

534. Worse than 1 in 50?—I should think so; but, of course, without measurements it is hard to say.

535. From 60 to 64?—It is very uncertain what the grade would be there. There is a rough descent there into the Eao Valley.

536. Worse than 1 in 50?—Very probably.

537. *The Chairman.*] Did Mr. Holmes go over that?—He has never been over the lower part of the line at all.

538. *Mr. W. White.*] From mile 66½ to 69?—It would be very good.

539. Not worse than 1 in 50?—I do not think so. I have not been over that, however; I joined again at the 70th mile.

540. From 85 to 91?—It would be bad. It would, most likely, be steeper than what is stated on the plan.

541. From mile 94½ to 95?—That would be good. It is open country, and an easy slope down—almost level.

542. From 109 to 112?—That would be a bad place to get down. Still, I think, a grade could be got there.

543. Do you know what the curves are likely to be?—I should think there would be some very sharp curves from the 45th mile to the 60th. It is somewhat similar country to the Rimutaka from Kaitoke to the Summit.

544. What would be likely to be the sharpest curve?—I could not say without measurements.

545. You have no idea?—No idea.

546. What do you call a sharp curve?—Such curves as those are on the Wanganui line. About 4- and 5-chain radius, I consider would be very sharp.

547. Is there likely to be a 5-chain radius there?—Yes; I think so.

548. Are there many places along the line that would require such curves?—No; I think not. That is about the worst of it.

549. *Mr. Fergus.*] How long were you over your survey and exploration?—I was nearly twelve months over it altogether.

550. Then, you had a very good look over the country?—Yes.

551. Do you know the country between New Plymouth and Stratford on the railway route?—I have been over the railway-line.

552. You know the general character of the country, then?—Yes.

553. Is there any country between 23 miles from Stratford up to 90 miles as good as between New Plymouth and Stratford?—In the valleys it is better soil, but on the hills, instead of being slopes, it is perpendicular. The valleys are very small.

554. *Mr. Montgomery.*] If more time were given to the survey of this line, do you think you might get easier grades? To make a complete survey of that line you would require more time, I suppose?—Yes, certainly; but we thoroughly explored the country.

555. *Mr. Fulton.*] You spoke previously of barometrical readings, and the Chairman asked you how often you took them: how close together were they taken?—We only took them when we got to any prominent feature, such as a gully or saddle.

556. *The Chairman.*] Is the Committee to understand that the barometrical heights taken on this line are taken at the particular points given on the plan?—I did not draw the plan.

557. Do you think they were taken much closer than that?—I do not think they were taken even as close. They were taken in the valleys and then on the saddles.

558. *Mr. Fulton.*] How long were you over the actual survey of the route?—There has never been a survey made of the route.

559. You have laid down a sketch of it?—I made a map with the prismatic compass, and the Engineer has put the track down from that information.

560. The maps supplied to this Committee, then, have been made from your sketch?—Yes. This is the original map [pointing to map on wall].

561. *Mr. Larnach.*] If a detailed survey was made you would have to keep on your route?—Yes. There is no other way through the country. I am quite satisfied as to that, and so are all the others, I believe.

562. You say from 25 miles from Stratford to the 60th mile is absolutely worthless country?—Yes, with the exception of the gullies.

563. And the gullies are only patches?—They are small—little patches of rich soil a few chains wide.

564. You are quite satisfied on that point?—Yes.

565. Did I understand you to say that Mr. Holmes had never made a survey of the lower part?—Mr. Holmes has never been even on the country between miles 15 and 50. He may have been, however, since I was there; but he had not been up to the date when he wrote his report.

566. Then he wrote the report on that part without going over it?—Yes.

567. Has anybody else been on it?—Mr. Ross.

568. Any one besides Mr. Ross?—Only our men.

569. *The Chairman.*] When did you leave?—I came down with Mr. Mitchelson in May last.

570. *Mr. Larnach.*] From your evidence I gather that this line would be a most expensive line to make?—I should think so; but I am not an engineer. I have only had to do with road works.

571. But owing to the number of gullies, hills, and steep gradients?—I should think it would be as expensive as this side of the Rimutaka. There is no ballast in that country for a railway from beginning to end of it. It is papa rock generally. After leaving the Patea River I did not see a stone till I got to the Mokau.

572. But there is plenty of timber?—Only in the gullies.