

DEPARTMENT OF MINESSOUTH AUSTRALIAGEOLOGICAL SURVEY OF ROAD METAL DEPOSIT ON
SECTION 426S., HD. OF BUNDALEER, CO. VICTORIAINTRODUCTION:

At the request of the Highways and Local Government Department the quartzite seam near Abbeville was surveyed by the writer.

LOCATION:

In the Hd. of Bundaleer, Section 426 S. lies $2\frac{1}{4}$ miles east of Abbeville. The latter is 5 miles south-south-east of Georgetown.

PLANS: 54-23/

A locality plan and a topographic plan of the quartzite seam on Section 426 S. accompany this report. The topographic plan is on a scale of 100 feet to the inch, with a contour interval of 10 feet.

TOPOGRAPHY:

The southern boundary of the section is the road to Abbeville. This follows an east-west valley from which the land rises southwards to Mt. Misery and northwards within Section 426 S. Within the part of the section surveyed (see plan) a north-south ridge rises to 140 feet above the road. On the eastern and western flanks of the ridge are conspicuous bands of outcropping rock.

The remainder of the area is covered by soil and rock float, which is prominent on the slopes below the rock outcrops.

Near the southern end of the eastern rock outcrop is a quarry some 100 feet long and 80 feet wide. The floor is level. The maximum height of face is 20 feet, on the western side of the quarry.

GEOLOGY:

The rocks prominently exposed in Section 426 S.

are quartzites. They are of medium grain size with only small amounts of kaolinitic and ferruginous impurities. The quartzites are massive, compact, fresh and tough.

In the western face of the quarry thin quartzite seams with interbedded argillaceous layers are exposed; they are sheared and schistose. Those rocks are in contrast to the massive, unsheared quartzites in the remainder of the quarry.

The rocks of Section 426 S. strike north-south. The western band of quartzite dips at 58° to the east. The sheared and schistose rocks of the western face of the quarry are strongly contorted by numerous small folds. In the quarry the junction of these rocks with the overlying massive quartzites dips eastwards at 50° . The quartzites are fractured by joints, the more prominent of which strike parallel or perpendicularly to the strike of the bedding. The joints chiefly dip at steep angles to the horizontal.

RESERVES:

There is an estimated reserve of 170,000 cu. yards of stone in the eastern seam. This figure is for solid stone after the removal of 1 foot of soil and decomposed rock cover and allows for a 10% wastage in quarrying. The stone would be obtained by working northwards from the existing quarry along the strike of the rocks for some 600 feet, continuing the present floor level at 300 feet. The western face would be the lower margin of the quartzite seam. The eastern side of the quarry would be a face with a 60° batter. In such a quarry the floor would not be less than 80 feet wide. To quarry the estimated volume of stone would involve the removal of some 4,500 cu. yards of overburden from the eastern face.

Further reserves of stone exist in the western quartzite seam of Section 426 S. At the southern end it should be noted that, because of the thinness of the seam (55 feet) combined with the rise of the land surface, a quarry floor at 300 feet would narrow to less than 40 feet after working along the strike for some 300 feet. Farther north the

RESERVES: (Contd.)

seam thickens and quarrying northwards from the 450 foot level would allow a wider floor.

CONCLUSIONS:

Good quality road metal is obtainable from the quartzites of Section 426 S. The rocks are fresh, compact and tough. Their fracturing by joints should be an asset in quarrying.

An estimated volume of 170,000 cu. yards of solid stone would be yielded by working along the strike northwards from the existing quarry for some 600 feet. This operation would involve the removal of some 4,500 cu. yards of overburden.

There are further reserves of stone in the western quartzite seam of Section 426 S. This seam widens from 55 feet in the south to 100 feet in the northern part of the area surveyed. Therefore it would be better to quarry the seam in the north where the face would be bigger and the floor wider.

