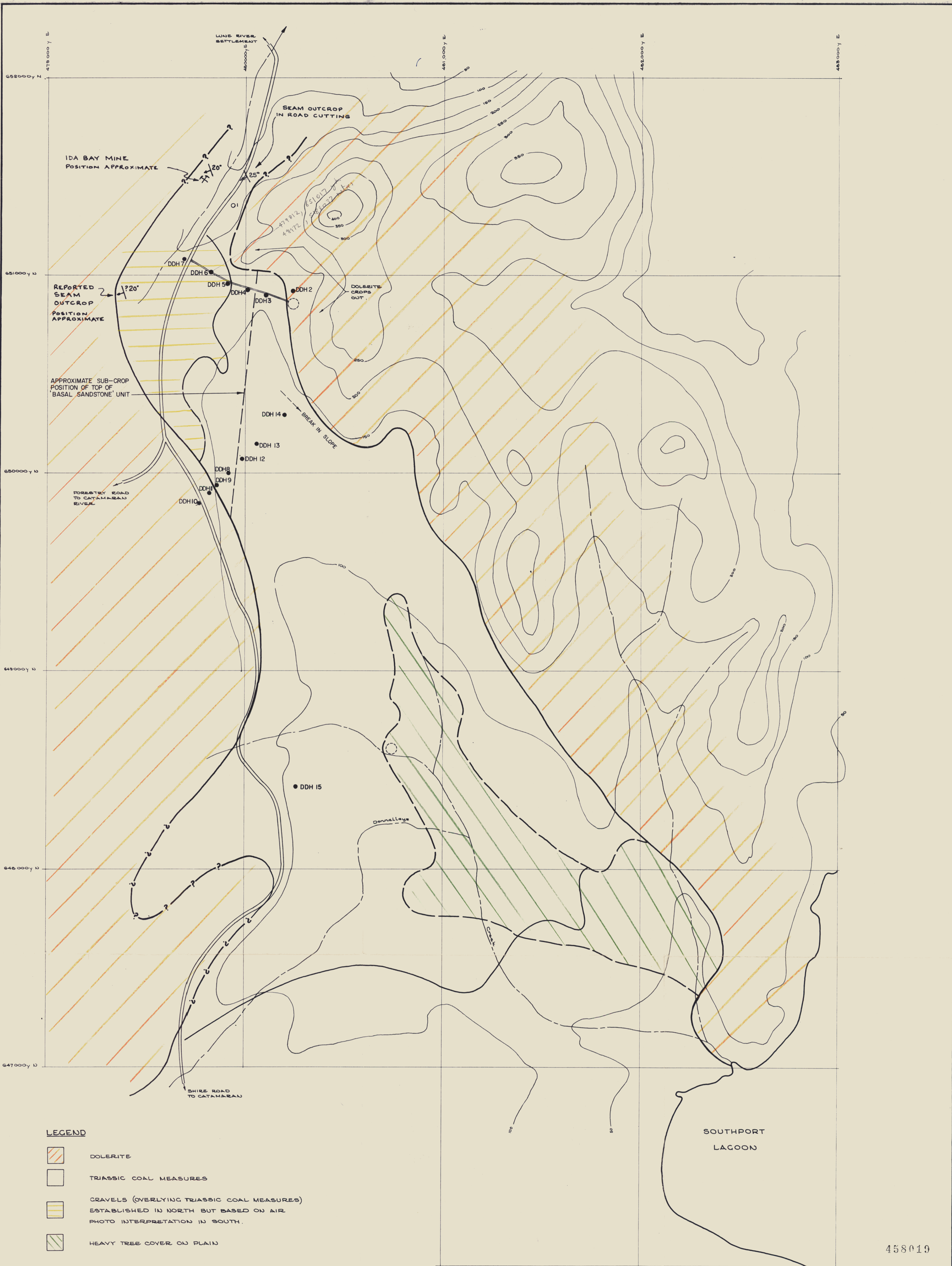
Pel Cs







SEAM SECTION SYMBOLS





		% of bright coal	Letter symbol
	Coal, bright.	90-100%	B
	Coal, bright with frequent dull bands.	60-90%	Bd
	Coal, interbanded dull and bright.	40-60%	DB
	Coal, dull with frequent bright bands.	10-40%	Db
	Coal, dull with minor bright bands.	1-10%	Dmb
	Coal, dull.	<1%	D
	Coal, inferior.		Coal, inf.
	Carbonaceous unit.		Carb. Sis. Carb. Cs. etc.
	Cindered coal.		Coal, cnd.
	Coal, weathered or oxidised.		Coal, oxd.
	Coal and carbonaceous claystone.		
	Sapropelic coal.		Coal, sap.





**LEGEND**

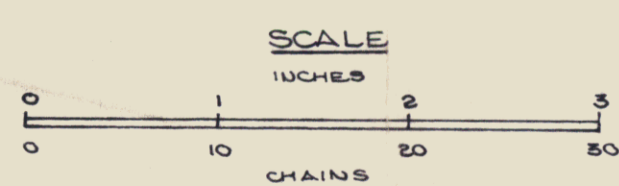
-  DOLERITE
-  TRIASSIC COAL MEASURES
-  GRAVELS (OVERLYING TRIASSIC COAL MEASURES)  
ESTABLISHED IN NORTH BUT BASED ON AIR  
PHOTO INTERPRETATION IN SOUTH.
-  HEAVY TREE COVER ON PLAIN

-  SAW MILL SITE (ABANDONED)
-  ODDH 2 DRILL HOLE
-  ROAD
-  TRACK TO MILL SITE

**NOTE**

LIMITS OF THE PLAIN ARE DEFINED BY THE INTERPRETED SEDIMENT/DOLERITE BOUNDARY EXCEPT IN EXTREME NORTH-WEST WHERE THE ROAD MARKS THE WESTERN EDGE OF THE PLAIN.

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MAP 1

EARTH RESOURCES AUSTRALIA PTY. LTD.

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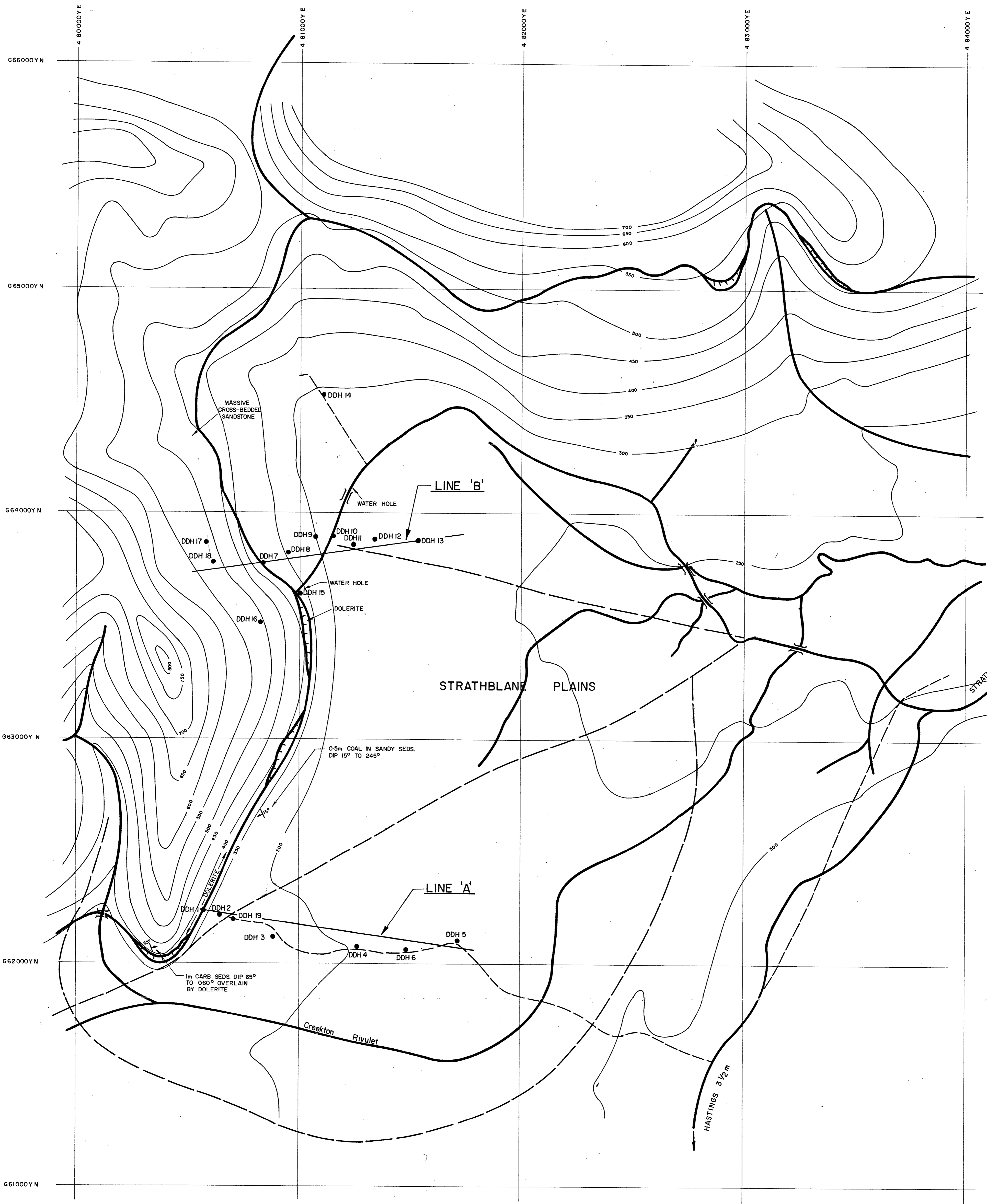
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**SOUTHPORT PLAIN AREA**

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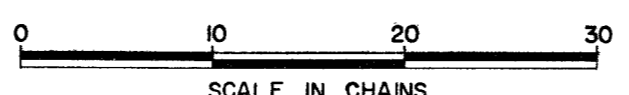
5 cm

DATE: JUNE 1976



**LEGEND**

- ROAD
- - - TRACK
- ~ CREEK
- - - ABANDONED TRAM LINE
- DDH 3 DRILL HOLE



CONTOUR INTERVAL 50'-0"

