

## CAVE AREA (WESTPORT CARDIFF MINE).

Our next consideration is that of the partially-prospected portion of the property known as the Cave area. From outcrops and boreholes we find this has a gross area of (approximately) 250 acres likely to be coal-bearing; but as there is evidence of "faulting" within this area, and some likelihood of disturbances—soft and thin coal—we have, for the purposes of calculation, made such most liberal deductions, both from the area and the average observed and recorded thicknesses, as will justify us in expressing the opinion that at the very lowest estimate at least 1,000,000 tons should be extracted, whilst there is also the reasonable expectation that this tonnage may be very materially exceeded.

A survey line of proposed tramway to the Cave area was cut through the bush by the late company, but no detailed sections appear to have been made. In the absence of these, we are not able to give an accurate estimate of the cost of the work; but, from a general inspection of the ground, and consideration of working requirements, we are of opinion that, with judicious management, a capital expenditure of £15,000, or thereabouts, should open up and equip an endless-rope tramway, provide the additional trucks required, and put into working order the plant and railway-sidings now idle. Some of the plant (and especially the trucks) shows signs of considerable depreciation.

Taking the minimum of 1,000,000 tons, an output of 70,000 tons per annum would give a working-life of over fourteen years, a royalty (of 6d. per ton) amounting to £1,750 per annum, and, assuming a profit of 6d. per ton, an annual profit of £1,750, or over 11 per cent. on the capital now required to be expended.

Before the expenditure above named is incurred, we think it would be wise to further prospect the area as follows:—

- (1.) Sink a small trial-shaft at or near No. 1 borehole (depth about 50 ft.), and another at or near No. 5 borehole (depth about 45 ft.).
- (2.) Drive a small tunnel (commencing in the coal near Grant's Face on the line of proposed tramway) for a distance of about 15 chains. An alternative to this would be to put down a series of diamond-drill boreholes on the line of proposed tramway (which would here be underground) between Grant's Face and No. 7 borehole.

The foregoing works would prove the quality, character, and dip of the coal, and also the existence or otherwise of troubled ground north of Grant's Face, which surface-appearances appear to indicate.

- (3.) One or more boreholes should be put down between No. 4 and No. 7 boreholes, owing to the evidences of a "fault" occurring between these points. The value of this bore would be to locate the level at which the proposed tram-line would cut the coal.

The cost of these prospecting works we approximately estimate at £1,000.

## PROBABLE EXTENSION FROM THE CAVE AREA.

On the opposite (or south-west) side of Chasm Creek there is a plateau which we consider may be reasonably expected to be coal-bearing over an area of (approximately) 200 acres. By bridging Chasm Creek in such a position as mining developments may prove to be most suitable, this area could be won by an extension of the tramway already proposed for opening out the Cave area, and we recommend that a series of diamond-drill bores be put down on this part of the property concurrently with the opening-out of the Cave area, in the event of this being decided upon.

## PROSPECTS IN OTHER PORTIONS OF THE WESTPORT CARDIFF LEASE.

The line of proposed tramway to the Cave area crosses barren ground for, say, the first 30 chains, or thereabouts, from where it leaves the existing incline-tramway. Beyond this the coal-measures appear, and we are of opinion that it would be advisable to put down a few bores along the line of proposed tramway on the upper flat, between points marked C and D.

So far as that area, described on the plan as the "lower flat," is concerned, any coal which may probably exist below this and the adjoining portion (outside the leasehold) of Seddonville Flat could only be won by sinking shafts. The dip, so far as can be seen, is about 1 in 3. Assuming the existence of coal being proved by boring, the rate of dip would necessitate somewhat deep shafts to command anything like a useful area of ground; and, in view of the expense of opening out a colliery on this flat in proportion to the probable available area, we do not recommend costly works being undertaken to develop this section of the property.

## AREAS IN THE NEIGHBOURHOOD OF WESTPORT CARDIFF COLLIERY.

(1.) *Area north-east of the old or lower Mokihinui Lease.*—An outcrop of coal appears on the north-east bank of the Mokihinui River, and adjacent to its confluence with Chasm Creek. Some years ago mining was carried on here to a limited extent, but on encountering a fault to the dip work was suspended. The dip in this locality is very steep (approximately 1 in 2), and to obtain anything like an area of value, sinking would have to be very deep. The high angle of the seams would also materially increase the cost of working; therefore we do not recommend expenditure here in the meantime.

We followed the new Karamea Road, along Stillwater Creek, to the eastern boundary of the field, where granite appears, but did not discover anything to warrant any recommendation.

(2.) *Upper Part of Seddonville Flat.*—Evidences above the upper schoolhouse and between the two railway-bridges which span Coal Creek lead us to consider that the Hut seam would be got at a moderate depth. The dip of the measures is also favourable for working advantageously.

We recommend that boring should be undertaken, the bores commencing at some convenient place where the micaceous sandstones appear on the surface.