

question to bear in mind that this tunnel was nullifying the full use of the railway from Bealey to Springfield and from Otira to Lake Brunner?—Yes, and, of course, we should lose a year's interest on the money expended on the tunnel. It would have been better to accept the second tender and have the work carried out in five years—if we could have relied on this tenderer doing it in the time.

71. Anyhow, Mr. McLean agreed to the reduction of the time?—Yes.

72. The Department have the right to have the contract amended if they think proper—I mean the schedule or any part of the tender—before it is signed?—But this tender was not in accordance with the conditions. We simply pointed out to Mr. McLean that it was not so, and told him he must make it in accordance with the conditions, and he agreed.

73. How long was it after the contract was signed that the heading was started at the Otira end?—I think it was nearly a year.

74. If the Department had carried out the work, would it have waited a year before starting with the heading?—No.

75. Was there any reason why Mr. McLean should not have started it within a month of signing the contract?—I do not know that he had all the plant. When the Engineer-in-Chief recommended that the Department should carry out the work, he went on to say that we should immediately despatch a cablegram ordering the plant; and we should have received it in three months.

76. The permanent plant for working the whole tunnel would not be required to start driving that heading?—And there was work to do before you could get to the heading.

77. It is really the driving of the headings that is delaying the work?—Yes.

78. Do you know of any reason why Mr. McLean should not have started the heading at the Otira end twelve months before he did?—I think I know why he did not start. Not having had experience of work of this magnitude, he went on a tour in Europe and elsewhere to have a look at large undertakings, and to select suitable gentlemen to assist him.

79. It was not necessary for Mr. McLean to be in the country at all to have this heading started, was it?—No. There were two brothers; the second was quite competent to take charge of the heading.

80. Do you think the heading should have been started earlier than it was?—There was not a moment to be lost if the work was to be completed in the time.

81. Have you any idea how long it was after the contract was let before the Bealey heading was started?—A very long time.

82. Is there any reason why the Bealey heading should not have been started about two years before it was?—It could have been started at the same time as the heading at Otira.

83. Supposing the Department had been carrying the work out, would the Department have started at both ends?—Both ends simultaneously.

84. You stated that the Department can do tunnel-work as cheaply as a contractor?—I think we can do almost any work as cheaply as a contractor.

85. You have the records showing the history of all the tunnels that have been constructed lately in the country. Will you give me the experience of the Big Hill Tunnel on the Beaumont line? Did not the Department call for tenders, and then carry out the work by co-operative labour? You know that there were tenders called for the Big Hill Tunnel?—Yes, but you cannot compare the two systems yet, because we have not completed the tunnel on the co-operative system. I know that when the tenders came in they were in excess of the estimate.

86. Was the position this, that the estimate was £22,000 and the lowest tender £34,000?—There was a marked difference, but I am disposed to question whether the estimate was on the same basis as the tender.

87. Can you supply this information to the Committee?—Yes. The amounts you mention are approximately correct, but I am afraid that in compiling the estimate some of the works included in the contract were not taken into account. This work was very similar to the Otira Tunnel, except that our tunnel is shorter.

88. It is no shorter than the Bealey heading?—No, I think not.

89. You will be able to give the Committee, from your Engineers' reports, the actual cost of the tunnel, independent of any outside work?—I can tell you its cost to date, and what has been done to date. It is nearing completion, but is not finished yet.

90. You can give us the actual cost to date, and the tunnel is so nearly finished that you can approximately state the full cost?—Yes.

91. The Department are carrying on the cutting of long tunnels throughout the Dominion by co-operative work?—We have done quite a number.

92. You are doing a number now, are you not?—We have got the Big Hill Tunnel, and there is one on the North Auckland line. We have not carried out any long tunnels on the co-operative system.

93. What estimates were made for this Arthur's Pass Tunnel?—An estimate was made, based on the actual cost to the Department of other tunnels in similar material, and a very considerable percentage was added on account of the increased length of this tunnel. When the first tenders came in the late Mr. P. S. Hay was Engineer-in-Chief. The lowest tender was rather lower than Mr. McLean's, and Mr. Hay did not recommend its acceptance because he thought it was too high. When the second lot of tenders came in Mr. Holmes was Engineer-in-Chief, and he also did not recommend the acceptance of the tender, because he thought it too high.

94. Are those estimates available?—I have no details. Mr. Holmes may have.

95. There was an American engineer named Bogue brought here to report on this work and furnish an estimate, was there not?—I do not think he was brought here to estimate the cost. The work was of such magnitude that the Government thought it desirable to have the opinion of