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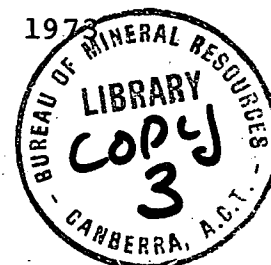
DEPARTMENT OF  
MINERALS AND ENERGY



**BUREAU OF MINERAL RESOURCES,  
GEOLOGY AND GEOPHYSICS**

Record 1974/75

AUGER DRILLING, NORTHERN CAPE YORK PENINSULA, 1972



by

J. Smart, B.S. Powell and D.L. Gibson

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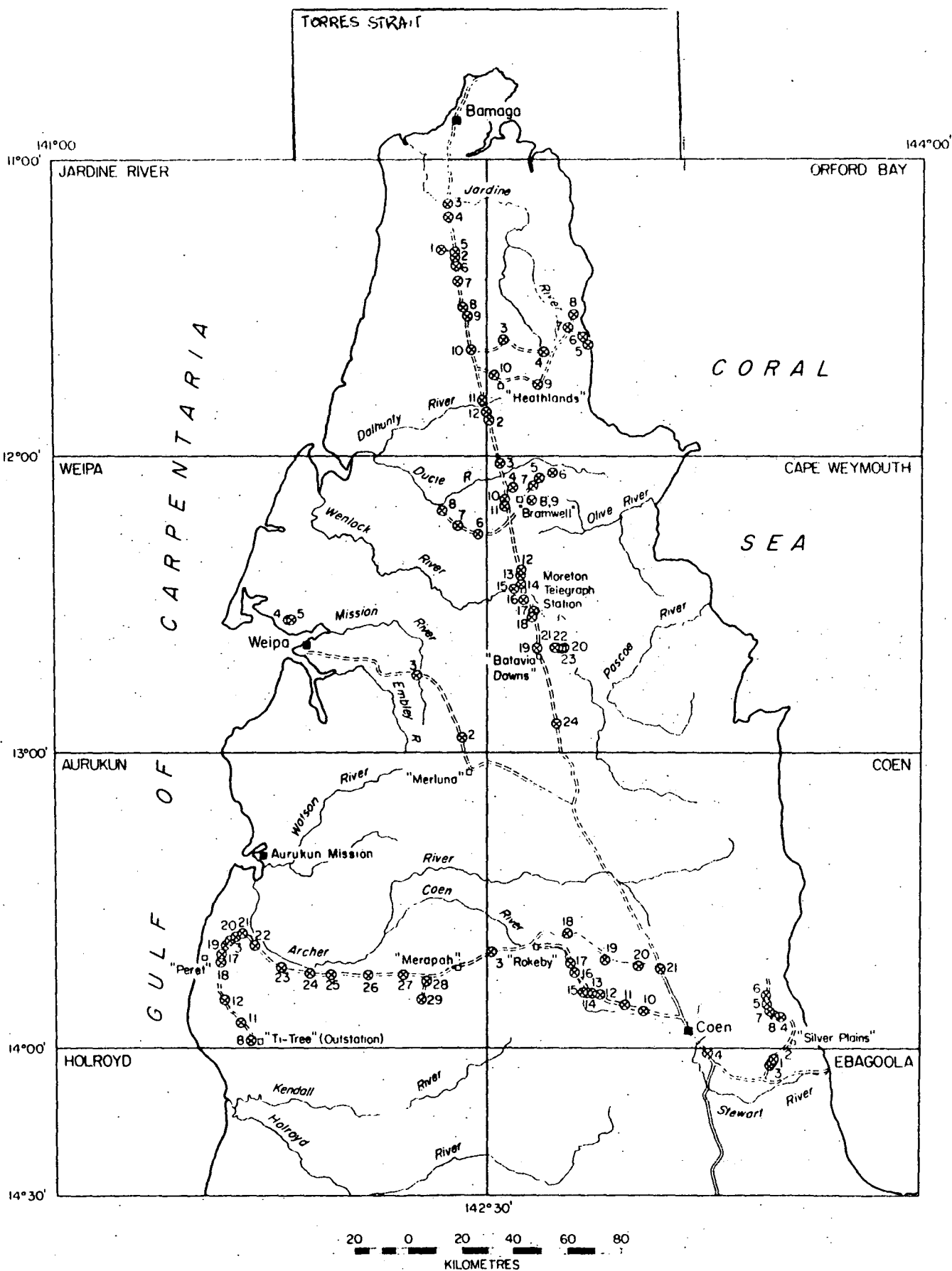
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### SUMMARY

Eighty-nine shallow auger holes were drilled in the northern Cape York Peninsula using a Gemco 110A auger drill in 1973. The holes:

- (a) helped locate boundaries between Mesozoic formations and between Mesozoic and Cainozoic units;
- (b) provided information on the nature of the shallow depressions on the bauxite surface near Weipa;
- (c) showed the nature and extent of the Wyaaba Beds in the area.



⊗<sup>21</sup> Auger drill hole with reference number within 1:250,000 sheet area

COEN 1:250,000 sheet name

==== Road  
 - - - - Vehicle track  
 ■ Town  
 "Rokeby" □ Homestead

FIGURE 1 Locality Map

TABLE 1  
DRILL HOLE DATA, 1973 PROGRAM

NAME		TYPE	DEPTH metres	LOCATION		REFERENCE
				Lat.	Long.	
JARDINE RIVER	1	Gemco	8.2	11°18'S	142°19'E	Smart et al. (1974)
	2	"	9.1	11°19½'S	142°24½'E	"
	3	"	15.9	11°9'S	142°21½'E	"
	4	"	15.9	11°12'S	142°22½'E	"
	5	"	15.9	11°18'S	142°24'E	"
	6	"	15.9	11°21'S	142°24'E	"
	7	"	15.9	11°24'S	142°24'E	"
	8	"	15.9	11°31'S	142°26'E	"
	9	"	15.9	11°32½'S	142°26½'E	"
	10	"	10.4	11°39'S	142°27½'E	"
ORFORD BAY	1	Mayhew	329.50	11°45½'S	142°41'E	Gibson et al. (1974)
	2	Gemco	3.7	11°53'S	142°31'E	Smart et al. (1974)
	3	"	10.4	11°36'S	142°34'E	"
	4	"	12.2	11°41½'S	142°42'E	"
	5	"	15.9	11°37'S	142°51½'E	"
	6	"	7.3	11°36'S	142°50'E	"
	7	"	8.5	11°35'S	142°47'E	"
	8	"	15.9	11°36½'S	142°48'E	"
	9	"	6.7	11°45½'S	142°41'E	"
	10	"	15.9	11°43'S	142°31'E	"
	11	"	12.2	11°50'S	142°30'E	"
	12	"	9.1	11°51'S	142°30½'E	"
WEIPA	1	Mayhew	331	12°44'S	142°15'E	Gibson et al. (1974)
	2	Gemco	8.8	12°57'S	142°25'E	Smart et al. (1974)
	3	"	11.6	12°44'S	142°16'E	"
	4	"	5.5	12°33'S	141°49'E	"
	5	"	4.9	12°33'S	141°49½'E	"
	6	"	6.1	12°11'S	142°29'E	"
	7	"	7.3	12°13'S	142°24'E	"
	8	"	9.1	12°11'S	142°21'E	"
CAPE WEYMOUTH	1	Mayhew	334.98	12°02'S	142°45½'E	Gibson et al. (1974)
	2	"	173.37	12°39½'S	142°45½'E	"
	3	Gemco	10.4	12°02'S	142°32½'E	Smart et al. (1974)
	4	"	6.7	12°07'S	142°35'E	"
	5	"	10.1	12°04½'S	142°42'E	"
	6	"	6.7	12°04'S	142°44'E	"
	7	"	17.7	12°06'S	142°39'E	"
	8	"	1.8	12°09'S	142°39'E	"

NAME	TYPE	DEPTH metres	LOCATION		REFERENCE
			Lat.	Long.	
CAPE WEYMOUTH (contd.)					
	9	Gemco	4.6	12°09'S 142°38'E	Smart et al. (1974)
	10	"	7.3	12°09'S 142°34'E	"
	11	"	6.7	12°10'S 142°34'E	"
	12	"	3.7	12°22½'S 142°37'E	"
	13	"	8.5	12°24'S 142°37'E	"
	14	"	5.5	12°22'S 142°38'E	"
	15	"	12.2	12°22'S 142°37½'E	"
	16	"	12.2	12°28'S 142°39'E	"
	17	"	7.3	12°31'S 142°40½'E	"
	18	"	8.5	12°32'S 142°39'E	"
	19	"	5.5	12°40'S 142°41'E	"
	20	"	5.5	12°39'S 142°47½'E	"
	21	"	7.3	12°39'S 142°45'E	"
	22	"	6.7	12°39'S 142°45½'E	"
	23	"	6.7	12°39'S 142°46'E	"
	24	"	4.9	12°39'S 142°48'E	"
AURUKUN					
	1	Mayhew	132.59	13°37½'S 141°33½'E	Gibson et al. (1974)
	2	"	303.28	13°51'S 142°16'E	"
	3	Gemco	9.4	13°39'S 141°36'E	Smart et al. (1974)
	*4	"	13.7	13°37½'S 141°33½'E	Smart (in prep.)
	*5	"	8.2	13°37½'S 141°31½'E	"
	*6	"	17.7	13°37½'S 141°30½'E	"
	*7	"	6.4	13°37½'S 141°33'E	"
	8	"	6.4	14°00'S 141°41'E	Smart et al. (1974)
	*9	"	6.7	13°59'S 141°28'E	Smart (in prep.)
	*10	"	8.5	14°00'S 141°38'E	"
	11	"	10.4	13°55'S 141°38'E	Smart et al. (1974)
	12	"	7.1	13°50'S 141°35'E	"
	*13	"	11.3	13°45½'S 141°29'E	Smart (in prep.)
	*14	"	8.5	13°45½'S 141°30'E	"
	*15	"	8.5	13°45½'S 141°31½'E	"
	*16	"	8.5	13°45'S 141°32'E	"
	17	"	8.5	13°43'S 141°33'E	Smart et al. (1974)
	18	"	8.5	13°42'S 141°33'E	"
	19	"	4.5	13°41'S 141°35'E	"
	20	"	4.5	13°37½'S 141°38'E	"
	21	"	3.7	13°37'S 141°39'E	"
	22	"	4.5	13°38½'S 141°41½'E	"
	23	"	4.6	13°43'S 141°50'E	"
	24	"	8.5	13°44'S 141°53'E	"
	25	"	8.5	13°43'S 141°58'E	"

