

grounds to justify the increased outlay, and they therefore recommend that the Interior line, No. 3, be adopted.

(Signed,)

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A. WALSH,  
ED. B. CHANDLER,  
C. J. BRYDGES,  
A. W. McLELAN,  
Commissioners.

## APPENDIX K.

(Copy.)

INTERCOLONIAL RAILWAY, OFFICE OF THE CHIEF ENGINEER,  
Ottawa, March 14th, 1870.

C. S. Ross, Esq., Secretary.

SIR—As requested, I now submit a few observations on the labors of the Engineering Staff.

It does not seem necessary to allude to the exploratory survey made some years ago, it will, probably, be sufficient for me to report briefly on the general result obtained by the expenditure incurred since the union of the Provinces; distinguishing, as far as practicable, the work done by the Staff after the route was adopted by the Privy Council, from that done previously.

The whole line from Rivière du Loup to Truro, with the exception of one or two short sections between Newcastle and Moncton, where minor changes may be found advisable, is now finally located for construction; of this distance 326 miles in all are now under contract or ready for contract, and the whole of the remainder, except 76 miles between the River Miramichi and Moncton, will be ready for contract by the end of next month. By midsummer next the whole extent of the line may be placed under construction. The distance from Rivière du Loup to Truro, by the line adopted and located for construction, will be very close on 490 miles.

The above information furnishes in a few words the net results of the labors of the Staff, as well as of the expenditure incurred on engineering account up to this time. It however conveys a very imperfect idea of the actual work which has been accomplished.

A comparison can scarcely be made between the results and expenditure in this case, and that of Railway surveys in other countries, more favorable for operations of this kind. In an open country, where the Engineer can see around him, he can easily decide as to the advisability of incurring the expense of instrumental measurements in any particular direction; and in the United Kingdom, where he has the benefit of the Ordnance maps, showing in minute detail every feature of the country, and giving exact vertical as well as horizontal distances, he can with great ease at once proceed to define the most suitable position for the line of railway; but in a country like that between Rivière du Loup and Truro, in great part densely wooded, some of it without inhabitants, portions of it even without roads, it is clear that surveying operations can only be conducted under great disadvantages and the comparative cost, on Engineering account, must, as a consequence, be heavy.

The circumstances of the case, as a rule, required that the Engineering Staff should find shelter at night under canvas, in all weathers. This mode of life is not objectionable for a short time in the summer season; but the personal discomfort experienced during a protracted campaign, including the rainy season of autumn, and the following months of winter, with a very low temperature (occasionally 20 to 30 degrees below zero), and snow from 3 to 5 feet deep, is not inconsiderable. A large portion of the staff remained