

No. 61.

NEW ZEALAND GEOLOGICAL SURVEY LABORATORY.

Class —.

Results of analysis of Specimen No. 2,756.

Forwarded by Royal Commissioners on Local Industries.

Locality, Greymouth.

Received, 29th June, 1880.

Reported on, 8th July, 1880.

Seven samples of calcareous rock, numbered 1–6, for analysis with the view of ascertaining their suitability for the manufacture of hydraulic cement.

The appended table gives the result of the analysis made, from which it appears that none are first-class hydraulic limestones, the prominent feature in the composition of which is that they should contain 5 to 8 per cent. of alumina. No. 2 is the most promising, but in it, as in all the rest, the proportion of free silica and silicates in the form of sand is too high to allow of its being manufactured into a reliable cement for submarine work; at the same time, as it may be of local importance, it would be quite worth while to try some experiments with it.

Experiments on a small scale will be made in the laboratory, and reported hereafter.

JAMES HECTOR.

ANALYSIS of SIX LIMESTONES from Greymouth (2,756–L), forwarded to Colonial Laboratory by Industrial Commission.

Centesimal Composition.

No.	Carbonate Lime.	Carbonate Magnesia.	Alumina.	Iron Oxides.	(d.) Siliceous Matter.	Silica, Soluble.	Water.
4	88·12	1·71	·81	Traces	8·24	·80	·32
5	78·51	1·86	1·32	·49	16·63	·82	·37
1	75·67	2·20	1·41	Traces	19·83	·61	·28
3	75·91	1·82	·72	1·11	19·61	·60	·23
2	68·12	3·54	2·22	2·71	22·01	1·08	·32
6	64·74	2·21	1·41	·57	26·22	1·84	1·01

No. 62.

Mr. W. H. TUCKER, County Clerk, Gisborne, to the Chairman of the Commission on Local Industries, Timaru.

SIR,—

Gisborne, 7th April, 1880.

I have the honor, by direction of the Chairman of this Council, to inform you that he is informed that there are within a mile of Gisborne large deposits of the materials used in the manufacture of Portland cement; and I am to ask you whether, on satisfactory proof of the same being given, you would recommend the Government to assist, by a grant of £700 to be secured on the plant, a person who would be willing to undertake the manufacture. Should the harbour of refuge, so much required on the east coast, as the recent gales and their results show, be eventually constructed here, cement of this nature produced on the spot would be so much cheaper that the cost of the work would be materially lessened.

I have, &c.,

W. H. TUCKER,
County Clerk.

No. 63.

Mr. JOHN INGRAM to the Chairman of the Local Industries Commission, Timaru.

SIR,—

Oxford, 13th April, 1880.

I take the liberty of addressing you on a subject which, I trust, may not be considered foreign to the work of the Commission. I am part-owner of a piece of property which contains a deposit of chalk. This material, if utilized in the manufacture of Portland cement, whiting, and lime, would be the means of employing a large number of unskilled labourers. Unfortunately, my partner and myself have not the means to start manufactories, and the capital required is very considerable. We thought, perhaps, that, through the recommendation of the Commission, the Government might erect manufactories to make the cement they require, thereby employing a large number of unskilled labourers, and saving a great amount of money to the country; or that they might offer a bonus, so as to induce a company to take the matter up, as the capital required is beyond the means of any private person. Should you wish to have a report on the matter, I have no doubt that Mr. Williams, C.E., late Resident Engineer at Timaru, who has considerable experience in the matter of Portland cement, would be glad to report to you on the subject, as he is now in this vicinity. I enclose Dr. Hector's report on the chalk. I may state the supply seems unlimited. I forwarded you yesterday, per rail, a small sample of it. Trusting the Commission will be able to favourably consider this subject,

I have, &c.,

JOHN INGRAM.