NAME		TYPE	DEPTH metres	LOCATION		REFERENCE
				Lat.	Long.	
AURUKUN (contd.)						
	26	Gemco	8.5	13°45'S	142°13'E	Smart et al. (1974)
	27	"	6.4	13°46'S	142°19'E	"
	28	"	2.7	13°47'S	142°20'E	"
	29	"	11.9	13°50'S	142°20'E	"
	30	Mayhew	27.5	13°37'S	141°39'E	Gibson et al. (1974)
COEN						
	1	Mayhew	134.32	13°19'S	142°52'E	Gibson et al. (1974)
	2	"	275.08	13°40'S	142°36'E	"
	3	Gemco	11.0	13°41'S	142°32'E	Smart et al. (1974)
	4	"	17.7	13°54'S	143°31'E	"
	5	"	3.0	13°51'S	143°28'E	"
	6	"	9.8	13°50'S	143°28'E	"
	7	"	10.4	13°52'S	143°28'E	"
	8	"	17.7	13°53'S	143°30'E	"
	9	Mayhew	22.3	13°52'S	143°10'E	Gibson et al. (1974)
	10	Gemco	3.0	13°54'S	143°05'E	Smart et al. (1974)
	11	"	14.0	13°52'S	143°01'E	"
	12	"	8.5	13°49'S	142°54'E	"
	13	"	6.7	13°49'S	142°51'E	"
	14	"	3.0	13°49'S	142°51'E	"
	15	"	6.7	13°49'S	142°50'E	"
	16	"	4.9	13°47'S	142°50'E	"
	17	"	6.7	13°44'S	142°47'E	"
	18	"	6.7	13°39'S	142°48'E	"
	19	"	4.9	13°42'S	142°54'E	"
	20	"	3.0	13°45'S	143°01'E	"
	21	"	5.8	13°45'S	143°06'E	"
	22	Mayhew	40.2	13°35'S	143°02'E	Gibson et al. (1974)
	23	"	28.7	13°38'S	143°04'E	"
	24	"	54.6	13°41'S	143°05'E	"
	25	"	48.8	13°43'S	143°06'E	"
	26	"	24.4	13°47'S	143°07'E	"
	27	"	18.9	13°50'S	143°09'E	"
	28	"	32.6	13°41'S	143°08'E	"
	29	"	35.7	13°45'S	143°08'E	"
HOLROYD						
	1	Mayhew	308	14°41'S	142°10'E	Gibson et al. (1974)
	*2	Gemco	7.3	14°04'S	141°36'E	Smart (in prep.)
	*3	"	10.4	14°01'S	141°354'E	"
	*4	"	17.7	14°01'S	141°35'E	"
	*5	"	17.7	14°04'S	141°344'E	"
	*6	"	12.2	14°034'S	141°35'E	"



NAME	TYPE	DEPTH metres	LOCATION		REFERENCE
			Lat.	Long.	
HOLROYD (contd.)					
*7	Gemco	8.5	14°04½'S	141°35'E	Smart (in prep.)
*8	"	17.7	14°03'S	141°35½'E	"
*9	"	12.2	14°02'S	141°36'E	"
*10	"	8.5	14°02'S	141°36'E	"
*11	"	8.5	14°00'S	141°37½'E	"
EBAGOOOLA					
1	Gemco	6.1	14°03'S	143°29'E	Smart et al. (1974)
2	"	3.7	14°03'S	143°29'E	"
3	"	6.7	14°05'S	143°29'E	"
4	"	8.5	14°01'S	143°16'E	"

\* Beach ridge auger hole reported by Smart (in prep.)

## INTRODUCTION

Auger drilling was carried out in the northeastern Carpentaria Basin in Cape York Peninsula, Queensland, between June and October, 1973, using a Gemco 110A auger drill. Eighty nine holes were drilled to an aggregate depth of 648 m.

The auger drilling was concurrent with shallow stratigraphic drilling using two Mayhew 1000 rigs (Gibson et al., 1974), and was used in areas inaccessible to the larger rigs and where only shallow holes were required. The general object of the augering was to provide stratigraphic information in areas of poor exposure. A subsidiary project, to examine the beach ridges in southwest Aurukun and northwest Holroyd Sheets will be reported separately (Smart, in prep.).

Both Gemco and Mayhew are named holes by 1:250 000 Sheet areas, i.e. BMR Weipa 2 is the second hole drilled by BMR in the Weipa 1:250 000 Sheet area. Table 1 lists all the holes drilled in 1973 by BMR in the area including those in the beach ridge program, together with locations and depths. Holes on Jardine River, Orford Bay and Coen Sheet areas will be shown on the Preliminary (1974) Editions. Holes on Weipa, Aurukun, Holroyd, Cape Weymouth and Ebagoola Sheet areas will be shown on the First Editions of these sheets. The approximate locations of all auger drill holes (including those in the beach ridge program) are shown on Figure 1.

Stratigraphic nomenclature is based on Smart et al. (1972) and Powell et al. (in press.), and the unnamed Cainozoic units are those used on the preliminary geological maps of the area (Doutch et al., 1973).

Elevations are based on hand-barometer readings checked against available levelling points to within an accuracy of  $\pm 10$  m.

All cutting samples are stored at BMR Core and Cuttings Laboratory, Fyshwick, A.C.T., and are available for examination.

### BMR JARDINE RIVER 1      depth 8.2 m.

LOCATION:            6.3 km west of telegraph line on Pacminex track. Lat.  $11^{\circ}18'S$ . Long.  $142^{\circ}19'E$ .

LOG:                0 - 6.7 m red sandy clay, with pisolites and ferruginous nodules up to 3 cm.  
                      6.7 - 8.2 m quartzose sandy clay, pinkish-brown. Water from 7.3 m.

INTERPRETATION: lateritized Bulimba Formation (KTi).

BMR JARDINE RIVER 2          depth 9.1 m

LOCATION:            At telegraph line, at junction of Pacminex track. Lat.  $11^{\circ}19\frac{1}{2}'S$ . Long.  $142^{\circ}24\frac{1}{2}'E$ .

LOG:                0 - 9.1 m    Soft    clayey    quartzose sand, coarse-grained.    Upper 5.5 m    red-brown, with some pisolites diameters.  
6 - 10 mm    between    2.7 - 4.6 m.    Lower portion (5.5-9.1 m) has red-brown staining.

INTERPRETATION: Mesozoic sandstone, Helby Beds (JKb), with upper part weathered to soil with pisolite horizon.

BMR JARDINE RIVER 3

Depth          15.9 m  
Elevation 12.2 m

LOCATION:            At telegraph line, southern bank of Jardine River.  $11^{\circ}9'S$   $142^{\circ}21\frac{1}{2}'E$ .

LOG:                Spudded into white, fine-medium quartz sand.  
0 - 0.9 m    fawn medium quartzose sand.  
0.9 - 2.7 m    wet, dark grey poorly sorted clayey coarse quartzose sand.  
2.7 - 15.9 m    wet, off-white, poorly sorted, angular, clayey coarse quartz sand.

INTERPRETATION: unconsolidated Quaternary alluvium or colluvium, probably overlying weathered Bulimba Formation (KTi).

BMR JARDINE RIVER 4

Depth          15.9 m  
Elevation 53.3 m

LOCATION:            At telegraph line, on the crest of a hill 5 km south of the Jardine River.  $11^{\circ}12'S$   $142^{\circ}22\frac{1}{2}'E$ .

LOG:                Spudded into orange, poorly sorted coarse angular quartz sand.

0-2.7 m            dark red, iron-rich, poorly sorted fine quartz sand and clay with several sub-rounded ferruginous pebbles.

2.7-15.9 m        light red, less clayey, very poorly sorted, coarse quartz sand and granule conglomerate. Sub-rounded to sub-angular.

INTERPRETATION: ferruginized Cainozoic colluvium.

BMR JARDINE RIVER 5

Depth 15.9 m  
Elevation 115.8 m

LOCATION: Telegraph line, on ridge crest 1.6 km north of Cypress Creek. 11°18'S 142°24'E

LOG: Spudded into pisolitic ferricrete.

0-1.8 m dark red, clayey fine quartz sand and pebbles of dark red-purple, iron-cemented angular quartz grains.

1.8-14.6 m Yellow-light red, clayey fine quartz sand and granule conglomerate.

14.6-15.9 m Soft, white, clean moderately sorted medium quartz sand.

INTERPRETATION: isolated remnant of ferricrete (TQf?) on Cainozoic colluvium probably derived from weathering of the Mesozoic Helby Beds.

BMR JARDINE RIVER 6

Depth 15.9 m  
Elevation 54.9 m

LOCATION: Telegraph line, 50 m north of Mistake Creek. 11°21'S 142°24'E.

LOG: Spudded into grey poorly sorted medium-coarse quartz sand.

