

miles; but this distance would be increased only to thirteen and a half miles by using the Southern Line for five and a half miles, and then taking a branch eight miles long along the telegraph line, saving four and a quarter miles of tramway, and only adding one mile and a quarter to the haulage.

The lines of tramway above recommended, amounting to thirty-five and a half miles, would give access to collieries capable of supplying four or five times the quantity of coal now consumed in Canterbury. If more coal is required, by extending the Northern Line thirteen and a half miles beyond Jebson's, it would be brought near (three miles) the Big Ben Coal Field, where there is a seam 4 feet 7 inches thick cropping out on the hill side, shown by analysis to contain 86 per cent. of combustible matter, and capable of yielding 100 tons per day for many years.

Coal is known to exist in various other parts of the Province, but these are nowise accessible from these tramways to the Malvern Hills.

Appended is the estimate for the lines of railway recommended as above.

I have, &c.,  
W. B. BRAY.

### Enclosure 1 in No. 1.

#### STATEMENT of Messrs. HART and JEBSON.

MR. HART states that his coal lies on section 3,918 and adjoining sections, on the left bank of the Selwyn River.

The strike of the coal is N.E., and dips to the S.E. The seam now worked is 2 feet 3 inches thick, but twelve other seams are seen on the face of the hill, varying from 2 inches to 18 inches thick. The present 2 feet 3 inch seam only showed a few inches at the surface, but increased in thickness as the workings advanced, and still increases.

At about 100 feet below the 2 feet 3 inch seam is another 3 feet seam found by boring, the shaft towards which has been sunk 80 feet. Coal has been found by the rods at 100 feet below the 3 feet bed, but with so great an amount of water that it cannot be available until pumping-engines are provided.

The present drive is 5 feet 6 inches high and 5 feet wide; six men only are now employed, and turn out two tons each per day; the daily supply is twelve tons. There is room for twenty or thirty, or more, to work.

Mr. Hart has at least ninety acres of land above the level of the present workings, which, at 2 feet 3 inches thick or 3,600 tons per acre, would yield 324,000 tons from one bed, or say 224,000 tons of available coal.

The present price is 20s. per ton at the mouth; but if 60 to 100 tons per day were taken, it could be supplied at 10s. to 12s. Limestone, fireclay, and ironstone are found in the vicinity.

Mr. Jebson states that his coal workings are on Mr. Sheath's section, No 3,715. The bed is 4 feet thick, and yields 4,800 tons per acre; two men now get three tons per day, or two men and one horse will get four tons per day; the present price is 16s. at the pit. Fifty men could be employed, and would get 100 tons per day, which then costs only 10s. to 12s. per ton. This rate of production would use six acres per annum, but Mr. Jebson can work on 600 acres, and there is plenty more to be had. This coal would be brought to the railway at about twenty-two and a half miles from Rolleston Station.

The Kowai coal is at the end of the proposed railway, dips very rapidly, and, without further investigation, he cannot say anything as to its probable yield. It is not worked now; therefore there is no present inducement to bring the railway to this point.

If the railway were extended five miles further up the Kowai, it would be about three miles from Big Ben Coal Seams, which may be worked by a tunnel under the saddle, so as to get an outlet for water. This coal is 4 feet 7 inches thick, and would be more easily worked than the other; forty men might get 100 tons per day, at 8 to 10 per acre.

Mr. Jebson's estimate of the extent of this coal is 1,000 acres.

### Enclosure 2 in No. 1.

#### ESTIMATE of MALVERN HILLS COAL MINES.

FROM Rolleston Station to White Rocks, one mile and a half from Hart's Coal Drift:—

	£	£
Earthwork, 27½ miles, at £200 per mile	...	5,500
Bridges and Culverts—		
Seven 3-foot Culverts	...	245
Two 6     "     "	...	120
One 10    "     "	...	90
One 15    "     "	...	150
		605
Bridge over River Hawkins, 300 feet	...	2,100
Bridge over Dean's Creek, 90 feet	...	630
27½ miles Permanent Way, at £1,434	...	39,435
		£48,270
Branch to Racecourse Hill, ending near Jebson's Coal Drift—		
Earthwork, 8 miles, at £200	...	1,600
Culverts, 4 miles, at £35	...	140
Permanent Way, 8 miles, at £1,434	...	11,472
		13,212
Carried forward	...	£61,482