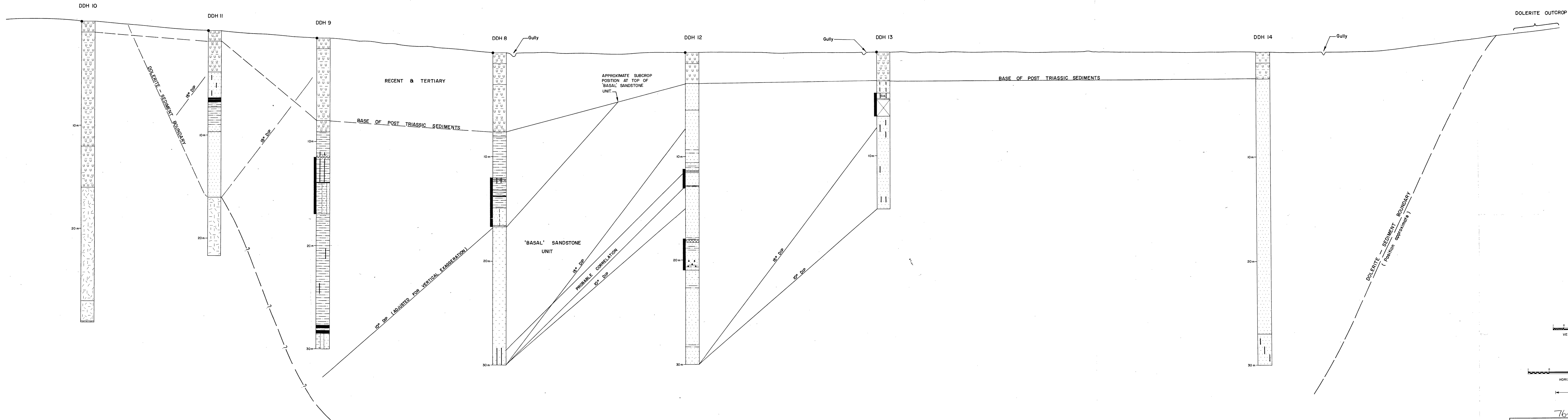
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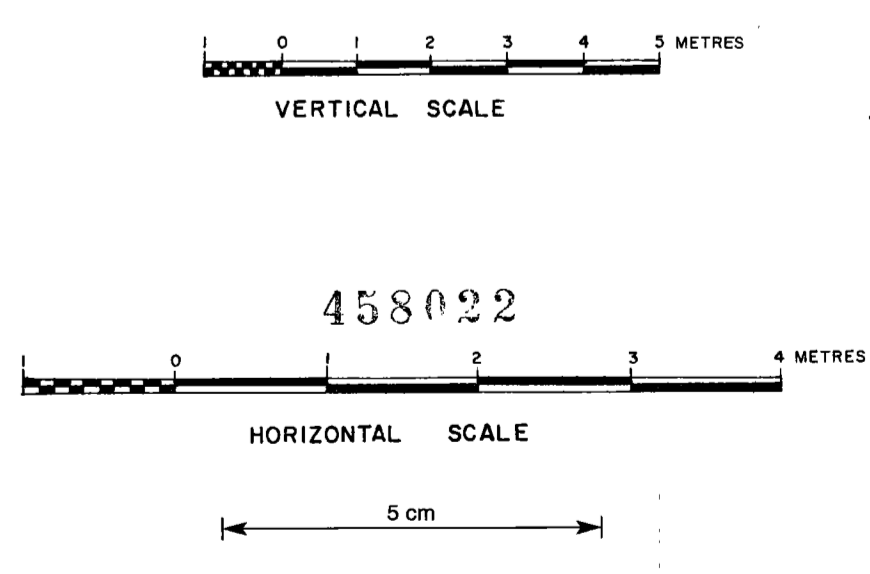
76-1166 MAP 2

EARTH RESOURCES AUSTRALIA PTY. LTD.
AUSTRALIAN PAPER MANUFACTURES LIMITED
<b>STRATHBLANE PLAINS AREA</b>
5 cm
1559
DATE: JUNE 1976





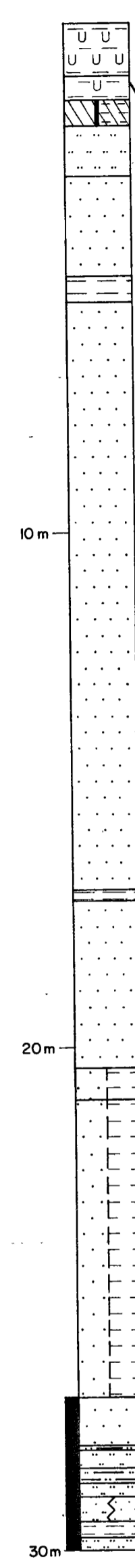
1558



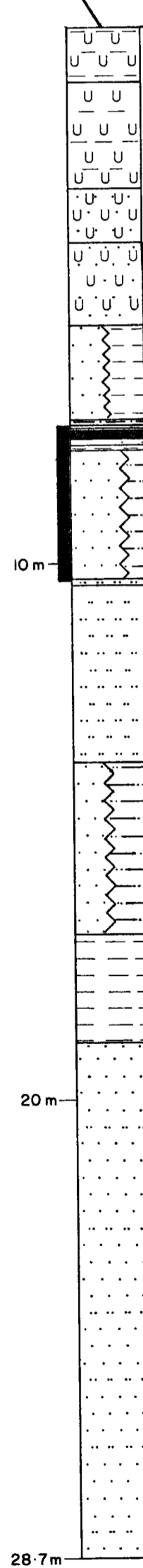
76-1166 FIGURE 2  
 EARTH RESOURCES AUSTRALIA PTY. LIMITED  
 AUSTRALIAN PAPER MANUFACTURES LIMITED  
 LINE 2  
 IDA BAY AREA 1558  
 DATE: JUNE 1976

SEE TEXT FIGURE 7 FOR SYMBOLS  
 SEE MAP 1 FOR BORE LOCATIONS

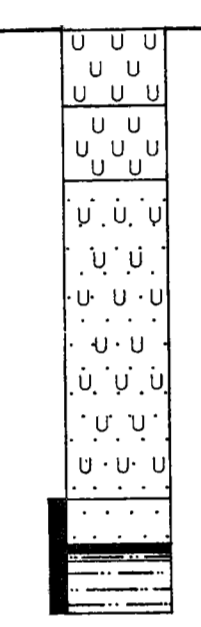
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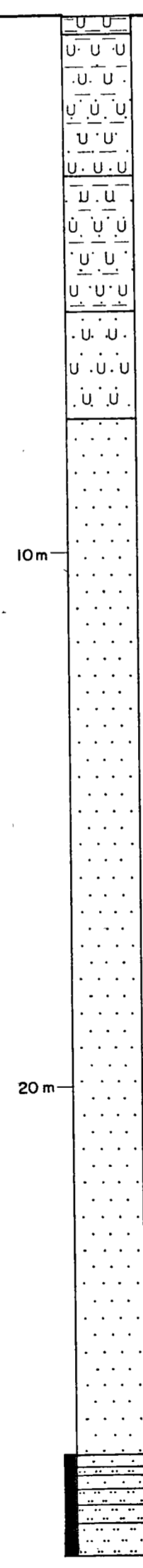
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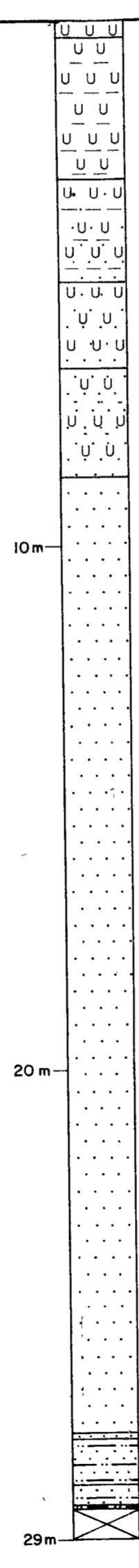
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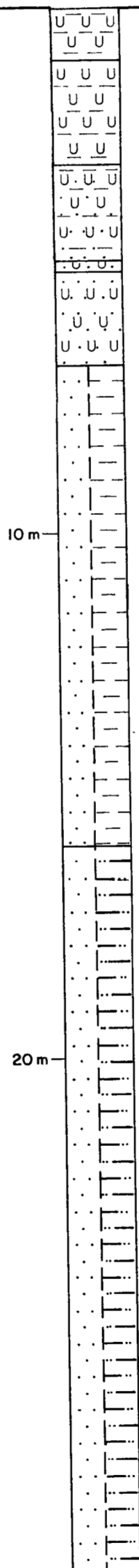
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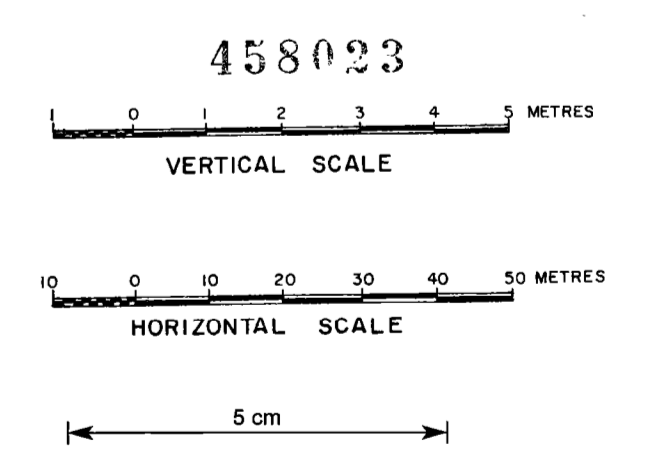
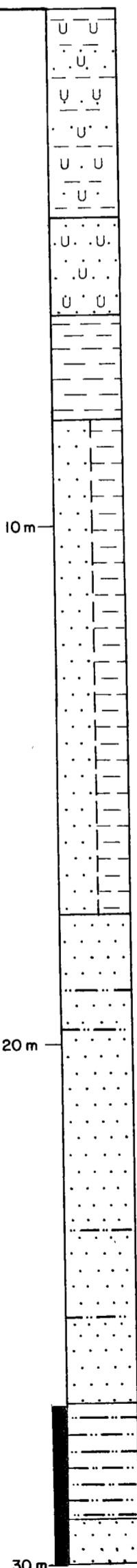
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DDH 6