0-0.9 m brown, clayey medium quartz sand

0-4.6 m grey-white, poorly sorted fine quartz sand and granule conglomerate

4.6-13.7 m white, wet, sticky, clayey medium to fine quartz sand

13.7-15.9 m stiff, light grey, fine and granular sandy micaceous claystone.

INTERPRETATION: weathered Mesozoic sandstones, Helby Beds, (JKb).

BMR JARDINE RIVER 7

Depth 15.9 m  
Elevation 57.9 m

LOCATION: Telegraph line, 30 m south of Canal Creek. 11°24'S 142°24'E.

LOG: Spudded into fawn poorly sorted angular sand and silt.

0-10.1 m Very sticky, clayey granule conglomerate and coarse quartz sand with a few pebbles of iron-cemented sand.

10.1-15.9 m mottly dark red and cream clayey quartz granule conglomerate.

INTERPRETATION: weathered Mesozoic Helby Beds (JKb).

BMR JARDINE RIVER 8

Depth 15.9 m  
Elevation 152 m

LOCATION: Telegraph line, 4 km north of Sailor Creek,  
11°31'S 142°26'E

LOG: Spudded into white-fawn, fine sand and ferruginous pebbles.

0-5.5 m dark red-brown fine sand, silt, and pebbles of iron-cemented quartz sand; mottled toward bottom.

5.5-7.3 m off-white, yellow, fine quartzose sandy clay and clayey micaceous sand.

7.3-13.4 m off white, slightly sandy sticky clay.

13.4-15.9 m chunks of hard pinkish medium - fine grained quartz sandstone.

INTERPRETATION: ferruginized (TQf) Mesozoic Helby Beds (JKb).

BMR JARDINE RIVER 9

Depth 15.9 m  
Elevation 103.6 m

LOCATION: Telegraph Line, on northern bank of Sailor Creek 11°32½'S. 142°26½'E

LOG: Spudded into soft white - grey poorly sorted slightly clayey quartz sandstone and granule conglomerate.

0 - 4.6 m off-white, moderately sorted medium quartz sand.

4.6 - 15.9 m stiff, green and brown, fine sandy clay.

INTERPRETATION: weathered Helby Beds (JKb).

BMR JARDINE RIVER 10

Depth 10.4 m  
Elevation 48.8 m

LOCATION: Telegraph line, on north bank of Cockatoo Creek. 11°39'S. 142°27½'E.

LOG: Spudded into grey-white poorly sorted medium - fine sand.

0 - 3.7 m red-brown, moderately osrted medium fine quartz sand.

3.7 - 5.5 m sticky, light grey, very poorly sorted clayey medium - coarse quartz sand.

5.5 - 10.4 m stiff, light grey, laminated, fine clayey micaceous sand with dark organic? material.

INTERPRETATION: slightly ferruginized Helby Beds (JKb).

BMR ORFORD BAY 2

Depth 3.7 m  
Elevation 97.5 m

LOCATION: Telegraph line, on hill crest 4.8 km south of the Dulhunty River 11°53'S 142°31'E

LOG: Spudded into fawn coloured silt and pebbles of ferruginized, fine quartz sand.

0 - 3.7 m dark red and yellow-brown claystone.

INTERPRETATION: ferruginized Rolling Downs Group (Klr).

BMR ORFORD BAY 3

Depth 10.4 m  
Elevation 134 m

LOCATION: Comalco track, on hilltop 10 miles north of Cockatoo Creek 11°36'S 142°34'E.

LOG: Spudded into red ferruginous sandstone rubble, and red medium - fine sand.

0 - 5.5 m red ferruginous medium - fine sandy clay

5.5 - 9.1 m red and white clayey medium sand becoming fawn and coarser.

9.1 - 10.4 m chunks of yellow brown, soft moderately well sorted fine quartz sandstone.

INTERPRETATION: ferruginized Mesozoic Helby Beds (JKb).

BMR ORFORD BAY 4

Depth 12.2 m  
Elevation 121.9 m

LOCATION: At track junction on top of the Great Dividing Range, 22.5 km east of BMR Orford Bay 3 11°41½'S 142°42'E.

LOG: Spudded into red-brown medium quartz sand.

0 - 3.7 m dark red clayey fine sand and large pebbles of ferruginized sand.

3.7 - 7.3 m pale red and white slightly clayey coarse quartz sand.

7.3 - 12.2 m stiff, white, medium- fine quartzose sandy clay and clayey sand.

INTERPRETATION: laterized surface (TQf) on Mesozoic Helby Beds (JKb).

BMR ORFORD BAY 5

Depth 15.9 m  
Elevation 6.1 m

LOCATION: Behind Comalco store at Captain Billy Landing 11° 37'S, 142° 51½'E.

LOG: Spudded into light red, coarse - medium quartz sand and iron-cemented sand pebbles.

0 - 1.8 m off-white to fawn, well sorted coarse quartz sand.

1.8 - 3.7 m light brown, poorly sorted, coarse quartzose sand and granule conglomerate.

3.7 - 14.9 m light green and white clayey coarse quartz sand.

14.9 - 15.9 m stiff, grey clay.

INTERPRETATION: unconsolidated beach sands Qm, (0 - 3.7 m) resting on Mesozoic Helby Beds (JKb), (3.7 - 15.9 m+) which form the headland 0.4 km to the south.

BMR ORFORD BAY 6

Depth 7.3 m  
Elevation 30.5 m

LOCATION: At Comalco shed 4.8 km north - west of Captain Billy Landing 11° 36'S, 142° 50'E.

LOG: Spudded into orange and white sand with boulders of ferruginized sandstone.

0 - 3.7 m red and white clayey quartz sand and sandy clay.

3.7 - 7.3 m sticky, dark grey, micaceous fine sandy clay.

INTERPRETATION: ferruginized (TQf) Helby Beds (JKb).

BMR ORFORD BAY 7

Depth 8.5 m  
Elevation 109.7 m

LOCATION: At track junction on the eastern edge of the Great Dividing Range 9.7 km northwest of Captain Billy Landing. 11° 35'S 142° 47'E.

LOG: Spudded into thin veneer of white sand covering dark brown sand and pebbles of ferruginized quartz sand.

0 - 8.5 m      dark red and white fine sandy clay becoming very sticky towards the bottom.

INTERPRETATION: ferruginized (TQf) Helby Beds (JKb).

BMR ORFORD BAY 8

Depth 15.9 m  
Elevation 97.5 m

LOCATION:      On Comalco track, just south of Helby Hill  
11°36½'S, 142°48'E.

LOG:            Spudded into white, medium fine poorly sorted quartz sand.

0 - 5.5 m      dark red - orange very poorly sorted clayey coarse quartz sand and granule conglomerate.

5.5 - 14.9 m   off white slightly clayey coarse quartz sand.

14.9 - 15.9 m   stiff, light brown, coarse clayey quartz sand.

INTERPRETATION: ferruginized (TQf) Helby Beds (JKb).

BMR ORFORD BAY 9

Depth 6.7 m  
Elevation 121.9 m

LOCATION:      Near bend in Comalco track on the eastern edge of the Great Dividing Range 14.5 km east of Heathlands homestead 11°45½'S, 142°41'E.

LOG:            Spudded into white medium-fine quartz sand.

0 - 6.7 m      brown-red, poorly sorted, slightly clayey medium-fine quartz sand.

INTERPRETATION: ferruginized Helby Beds (JKb).

BMR ORFORD BAY 10

Depth 15.9 m  
Elevation 115.8 m

LOCATION:      On Comalco track, 4.8 km northwest of Heathlands homestead 11°43'S, 142°31'E.

LOG:            Spudded into tan- poorly sorted clayey quartz sand.

0 - 1.8 m      orange, poorly sorted, clayey quartz sand.

1.8 - 14.9 m   dark red, clayey fine quartz sand (hard band at 10.7 m and 12.5 m).

14.9 - 15.9 m   stiff, white, slightly sandy clay.

INTERPRETATION: ferruginized Helby Beds (JKb).



BMR ORFORD BAY 11

Depth 12.2 m  
Elevation 61 m

LOCATION: Telegraph line, on northern bank of the Dalhenty River 11°50'S, 142°30'E.

LOG: Spudded into fawn-grey poorly sorted, coarse-medium quartz sand.

0 - 3.7 m white, slightly clayey coarse quartzose sand.

3.7 - 7.3 m red and brown, clayey quartzose medium sand.

7.3 - 12.2 m light grey, well sorted, medium quartz sand.

INTERPRETATION: alluvial and outwash sands. (They rest on ferruginized Mesozoic Helby Beds (JKb) which crop out in the nearby creek).

BMR ORFORD BAY 12

Depth 9.1 m  
Elevation 91.4 m

LOCATION: Telegraph line, 2.3 km south of the Dulhenty River 11°51'S, 142°30½'E.

LOG: Spudded into red-brown ferruginous silty and sandy pebbles.

0 - 3.7 m mottled red and white silt and clay.

3.7 - 5.5 m pale green, slightly ferruginized claystone.

5.5 - 9.1 m red claystone (cavings).

INTERPRETATION: ferruginized Rolling Downs Group (Klr).

BMR WEIPA 2. depth 8.8 m

LOCATION: At western boundary of Merluna station on Weipa-Coen road 12°57'S, 142°25'E.

LOG: 0-8.8 m reddish and yellow clay, becoming grey with depth. Pisolites up to 5 mm diameter in top 1.5 m.

