DEPARTMENT OF MINES
SOUTH AUSTRALIA

REPORT ON DRILLING

QUARTZITE DEPOSIT - HD. CLARE, SECTION 331

(HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT)

by

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MINERAL RESOURCES SECTION

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No.	Title
60/31	Quartzite Deposit - Hd. Clare, Section 331. Plan - 100 ft. = 1 inch, and cross section. Locality Plan - 1 inch = 1 mile.

Rept. Bk. No. 50/32
G.S. No. 1613
D.M. 799/51

11th February, 1960

Rept. Bk. No. 50/52
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D.M. 799/51

Department of Mines
South Australia

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ABSTRACT

A bed of quartzite over 150 feet in thickness situated adjacent to the Clare - Mintaro road has been tested by diamond drilling to prove its suitability for road building.

Drilling has confirmed that there are over 2 million cubic yards of good quality quartzite available for quarrying.

INTRODUCTION:

A deposit of quartzite situated adjacent to the Clare-Mintaro road, nine miles from Clare, Hd. Clare, Section 331 was mapped by the writer in July 1951 (unpublished report).

Diamond drilling was undertaken during the period 25.1.60 - 4.2.60.

GEOLOGY:

A prominent quartzite formation enclosed by slates and siltstones outcrops boldly in the Clare region as indicated on the accompanying locality plan. The western limb of the structure dips steeply (80° to vertical); around the keel of the syncline through Mt. Horrocks and along the eastern limb the dips are low to moderate and in the mapped area are 20° - 30°. Some cross bedding was noted.

The quartzite is over 150 feet thick and appears to be up to 250 feet thick in some sections. It is a white fine to coarse grained, fairly massive stone.

In the mapped area quartzite outcrops strongly but the

slaten are soil covered.

DRILLING:

The diamond drill hole directed due east at 60° was drilled to fully penetrate the quartzite bed at the proposed quarry site.

Bedding makes an angle varying from 0° to 10° to the axis of the core confirming a dip of 20° to 25° of the bed. The recovered core shows whitish coloured sandstone quartzite through out to 115 feet. It is generally of fine to medium grain but some beds are coarse to gritty and these are generally less strongly bonded. The coarse grained bed is indicated on the accompanying cross section.

The overall core recovery in the quartzite interval is 75%.

A detailed log is appended.

CONCLUSIONS:

Down to the 50 feet contour level reserves in excess of 2,000,000 cubic yards of good quality sandstone-quartzite are available for quarrying. Losses due to overburden and to sandy intercalations would be small.

There is obviously a large quantity of stone suitable for road building in extensions of the bed.

K.R. JOHNS
SENIOR GEOLOGIST

KRJ:PAL
11/2/60

APPENDIX.