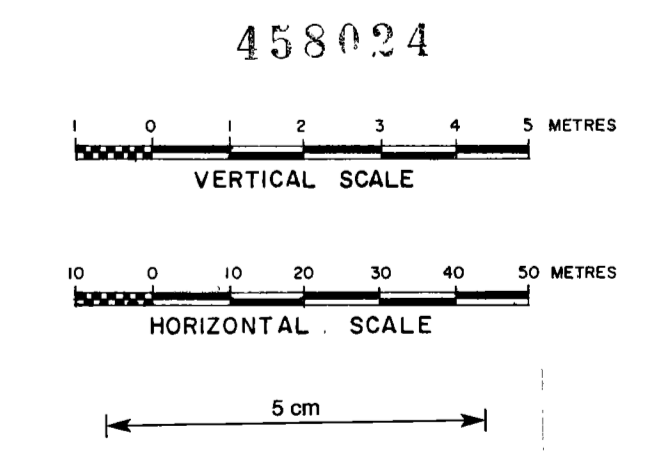
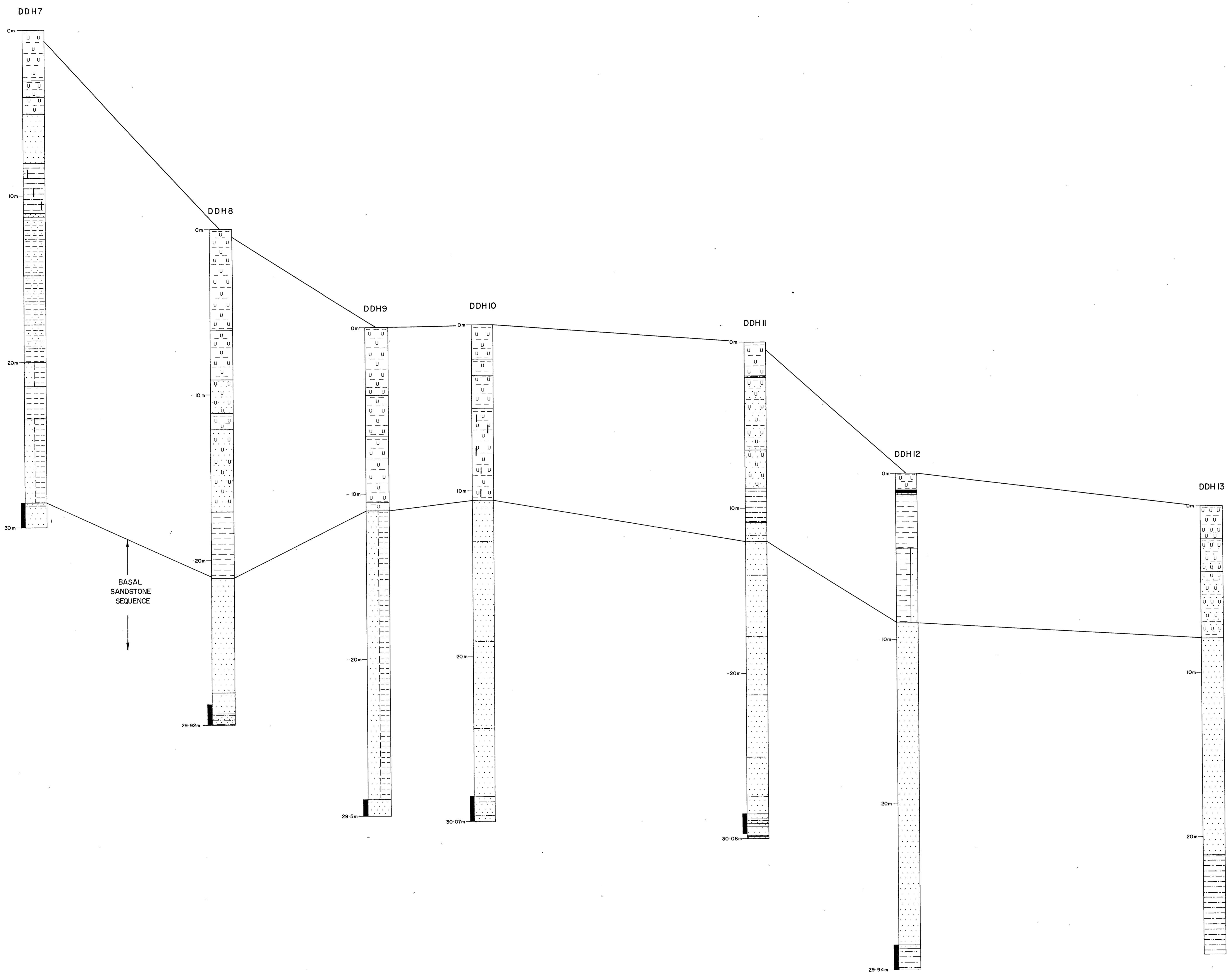


DDH 5



SEE TEXT FIGURE 7 FOR SYMBOLS  
SEE MAP 2 FOR BORE LOCATIONS

76-1166	FIGURE 4
EARTH RESOURCES AUSTRALIA PTY. LIMITED	
AUSTRALIAN PAPER MANUFACTURES LIMITED	
LINE 'A'	
STRATHBLANE PLANES AREA	
	1560
DATE: JUNE 1976	



76-1166 FIGURE 5

EARTH RESOURCES AUSTRALIA PTY LIMITED

AUSTRALIAN PAPER MANUFACTURES LIMITED

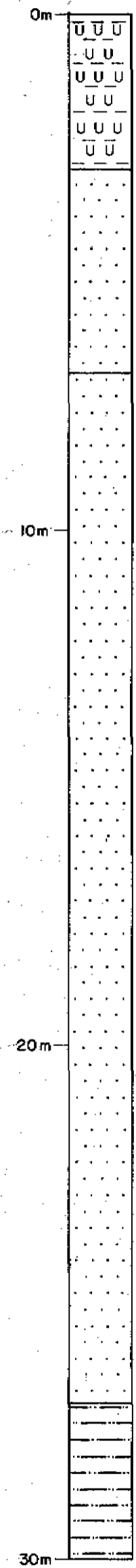
LINE 'B'

STRATHBLANE PLANES AREA 1561

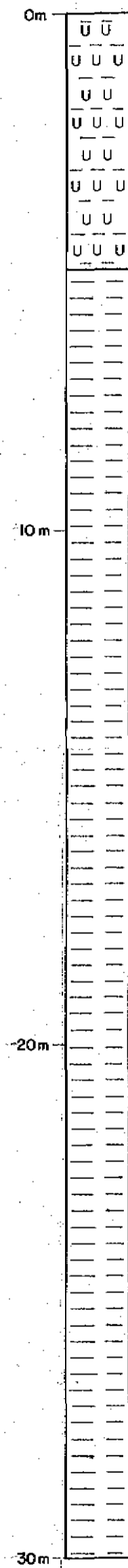
DATE: JUNE 1976

SEE TEXT FIGURE 7 FOR SYMBOLS  
SEE MAP 2 FOR BORE LOCATIONS

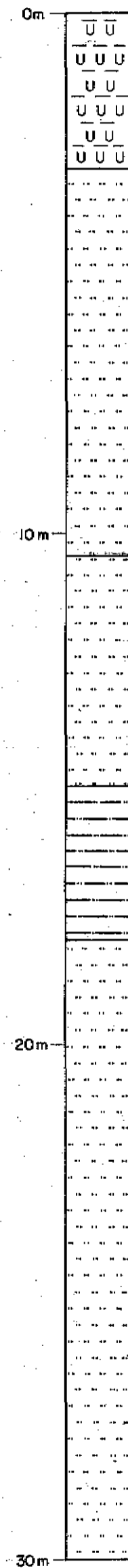
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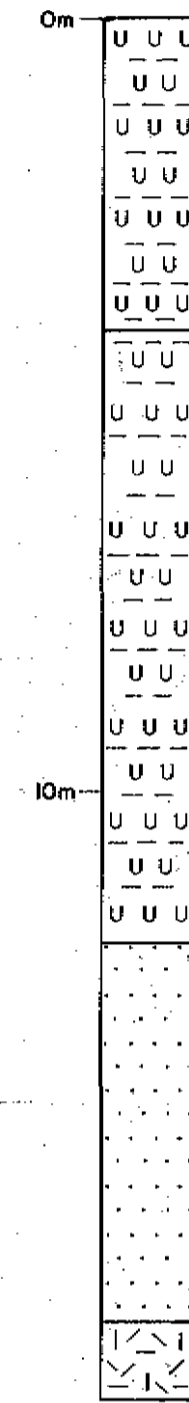
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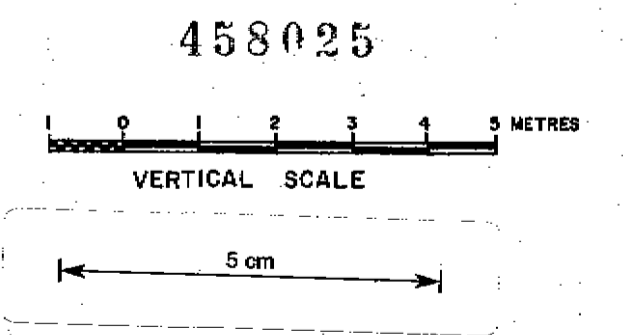
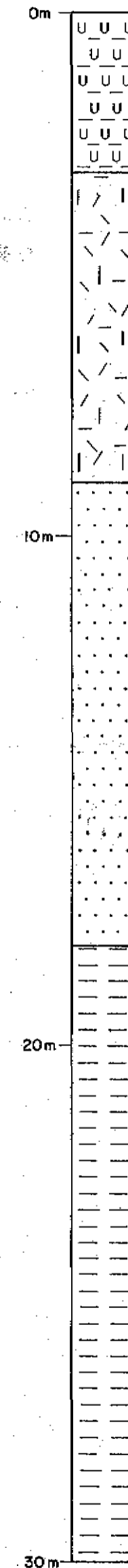
DDH 16



DDH 17



DDH 18



76-1166 FIGURE 6

EARTH RESOURCES AUSTRALIA PTY LIMITED  
 AUSTRALIAN PAPER MANUFACTURES LIMITED  
 SPOT DRILLING  
 STRATHBLANE PLANES AREA 1562  
 DATE: JUNE 1976

SEE TEXT FIGURE 7 FOR SYMBOLS  
 SEE MAP 2 FOR BORE LOCATIONS

Q93 163 APPENDICES I and II

Q93

458026

SUMMARY REPT. ON COAL DRILLING OPS.  
IDA BAY + STRATHBLANE PLAINS SE TAS  
APPENDICES I & II

SUMMARY REPORT ON COAL DRILLING OPERATIONS  
AT IDA BAY AND STRATHBLANE PLAINS  
SOUTHEASTERN TASMANIA

APPENDICES I & II  
BORE LOGS

76-1166  
Vol 2/2.



**Earth Resources Australia Pty. Ltd.**  
CONSULTING GEOLOGISTS

4580/2

458027

000

HOPE NAME: A.P.M. Ida Bay DDH 6.  
DRILLED BY: H. Stacpoole Pty. Limited.  
RIG: Gemco 210B.  
COMMENCED: 20.2.76  
COMPLETED: 22.2.76  
LOGGED BY: M. R. Bunny.  
TOTAL DEPTH: 28.80m.  
CORED INTERVALS: 15.90 to 18.80m  
20.10 to 22.60m  
24.60 to 26.70m

458028

001

BORE NAME: APM IDA EAY DDH 6

PAGE NO:1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base		Remarks
SURFACE SOIL and clay; clay becomes increasingly green with depth.	3.35	3.95		
GRAVEL and SAND with chalcedony and agate fragments, clayey; greenish water returns; reddish green (ironstained) water returns @ 7.6m; dark grey water returns at 8.0m - probable soil horizon.	4.55	8.50		
<u>Probable Base of Tertiary</u>				
SANDSTONE, fine, medium grey, clayey.	1.50	10.00		Rock Roller to 15.90m Hole cased to 10.50m
MUDSTONE, mid grey; occasional ironstained bands.	4.50	14.50		
MUDSTONE, dark grey, slightly carbonaceous.	0.10	14.60		Drilling rate slower.
MUDSTONE as 4.50m above.	0.80	15.40		
SANDSTONE, mid grey, clayey.	0.50	15.30		Core Barrel put on at 15.90m
SANDSTONE, mid to light grey and siltstone dark grey and carbonaceous; irregularly interlaminated throughout; unit very soft and clayey; splits on drying; interbedded with medium grained light to mid grey unconsolidated sandstone to 0.10m; dip 20°.	2.40	18.30		NMLC Core from 15.90 to 18.80m
SANDSTONE, fine to medium, light grey with greenish tinge; friable poorly consolidated.	0.50	18.80		
SANDSTONE, as immediately above (open hole)	0.90	19.70		
COAL D, dirty	0.10	19.80		Rock Roller to 20.10m.
SANDSTONE, as 0.43m above.	0.20	20.00		NMLC Core from 20.10 to 22.60m.
SILTSTONE, black, carbonaceous, grades to underlying unit.	0.25	20.25		



CORE NAME: AMP IDA BAY DDH 6

PAGE NO: 2

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
MUDSTONE, black, highly carbonaceous; soft and puggy; grades to <u>COAL</u> very inferior in part.	1.05	21.30			
<u>COAL</u> Db and MUDSTONE, black, very carbonaceous; interlaminated.	0.07	21.37			CORE BROKEN.
MUDSTONE, black, very carbonaceous; vitrain lamellae throughout.	0.05	21.42			
SILTSTONE, dark grey, slightly carbonaceous; laminated in part.	0.28	21.70			
SANDSTONE, fine to medium, mid grey and siltstone dark grey, slightly carbonaceous; irregularly interlaminated throughout; dip 15°.	0.40	22.10			
MUDSTONE, dark grey, silty and sandstone fine to medium, mid grey, interlaminated and interbedded throughout.	0.50	22.60			Rock Roller from 22.60 to 24.60m.
SANDSTONE, fine, mid grey, clayey; dark grey carbonaceous, mudstone returns @ 23.0m; unit becomes increasingly carbonaceous to 24.50m.  <u>TOP OF "SEAM" 24.50m.</u>	1.90	24.50			
<u>COAL</u> Db; pyrite crystals to 0.005m.	0.40	24.90			Core fragmented.
MUDSTONE, black, very carbonaceous, hard.	0.19	25.09			
<u>COAL</u> D to inferior.	0.05	25.14			Core fragmented.
MUDSTONE, black, very carbonaceous, hard.	0.06	25.20			
<u>COAL</u> D to inferior.	0.07	25.27			Core fragmented.
MUDSTONE, black, very carbonaceous, hard; dip 15°.	0.07	25.34			
<u>COAL</u> D to inferior.	0.04	25.38			Core fragmented.
MUDSTONE, black, very carbonaceous; hard; core jointed and broken.	0.22	25.60			NMLC Core from 24.60 to 26.70m.