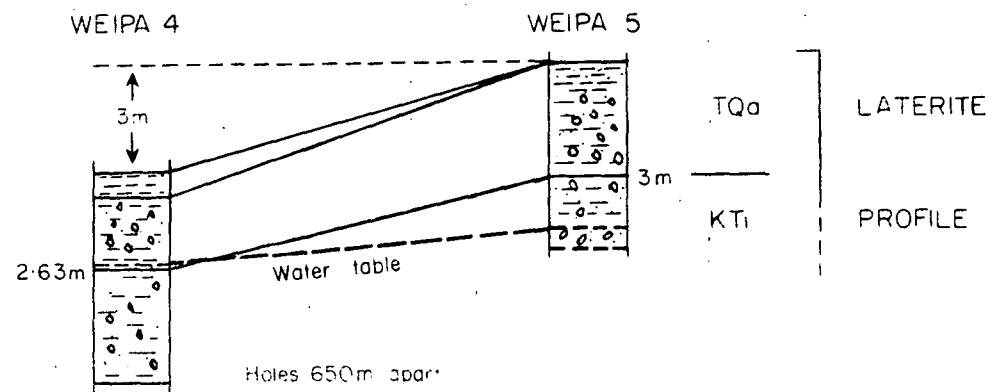
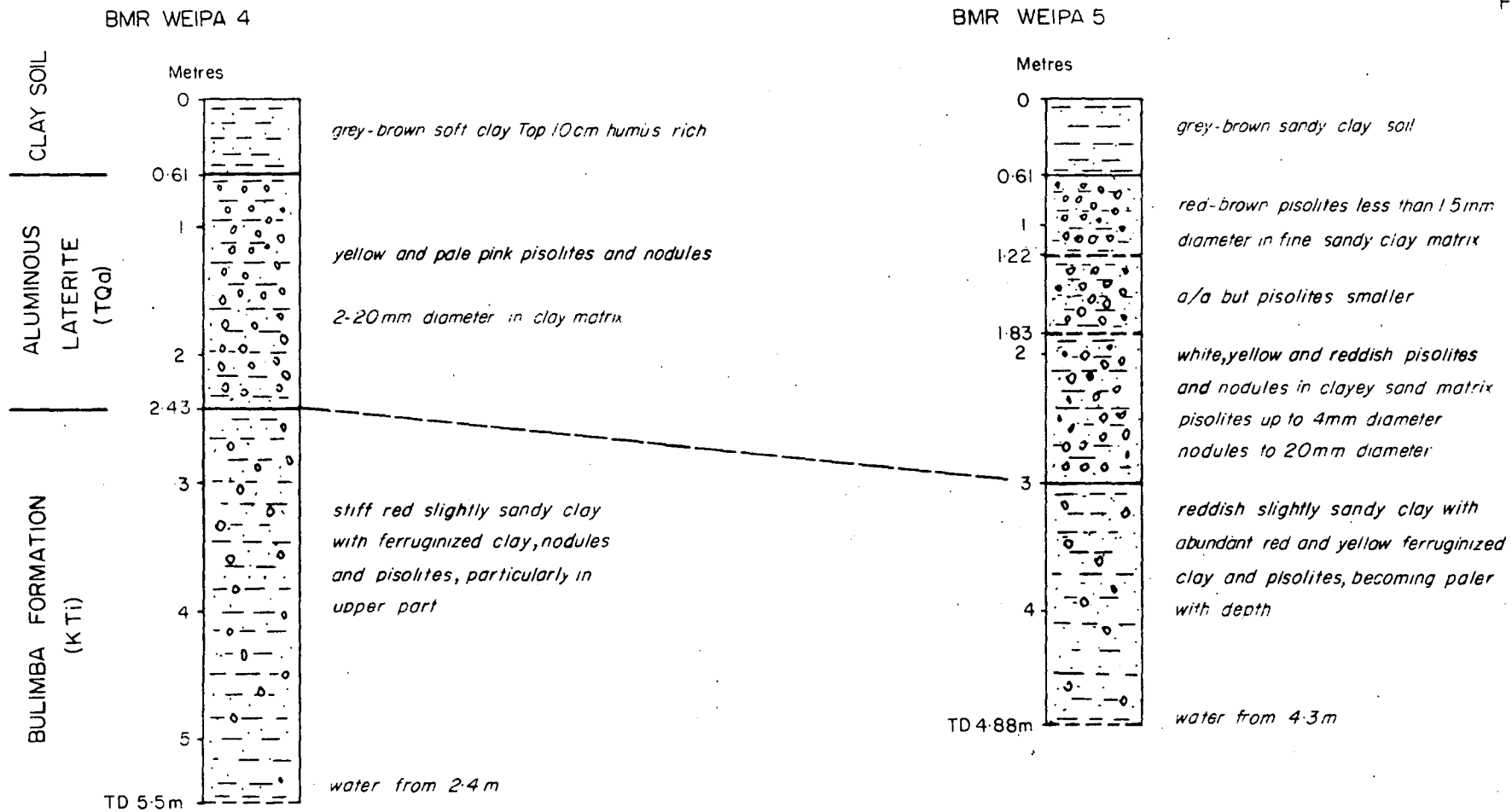
INTERPRETATION: Rolling Downs Group weathered to soil with pisolite horizon.

BMR WEIPA 3. depth 11.6 m

LOCATION: 1 km west of Horse Creek on Weipa-Coen road. 12°44'S, 142°16'E.

LOG: 0 - 11.6 m red-brown sandy clay grading downwards to yellow-brown sandy clay and weathered labile sandstone. Top 1.5 m contains pisolites up to 5 mm diameter and the formation is mottled to about 8 m.

Figure 2



INTERPRETATION: Rolling Downs Group weathered to soil with pisolite horizon.

BMR WEIPA 4

Depth 5.5 m

LOCATION: Middle of shallow depression 12°33'S, 141°49'E.

BMR WEIPA 5

Depth 4.9 m

LOCATION: On bauxite surface, at eastern edge of the swamp vegetation in the shallow depression 12°33'S, 141°49½'E, 0.65 km east of Weipa 4. There is a difference in elevation of about 3 m between the holes.

These holes were drilled to investigate the nature of the shallow, clay-floored depressions on the bauxite surface, and which are particularly common north of Albatross Bay. Valentin (1959) suggested these might be a form of "tropical pseudo-karst" analogous to sink holes but formed by leaching of silica. The drill logs (Fig. 2) suggest this is unlikely. If the depressions formed by leaching, one would expect a modified or thicker than normal weathering profile below them, but this is not so in W4. The profile present in the depression in W4 is comparable to the lower part of the profile in W5. Therefore the depression probably existed at the time of lateritic weathering and because its floor was nearer the permanent water table, a thinner profile developed below it (0.61 to 2.43 m in W4 compared with 0.61 to 3 m in W5) See Fig. . The depression probably formed in the same manner as those on Millungera and Gilberton 1:250,000 Sheet areas, but on Bulimba Formation rather than Wyaaba Beds. These units are lithologically similar.

BMR WEIPA 6. depth 6.1 m.

LOCATION: On road from telegraph line to Agnew, sited on top of a low mesa. 12°11'S, 142°29'E.

LOG: 0-1.4 m red-brown sandy clay with ferruginous nodules and pisolites up to 1.4 cm, generally 2-3 mm diameter.

1.4-5.5 m mottled red and yellow sandy clay, with ferruginous nodules; some pisolites in the upper part.

5.5-6.1 m white, silty clay, with minor red-brown staining. Leached appearance.

INTERPRETATION: the section down to 5.5 m appears to be lateritized Bulimba Formation. The section from 5.5-6.1 m may be leached mudstone of the Rolling Downs Group or part of the Bulimba Formation.

BMR WEIPA 7.          depth 7.3 m

LOCATION:            On road from telegraph line to Agnew  
12°13'S, 142°24'E.

LOG:                0-7.3 m. grey-white silty clay, stained  
red-brown and yellow, particularly in upper  
part. Some pisolites in top 1 m.

INTERPRETATION: slightly weathered Rolling Downs Group  
siltstone. The pisolites developed as part  
of the pedological profile.

BMR WEIPA 8.          depth 9.1 m

LOCATION:            100 m west of Bertiehaugh Creek crossing on  
Agnew road. 12°11'S, 142°21'E.

LOG:                0 - 2.1 m. red-brown slightly sandy clay  
grading down into red ferruginized quartzose  
clayey medium-grained sandstone.  
  
2.1-9.1 m. stiff grey clay, slightly silty,  
with red staining in top few metres and  
some yellow-brown staining in lower part.  
Water from about 7.6 m.

INTERPRETATION: 0 to 2.1 m is probably weathered Bulimba  
Formation; below it is Rolling Downs Group.

BMR CAPE WEYMOUTH 3

Depth 10.4 m  
Elevation 61 m

LOCATION:            Telegraph line, on south facing slope 1.6 km  
north of Palm Creek 12°02'S, 142°32½'E.

LOG:                Spudded into khaki silt and very fine sand.

0 - 1.8 m           dark red silt and ironstone pebbles of  
ferruginized quartz sand.

1.8 - 3.7 m        khaki and light red mottled fine green clay.  
Slightly micaceous.

3.7 - 7.3 m        chunks of light green - grey fine claystone,  
becoming glauconitic from 6.4 m.

7.3 - 10.4 m      light brown-green, well sorted and rounded  
slightly clayey glauconitic quartz  
sandstone.

INTERPRETATION: (0-3.7 m) part of the predominantly  
argillaceous Rolling Downs Group (Klr)  
weathered to soil at top (7.3 - 10.4 m); a  
sandy bed in the Group.

BMR CAPE WEYMOUTH 4

Depth 6.7 m  
Elevation 57.9 m

LOCATION: On rough track 5 km northwest of Bramwell homestead 12°07'S, 142°35'E.

LOG: Spudded into fawn silt and fine sand.

0 - 1.8 m red sticky clay and fine glauconitic quartz sand.