DIAMOND DRILL LOG

Project H. & L.G.D. D.H. 799/51

Bore No. 1 Bore Serial No. 93/60

Hundred Clare, Section 331 Driller R. Strempel

Bearing 90°. Depressed 60°

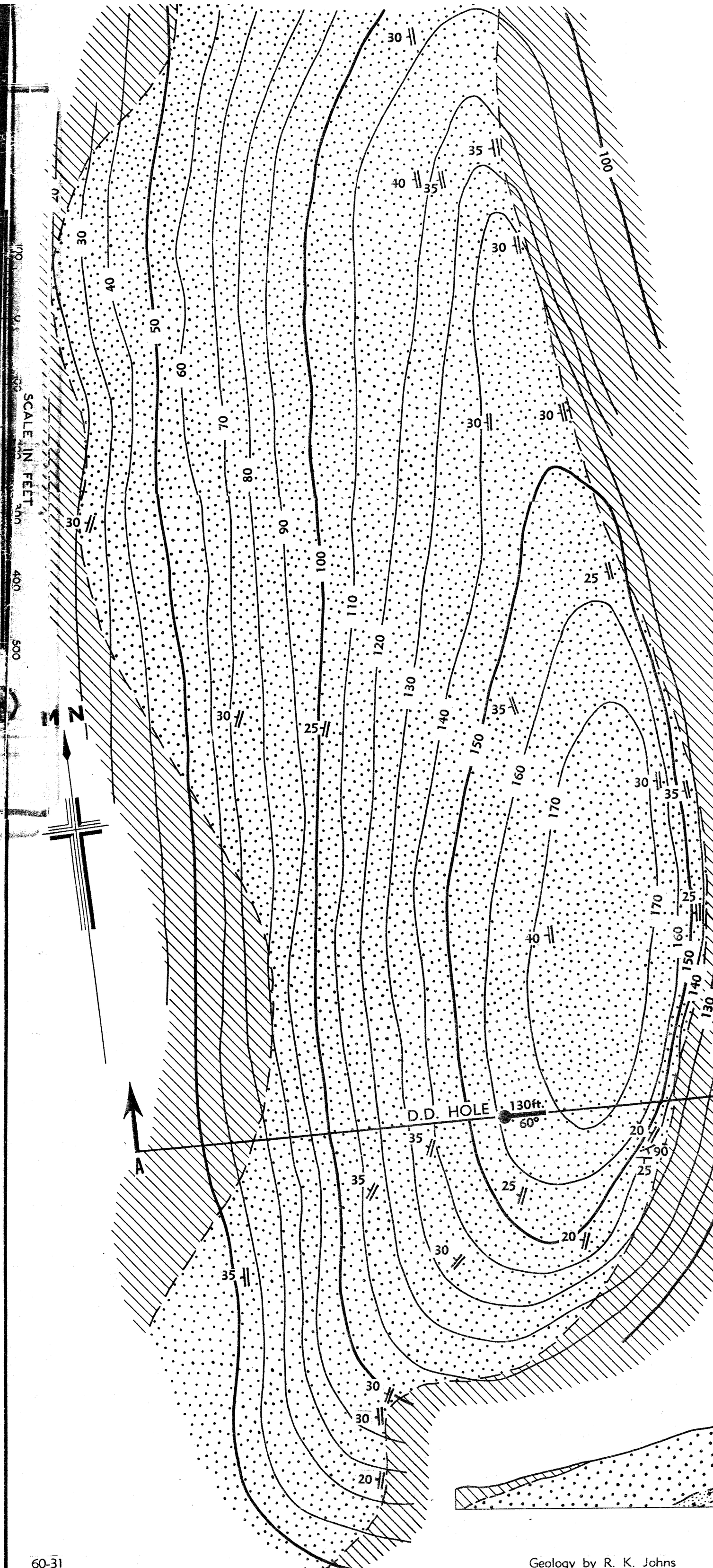
Date drilling commenced 25.1.60 Date drilling completed 4.2.60