458030

003

CORE NAME: APM IDA BAY DDH 6

PAGE NO: 3

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
COAL D to inferior; core fractured; occasional vitrain lamellae throughout, grades to underlying unit.	0.17	25.77			
MUDSTONE, black, carbonaceous at top to dark grey at base; irregular base; grades to underlying unit.	0.10	25.87			
<u>BASE OF SEAM</u>					
SANDSTONE, fine to very fine, light grey and siltstone, medium to dark grey, finely interlaminated throughout; dip approx. 10°; scattered in-situ roots systems throughout but especially in upper 0.20m where bedding highly disturbed (possibly also burrowed); irregular joints (45° and sub vertical) to unit; irregular body with underlying unit (? faulted)	0.75	26.62			UNIT FRACTURED.
SANDSTONE, fine to medium, very clayey; soft and buggy.	0.08	26.70			
SANDSTONE, as above (open hole)	1.30	28.00			Rock Roller to T.D.
MUDSTONE, mid grey, silty.	0.80	28.80			28.80m.
<u>BASE OF HOLE 28.80m</u>					



458031

004

BORE NAME: A.P.M. IDA BAY DDH 7  
DRILLED BY: H. Stacpoole Pty. Limited.  
RIG: GEMCO 210B  
COMMENCED: 23.3.76  
COMPLETED: 24.2.76  
LOGGED BY: M. R. Bunny  
TOTAL DEPTH: 30.00m  
CORED INTERVALS: 22.50 to 26.40m.

BOPE NAME: A.P.M. Ida Bay DDH 7

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
SURFACE SOIL, green and brown silty clays.	5.00	5.00			
CLAYS as above giving yellow limonitic water returns and containing agate and chalcedony and dark siliceous pebbles; water returns turn green at 11.00m.	6.00	11.00			
CLAYS as above, becoming increasingly sandy; agate and chalcedony still present; dark grey water returns at 11.60m. indicates probable soil horizon; drilling rate slows at 12.0m when water returns are dark olive colour.	1.00	12.00			
CLAY, dark grey, limonitic	0.20	12.20			
CLAY, white, sporadic chalcedony fragments.	0.30	12.50			
MUDSTONE, mid to dark grey; slightly carbonaceous in part.	0.10	12.60			
CLAY, off white, sandy; sporadic chalcedony present; drilling rate slows at 12.75m; proportion of gravels in clay decreases with depth.	2.90	15.50			
CLAY, off white as above but not sandy.	4.10	19.60			
SANDSTONE, off white to light grey, very fine and very clayey; grades from over lying unit.	2.90	22.50			
<u>TOP OF SEAM</u>					
<u>COAL</u> D to inferior; slickensided.	0.08	22.58			
CLAYSTONE, mid brown, waxy, dipping 10 - 15°.	0.02	22.60			
CLAYSTONE, as immediately above; and mudstone, black, highly carbonaceous, interlaminated.	0.02	22.62			
MUDSTONE, black, highly carbonaceous, fissile; grades to <u>COAL</u> inferior in part.	0.11	22.73			
MUDSTONE, black, soft and puggy; highly carbonaceous.	0.09	22.82			Open holed to 22.50m Base of Tertiary arbitrarily put at 15.50m - (could be thicker)



006

BORE NAME: A.P.M. IDA BAY DDH 7

PAGE NO: 2

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)		REMARKS
<u>COAL D</u> , to inferior.	0.05	22.87		
CLAYSTONE, soft mid grey, fissile	0.05	22.92		
<u>COAL D</u> to inferior; hard; core broken.	0.02	22.94		Slickensides
CLAYSTONE, pale green/grey; ? tuffaceous; some plant remains and carbonaceous zones throughout; unit dips at 10 to 15°; carbonaceous at base.	0.28	23.22		
MUDSTONE, black, carbonaceous; soft.	0.10	23.32		
MUDSTONE, dark grey to black, highly carbonaceous, hard.	0.09	23.41		
MUDSTONE, black, highly carbonaceous; hard, grades to <u>COAL</u> inferior in part, grades to underlying unit.	0.29	23.70		BASE OF "SEAM"
MUDSTONE, mid grey, slightly carbonaceous at top; waxy; in situ plant remains throughout.	0.35	24.05		
MUDSTONE, mid to dark grey; carbonaceous; silty; coaly lamellae in part.	0.05	24.10		
MUDSTONE, mid grey, waxy; as 0.35 above.	0.14	24.24		
SILTSTONE, mid grey and sandstone light grey, very fine, interlaminated; dip 12°.	0.07	24.31		
SANDSTONE, off white to light grey, very fine to fine; in situ plant remains throughout.	0.33	24.64		
CORE LOSS	0.94	25.58		
MUDSTONE, mid grey, hard, uniform, somewhat waxy in part, in situ plant remains throughout; irregular jointing and fracturing throughout.	0.82	26.40		CORED TO 26.40
MUDSTONE as above, silty; becomes more sandy towards base; possibly with sandstone fine mid grey interbeds.	3.60	30.00		OPEN HOLE TO 30.00m. TD.



007

458034

BORE NAME: A.P.M. IDA BAY DDH 8  
DRILLED BY: H. Stacpoole Pty. Limited.  
RIG: GEMCO 210B  
COMMENCED: 25.2.76  
COMPLETED: 26.2.76  
LOGGED BY: M. R. Bunny  
TOTAL DEPTH: 30.00m  
CORED INTERVALS: 12.0 to 16.70m

008

BORE NAME: A.P.M. IDA BAY DDH 8 (Line 2)

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)		REMARKS
SURFACE SOIL and CLAY.	1.00	1.00		OPEN HOLE TO 12.0m
CLAY, black, limonitic.	2.00	3.00		
CLAY, greenish grey, slow drilling; passes to mid and dark grey clays, slightly carbonaceous in part; very marked increase in drilling rate at 7.5m; water goes darker grey.	4.50	7.50		POSSIBLE BASE OF RECENT AND/OR TERTIARY 7.50m.
MUDSTONE, mid to dark grey, carbonaceous in part.	0.50	8.00		
MUDSTONE, light grey, uniform.	4.00	12.00		
MUDSTONE, black, very carbonaceous.	0.10	12.10		
COAL D to inferior and siltstone black, very carbonaceous; core broken.	0.03	12.13		
SILTSTONE, black, highly carbonaceous; slickensided joints throughout.	0.06	12.19		CORE SOMEWHAT BROKEN.
CLAYSTONE, black, highly carbonaceous; to COAL inferior in part scattered irregular mid brown claystone lenticles throughout.	0.20	12.39		
MUDSTONE, light to mid grey green, waxy; somewhat fissile especially in basal half; laminated in central section where unit appears ? tuffaceous; pyritic plant remains throughout; unit slightly carbonaceous for 0.10m at top and base; oblique base; Dip approx. 10°.	0.86	13.25		DRILLED 1.70m RECOVERED 1.40m
MUDSTONE, black, highly carbonaceous and COAL DB interlaminated throughout; abundant pyrite in bedding and cleats.	0.15	13.40		
CORE LOSS	0.30	(13.70)		
COAL D to inferior - (Over drilled)	0.15	13.85		
MUDSTONE, mid brownish grey; in situ plant remains.	0.07	13.92		
COAL D to inferior (probably over drilled)	0.05	13.97		



009

BORE NAME: A.P.M. IDA BAY DDH 8

PAGE NO: 2

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
MUDSTONE, mid grey, abundant in situ root systems throughout; uniform and waxy; irregular calcite lined joint systems at base of unit.	1.10	15.07			
SANDSTONE, fine to very fine, and siltstone, mid to dark grey; slightly carbonaceous in part; interlaminated throughout; bedding is approx. 10°; unit irregularly jointed and fractured throughout; grades to underlying unit.	1.50	16.57			CORED TO 16.70m
SILTSTONE, mid grey, uniform, grades to sandstone, fine, soft, light grey at base.	0.13	16.70			Drilled 3.00m Recovered 3.10m
SANDSTONE, mid, green grey, soft; uniform; thin slightly carbonaceous bands to 0.10m near base.	13.30	30.00			BASE OF HOLE 30.00m



458037

010

BORE NAME: A.P.M. IDA BAY DDH 9  
DRILLED BY: H. Stacpoole Pty. Limited.  
RIG: GEMCO 210B  
COMMENCED: 27.2.76  
COMPLETED: 28.2.76  
LOGGED BY: M. R. Bunny  
TOTAL DEPTH: 30.00m.  
CORED INTERVALS: 11.50 to 17.00m  
28.10 to 30.00m

011

BORE NAME: A.P.M. IDA BAY DDH 9

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
HUMIC SOIL, surface debris.	1.00	1.00			Rock Roller to 11.50m
CLAY, sandy; greenish and yellowish, limonitic, silty; soft and puggy.	8.00	9.00			
MUDSTONE, light grey, slightly silty; slow drilling; becomes slightly carbonaceous at 11.0m; black water returns and inferior <u>COAL</u> at 11.50m	2.50	11.50			
MUDSTONE, light grey, soft and waxy and <u>COAL</u> inferior; fragments	0.15	11.65			CORE BROKEN
MUDSTONE, black, highly carbonaceous; vitrain lamellae throughout grades to <u>COAL</u> inferior, in part and claystone mid brown, slightly waxy, fissile; interbanded in units to 0.03m; dip approx. 15°.	0.20	11.85			
MUDSTONE, black, highly carbonaceous; silty texture; soft and slightly fissile.	0.05	11.90			
MUDSTONE, black, highly carbonaceous; grades to <u>COAL</u> D and inferior in part; dip at 15°.	0.24	12.14			CORE BROKEN
CLAYSTONE, off white? tuffaceous; slightly carbonaceous for top 0.03m.	0.23	12.37			
MUDSTONE, black, highly carbonaceous; hard and brittle.	0.08	12.45			CORE BROKEN
MUDSTONE, black, highly carbonaceous; soft and puggy.	0.08	12.53			
MUDSTONE, black, highly carbonaceous; hard; grades to <u>COAL</u> inferior in part.	0.16	12.69			CORE BROKEN
CLAYSTONE, mid brown, waxy ? tuffaceous; grades to underlying unit.	0.03	12.72			
CLAYSTONE, light brown-grey, soft and puggy; ? tuffaceous, grades to underlying unit.	0.17	12.89			