1.8 - 6.7 m soft khaki - light green, moderately sorted, and rounded, slightly clayey, medium - fine labile glauconitic sandstone. Chunks of fine sandy claystone at bottom.

INTERPRETATION: recently ferruginized sandy bed of the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 5

Depth 10.1 m  
Elevation 85.3 m

LOCATION: On track 13 km north west of Bramwell homestead 12°04½'S, 142°42'E.

LOG: Spudded into fawn medium - fine sand and silt.

0 - 1.8 m dark red to white mottled fine sandy claystone.

1.8 - 5.5 m pale green fine micaceous claystone

5.5 - 10.1 m light brown - green slightly micaceous claystone.

INTERPRETATION: a bed of the Rolling Downs Group (Klr), weathered to ferruginous soil near the surface.

BMR CAPE WEYMOUTH 6

Depth 6.7 m  
Elevation 79.3 m

LOCATION: On track 4.8 km south of Running Creek 12°04'S, 142°44'E.

LOG: Spudded into white and grey, poorly sorted coarse quartz sand and silt.

0 - 1.8 m yellow, poorly-sorted, clayey medium-grained quartz sand.

1.8 - 3.7 m dark red clayey medium-grained quartz sand.

3.7 - 6.7 m white, wet, clayey quartz sand.

INTERPRETATION: Helby Beds (JKb), weathered to ferruginous soil.

BMR CAPE WEYMOUTH 7

Depth 17.7 m  
Elevation 103.6 m

LOCATION: On ridge-crest, 6 km northeast of Bramwell homestead 12°06'S, 142°39'E.

LOG: Spudded into light brown fine quartz sand and silt with scattered pebbles of ferruginized quartz sand.

0 - 1.8 m ferruginized mottled, light green silt and very fine sandy claystone.

1.8 - 3.7 m a/a less iron

3.7 - 7.3 m light green laminated claystone.

7.3 - 17.7 m light grey (khaki weathering) fine laminated micaceous siltstone, becoming glauconitic from 12.8 m.

INTERPRETATION: Rolling Downs Group (Klr), weathered to a ferruginous soil near the surface.

BMR CAPE WEYMOUTH 8

Depth 1.8 m  
Elevation 79.3 m

LOCATION: 3.2 km east of Bramwell homestead and to west of white siltstone knoll, on 'melonhole' plain 12°09'S, 142°39'E.

LOG: Spudded into fawn-khaki silt and fine sand with scattered pebbles of ferruginized, white, fissile siltstone, khaki, medium-fine, well sorted labile sandstone and greenish limestone

0 - 1.8 m no samples, a/a  
hit very hard band (limestone?) at 1.8 m.

INTERPRETATION: a nodular limestone band within the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 9

Depth 4.6 m  
Elevation 67.1 m

LOCATION: 1.6 km east of Bramwell homestead 12°09'S, 142°38'E.

LOG: Spudded into fawn-khaki silt and fine sand.

0 - 1.8 m chunks of brown fine sandy clay.

1.8 - 4.6 m green, moderately sorted, medium-fine labile glauconitic sandstone.

INTERPRETATION: a sandy bed of the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 10

Depth 7.3 m  
Elevation 83.8 m

LOCATION: At telegraph line, on a hill crest 1.6 km north of 20 Mile Creek 12°09'S 142°34'E.

LOG: Spudded into fawn-brown, fine sand and silt with ferruginized pebbles of medium-fine labile? sandstone.

0 - 1.8 m dark red silt, fine quartz sand, and pebbles of brown, very poorly sorted, clayey quartzose sandstone.

1.8 - 7.3 m dark red and white mottled, fissile siltstone above white claystone becoming very hard to drill at 7.7 m giving cuttings of fine coarse labile sandstone.

INTERPRETATION: argillaceous and sandy beds with the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 11

Depth 6.7 m  
Elevation 54.9 m

LOCATION: Telegraph line, north bank of 20 Mile Creek 12°10'S, 142°34'E.

LOG: Spudded into khaki silt and fine sand.

0 - 3.7 m khaki clay.

3.7 - 6.7 m hard, green-grey laminated claystone, slightly micaceous.

INTERPRETATION: weathered argillaceous Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 12

Depth 3.7 m  
Elevation 48.8 m

LOCATION: Telegraph Line, on south bank of Schramm Creek. 12°22½'S 142°37'E

LOG: Spudded into brown silt.

0 - 3.7 m orange medium grained quartz sand. struck very hard band at 3.7 m - conglomeratic ferricrete which crops out in creek, made up of rounded pebbles and boulders of ferruginized siltstone cemented by iron.

INTERPRETATION: pebbly ferricrete below recent alluvium, showing that the ferruginized horizon is continued to the existing stream channel which is floored by a hard crust of iron-cemented siltstone pebbles (TQf).

BMR CAPE WEYMOUTH 13

Depth 8.5 m  
Elevation 106.7 m

LOCATION: Telegraph line, on hilltop 3 km south of Schramm Creek 12°24'S 142°37'E.

LOG: Spudded into white-fawn very poorly sorted iron-cemented quartz sand and gravel.

0 - 6.7 m red, very poorly sorted, angular, silty granular quartz sand, with several pebbles of clean coarse quartz sandstone.

6.7 - 8.5 m soft white claystone (no quartz).

INTERPRETATION: ferruginized Bulimba Formation (KTi, 0 - 6.7 m) resting on argillaceous Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 14

Depth 5.5 m  
Elevation 67.1 m

LOCATION: Telegraph line, 1.5 km north of Moreton Telegraph Station 12°22'S 142°38'E.

LOG: Spudded into fawn-white poorly sorted quartz sand and silt.

0 - 1.8 m light brown-khaki silty medium quartz sand

1.8 - 5.5 m dark red ferruginized light green claystone.

INTERPRETATION: recently ferruginized claystone of the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 15

Depth 12.2 m  
Elevation 36.6 m

LOCATION: 1.8 km west of Moreton Telegraph Station 12°22'S 142°37½'E.

LOG: Spudded into fawn silt and fine sand

0 - 1.8 m green and brown flecked soft sandy claystone (sand poorly sorted, coarse - medium grained, quartzose).

1.8 - 3.7 m white slightly clayey coarse-medium quartz sandstone.

3.7 - 5.5 m brown fine sandy clay.

5.5 - 11.3 m brown clayey quartz sand. Watertable at 10.4 m.

11.3 - 12.2 m wet white clayey medium quartz sand.



INTERPRETATION: Bulimba Formation (KTi) (which here constitutes an old valley-fill type deposit presently being eroded by the Wenlock River).

BMR CAPE WEYMOUTH 16

Depth 12.2 m  
Elevation 48.8 m

LOCATION: On the western bank of the Wenlock River 2 km south of Moreton Telegraph Station 12°28'S, 142°39'E.

LOG: Spudded into chocolate brown, medium - coarse quartz sand and silt.

0 - 1.8 m tan well sorted medium - fine quartz sand

1.8 - 12.2 m tan, slightly clayey coarse - medium quartz sand

INTERPRETATION: young, unconsolidated alluvial deposits of the Wenlock River (Qa).

BMR CAPE WEYMOUTH 17

Depth 7.3 m  
Elevation 42.7 m

LOCATION: On a track 1.6 km east of the Telegraph line, 8 km south of Moreton Telegraph Station 12°31'S 142°40½'E.

LOG: Spudded into fawn, medium sand

0 - 1.8 m chunks of red poorly sorted medium quartz sand

1.8 - 7.3 m grey-white, poorly sorted, clayey, medium quartz sandstone

INTERPRETATION: a sandy bed of the Rolling Downs Group. (Klr).

BMR CAPE WEYMOUTH 18

Depth 8.5 m  
Elevation 42.7 m

LOCATION: Telegraph line, small hill 9.7 km south of Moreton Telegraph Station 12°32'S, 142°39'E.

LOG: Spudded into light grey silt.

0 - 1.8 m Chunks of red and white, slightly clayey medium - fine pure quartz sandstone and some ferruginized sand and silt.

1.8 - 5.5 m flakes of hard, fissile, light green claystone

5.5 - 7.3 m fawn-brown, fissile siltstone

7.3 - 8.5 m dark grey massive siltstone

INTERPRETATION: argillaceous bed in the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 19

Depth 5.5 m  
Elevation 109.7 m

LOCATION: Telegraph line, on hill crest, 0.8 km south of Batavia Downs homestead 12°40'S, 142°41'E.

LOG: Spudded into fawn silt, quartz and pebbles of ferruginized silt and quartz sand.

0 - 4.6 m chunks of white-green weathered ferruginized claystone

4.6 - 5.5 m chunks of khaki medium-grained labile glauconitic sandstone

INTERPRETATION: argillaceous Rolling Downs Group (Klr), with a sandy interbed (4.6 m).

BMR CAPE WEYMOUTH 20

Depth 5.5 m  
Elevation 56 m

LOCATION: On Batavia Downs - Wenlock River track, 13 km east of the telegraph line 12°39'S, 142°46'E.

LOG: Spudded into claypan: white, medium grained quartz sand.

0 - 1.8 m white, very poorly sorted, clayey coarse, quartz sandstone.

1.8 - 5.5 m hard, green-grey, medium-fine quartz sandstone (slightly glauconitic?)

INTERPRETATION: sandy bed within the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 21

Depth 7.3 m  
Elevation 70.1 m

LOCATION: On Batavia Downs - Wenlock River track, 9 km east of the telegraph line 12°39'S, 142°45'E.

LOG: Spudded into khaki silt and pebbles of iron-cemented silt on a 'melonhole' surface.