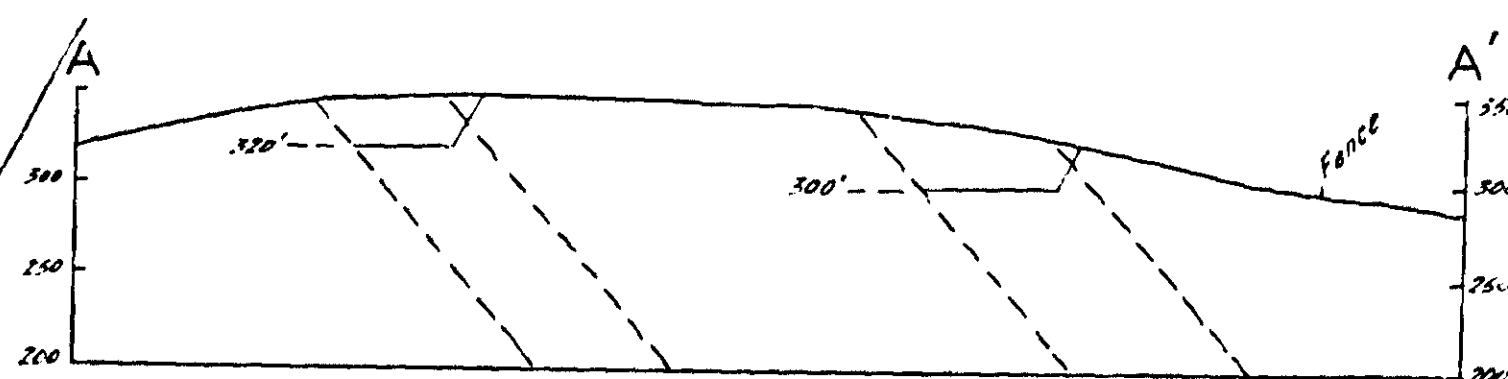
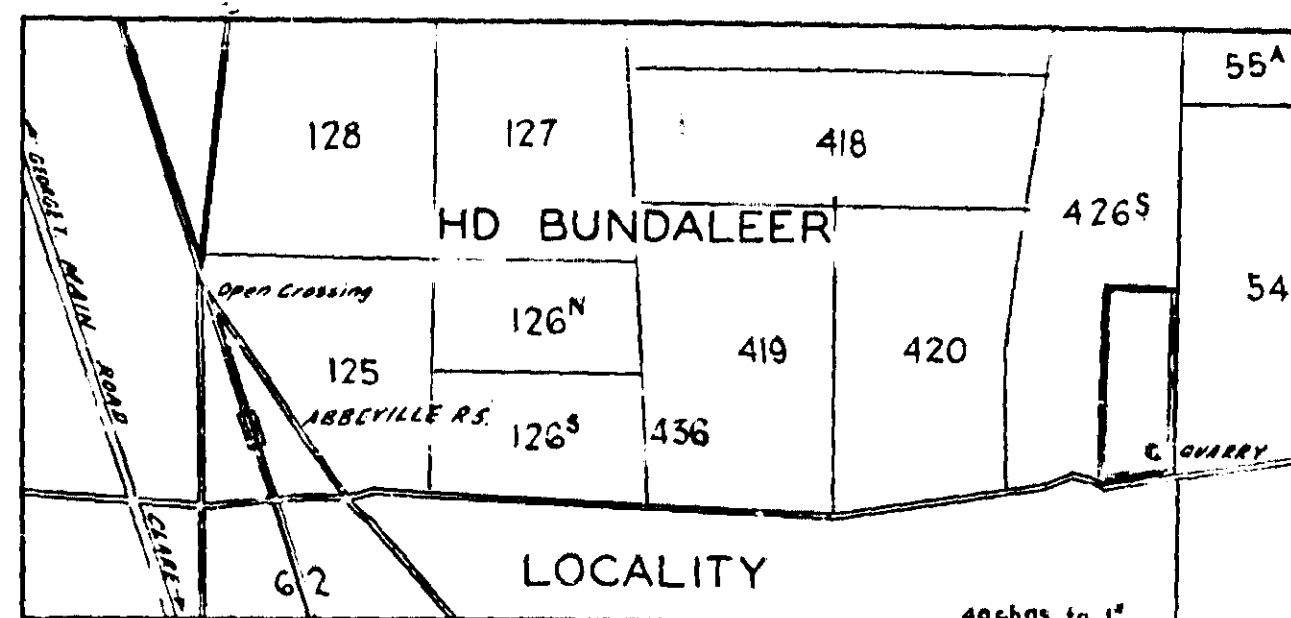
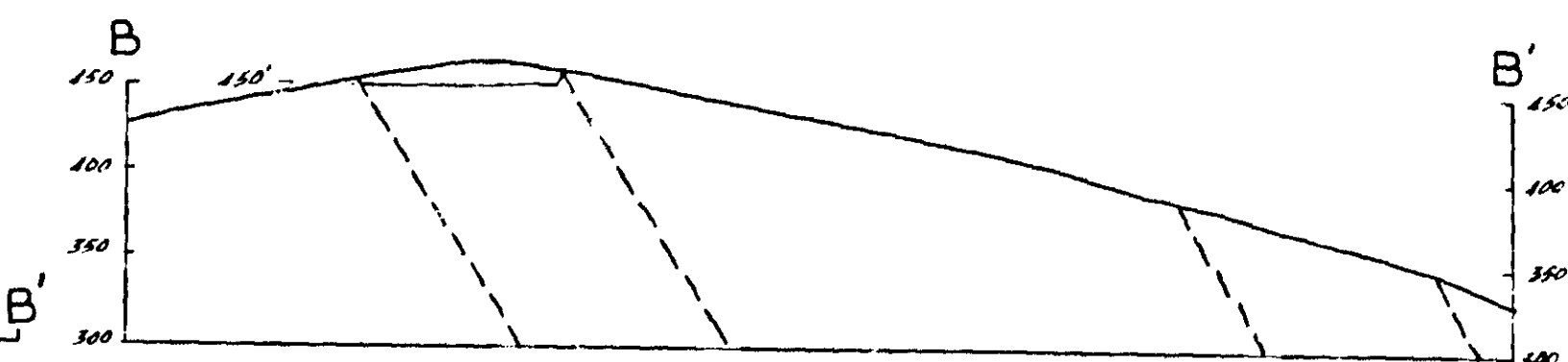
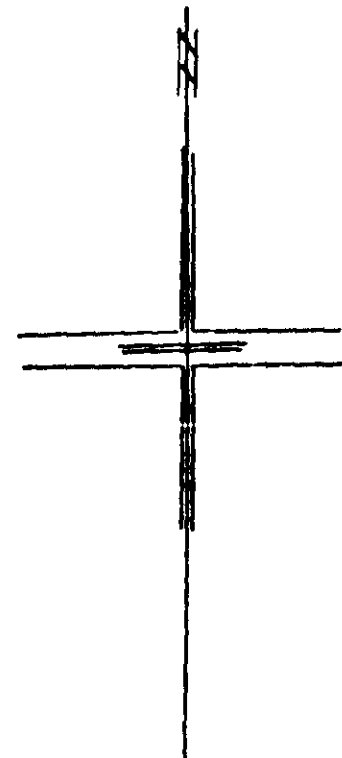
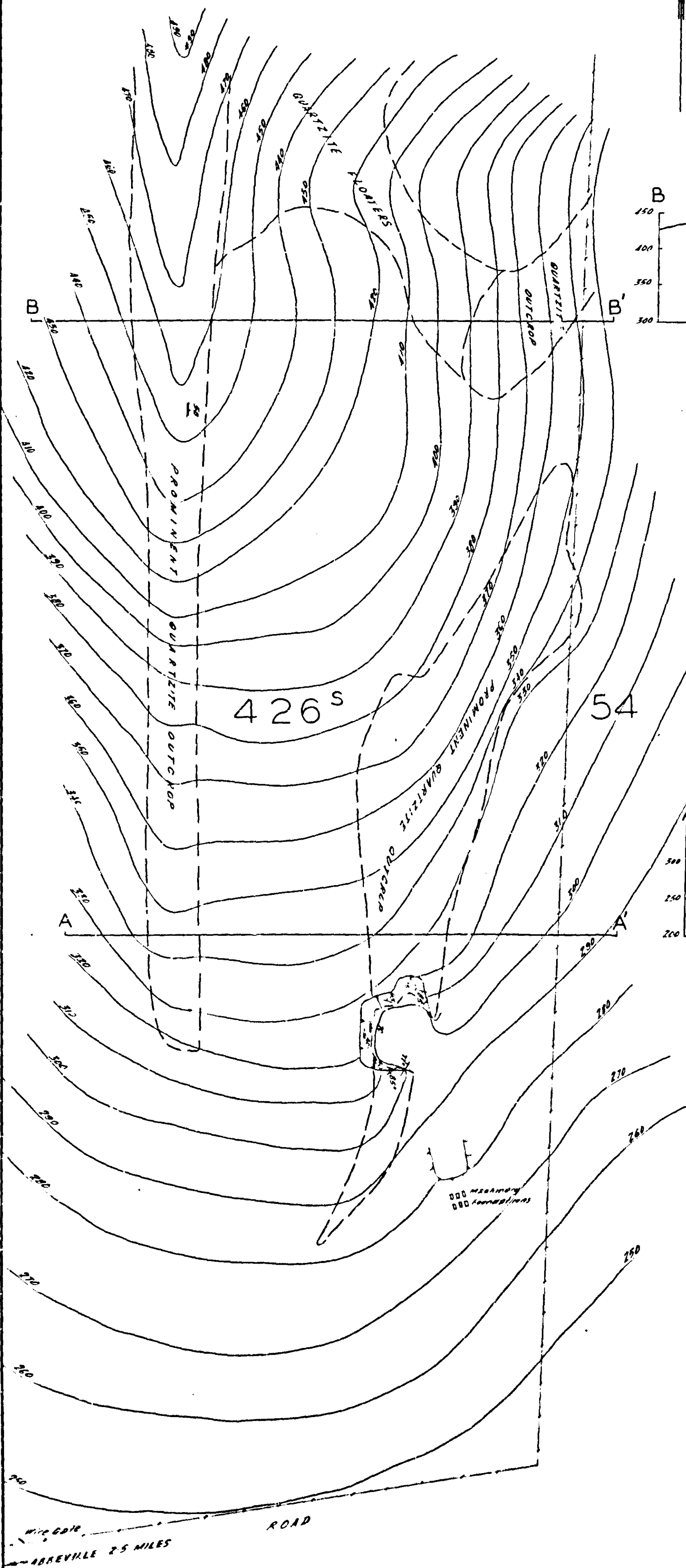
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ENGINEERING & MINERAL RESOURCES SECTION.

DT/JA

13/10/54.



LEGEND

- Limit of Quartzite outcrop ————
- Strike & dip of bedding ———— 40°
- Strike & dip of jointing ———— 175°
- Contour interval 10 feet

Survey by D. Thatcher
To accompany report by D. Thatcher

S.A. DEPT. OF MINES

ROAD METAL DEPOSIT

SEC 426S HD BUNDALEER

Approved Drawing No. No. Amendment Exd. Date

Rep. No. D.M. Compiled from

Approved Passed Director of Mines

Dr. J. M. C. 1/10/54

Scale 100 ft. to 1 inch 54-231 Ca 12