BOPE NAME: A.P.M. IDA BAY DDH 9

PAGE NO: 2

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
CLAYSTONE, as immediately above and mudstone dark grey carbonaceous interlaminated.	0.08	12.97			
MUDSTONE black, highly carbonaceous; vitrain lamellae throughout; hard and brittle.	0.05	13.02			CORE BROKEN
CLAYSTONE, mid grey to brown, ? tuffaceous; slightly fissile.	0.07	13.09			
MUDSTONE, dark grey, soft and puggy; slightly fissile.	0.02	13.11			
MUDSTONE, black, highly carbonaceous; hard; grades to <u>COAL</u> Db at centre and <u>COAL</u> inferior.	0.15	13.26			
MUDSTONE, black, carbonaceous, soft and puggy.	0.04	13.30			
MUDSTONE, black, highly carbonaceous; grades to <u>COAL</u> D in part with vitrain lamellae throughout.	0.06	13.36			
MUDSTONE, dark grey, highly carbonaceous, soft.	0.12	13.48			
MUDSTONE, black, highly carbonaceous; hard.	0.02	13.50			
MUDSTONE, mid grey; slightly waxy; massive and uniform; soft.	0.09	13.59			
MUDSTONE, dark grey to black; highly carbonaceous; hard and brittle.	0.04	13.63			
CORE LOSS	0.23	13.86			
MUDSTONE, mid grey, silty; grades to mudstone carbonaceous at base.	0.14	14.00			
<u>COAL</u> Dmb; occasional vitrain bands throughout.	0.12	14.12			CORE BROKEN AND OVER-DRILLED.
MUDSTONE, light - mid grey, somewhat brecciated; dip 20°, brecciated base.	0.20	14.32			
SANDSTONE, medium, light grey; very clayey; very soft.	0.12	14.44			



BORE NAME: A.P.M. DDH 9 IDA BAY

PAGE NO: 3

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)		REMARKS
MUDSTONE, mid grey, and sandstone, very fine, light grey, interlaminated; dip 20°.	0.13	14.57		
SANDSTONE, medium, off white to light grey, very clayey, very soft; zones of mid grey mudstone fragments and carbonaceous wisps throughout; dip 20°, uniform throughout.	0.37	14.94		
MUDSTONE, dark grey to black; soft, highly carbonaceous.	0.04	14.98		
MUDSTONE, black, highly carbonaceous; very occasional vitrain lamellae throughout; hard and brittle.	0.14	15.12		CORE BROKEN.
CLAYSTONE, buff with irregular carbonaceous zones throughout and coaly plant wisps and rootlets throughout; dip 20°.	0.26	15.38		
MUDSTONE, light to mid grey, silty especially at top; slightly carbonaceous at base; irregular sub vertical joint in basal half of unit where core fractured, grades to underlying unit.	0.53	15.91		
CLAYSTONE, fawn, waxy at top where possibly tuffaceous; grades to silty mudstone, light to mid grey at base.	0.39	16.30		
MUDSTONE, mid grey, silty; occasional darker and lighter irregular laminae throughout; very occasional in-situ coaly plant fragments; grades to siltstone in part; thin mid brown claystone parting 0.10m from top.	0.70	17.00		Drilled 3.00m Recovered 3.00m
MUDSTONE, light-mid grey, silty as overlying unit; 0.10m of coaly material at approx. 22.00m; sequence becomes less silty and slightly carbonaceous at 25.00m; dark grey carbonaceous mudstone at 27.50m; black water returns and coaly fragments at 28.10m.	11.10	28.10		Rock Roller to 28.10m
<u>TOP OF SEAM</u> COAL D, inferior at top to Dmb at base; hard and brittle.	0.26	28.36		CORE FRAGMENTED
CLAYSTONE, buff, waxy; ? tuffaceous.	0.09	28.45		
CLAYSTONE, black, highly carbonaceous; soft.	0.03	28.48		



014

BORE NAME: A.P.M. IDA BAY DDH 9

PAGE NO 4

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
CLAYSTONE, buff, waxy; ? tuffaceous as 0.09m above.	0.03	28.51			
COAL D to inferior, minor Dmb and black carbonaceous bands throughout; hard and brittle.	0.29	28.80			CORE FRAGMENTED.
<u>BASE OF SEAM</u>					
CLAYSTONE, mid grey, silty and sandstone light to mid grey, very fine; grades to siltstone in part; irregularly interbedded throughout; dip approx. 12-15°, unit is very soft and plastic and has sporadic in-situ plant remains in top 0.50m, slightly carbonaceous in top 0.10m.	1.20	30.00			CORE DISTORTED.
<u>BASE OF HOLE AT 30.00m</u>					

015

458042

BORE NAME: A.P.M. IDA BAY PDH 10  
DRILLED BY: H.Stacpoole Pty. Limited.  
RIG: GEMCO 210B  
COMMENCED: 1.3.76  
COMPLETED: 1.3.76  
LOGGED BY: M. R. Bunny  
TOTAL DEPTH: 29.00m  
CORED INTERVALS: 27.00 to 29.00m

016

BORE NAME: A.P.M. IDA BAY DDH 10

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
SURFACE SOIL and humic clays.	1.00	1.00			R/R to 27.00m
CLAY, bright yellow, limonitic	10.00	11.00			
CLAY, as above, green - yellow, soft, sandy texture, ? weathered dolerite.	5.00	16.00			
DOLERITE, highly weathered, slightly darker grey than in overlying section; fine grained.	11.00	27.00			NMLC to 29.00m
DOLERITE, weathered, fine to medium grained.	1.95	28.95			
DOLERITE, dark grey, hard; finely crystalline, fresh.	0.05	29.00			
<u>BASE OF HOLE 29.00m</u>					



017

BORE NAME: A.P.M. IDA BAY DDH 11  
DRILLED BY: H. Stacpoole Pty. Limited.  
RIG: GEMCO 210B  
COMMENCED: 1.3.76  
COMPLETED: 2.3.76  
LOGGED BY: M. R. Bunny.  
TOTAL DEPTH: 21.60m.  
CORED INTERVALS: 6.50 to 9.70m.

018

BORE NAME: A.P.M. IDA BAY DDH 11

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)		REMARKS
SURFACE SOIL, humic clays etc.	1.00	1.00		
CLAY, white, kaolinitic, becomes sandy towards base (decomp. Triassic sandstone?)	3.00	4.00		
SANDSTONE, off white to brownish, carbonaceous in part becoming light grey with depth.	2.40	6.40		Rock Roller to 6.50m
<u>TOP OF SEAM</u>				
<u>COAL</u> , thin band of claystone then <u>COAL</u> .	0.10	6.50		NMLC Tungsten bit CORING FROM 6.50m Drilled 3.20m Recovered 0.79m
<u>COAL</u> , DMB	0.30	6.80		
MUDSTONE, dark grey, carbonaceous.	0.50	7.30		Logging from cuttings only.
MUDSTONE, light grey, silty in part, very soft and puggy, grades to sandstone fine at base.	2.40	9.70		Rock roller from 9.70m.
SANDSTONE, fine at top, off white to light grey; soft and very clayey (slow drilling) unit becomes slightly coarser and slightly darker at 16.00m.	6.30	16.00		Boundary between sediments and dolerite arbitrarily taken at 16.00m.
DOLERITE? weathered, greenish grey water returns at 20.00m cuttings of weathered dolerite; rod rattle and extremely hard drilling at 21.00m; fresh dolerite cuttings.	5.60	21.60		
<u>BASE OF HOLE 21.60m</u>				



019

BORE NAME: A.P.M. IDA BAY DDH 12  
DRILLED BY: H. Stacpoole Pty. Limited.  
RIG: GEMCO 210B  
COMMRNCED: 3.3.76  
COMPLETED: 3.3.76  
LOGGED BY: M. R. Bunny.  
TOTAL DEPTH: 30.00m.  
CORED INTERVALS: 11.20 to 13.00m  
17.90 to 20.90m

020

BOFE NAME: A.P.M. IDA BAY DDH 12

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)		REMARKS
SURFACE SOIL and debris, clayey.	1.00	1.00		Rock Roller to 11.20m
CLAY, light grey, with thin gravel bands containing agates, chalcedony and fossil wood fragments; all angular.	1.90	2.90		TOP OF TRIASSIC AT 2.90m
SANDSTONE, medium, light brown, clayey matrix; gives brown (ironstained) water returns; becomes fresher with green/grey water returns at 4.50m.	2.50	5.40		
SANDSTONE as above with grey matrix and mudstone, light grey, interbedded; sandstone predominates; grey-green water returns.	5.1	10.50		
SANDSTONE, as above with grey clay matrix and mudstone laminae; sandstone predominates; water returns darker; dark grey water returns and carbonaceous mudstone at 11.20m.	0.70	11.20		
SANDSTONE, medium, grey/green; irregular bright <u>COAL</u> fragments throughout.	0.08	11.28		NMLC TO 13.00m
SIDERITE dark grey massive, finely crystalline, hard.	0.06	11.34		Drilled 1.80 Recovered 1.33
SANDSTONE, medium, green grey; soft and clayey especially at centre where somewhat fissile; irregular mid grey claystone fragments at top and base; unit cross-bedded in several directions to 30°.	1.12	12.46		Core loss of 0.51. 0.10 of this at base of unit - rest probably at top.
CLAYSTONE, dark grey, carbonaceous with vitrain lamellae throughout.	0.03	12.49		
CORE LOSS	0.51	13.00		
SANDSTONE, as 1.12m above; coaly fragments at 20.50m; unit quite hard in zones to 0.30m; black water returns with coal fragments and mid grey mudstone at 20.90m.	4.90	17.90		Rock Roller to 17.90m.
<u>COAL</u> inferior; contorted bedding; very irregular base.	0.23	18.13		
SANDSTONE, medium, green grey lithic, uniform and compact; cross bedded in upper part; irregular mudstone mid grey bands and fragments in upper and lower parts of unit.	2.77	20.90		



021

BORE NAME: A.P.M. IDA RAY DDH 12

PAGE NO: 2

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
SANDSTONE as immediately above; scattered dark grey siltstone and mudstone bands as above.  <u>BASE OF HOLE 30.00m</u>	9.10	30.00			



022

BORE NAME: A.P.M. Ida Bay DDH 13  
DRILLED BY: H. Stacpoole Pty. Ltd.  
RIG: GEMCO 210B  
COMMENCED: 4.3.76  
COMPLETED: 4.3.76  
LOGGED BY: M. P. Bunny.  
TOTAL DEPTH: 15.00m  
CORED INTERVALS: 3.90 to 6.10m