0 - 4.3 m khaki weathering, fine laminated green siltstone

4.3 - 7.3 m      chunks of green, poorly sorted, angular,  
medium to fine labile sandstone

INTERPRETATION: (part of an interbedded sequence) of fine  
argillaceous and sandy sediments towards the  
base of the Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 22

Depth 6.7 m  
Elevation 80 m

LOCATION:            On Batavia Downs - Wenlock River track,  
10 km east of the telegraph line 12°39'S,  
142°46'E.

LOG:                Spudded into light brown, medium sand and  
silt.

0 - 1.8 m           khaki and red, ferruginized clayey medium  
quartz sand

1.8 - 3.7 m        dark red fine sandy clay with chunks of  
green claystone

3.7 - 6.7 m        ferruginized fine labile? sandstone.

INTERPRETATION: slightly ferruginized sequence of  
interbedded sandstone and claystone of the  
Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 23

Depth 6.7 m  
Elevation 62 m

LOCATION:            On Batavia Downs - Wenlock River track,  
12 km east of the telegraph line 12°39'S  
142°47½'E.

LOG:                Spudded into red, medium grained sand.

0 - 1.8 m           dark red sandy clay and rounded pebbles of  
ferruginized medium-fine quartz sandstone.

1.8 - 6.7 m        chunks of white sandy claystone and poorly  
sorted, angular, fine quartz sandstone.

INTERPRETATION: recently ferruginized sandy bed of the  
Rolling Downs Group (Klr).

BMR CAPE WEYMOUTH 24

Depth 4.9 m  
Elevation 106.7 m

LOCATION:            Telegraph line, 0.8 km south of Heskett  
Creek 12°39'S, 142°48'E.

LOG:                Spudded into light grey silt and pebbles of  
ferruginized silt and clay

0 - 1.8 m           red-brown weathering green claystone

1.8 - 4.9 m green, claystone

INTERPRETATION: argillaceous rocks of the Rolling Downs Group (Klr).

BMR AURUKUN 3

Depth 9.4 m

LOCATION: Junction of Don Yard fence line with road to Peret. 13°39'S, 141°36'E.

LOG: 0 - 9.4 m quartzose, clayey sand, fine to coarse-grained, and sandy clay. Top 5.4 m is stained red and brown, with pisolites 1-10 mm diameter. Lower portion cream sandy clay. Water saturated from 8.2 m. The pisolites and iron staining represent the younger laterite weathering event of the area (Doutch et al., 1973).

INTERPRETATION: Wyaaba Beds, top part weathered.

BMR AURUKUN 8

Depth 6.4 m

LOCATION: 0.8 km southeast of Ti-Tree Outstation 14°00'S, 141°41'E.

LOG: 0 - 6.4 m clayey quartzose sand, fine to very coarse grained, and sandy clay. Upper part red stained to about 4.5 m. Lower part grey-white sandy clay. The iron staining is probably the only representation in this area of the younger lateritic weathering event of Douth et al. (1973).

INTERPRETATION: Wyaaba Beds top part weathered.

BMR AURUKUN 11

Depth 10.4 m

LOCATION: Wyan Camp 13°55'S, 141°38'E.

LOG: 0 - 4.3 m quartzose sand, medium to fine grained  
4.3 - 10.4 m white very clayey quartzose sand, coarse grained. Last 2 m. reddish brown. Hard drilling at 10.4 m. Water from 3.35 m.

INTERPRETATION: 0 - 4.3 m is probably beach ridge sand, and the section below 4.3 m is Wyaaba Beds.

BMR AURUKUN 12

Depth 7.1 m

LOCATION: About 3 km west of Kenchering Camp, on western edge of old beach ridge 13°30'S, 141°35'E.

LOG: 0 - 7.1 m yellowish clayey quartzose sand,  
medium to very coarse grained.

INTERPRETATION: Wyaaba Beds

BMR AURUKUN 17

Depth 8.5 m

LOCATION: 15 km south of Peret, on old beach ridge  
13°43'S, 141°33'E.

LOG:

0 - 7.9 m quartzose sand, medium to very coarse  
grained. Red-brown in upper part, becoming  
grey-brown at depth. A few small shell  
fragments below 6.4 m.

7.9 - 8.5 m clayey quartzose sand, medium to very  
coarse, white to creamy. Water below 5.5 m.

INTERPRETATION: 0 - 7.9 m, old beach ridge sand (Qm);  
7.9 - 8.5 m, Wyaaba Beds.

BMR AURUKUN 18

Depth 8.5 m

LOCATION: Peret Outstation, 6 m northeast of well  
13°42'S, 141°33'E.

LOG:

0 - 5.5 m slightly clayey quartzose sand, medium to  
very coarse grained. Grey, brown yellowish.

5.5 - 8.5 m clayey quartzose sand, medium to very  
coarse, pale cream. Lowermost part, sandy  
clay. Water from 3.7 m.

INTERPRETATION: old beach ridge sand (Qm) to 5.5 m; Wyaaba  
Beds to 8.5 m.

BMR AURUKUN 19

Depth 4.5 m

LOCATION: In swamp, 3 km from Peret, on Bamboo road  
13°41'S, 141°35'E.

LOG:

0 - 0.3 m dark grey-brown clayey sandy soil

0.3 - 4.5 m grey brown sandy clay. Sand medium to very  
coarse grained. Water from 1.5 m

INTERPRETATION: top 0.3 m is clay soil derived from Wyaaba  
Beds; soil at surface of swamp. 0.3 - 4.5 m  
Wyaaba Beds.

BMR AURUKUN 20

Depth 4.5 m

LOCATION: Loye River crossing of Peret-Bamboo road  
13° 37½'S, 141° 38'E.

LOG:

0 - 0.3 m soft grey-white sandy clay  
0.3 - 3.7 m stiff dark grey mud, minor sand grains,  
becoming softer and greenish in colour below  
1.5 m  
3.7 - 4.5 m grey white clayey quartzose sand, with some  
quartzose pebbles up to 10 mm diameter.  
Salt water from 3.0 m.

INTERPRETATION: 0 - 3.7 m coastal deposits (Qac);  
3.7 - 4.5 m Wyaaba Beds.

BMR AURUKUN 21

Depth 3.7 m

LOCATION: 15 m southeast of fence corner on Peret  
- Merapah road 13° 37'S, 141° 39'E.

LOG:

0 - 3.7 m clayey quartzose sand, medium to coarse  
grained, with pisolites up to 6 mm diameter  
from 1.2 m down. Colour grey-fawn in upper  
part, reddish below 0.8 m.

INTERPRETATION: Wyaaba Beds, with pisolitic horizon probably  
due to the younger lateritic weathering  
event of Douth et al. (1973).

BMR AURUKUN 22

Depth 4.5 m

LOCATION: 15 m west of Peret - Merapah road, 6 km  
south of fence to Archer River 13° 38½'S,  
141° 41½'E.

LOG:

0 - 2 m loose quartzose sand, fine to very coarse,  
but dominantly fine to medium grained, with  
some pisolites up to 6 mm diameter; clayey  
silt. Red-brown.  
2 - 4.5 m very sandy claystone, minor pisolites,  
fawn - pinkish

INTERPRETATION: Bulimba Formation. The pisolites are  
probably part of the younger lateritic  
weathering event of Douth et al. (1973) as  
the main laterite surface (TQa) is absent in  
this area.

BMR AURUKUN 23

Depth 4.6 m

LOCATION: About 20 km south of fence corner near Archer River, on Peret - Merapah road, 30 m from small lagoon 13°43'S, 141°50'E.

LOG: 0 - 2.1 m brown slightly clayey medium to very coarse quartzose sand, some red and white mottling

2.1 - 4.6 m fawn and grey clayey sand as above. Cuttings damp, but no water.

INTERPRETATION: Bulimba Formation; mottling due to pedological processes.

BMR AURUKUN 24

Depth 8.5 m

LOCATION: Blue Lagoon on Peret - Merapah road 13°44'S, 141°53'E.

LOG:

0 - 1.2 m red-brown sand and gravel, sand fine to very coarse, quartzose, iron stained. Granule gravel and pebbles up to 1 cm diameter of hard ferruginous clayey quartzose sandstone.

1.2 - 8.5 m clayey quartzose sand, medium to very coarse and sandy clay. Minor ferruginous granule gravel in upper part. Pinkish-brown and grey. Minor local iron staining. Water from 6.7 m.

INTERPRETATION: Bulimba Formation; iron staining due to pedological processes.

BMR AURUKUN 25

Depth 8.5 m

LOCATION: Koawa Lagoon, on Peret-Merapah road 13°43'S, 141°58'E.

LOG:

0 - 8.5 m clayey and silty quartzose sand and sandy clay. Sand medium to very coarse, quartzose. Grey and brown, reddish and yellowish in upper part. Water from 3 m.

INTERPRETATION: Bulimba Formation.

BMR AURUKUN 26

Depth 8.5 m

LOCATION: On Peret - Merapah road, 10 km west of Middle Camp Yards 13°45'S, 142°13'E.

LOG:

0 - 8.5 m      clayey, silty sand and sandy clay. Sand quartzose, medium to very coarse grained, minor granule sized grains. Brown grey, minor yellow-red and pinkish staining in upper part, white below 5 m. Some mottling between 1.2 and 3.7 m.

INTERPRETATION:      Bulimba Formation; mottling due to pedological processes.

BMR AURUKUN 27

Depth 6.4 m

LOCATION:      East side of Tentpole Creek, on Peret - Merapah road 13°46'S, 142°19'E.

LOG:

0 - 1 m      clayey sandy soil, sand quartzose, medium to coarse. Grey and red-brown.

1 - 2.7 m      clayey silt and fine sand and weathered? labile fine grained sandstone. Red - orange brown.

INTERPRETATION: top 1 m is probably soil. 1 - 2.7 m is weathered Rolling Downs Group.

