

## MISCELLANEOUS MINERALS (NON-METALLIC)

*Bentonite*.—This was all won by H. F. Stoddart, Porangahau, and comprised 215 tons, the value being £1,048. It is used for a great variety of purposes, ranging from cement-work to face-powders. Four men were employed.

*Clay (Brickmaking)*.—Kamo Potteries, Ltd., produced 1,506 tons of alumina, worth £571, which was used for the manufacture of firebricks for furnaces. In addition, this company and the Amalgamated Brick and Pipe Co., Ltd., obtained 1,930 tons of clay, worth £480, for ordinary brick-making. About 5 men were employed.

*Diatomaceous Earth*.—There were three contributors—namely, Messrs. S. C. Crawford, Kamo; W. Brake, Ngongotaha; and Clays and Minerals (a Wellington syndicate operating at Ngakura, Rotorua)—who obtained 204 tons, worth £401. The material is employed for concrete, plaster, and lagging work, and for the manufacture of soda-lime as used in mine-rescue apparatus.

*Fuller's Earth*.—Some 31 tons, valued at £120 2s. 6d., were produced by S. C. Crawford at Kamo. It is used for clarifying fats and oils, and as a filtering agent in the manufacture of glycerine.

*Kaolin*.—N.Z. Mercury Mines, Ltd., and Messrs. J. J. Craig, Ltd., produced 408 tons and 945 tons, valued at £1,326 and £464 respectively. The clay was got at Puhipuhi and McLeod's Bay, Whangarei, and was utilized in the manufacture of pottery. Five men were employed. The Ohio Kaolin Co. (N.Z.), Ltd., recently formed, commenced operations towards the end of the year on an extensive deposit of clay situated in Blocks I, II, IV, and V, Thames Survey District, but has so far placed nothing on the market. The deposit is located in very hilly country about four miles from Thames Township. The clay is derived from altered andesites and contains 10 per cent. of iron pyrites, which carries from 2 dwt. to 11 dwt. of gold and up to 14 oz. of silver per ton of pyrites. The intentions are to extract this by means of Wilfley tables and flotation, then again float and separate the remaining silica and alumina. Inquiries for the processed material (alumina chiefly) are numerous enough, and it is anticipated, once the initial or experimental stages of work have been passed, that a considerable tonnage monthly will be produced and a fair number of men employed. An analysis of the clay gives its contents as, silica 51.80 per cent., alumina 33.17 per cent., organic matter 8.85 per cent., with a small quantity of magnesia, calcium, and other minerals. The silica is required by the silicon industry, and the alumina by rubber-manufacturers and for medicinal preparations. Two men were employed.

*Pumice*.—Approximately 773 tons, valued at £270, were dug from the property of I. Lowe near the west bank of the Wanganui River, Aramoho, by A. F. Nicholson. It was processed and used for making wallboard.

*Serpentine*.—This was all got at Kaukapakapa, and Piopio, near Te Kuiti, on behalf of Asbestos Mines (N.Z.), Ltd., Wellington, and amounted to some 28,639 tons, worth £6,858. It is an important constituent of the well-known serpentine-super. The average number of men employed was 6.

*Silica*.—Messrs. Gilbert and Son, Wanganui, mined 375 tons, valued at £168 15s., from their area at Aramoho. Part was exported, and the remainder used in the manufacture of sand-soap. The silica is fine grained and of pumiceous origin.

Some 30 tons, worth £75, were won by A. C. Tucker, Aramoho. Two men were employed.

*Silica Sand*.—The N.Z. Glass Manufacturers Co. Pty., Ltd., Penrose, produced 12,541 tons from its deposit at Parengarenga. The material is used for making glassware of all descriptions, and was valued at £28,217. Five men were employed.

*Petroleum*.—The Moturoa Oil Wells, New Plymouth, were the only source of this commodity, which amounted to 82,307 gallons, made up as follows:—

|            | Gallons. |    |    |    |    |        |
|------------|----------|----|----|----|----|--------|
| No. 1 well | ..       | .. | .. | .. | .. | 4,774  |
| No. 2 well | ..       | .. | .. | .. | .. | 46,605 |
| No. 4 well | ..       | .. | .. | .. | .. | 30,438 |

The fractions stilled were:—

|                | Gallons. |    |    |    |    |        |
|----------------|----------|----|----|----|----|--------|
| Petrol         | ..       | .. | .. | .. | .. | 15,875 |
| Distillate     | ..       | .. | .. | .. | .. | 5,735  |
| Power kerosene | ..       | .. | .. | .. | .. | 10,460 |
| Heavy kerosene | ..       | .. | .. | .. | .. | 13,485 |
| Diesel oil     | ..       | .. | .. | .. | .. | 16,580 |
| Residue        | ..       | .. | .. | .. | .. | 16,170 |

|       |    |    |    |    |    |        |
|-------|----|----|----|----|----|--------|
| Total | .. | .. | .. | .. | .. | 78,305 |
| Loss  | .. | .. | .. | .. | .. | 4,320  |

|                     |    |    |    |    |    |        |
|---------------------|----|----|----|----|----|--------|
| Crude through still | .. | .. | .. | .. | .. | 82,625 |
|---------------------|----|----|----|----|----|--------|