023

BORE NAME: A.P.M. IDA BAY DDH 13

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)		REMARKS
SURFACE SOIL and humic clays; grey and brown clay.	2.70	2.70		Rock Roller to 3.90m.
SANDSTONE, medium, mid to dark grey, slightly carbonaceous, black water returns and coaly fragments at 3.90m.	1.20	3.90		NMLC 3.90 to 6.10m
FOSSIL TREE fragment, dark grey to black; carbonaceous and sideritic.	0.50	4.40		
SANDSTONE, fine to medium, pale green, hard.	0.05	4.45		Rock Roller 6.10 to 15.00m
CORE LOSS - probably sandstone as above.	1.65	6.10		
SANDSTONE, mid green, medium, hard and massive; very rare thin carbonaceous bands; uniform; slow drilling.	8.90	15.00		
<u>HOLE ABANDONED AT 15.00m.</u>				



458051

024

BORE NAME: A.P.M. IDA BAY DDH 14  
DRILLED BY: H. Stacpoole Pty. Ltd.  
RIG: GEMCO 210B  
COMMENCED: 5.3.76  
COMPLETED: 9.3.76  
LOGGED BY: M. R. Bunny & I. D. Blayden  
TOTAL DEPTH: 30.00m  
CORED INTERVAL: 27.00 to 30.00m

025

BORE NAME: APM IDA BAY DDH 14

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	Thickness (m)	Depth to Base (m)			REMARKS
SURFACE SOIL and debris: clayey; moist.	1.00	1.00			
CLAY, brown, soft and puggy; becomes sandy with depth, grades to underlying unit.	1.50	2.50			Rock Roller to 27.00m
SANDSTONE, fine, light grey with faint green tinge; grades to fine - medium at 18.00m; very uniform; no carbonaceous bands or fragments.	24.50	27.00			
SANDSTONE, grey green, medium grained, finely bedded dip 15°, some thin carbonaceous laminae; vertical calcite filled joint over top 1.3m; calcite vein 1cm thick parallel to bedding 2.6cm from base.	3.00	30.00			NMLC core basal 27.00m to 30.00m. Drilled 3m Recovered 2.9m
<u>BASE OF HOLE AT 30.00m</u>					



026

458053

BORE NAME: A.P.M. IDA BAY DDH 15  
DRILLED BY: H. Stacpoole Pty. Limited  
FIG: GEMCO 210B  
COMMENCED: 10.3.76  
COMPLETED: 11.3.76  
LOGGED BY: I. D. Blayden  
TOTAL DEPTH: 30.00m  
CORED INTERVAL: 27.00 to 30.00m

458054

BORE NAME: APM IDA BAY DDH 15

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)			REMARKS
CLAY light grey-brown and brown.	2.50	2.50			Rock Roller Bit
CLAY grey, slightly sandy.	4.00	6.50			to 27.05 m
CLAY light grey-brown, slightly sandy.	0.50	7.00			
CLAY light grey, some green and dark grey bands.	6.50	13.50			
MUDSTONE dark grey, medium to coarse grained dark green sand, and grey clay, interbedded; beds approx. 4 to 10 cm thick.	0.50	14.00			
CLAYSTONE grey and SANDSTONE medium to fine, white.	0.50	14.50			
SANDSTONE light green, medium to coarse grained.	12.00	26.50			
SANDSTONE light green, coarse grained, massive; matrix grey clay 30%; clasts rounded quartz and lithic fragments.	0.55	27.05			NMLC core from 27.05 m
SANDSTONE green grey to grey, grades from medium to coarse down the section; clay matrix varies between 10% and 30%. Carbonaceous laminae near base define dip of 40°.	1.25	28.30			to 30.00m
MUDSTONE dark brown, very irregular and disturbed bedding; irregular contact at top and base; carbonaceous streaks.	0.12	28.42			
SANDSTONE light brown, medium grained, massive. very soft, increase in clay matrix towards base.	1.00	29.42			
DOLERITE ? green, massive, vesicular in part, very fine grained, hard, numerous pyrite veins. Brecciated over basal 0.30 m with cracks infilled with rounded quartz grains and pyrite.	0.58	30.00			
BASE OF HOLE AT 30.00 m.					



458055

028

BORE NAME: APM STRATHBLANE DDH 1  
DRILLED BY: H. STACPOOLE PTY. LTD.,  
RIG: GENCO 210B  
COMMENCED: 12.3.76  
COMPLETED: 13.3.76  
LOGGED BY: I.D. BLAYDEN  
TOTAL DEPTH: 30.00m  
CORED INTERVAL: 27.00 to 30.00m

BORE NAME: STRATHBLANE DDH 1

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA		THICKNESS (M)	DEPTH BASE (M)		REMARKS
<u>CLAY</u>	Yellow brown	1.00	1.00		
<u>CLAY</u>	Green	0.50	1.50		
<u>COAL</u>	And Shale, (weathered)	0.50	2.00		
<u>SILTSTONE</u>	Grey green, sandy	1.00	3.00		
<u>SANDSTONE</u>	White, quartz, medium grained, well rounded. In Matrix of white clay; thin bright coal band (2cm) at 4m.	2.00	5.00		Rock Roller to 27.00m
<u>SHALE</u>	Dark grey	0.50	5.50		
<u>SANDSTONE</u>	And Clay interbedded. Sandstone light grey green medium and fine grained quartz, lithic, numerous coaly fragments in cuttings.	11.50	17.00		NMLC Core 27.00 to 30.00m
<u>SHALE</u>	Brown, hard.	0.20	17.20		
<u>SANDSTONE</u>	Grey green, medium grained, rounded quartz lithic grains.	3.30	20.50		
<u>SANDSTONE</u>	Green, fine grained, quartz lithic; cuttings considerably darkened drilling water; probably interbedded with carbonaceous shale.	0.60	21.10		
<u>SHALE</u>	Grey, and very fine sandstone, very few returns.	5.90	27.00		
<u>SANDSTONE</u>	Light green; medium grained lithic and quartz fragments rounded; finely bedded with numerous thin laminae of shale and plant fossils. Dip 20°.	0.93	27.93		
<u>MUDSTONE</u>	Dark grey-black	0.11	28.04		
<u>SILTSTONE</u>	Dark grey, plant fossils	0.40	28.44		



030

BORE NAME: STRATHBLANE DDH 1

PAGE NO: 2

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (M)	DEPTH BASE (M)			REMARKS
<u>MUDSTONE</u> Dark grey-black, plant fossils.	0.28	28.72			
<u>SILTSTONE</u> Dark grey, becomes increasingly sandy toward base.	0.28	28.97			
<u>SILTSTONE/SANDSTONE</u> Interbedded dark grey siltstone and grey green medium to fine sandstone; beds 5mm to 20mm. Ripple structures common in sandstone.	0.47	29.44			
<u>MUDSTONE</u> Black, soft at top grading to hard at base; cut by high angle slickensides.	0.30	29.74			
<u>SILTSTONE</u> Grey, hard; plant fossils; varvoid in appearance with several fine sandstone bands up to 2mm thick 18cm from base. Fine vertical desiccation cracks infilled with sandstone common.	0.26	30.00			
(Core loss 13cm included in top sandstone)					
TOTAL DEPTH 30.00m					



031

458058

BORE NAME: A.M.F. STRATHBLANE D.D.H 2  
DRILLED BY: H. STACPOOLE PTY. LTD.,  
RIG: GEMCO 210B  
COMMENCED: 13.3.76  
COMPLETED: 14.3.76  
LOGGED BY: I. D. BLAYDEN  
TOTAL DEPTH: 28.70m  
CORED INTERVAL: 7.40 to 10.40m

032

458059

BORE NAME: A.M.P. STRATHBLANE DDH2

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA		Thickness (m)	Depth to base (m)		REMARKS:
<u>CLAY</u> ,	Very puggy- dark grey brown.	1.00	1.00		
<u>CLAY</u> ,	Light grey, some small angular agates.	2.00	3.00		
<u>CLAY</u> ,	Light grey sandy; sand fraction medium to coarse round quartz grains.	1.00	4.00		
<u>SAND</u> ,	Light grey coarse, quartz with minor lithic fragments (chert and agate) grains well rounded quartz milky white.	1.50	5.50		
<u>SANDSTONE</u> ,	Grey green medium to coarse grained interbedded with light grey shale. (very few returns)	1.80	7.30		Rock Roller to 7.40m
<u>SHALE</u> ,	Carbonaceous.	0.10	7.40		
<u>SHALE</u> ,	Carbonaceous, very broken.	0.02	7.42		NMLC Core 7.40 to 10.40
<u>SILSTONE</u> .	Light grey green, thinly bedded; (very broken).	0.08	7.50		
<u>COAL</u> ,	Banded and bright.	0.17	7.67		
<u>MUDSTONE</u> ,	Carbonaceous.	0.10	7.77		
<u>SHALE</u> ,	Medium grey.	0.05	7.82		
<u>SANDSTONE</u> ,	And mudstone interbedded 70/30; sandstone, light grey green, medium to fine grained thinly bedded; very soft; mudstone dark grey to green in colour.	2.48	10.30		
<u>SILSTONE</u> ,	Light green, hard, thinly bedded, very broken.	0.10	10.40		
<u>CORE LOSS</u> ,	0.67m				Core Loss attributed to sandstone/mudstone unit (2.48m)
<u>SILSTONE</u> ,	As above	3.30	13.70		
<u>SANDSTONE</u> ,	And mudstone interbedded, sandstone medium grained.	3.30	17.00		
<u>SHALE</u> ,	Brown; poor returns.	2.00	19.00		
<u>SANDSTONE</u> ,	Coarse and medium grained, quartzose; numerous cherty bands to 0.05m; very clayey.	9.70	28.70		
HOLE ABANDONED AT 28.70m when bit collapsed.					



033

458060

BORE NAME: A.M.P. STRATHBLANE DDH 3  
DRILLED BY: H. STACPOOLE PTY LTD.,  
RIG: GEMCO 210B  
COMMENCED: 15.3.76  
COMPLETED: 15.3.76  
LOGGED BY: I. D. BLAYDEN.  
TOTAL DEPTH: 28.88m  
CORED INTERVAL: 27.00 to 28.88m

034

BORE NAME: A.M.P. STRATHELANE DDH3

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA		THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
<u>CLAY</u> ,	Black.	0.30	0.30		
<u>CLAY</u> ,	Light grey, very sandy (medium rounded quartzose grains).	2.70	3.00		Rock Roller to 27.00m
<u>CLAY</u> ,	Light yellow brown, very sandy.	2.50	5.50		
<u>SAND</u> ,	Grey green very coarse, quartzose and lithic fragments (triassic sandstone).	2.00	7.50		NMLC Core 27.00 to 28.88m
<u>SANDSTONE</u> ,	Grey green, medium to fine grained, predominantly rounded quartzose with lithic grains; very clayey; some bands of light brown claystone and green silstone over basal 0.06m	19.50	27.00		
<u>SANDSTONE</u> ,	Grey-green, medium grained; massive, quartz, lithic and feldspar fragments 50-20-30.	0.20	27.20		
<u>SILSTONE</u> ,	Brown, with sandstone interbeds over top 0.04m and basal 0.02m.	0.12	27.32		
<u>SANDSTONE</u> ,	As above.	0.27	27.59		
<u>SILSTONE</u> ,	Brown, irregular blebs of recrystallised clay up to 5mm in diameter; very irregular base, intruded and brecciated by underlying sandstone.	0.30	27.89		
<u>SANDSTONE</u> ,	Some bedding indicated by slightly more quartzose bands.	0.36	28.25		
<u>SILSTONE</u> ,	Light grey green; massive.	0.63	28.88		

