

746. Do they rise steep?—Pretty steep.
747. Is any of that land fit for cultivation?—Yes.
748. What proportion?—Not more than half a mile wide between 80 and 85 miles.
749. Only just the flats?—Yes; and the tops of the hills are good grazing country.
750. And from 85 miles?—To 90 the country is not much good: too rough.
751. What is the class of timber?—Along the watershed it is nearly all black birch.
752. From 90 miles?—From 90 right away to the end it is about the same; it is all good land.
753. What will be the nature of the railway-line so far as you have examined it: will there be many curves, or will the line be pretty direct?—The general direction is very direct. Rising on the watershed, there will be a good many curves in places. I consider that the worst place is between the 85th and 90th miles.
754. Have you any sharp curves on that piece?—I do not think we should want anything sharper than a 10-chain radius.
755. The gradients are all laid on the plan simply from the barometrical heights you have taken?—That is all.
756. Did you measure any of these distances?—No.
757. It is all guess-work?—All guess-work.
758. How do these distances usually come out when you come to measure them?—Pretty well. The distances are not taken altogether from my own guess-work.
759. My object in asking the question was to ascertain whether you thought, on a fuller and more detailed survey, these grades could be improved without lengthening the line?—Yes; of course it would increase the amount of work.
760. But without seriously increasing the amount of work?—They could be improved in places. I have shown grades there that I am certain could be got,
761. Have you made an estimate of the cost of this line?—Yes.
762. Have you got it with you?—Yes.
763. Is it in such a form that it can be printed?—[Witness produced estimate.]
764. Has that been checked at all by anybody but yourself?—Not that I am aware of.
765. Have you made that estimate on any particular basis of prices?—Only from my experience of what lines have cost that I have been working on.
766. Then, it has not been checked in the Public Works Office?—I do not know; I sent it in with my report.
767. What is the total length of the line according to your estimate?—One hundred and twenty-three miles.
768. And what is your estimate of the cost of that length?—For the formation alone, I have reckoned £4,000 per mile right through; that is an average cost.
769. Does your estimate only cover the formation?—That is all. I put down the permanent-way, station, and rolling-stock at £3,000 per mile.
770. What does the formation include, then? Does it include anything beyond formation and bridges?—No; formation and bridges.
771. No roads to the line?—No.
772. Is there ballast along the line?—I did not see any at all.
773. What is the general run of the formation right through?—Clay and papa rock; there is a little limestone near Mokau.
774. Did you see any minerals along there?—Nothing but coal.
775. What is the nature of the coal?—There is a five-foot seam in the Tangarakau district.
776. What sort of coal?—The same as the Mokau coal. I think they call it brown coal. It burns to a yellow ash.
777. In writing the report which the Committee have got before them regarding the Stratford route, you gathered your information about the piece that you did not travel from Mr. Ross?—Mr. Ross and Mr. Carkeek.
778. *Mr. W. White.* There are several lengths on this plan (No. 7) without any grades being given. What is the reason for leaving them out?—That is where the line runs up a river valley. It is nearly level.
779. What would be the grade of the particular portion that you mention as being very bad?—It would be a very flat grade, except the rise from the Tangarakau River up to the saddle—about 1 in 50.
780. You think the grades mentioned here can be improved?—In one or two instances.
781. Which are those?—One is at the 62nd mile.
782. To what extent could it be improved?—That I can hardly say, except on more detailed survey.
783. Could it be improved 10 or 5?—Of course it could be run out a couple of miles longer.
784. That would take it up to the 64th mile?—About 65½.
785. And where is the other grade you could improve?—At 95 miles and at 110.
786. You could not say to what extent you could improve those?—The one at 110 could be improved to anything you like.
787. What would be about the additional cost of improving these grades? Would it add very much to the cost?—It might double the cost, or perhaps make it three times the amount.
788. That is per mile?—Yes.
789. On that particular grade?—Yes.
790. In calculating £4,000 per mile you have reckoned the grades as shown on this drawing?—Yes.
791. What rate per yard do you reckon for your earthwork?—About 1s. 6d.
792. And the ballast?—Between 2s. and 3s.
793. To put on the line?—Yes.