BMR AURUKUN 28

Depth 2.7 m

LOCATION:      About 1.5 km along track from Peret turnoff, near Middle Camp Yards 13°47'S, 142°20'E.

LOG:      0 - 2.7 m grey-brown sandy clayey soil, with red and orange mottling in lower part. Some fragments of weathered? labile sandstone.

INTERPRETATION: Rolling Downs Group, weathered in upper part to clay soil, with mottling.

BMR AURUKUN 29

Depth 11.9 m

LOCATION:      Plateau south of Merapah homestead 13°50'S, 142°20'E.

LOG:      Figure 3.

INTERPRETATION: Aluminous laterite (TQa) to 6 m; Bulimba Formation to 11.9 m.

BMR COEN 3

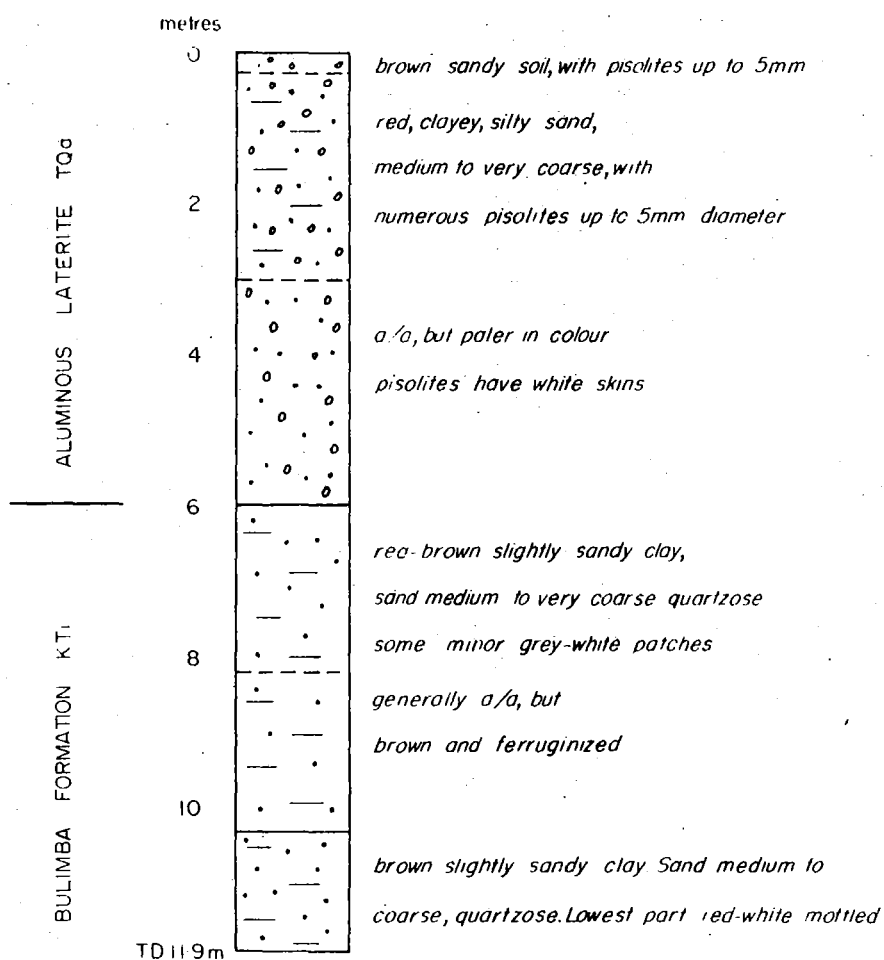
Depth 11.0 m

LOCATION:      On Merapah/Coen road, 7 km west of Coen River. 13°41'S, 142°32'E.



BMR AURUKUN 29

Figure 3



To accompany Record 1974/75

M/S/331

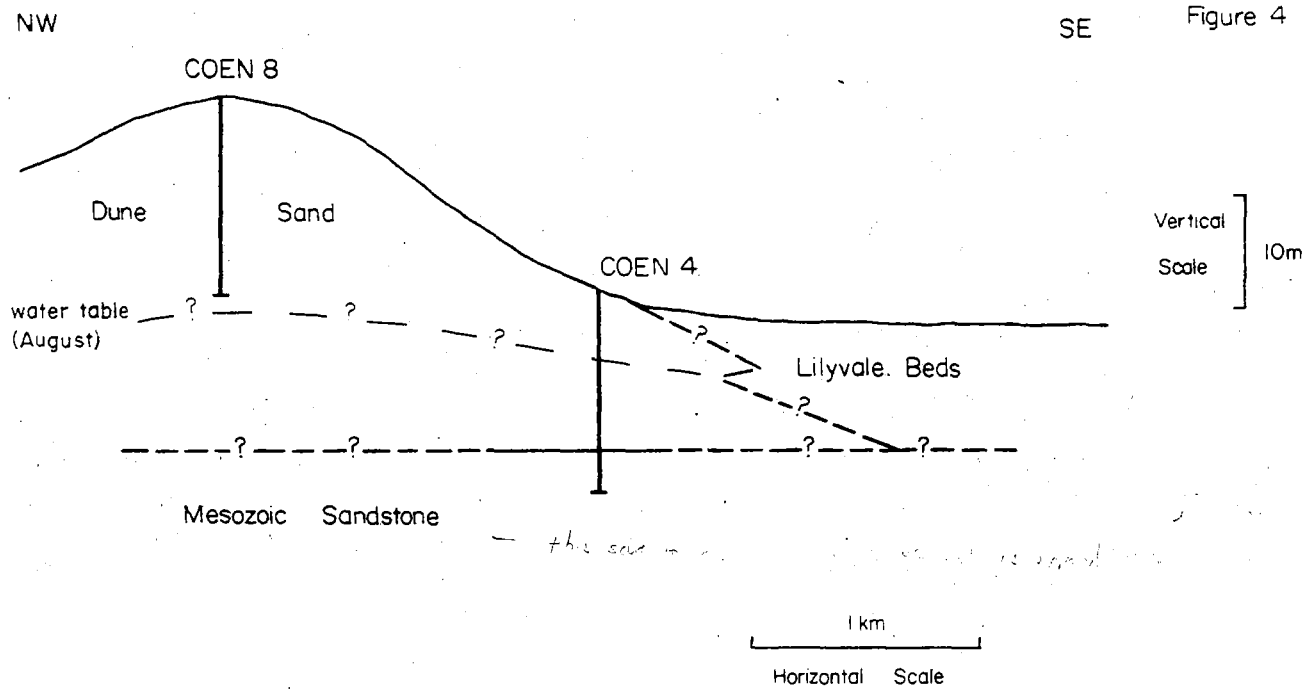


Figure . Diagrammatic cross-section through auger holes Coen 4 and 8 with the probable interpretation of the boundary between the Dune Sand and the Lilyvale Beds

To accompany Record 1974/75

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LOG:

- 0 - 3.0 m      yellow and red medium to fine grained slightly clayey quartzose sand with pisolites up to 6 mm (average 2 - 5 mm) diameter
- 3.0 - 11.0 m    white, silty clay with minor pisolites in upper part and brown, pinkish and purple staining throughout.

INTERPRETATION: Bulimba Formation, slightly weathered. The pisolitic interval between 0 and 3 m probably represents a partially stripped part of the older lateritic weathering event of Douth et al. (1973).

BMR COEN 4

Depth 17.7 m

LOCATION:      About 10 km north-northwest of Silver Plains homestead, on the track to the Chester River; 13°54'S, 143°31'E. The hole was situated about 300 m north of the southern edge of an area of thickly vegetated sand rises. The age, source and stratigraphic relationships of this sand was unknown prior to drilling.

LOG:

- 0 - 14.0 m      white medium-grained well sorted rounded, grading to moderately to well sorted sub-rounded to subangular quartz sand, which is thixotropic when wet. The water table was at about 6 m at the time of drilling (August).
- 14.0 - 17.7 m    grey-green medium grained poorly sorted subangular clayey sandstone made up of quartz, rock fragments and glauconite, weathered to sand above 17 m.

INTERPRETATION: The quartzose sand is thought to be an aeolian dune deposit as the sorting and shape characteristics of the sand grains and the photopattern of the deposit resemble those of Quaternary dune deposits about 150 km to the north in CAPE WEYMOUTH and ORFORD BAY, e.g., in the Olive River Dunefield (Gibson in: Douth et al., 1973). The age of this sand deposit is discussed in the interpretation of BMR Coen 8 below.

The labile sandstone was probably deposited in a northern extension of the Mesozoic Laura Basin. It is probably not of Cainozoic age, as no Cainozoic sediments encountered so far on Cape York Peninsula are glauconite-bearing.

BMR COEN 5

Depth 3.0 m

LOCATION: About 16 km northwest of Silver Plains homestead on the track to the Chester River; 13°51'S, 143°28'E. The hole was sited on a well-timbered knoll on which basalt of possible Cainozoic age had been found.

LOG:

0 - 2.4 m grey, grading through yellow to red, loam  
2.4 - 3.0 m brownish yellow loam with fragments of quartz-mica schist.

INTERPRETATION: the hole penetrated soil formed on the Proterozoic Dargalong Metamorphics, (as shown on the first preliminary edition of COEN), and the basalt which had been found is part of that unit.

BMR COEN 6

Depth 9.8 m

LOCATION: About 20 km northwest of Silver Plains homestead on the track to the Chester River; 13°50'S, 143°28'E.

LOG:

0 - 1.0 m grey medium to fine-grained very clayey quartzose sand  
1.0 - 2.5 m reddish medium to coarse-grained poorly sorted very clayey feldspathic quartzose sand.  
2.5 - 5.0 m grey medium to fine-grained very clayey quartzose sand  
5.0 - 9.8 m as far interval 1.0 - 2.5 m, but yellowish also.