TOTAL DEPTH; 28.88m



035

458062

<u>BORE NAME:</u>	A.M.P. STRATHBLANE. DDH 4
<u>DRILLED BY:</u>	H. STACPOOLE PTY LTD.,
<u>RIG:</u>	GEMCO 210B
<u>COMMENCED:</u>	16.3.76
<u>COMPLETED:</u>	17.3.76
<u>LOGGED BY:</u>	I.D. BLAYDEN.
<u>TOTAL DEPTH:</u>	29.00m
<u>CORED INTERVALS:</u>	27.00 to 29.00m

036

BOPE NAME: A.M.P. STRATHBLANE DDH 4

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA		THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
<u>SOIL</u> ,	Dark brown, sandy.	0.30	0.30		
<u>CLAY</u> ,	Mottled dark grey and yellow brown.	2.70	3.00		
<u>CLAY</u> ,	Light grey, very sandy, medium quartz grains.	2.00	5.00		Rock Roller to 27m
<u>SAND</u> ,	Light grey, medium grained, well rounded quartz.	1.60	6.60		NMLC Core to 29.0m
<u>SAND</u> ,	Light grey green, medium to coarse grained sub-rounded quartz angular chert and lithic fragments; 50:50, very easy drilling.	2.10	8.70		
<u>SANDSTONE</u> ,	Light grey medium to fine grained well rounded quartz with minor lithic fragments; quite slow drilling and very few returns, probably clayey.	18.30	27.00		
<u>SANDSTONE</u> ,	Grey, fine grained with clay matrix (40%) very broken.	0.10	27.10		
<u>MUDSTONE</u> ,	Dark grey, numerous plant remains, several bands of medium to fine grained quartz sandstone to 0.02m.	0.89	27.99		
<u>SANDSTONE</u> ,	Light grey, coarse grained and dark grey medium bands to 8cm interbedded with dark grey mudstone bands to 0.04m.	0.33	28.32		
<u>MUDSTONE</u> ,	Brecciated, angular elongate brown and green mudstone fragments to 2cm in length in coarse sandstone matrix.	0.08	28.40		
<u>SANDSTONE</u> ,	Light grey, coarse grained, massive.	0.04	28.44		
<u>CORE DROPPED AND NOT RECOVERED.</u>					

TOTAL DEPTH: 29.00m.



458064

037

BORE NAME: STRATHBLANE DDH 5  
DRILLED BY: H. STACPOCLE PTY LTD.,  
RIG: GEMCO 210B  
COMMENCED: 18.3.76  
COMPLETED: 19.3.76  
LOGGED BY: I. D. BLAYDEN.  
TOTAL DEPTH: 30.00m  
CORED INTERVAL: 27m to 30m

038

BORE NAME: STRATHBLANE DDH 5

PAGE NO: /-1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
<u>CLAY</u> , Dark brown.	1.10	1.10		Rock Roller to 27.0m
<u>CLAY</u> , Light grey.	3.90	4.00		
<u>SAND</u> , Green, medium to coarse grain, pebbly, Lithic with some quartz. Pebbles to 1cm comprise grey shale green sandstone and quartz. Very soft, easy drilling.	2.00	6.00		
<u>CLAYSTONE</u> , Dark green, hard drilling, very few returns.	2.000	8.00		
<u>SANDSTONE</u> , And grey claystone-sandstone, coarse grained, lithic and quartz fragments, overall light green colour.	9.50	17.50		NMLC Core to 30.00m
<u>SANDSTONE</u> , Grey-green medium grained, quartz, lithic some grey-green mudstone bands.	9.50	27.00		
<u>MUDSTONE</u> , Grey-green with dark grey phase 45 cm thick in central part.	2.20	29.20		
<u>SANDSTONE</u> , Light green, fine to very fine grained. Thinly bedded, quartz, feldspar, mica?, and lithic fragments. Dip 10 degrees.	0.80	30.00		
TOTAL DEPTH 30.0m				



458066

039

<u>BORE NAME:</u>	STRATHBLANE DDH 6
<u>DRILLED BY:</u>	H. STACPOOLE PTY LTD.,
<u>RIG:</u>	GEMCO 210 B
<u>COMMENCED:</u>	23.3.76
<u>COMPLETED:</u>	23.3.76
<u>LOGGED BY:</u>	I. D. BLAYDEN.
<u>TOTAL DEPTH;</u>	30.00m
<u>CORED INTERVAL:</u>	0m

040

BORE NAME: STRATHBLANE DDH 6 600 feet East of DDH 4

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
<u>CLAY</u> , Light brown.	1.00	1.00		
<u>CLAY</u> , Light grey .	2.00	3.00		
<u>CLAY</u> , Light grey green, sandy.	1.80	4.80		
<u>SAND</u> , Light grey, medium, rounded quartz.	0.20	5.00		
<u>SAND</u> , Light green, coarse grained, sandstone and shale fragments. ( Easy drilling.)	1.80	6.80		
<u>SANDSTONE</u> , Light grey green, medium grained, rounded quartz and lithic fragments, hard drilling. Interbedded with light grey and brown claystone.	9.20	16.00		
<u>SANDSTONE</u> , Clayey, green medium to fine grained, quartz lithic, rounded, interbedded with grey and green mudstone/siltstone.	14.00	30.00		
TOTAL DEPTH 30.00m				



458068

041

<u>BORE NAME:</u>	STRATHBLANE DDH 7
<u>DRILLED BY:</u>	H. STACPOOLE PTY LTD.,
<u>RIG:</u>	GEMCO 210 B
<u>COMMENCED:</u>	24.3.76
<u>COMPLETED:</u>	25.3.76
<u>LOGGED BY:</u>	I. D. BLAYDEN.
<u>TOTAL DEPTH:</u>	30.00m
<u>CORED INTERVAL:</u>	28.50m to 30.00m

042

BORE NAME: STRATHBLANE DDH 7 On creekton Road 0.5km West of Darcy Link Junction.

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA		THICKNESS (m)	DEPTH TO BASE (m)	REMARKS:
<u>CLAY</u> ,	Mottled grey and light brown, easy drilling.	3.00	3.00	
<u>CLAY</u> ,	White grading to dark grey, very hard drilling.	1.00	4.00	Rock Roller to 28.50 m
<u>CLAY</u> ,	Light grey, easy drilling.	1.00	5.00	
<u>SANDSTONE</u> ,	Clayey, light grey, sand fraction fine grained quartz.	3.00	8.00	
<u>MUDSTONE</u> ,	Black, slightly carbonaceous, some grey shale, bands, total circulation loss at 8.20m	4.00	12.00	NMLC Core to 30.00m
<u>SANDSTONE</u> ,	Medium grey, fine grained, very clayey, quartz.	0.20	12.20	
<u>SHALE</u> ,	Grey, some black mudstone bands, slightly sandy.	9.80	22.00	
<u>SANDSTONE</u> ,	And shale, sandstone med grained, rounded dark grey quartz and feldspar.	1.50	23.50	
<u>SHALE</u> ,	Light grey, hard drilling.	1.90	25.40	
<u>SANDSTONE</u> ,	And shale, sandstone fine grained, quartz, lithic comparatively easy drilling.	3.10	28.50	
<u>SANDSTONE</u> ,	Grey green, medium to fine grained with coarse phase 25 cm thick and 25 cm from top. Massive, comprises cream-brown feldspar and green lithic clasts. Brown lithic clasts in coarse phase. Dark mudstone band 2 cm thick and 6 cm from top. Grey green silstone band 14cm from base and 9 cm thick. Dip horizontal.	1.50	30.00	
<u>TOTAL DEPTH 30.00m</u>				



458070

043

<u>BORE NAME:</u>	STRATHBLANE DDH 8
<u>DRILLED BY:</u>	H. STACPOOLE PTY LTD.,
<u>RIG:</u>	GEMCO 210 B
<u>COMMENCED:</u>	25/3/76
<u>COMPLETED:</u>	26/3/76
<u>LOGGED BY:</u>	I. D. BLAYDEN.
<u>TOTAL DEPTH:</u>	29.92m
<u>CORED INTERVAL:</u>	28.50m to 29.92

044

BORE NAME: STRATHELANE DDH 8 400ft on bearing 68° from DDH 7 Down 40'

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)		REMARKS;
<u>CLAY</u> , Red-brown, agates and quartz fragments to 3mm	6.00	6.00		Rock Roller to 28.59m
<u>CLAY</u> , Cream-brown, approx 30% limonite fragments to 3mm.	3.00	9.00		
<u>SAND</u> ,? Complete loss of circulation.	2.00	11.00		
<u>CLAY</u> ,? Yellow brown.	1.00	12.00		NMLC Core to 29.92m
<u>SAND</u> , White, quartzose.	5.00	17.00		
<u>CLAY-STONE</u> , White, sandy, very hard drilling.	4.00	21.00		
<u>SANDSTONE</u> , Grey, green, med grained, litho-felspathic, clayey, easydrilling, with some hard clay bands Coring.	7.50	28.50		
<u>SANDSTONE</u> , Green, med grained, massive, three beds of black mudstone clasts to 2cm in diam and 5cm thick. Sandstone grains lithic, felspathic, sub rounded. Dip 10°.	0.80	29.30		
<u>MUDSTONE</u> , Dark grey green, generally massive with bands of sandstone to 1cm thick toward the base.	0.62	29.92		
<u>TOTAL DEPTH 29.92m</u>				



458072

045

BORE NAME: STRATHBLANE DDH 9  
DRILLED BY: H. STACPOOLE PTY LTD.,  
RIG: GEMCO 210B  
COMMENCED: 27-3-76  
COMPLETED: 27-3-76  
LOGGED BY: I. D. BLAYDEN.  
TOTAL DEPTH: 29.50m  
CORED INTERVAL: 28.50m to 29.50m

046

458073

BORE NAME: STRATHBLANE DDH 9 (200' N, 300' E, 20' lower than DDH8. )

PAGE NO:

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
<u>CLAY</u> , Yellow brown	4.00	4.00		Rock Roller to 28.50m
<u>CLAY</u> , Red brown. Very easy drilling.	2.50	6.50		
<u>CLAY</u> , Grey, sandy, very easy drilling.	4.00	10.50		
<u>CLAY</u> , Yellow brown.	0.50	11.00		
<u>SANDSTONE</u> , And shale, sandstone, green, litho felspathic, shale green and brown, very hard drilling.	2.00	13.00		NMLC Core to 29.50m
<u>SANDSTONE</u> , Grey green, medium grained, litho felspathic, compar easy drilling. Some hard mudstone bands approx 5cm thick.	15.50	28.50		
<u>SANDSTONE</u> , Grey green, very fine grained massive.	1.00	29.50		
<u>TOTAL DEPTH 29.50</u>				



458074

047

BORE NAME: STRATHBLANE DDH 10  
DRILLED BY: H. STACPOOLE PTY LTD.,  
RIG: GEMCO 210B  
COMMENCED: 28-3-76  
COMPLETED: 29-3-76  
LOGGED BY: I. D. BLAYDEN.  
TOTAL DEPTH: 30.07m  
CORED INTERVAL: 28.50m to 30.07m

