

82. And there would be no difficulty in driving stock along a moderate road?—No; good roads open up country, but a railway is better.

83. Is it not the fact that large quantities of cattle are driven from Waikato to Auckland in preference to sending them by rail?—I do not think fat cattle are ever driven; they drive store cattle through to Waikato sometimes.

84. *Mr. Blake.*] They would drive cattle the other way, from the good country to the bad?—Not exactly.

85. *The Chairman.*] Is there any other information you think desirable to give?—It seems to me the Stratford line is the more inexpensive one to make. Fifty-seven miles less to construct, or there was before the extension was made.

86. Where are you dating from—from Marton?—Yes. Thirty-seven miles from Rangitira; and I am sure it can be constructed for considerably less money, because there are not such great difficulties to contend with. There is no doubt the country warrants the expenditure of money for road or railway.

87. Would the one hundred miles from the point of divergence to Eltham carry more settlement than the one from Taumarunui towards the central line?—Yes, five times. On the central line there are eighty miles of pumice stone country: no getting over that fact. On the tops of the hills it is pretty good, but to no extent. The pumice covers the flats; there is only a little mania grass and ti-tree growing. When you get past the Murimutu Plains the country gets good—as good as anything on the Stratford route. The only argument in favour of running it further than Turangare is for the tourist traffic, which cannot be considerable.

88. *Mr. Carncross.*] What is the estimate for the three viaducts?—From £30,000 to £60,000 each.

Mr. Blake.] That one over the Makohine Stream is estimated to cost from £30,000 to £40,000.

89. *Mr. Carncross.*] Which is the easiest of construction?—I consider the Ngaire one the least expensive. They should have a thorough survey of both lines, and then they would have seen which was the easiest to construct.

90. You know of three viaducts?—I do not know of any more; they might have to construct a few smaller ones.

91. I hear some witness speak of an outcrop of coal?—There is a seam at Mungaroa. It has been shown to an expert, who declares it to be good household coal.

92. A lignite?—A good household coal is what he said it was, but I do not know about its being a steam coal. There is a 5ft. seam showing: but coal is showing all about there in the Mokau basin.

93. You saw no evidence of coal on the central route?—No, Sir; different country.

WEDNESDAY, 21ST SEPTEMBER, 1892.

Mr. WILLIAM H. HALES, Engineer-in-Chief, further examined.

WITNESS stated: Referring to the North Island Main Trunk Railway, the central route, south end, as far as surveyed, 39 miles, from 22 miles 40 chains to 61 miles 40 chains, Hautapu Falls Section, as follows:—

Tunnels.		Bridges.		Viaducts.			Earthwork.	Ballast.
Number.	Length.	Number.	Length.	Number.	Length.	From Level to Lowest Foundation.		Per Mile.
11	Lin. yd. 3,131	4	Ft. 824	1	Ft. 766	Ft. 247	Cubic yd. 2,150,000	£ s. d. 300 0 0
...	...	...	...	1	660	112	...	...
11	3,131	4	824	2	1,426	...	2,150,000	...

1. *The Chairman.*] The next portion is from Turangare to Waimarino. There are no accurate surveys complete on this section which would enable you to make calculations as to earthwork?—No. Certain sections have been taken at the crossings of the gullies, but it is possible in the final survey that some of these viaducts may be cut out and some of them reduced in size. Calculation as follows:—

Tunnels.		Bridges.		Viaducts.			
Number.	Length.	Number.	Length.	Name.	Mileage.	Length.	From Level to Lowest Foundation.
1	Lin. yd. 154	7	Ft. 1,810	Hapuaawhenua	M. ch. 28 44	Ft. 560	Ft. 130
...	...	...	...	Mangaturatura	31 60	350	110
...	...	...	...	Manganui-o-te-au	36 58	450	105
...	...	...	...	Makatote	38 60	267	150
...	...	...	...	...	...	525	130
1	154	7	1,810	Total number, 5 ...	...	2,152	...