INTERPRETATION: Lilyvale Beds.

BMR COEN 7

Depth 10.4 m

LOCATION: About 15 km northwest of Silver Plains homestead on the track to the Chester River; 13°52'S, 143°28'E. The hole was sited on a sparsely vegetated low sandy plain.

LOG:

0 - 10.4 m      medium to coarse grained angular very poorly sorted      very clayey      quartzose      sand. Yellowish.

INTERPRETATION: Lilyvale Beds.

BMR COEN 8

Depth 17.7 m

LOCATION:      About 11 km north-northwest of Silver Plains homestead on the track to the Chester River; 13° 53'S, 143° 30'E. The hole was sited on the crest of the sand rise described in Coen 4, and was about 1.8 km northwest of Coen 4.

LOG:

0 - 17.7 m      white medium grained well sorted subrounded quartzose sand, becoming damp and slightly brownish at 11.5 m

INTERPRETATION: The hole penetrated aeolian dune sand as interpreted for Coen 4. Barometer (altimeter) measurements show Coen 8 to be about 17 m higher than Coen 4. The difference in elevation and the logs of Coen 4 and 8 are not enough to determine the stratigraphic relationship between the dune sand and the Lilyvale Beds. However, it is thought to be most likely that the dune sand underlies the Lilyvale Beds present in this area. A diagrammatic section through Coen 4 and 8 showing this interpretation is shown in figure

It is hoped to carry out further drilling in 1974 to provide more information about the sand body and the sandstone encountered at the base of Coen 4.

Although the watertable was not encountered in Coen 8, there is extremely thick vegetation with many shrubs, trees and vines growing in the sand. It is thought that the dune is a perched open aquifer.

The quartz sand in Coen 4 and 8 is only slightly contaminated by clay, and may be sufficiently pure for glass-making.

BMR COEN 10

Depth 3.0 m

LOCATION:      About 13 km west-northwest of Coen, on the old Coen/Rokeby road; 13° 54'S, 143° 05'E. The hole was sited on a sandy rise.

LOG:

0 - 0.6 m            grey loam  
0.6 - 3.0 m        yellowish loam, apparently derived from  
                     weathered granite.

INTERPRETATION: weathered granitic rock.

BMR COEN 11

Depth 14.0 m

LOCATION:            About 22 km west-northwest of Coen on the  
                     old Coen/Rokeby road; 13°52'S, 143°01'E.  
                     The hole was sited on a sandy rise.

LOG:

0 - 0.6 m            grey loam  
0.6 - 5.5 m        red loam, slightly pisolitic around 1.8 m  
5.5 - 14.0 m       medium to coarse grained very clayey  
                     micaceous quartz sand.

INTERPRETATION: Cainozoic residual sand (Czs) to 5.5 m over  
sediment equivalent to the Falloch Beds  
(Czh), which occur several kilometres to the  
northeast.

BMR COEN 12

Depth 8.5 m

LOCATION:            About 7 km east of Jabiru outstation on the  
                     old Coen/Rokeby road; 13°49'S, 142°51'E.  
                     The hole was sited on a well timbered sandy  
                     rise thought to be made up of Gilbert River  
                     Formation.

LOG:

0 - 1.2 m            grey-brown loam  
1.2 - 4.3 m        red pisolitic sandy soil  
4.3 - 8.5 m        creamish-brown loam, with a pebble band at  
                     4.6 m, grading into weathered "granite"  
                     containing quartz, feldspar, muscovite and  
                     biotite.

INTERPRETATION: weathered igneous basement rock.

BMR COEN 13

Depth 6.7 m

LOCATION:            About 1½ km east of Jabiru Outstation on the  
                     old Coen/Rokeby road; 13°49'S, 142°51'E.

LOG:

0 - 0.6 m light grey-brown loam  
0.6 - 2.7 m ferruginous clay, pisolitic from 1.2 to 1.8 m  
2.7 - 4.6 m very light grey slightly sandy clay  
4.6 - 6.7 m clay as above - interbedded with khaki fine to medium grained sandstone

INTERPRETATION: weathered mudstone and sandstone of the Rolling Downs Group.

BMR COEN 14

Depth 3.0 m

LOCATION: About 1 km east of Jabiru Outstation, on the old Coen/Rokeby road; 13°49'S, 142°51'E.

LOG:

0 - 0.6 m light grey-brown loam  
0.6 - 2.1 m red (ferruginous) loam, some pisolites.  
2.1 - 3.0 m light grey clay.

INTERPRETATION: weathered mudstone of the Rolling Downs Group (Klr). The pisolites are a result of pedological processes.

BMR COEN 15

Depth 6.7 m

LOCATION: About 100 m east of Jabiru Outstation; 13°49'S, 142°50'E.

LOG:

0 - 4.3 m grey sandy clay  
4.3 - 6.7 m reddish and greyish sandy clay

INTERPRETATION: Quaternary alluvium to 4.3 m, then Bulimba Formation (KTi).

BMR COEN 16

Depth 4.9 m

LOCATION: About 1 km north of Emu Creek, on the old Coen/Rokeby road; 13°47'S, 142°50'E.

LOG:

0 - 2.4 m hard red pisolitic sandy clay  
2.4 - 4.3 m creamish coloured slightly sandy clay  
4.3 - 4.9 m ferruginised fine to medium grained (?glaucinitic) quartz sandstone.

INTERPRETATION: weathered mudstone and sandstone of the Rolling Downs Group. The pisolites are thought to be a result of pedological processes.

BMR COEN 17.

Depth 6.7 m

LOCATION: About 11 km north of Jabiru Outstation, on the road to Rokeby; 13°44'S, 142°47'E.

LOG:

0 - 2.7 m grey to red loam, with fragments of very clayey sandstone  
2.7 - 6.1 m mottled medium to coarse grained very poorly sorted very clayey sandstone  
6.1 - 6.7 m cream slightly sandy (fine to medium grained) clay

INTERPRETATION: Bulimba Formation (KTi) to 6.1 m, then weathered mudstone of the Rolling Downs Group (Klr).

BMR COEN 18

Depth 6.7 m

LOCATION: About 15 km east of Rokeby homestead on the new Coen/Rokeby road; 13°39'S, 142°48'E.

LOG: 0 - 1.2 m light grey sand.  
1.2 - 6.7 m reddish loam with some pisolites, and creamish clay.

INTERPRETATION: weathered sediments of the Rolling Downs Group (Klr). The pisolites result from pedological processes.

BMR COEN 19

Depth 4.9 m

LOCATION: About 23 km west of Coen Airport, on the Coen/Rokeby road; 13°42'S, 142°54'E.

LOG: 0 - 0.6 m reddish sand  
0.6 - 4.9 m red loam, with pisolites and fragments of ferruginous sandstone

INTERPRETATION: weathered Gilbert River Formation. The pisolites probably result from pedological processes.

BMR COEN 20

Depth 3.0 m

LOCATION: About 11 km west of Coen Airport on the Coen/Rokeby road; 13°45'S, 143°01'E.



LOG:

0 - 0.3 m        white sand  
0.3 - 1.8 m      reddish-brown sandy loam  
1.8 - 3.0 m      yellow-brown clayey sand

INTERPRETATION: Colluvial sand (Czs) to 1.8 m, then Falloch Beds (Czh).

BMR COEN 21

Depth 5.8 m

LOCATION:        At the junction of the Kennedy Road and the road to Rokeby; 13°45'S, 143°06'E.

LOG:

0 - 0.3 m        light grey sand  
0.3 - 1.5 m      reddish loam  
1.5 - 4.9 m      coarse to very coarse poorly sorted angular clayey quartzose sand  
4.9 - 5.8 m      fine to medium grained poorly sorted angular clayey quartzose sand

INTERPRETATION: Quaternary alluvium (Qa) to 1.5 m then Falloch Beds (Czh).

BMR EBAGoola 1

Depth 6.1 m

LOCATION:        About 11 km southwest of Silver Plains homestead on new Coen/Silver Plains road; 14°03'S, 143°29'E.

LOG:

0 - 1.5 m        khaki-yellow loam  
1.5 - 2.1 m      red sandy clay with ferruginous pisolites.  
2.1 - 6.1 m      mottled sandy clay

INTERPRETATION: Quaternary alluvium and/or colluvial sand (Czs) to 1.5 m, then weathered Lilyvale Beds (Czv).

BMR EBAGoola 2

Depth 3.7 m

LOCATION:        About 10½ km southwest of Silver Plains homestead on new Coen/Silver Plains road; 14°03'S, 143°29'E.

LOG:

0 - 1.5 m        yellow - khaki loam

1.5 - 3.7 m      case hardened    light    grey    to brownish grey  
sandy clay

INTERPRETATION: Quaternary alluvium (Qa) to 1.5 m, then  
Lilyvale Beds (Czv).

BMR EBAGoola 3

Depth 6.7 m

LOCATION:      About 13½ km southwest of Silver Plains  
homestead on the new Coen/Silver Plains  
road; 14°05'S, 143°29'E.

LOG:

0 - 1.5 m      greyish-brown      poorly      sorted      angular  
quartzose sand

1.5 - 2.4 m      pisolitic sandy clay

2.4 - 6.7 m      mottled sandy clay

INTERPRETATION: Colluvial sand (Czs) to 1.5 m, then  
weathered Lilyvale Beds (Czv).

BMR EBAGoola 4

Depth 8.5 m

LOCATION:      About 11 km southeast of Coen and about  
300 m northeast of the Kennedy Road;  
14°01'S, 143°16'E.

LOG:

0 - 0.3 m      grey loam

0.3 - 8.5 m      yellowish      very      poorly      sorted      clayey  
quartzose sand

INTERPRETATION: weathered granitic basement rock.

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