048

458075

BORE NAME: STRATHBLANE DDH 10      200 feet East of DDH 9

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
CLAY,            Light yellow-brown	2.00	2.00		
CLAY,            Yellow	1.00	3.00		Rock Roller to 28.50m
CLAY,            White and light yellow brown	2.00	5.00		
CLAY,            Dark grey, slightly carbonaceous	5.50	10.50		NMLC Core to 30.07m
SANDSTONE,     Grey, medium grained, quartz; interbedded with grey mudstone bands.	18.00	28.50		
SANDSTONE,     White, medium to coarse grained, quartz; with some feldspar+lithic fragments, several beds of brecciated mudstone fragments up to 35cm thick, with clasts up to 6cm thick and over 5cm wide. Dip horizontal.	1.57	30.07		
<u>TOTAL DEPTH 30.07m</u>				



458076

049

BORE NAME: STRATHBLANE DDH 11  
DRILLED BY: H. STACPOOLE PTY LTD.,  
RIG: GEMCO 210B  
COMMENCED: 30.3.76  
COMPLETED: 30.3.76  
LOGGED BY: I. D. BLAYDEN.  
TOTAL DEPTH: 30.06m  
CORED INTERVAL: 28.50m to 30.06m

458077

050

HOLE NAME: STRATHBLANE DDH 11 450 Feet at 290 degrees from DDH 10. 80 Feet west of Darcy Link

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA		THICKNESS (m)	DEPTH TO BASE (m)			REMARKS:
<u>CLAY</u> ,	White	2.00	2.00			
<u>MUDSTONE</u> ,	Carbonaceous	0.10	2.10			
<u>CLAY</u> ,	Grey, sandy	4.40	6.50			
<u>SANDSTONE</u> ,	White, medium grained, quartz, with grains of chert.	2.30	8.80			
<u>MUDSTONE</u> ,	Grey and black, slightly carbonaceous.	2.00	10.80			
<u>SANDSTONE</u> ,	Dark grey, medium grained, quartz and feldspar ? many dark grey mudstone bands.	1.20	12.00			
<u>SANDSTONE</u> ,	White, medium grained, quartz; many white and dark grey mudstone bands. CORING	16.50	28.50			
<u>SANDSTONE</u> ,	White, coarse, quartz, rounded, thinly bedded, very hard. Clay matrix 15%.	0.31	28.81			
<u>SANDSTONE</u> ,	As above, medium to coarse; numerous black mudstone fragments and laminae	0.29	29.10			
<u>SANDSTONE</u> ,	As above, fine grained, finely bedded, numerous black mudstone laminae.	0.13	29.23			
<u>SANDSTONE</u> ,	As above, medium grained, some mudstone fragments. Clay matrix 25%.	0.60	29.83			
<u>MUDSTONE</u> ,	Black carbonaceous.	0.30	29.86			
<u>SANDSTONE</u> ,	Dark grey, medium grained, quartz, numerous 5mm black mudstone laminae. Dip horizontal.	0.20	30.06			
<u>TOTAL DEPTH 30.06m</u>						



051

458078

BORE NAME: STRATHELANE DDH 12  
DRILLED BY: H. STACPOLE PTY LTD.,  
RIG: GEMCO 210B  
COMMENCED: 31.3.76  
COMPLETED: 31.3.76  
LOGGED BY: I. P. BLAYDEN.  
TOTAL DEPTH: 29.94m  
CORED INTERVAL: 28.5m to 29.94m

458079

052

BORE NAME: STRATHBLANE DDH 12. 300 feet at 80 degrees from DDH 11. 175 ft East of Darcy Link. RL 15 feet  
 Lower than DDH 11 PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)		REMARKS:
<u>CLAY</u> , Grey	1.00	1.00		
<u>COAL</u> ,	0.15	1.15		Rock Roller to 28.50m
<u>SANDSTONE</u> , White, medium grained, quartz.	0.10	1.25		
<u>CLAYSTONE</u> , Grey, carbonaceous band 5 cm thick at 2.3m	3.25	5.40		
<u>SHALE</u> , And Sandstone, shale, grey and white, sandstone medium to fine, white, quartz. Sandstone 40% shale 60%	5.50	10.00		
<u>SANDSTONE</u> , Darkgrey, medium grained, quartz. CORING	18.50	28.50		NMLC Core to 29.94m
<u>SANDSTONE</u> , Grey, green, medium grained, massive, quartz and feldspar fragments.	0.21	28.71		
<u>MUDSTONE</u> , Black, plant fossils  Dip horizontal	1.23	29.94		
<u>TOTAL DEPTH 29.94m</u>				



458080

053

BORE NAME: STRATHBLANE DDH 13  
DRILLED BY: H. STACPOLE PTY. LTD.,  
RIG: GEMCO 210B  
COMMENCED: 31.3.76  
COMPLETED: 6.4.76  
LOGGED BY: I.D. BLAYDEN & P.L. RASMUS  
TOTAL DEPTH: 27.00m  
CREED INTERVAL: NIL

458081

054

CORE NAME: STRATHBLANE DDH 13 600' due East, 5' down from DDH 12

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)			REMARKS
<u>CLAY</u> Yellow brown	2.00	2.00			
<u>CLAY</u> Grey slightly sandy	2.00	4.00			
<u>SAND</u> White, medium grained, rounded quartz, very clayey	4.00	8.00			
<u>SANDSTONE</u> Grey-white medium grained, quartz lithic, clayey	13.00	21.00			
<u>MUDSTONE</u> Very hard, mid-grey	6.00	27.00			
BASE OF HOLE 27.00m					



458082

055

<u>BORE NAME:</u>	APM STRATHBLANE DDH 14
<u>DRILLED BY:</u>	H. STACPOOLE PTY. LTD.,
<u>RIG:</u>	GEMCO 210 B
<u>COMMENCED:</u>	8.4.76
<u>COMPLETED:</u>	8.4.76
<u>LOGGED BY:</u>	P.L. RASMUS
<u>TOTAL DEPTH:</u>	30.00m
<u>CORED INTERVAL:</u>	Nil

056

458083

BORE NAME: APM STRATHBLANE DDH 14

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)			REMARKS
<u>CLAY</u> , Brown, speckled orange	3.00	3.00			
<u>SANDSTONE</u> , Medium grained, mid grey, quartz lithic, very soft	4.00	7.00			Rock Roller bit
<u>SANDSTONE</u> , Medium grained, light grey, quartz lithic, soft 7m to 10m	20.00	27.00			
<u>MUDSTONE</u> , Dark grey	3.00	30.00			
BASE OF HOLE AT 30.00m					



057

458084

<u>BORE NAME:</u>	APM STRATHBLANE DDH 15
<u>DRILLED BY:</u>	H. STACPOOLE PTY. LTD.,
<u>RIG:</u>	GEMCO 210B
<u>COMMENCED:</u>	9.4.76
<u>COMPLETED:</u>	9.4.76
<u>LOGGED BY:</u>	P.L. RASMUS
<u>TOTAL DEPTH:</u>	30.00m
<u>CORED INTERVAL:</u>	NIL

458085

058

BORE NAME: APM STRATHBLANE 15

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)			REMARKS
<u>CLAY</u> ,           Brown and Grey	5.00	5.00			Rock Roller bit
<u>SHALE</u> ,         Light grey	25.00	30.00			
BASE OF HOLE AT 30.00m.					



458086

059

<u>BORE NAME:</u>	APM STRATHBLANE DDH 16
<u>DRILLED BY:</u>	H. STACPOOLE PTY. LTD.,
<u>RIG:</u>	GEMCO 210 B
<u>COMMENCED:</u>	10.4.76
<u>COMPLETED:</u>	11.4.76
<u>LOGGED BY:</u>	P.L. RASMUS
<u>TOTAL DEPTH:</u>	30.00m
<u>CORED INTERVAL:</u>	NIL

060

458087

BORE NAME: APM STRATHBLANE DDH 16

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)			REMARKS
<u>CLAY</u> ,           Brown	3.00	3.00			
<u>SILTSTONE</u> ,       Khaki	7.50	10.50			Rock Roller bit
<u>SILTSTONE</u> ,       Mid grey	4.50	15.00			
<u>MUDSTONE</u> :       Mid grey	3.00	18.00			
<u>SILTSTONE</u> :       Mid grey, hard	12.00	30.00			
BASE OF HOLE AT 30.00m					



061

458088

BORE NAME: APM STRATHBLANE DDH 17  
DRILLED BY: H. STACPOOLE PTY. LTD.  
RIG: GEMCO 210 B  
COMMENCED: 12.4.76  
COMPLETED: 13.4.76  
LOGGED BY: P.L. RASMUS  
TOTAL DEPTH: 18.00m  
CORED INTERVAL: NIL

458089

062

BOPE NAME: APM STRATHBLANE DDH 17

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)			REMARKS
<u>CLAY</u> Brown	4.00	4.00			
<u>CLAY</u> Brown, decomposed dolerite or dolerite talus	8.00	12.00			Rock Roller Bit
<u>SANDSTONE</u> Fine grained, mid brown, lithic	5.00	17.00			
<u>DOLERITE</u> fractured at top, to hard at base	1.00	18.00			
BASE OF HOLE AT 18m					



458090

063

<u>BORE NAME:</u>	APM STRATHBLANE DDH 18
<u>DRILLED BY:</u>	H. STACPOOLE PTY. LTD.,
<u>RIG:</u>	GEMCO 210 B
<u>COMMENCED:</u>	14.4.76
<u>COMPLETED:</u>	26.4.76
<u>LOGGED BY:</u>	P.L. RASMUS
<u>TOTAL DEPTH:</u>	30.00m
<u>CORED INTERVAL:</u>	3.00 - 9.00m

458091

BORE NAME: APM STRATHBLANE DDH 18

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)	REMARKS
<u>CLAY</u> Brown	0.00	3.00	Rock Roller Bit
<u>DOLERITE</u>	6.00	9.00	NMLC
<u>SANDSTONE</u> Medium grained, yellow brown, very soft	9.00	18.00	
<u>SHALE</u> Mid grey	12.00	30.00	) Rock Roller
BASE OF HOLE 30.00m			



458092

065

BORE NAME: APM STRATHBLANE DDH 19  
DRILLED BY: H. STACPOOLE PTY. LTD.,  
RIG: GEMCO 210B  
COMMENCED: 28.4.76  
COMPLETED: 30.4.76  
LOGGED BY: P.L. RASMUS  
TOTAL DEPTH: 7.70m  
CORED INTERVAL: 6.20 - 7.70m

458093

066

BORE NAME: APM DDH STRATHBLANE DDH 19 2001 East of DDH 2

PAGE NO: 1

GEOLOGICAL DESCRIPTION OF STRATA	THICKNESS (m)	DEPTH TO BASE (m)	REMARKS
<u>CLAY</u> Dark brown	1.00	1.00	
<u>CLAY</u> Light grey	1.00	2.00	Rock roller bit to 6.20m
<u>SAND</u> Light grey, quartzose grains well rounded	4.20	6.20	NMLC core
<u>SANDSTONE</u> Grey green, med grained	0.60	6.80	6.20 - 7.70m
<u>COAL</u> Dull to inferior	0.12	6.92	
<u>MUDSTONE</u> Carbonaceous, dark grey	0.08	7.00	
<u>MUDSTONE</u> Light grey	0.70	7.70	
EASE HOLE 7.70m			