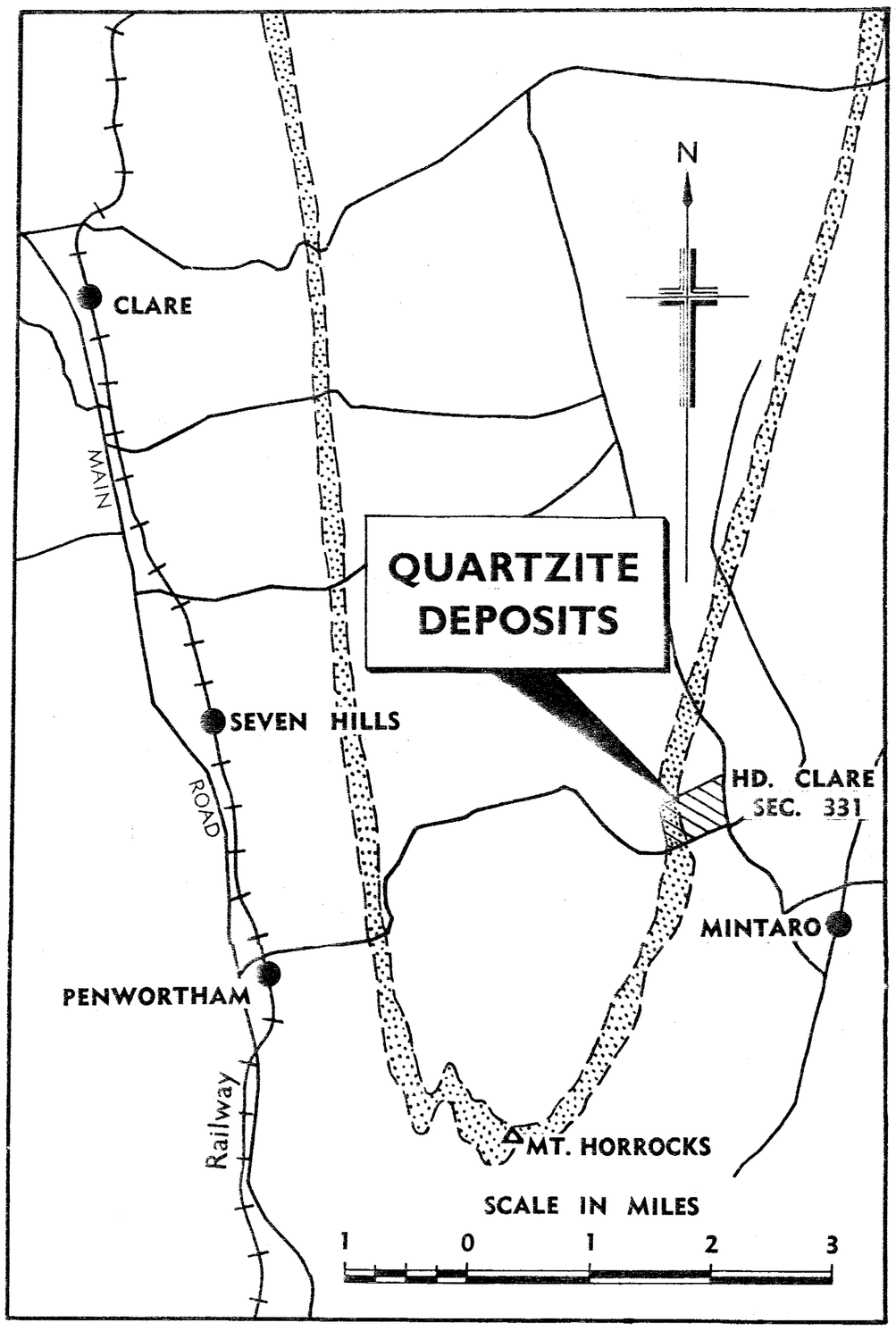
LOG

Depth From Ft.	Inchs	To Ft.	Inchs	Core Recovered Ft.	Inchs.	
	0	2	6	1	0	Off-white medium quartzite.
2	6	5	0	1	0	Grey quartzite.
5	0	7	9	1	10	Dense grey quartzite.
7	9	10	4	2	3	Medium-coarse quartzite.
10	4	13	0	2	0	Off-white sandstone-quartzite.
13	0	20	0	7	0	Grey-white fine-medium quartzite
20	0	40	0	19	6	White even fine grained quartzite
40	0	45	0	3	0	Fine to coarse sandstone-quartzite.
45	0	50	0	1	6	Gritty Sandstone.
50	0	69	3	10	0	Fine to coarse sandstone-quartzite.
69	3	78	6	8	0	Fine to coarse sandstone quartzite. Bedding at 10° to core axis.
78	6	93	6	15	0	Fine to medium quartzite, white with purple partings.
93	6	115	0	13	6	Fine grained quartzite.
115	0	120	0	0	6	Shaley sandstone.
120	0	130	0	sludge		Fine siltstone.

Bore logged by K. R. Johns.

9/2/60





LOCALITY PLAN

SCALE IN FEET

100 0 100 200 300 400 500

LEGEND

Quartzite

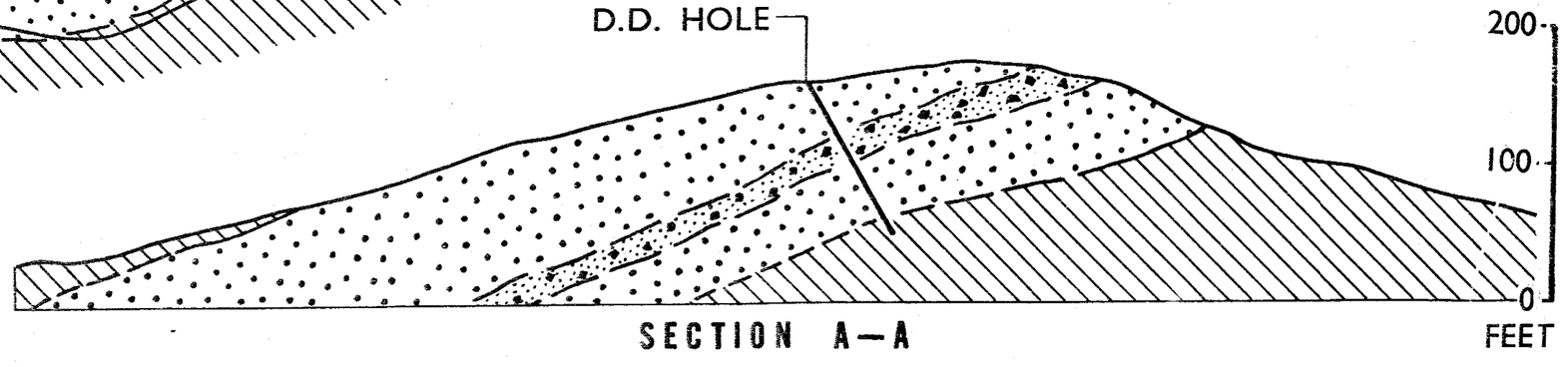
Gritty Quartzite

Slates, sandy shale

Strike and dip of bedding 35

Strike and dip of cleavage 25

Contours at 10ft intervals 50 40



SECTION A—A

Geology by R. K. Johns

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