No. 3.

REPORT ON PROPOSED ROUTE FOR RAILWAY FROM GREYMOUTH TO ROSS. Mr. O'CONNOR to Hon. Mr. REEVES.

Greymouth, April 12, 1872.

SIR,

In accordance with your instructions of 22nd February last, I have the honour to forward herewith a tracing, showing proposed route for Railway, "Greymouth to Ross," together with statistics of population, &c., &c., as stated on margin, and to report as follows:-

Main Road, Greymouth, to Hokitika.—The main line of road between Greymouth and Hokitika, as at present undertaken and partly constructed, is laid out so as to give access to the principal mining

centres between the two places.

It may be roughly described as forming two sides of a triangle with the sea for base, the apex of the triangle being at the Greenstone Creek, an inland workings eighteen miles from each of the extremities, and eight miles from the coast in a straight line. Between Hokitika and Ross there are no inland workings except the Kanieri and Woodstock, so that the road, after passing through these places, is carried direct to Ross, a course generally parallel to the sea beach, and about two miles inland of same.

*Proposed Railway, General Course.**—The general course of the proposed Railway would be parallel.

to the sea coast throughout, at an average distance of twenty chains therefrom.

Greymouth to Hokitika.—Along the distance between Hokitika and Greymouth few people are living near the route proposed, and as both these towns are seaports, the traffic between them would be principally confined to coal. Some merchandise, however, would be sent by rail from Greymouth to the New River, and from Hokitika to the Arahura. This line would also doubtless develope and foster the timber trade of Hokitika, particularly in future time, when the distance the logs will have to be carried to the mill may raise the cost of supply beyond the market value, unless improved communication is provided.

The coal traffic between the Brunner mine and Hokitika would be considerable, and immediately advantageous. It would develop mining in the vicinity of Hokitika, by providing a cheaper and more efficient fuel than now exists, by means of which the auriferous deposits near Kanieri, at present unoccupied, might be drained and worked; and it would no doubt reduce the freight of goods to Hokitika from other than New Zealand ports in providing back loading for the ships, which often return in ballast.

Hokitika to Ross.—Between Hokitika and Ross there are only about two hundred persons living along the route proposed, but the whole population of Ross and the surrounding district (in all about two thousand four hundred) being fed from the seaport of Hokitika, the Railway between these points would be of immediate advantage in diminishing the cost of provisions, and reduce the risk attendant on their carriage across dangerous rivers. The principal workings at Ross being at a considerable depth below the surface, and in wet ground, the drainage of them requires powerful machinery mostly driven by steam, and the want of coal for this purpose is greatly felt. Wood is at present used for fuel, but though there is an ample supply at hand, it is of an inferior quality for generating heat, five cords of wood being only equal to one ton of coal; and the cost of cutting and delivering it is so great that in one case, "the Ross Extended Claim," coal, if delivered at Ross for £2 a ton, would reduce the working expenses £800 a year.

A striking proof of this statement being correct, exists in the fact that at present about three tons of coal are weekly consumed at Ross, although the cost delivered there reaches £6 5s. per ton.

Survey.—The line, as shown on tracing, with the exception of the distance through Borough of Greymouth, and about a mile and a-half at Ross end, has been run throughout on the ground, and levels have been taken along it for about a mile near the Teramakau, where the country is comparatively difficult, and between Hokitika and Arahura, where a road was being constructed. As a main route, it is rather objectionable on the score of being too near the coast line; but an ample exploration made before survey, and all the information gathered since, prove it to be the only practicable line for a Railway of moderate cost. I do not think any good purpose would be served by exploring the line again, as the information at hand is amply sufficient for the purpose of a rough estimate, and would even be sufficient to guide the clearing of the timber, if the construction of a Railway be determined on.

I have, &c.,

C. T. O'CONNOR,

District Engineer, Westland.

The Hon. W. Reeves, Minister for Middle Island, Christchurch.

COUNTY OF WESTLAND, -NEW ZEALAND.

Estimate of a Railway from Greymouth to Ross.

Commencing from Coal Mines Line on Mawhera Quay, and ending at Aylmer Street, Ross. Total distance, 39 miles 50 chains.

	•									£	8.
1.	Clearing	g, 3,170	chain	s, at 70)s.					 11,095	0
2.	Excavat	ion, 50,	$000 \mathrm{ch}$	ains, a	t 1s. 9	d				 4,375	0
3.	Drains,	2,700 c	hains,	at 25s.						 3,375	0
4.	Formati	on, $2,70$	00 chai	ins, at	20s.					 2,700	0
5.	Bridges,	where	spans	exceed	60ft.,	1,450 1	ineal	ft., a	ıt £8	 11,600	0
	,,	,,	,,	,,	40ft.,	200	,,		at £5	 1,000	0
	,,	,,	,,	,,	30ft.,	7,800	,,		at £4	 31,200	0
	••	••	••	••	20ft.,	250			at £3	 750	0