the end of the year it was found, by means of delicate borehole-surveying instruments, that the hole had deflected near the bottom about 5° off the vertical. To correct this deflection the hole was cemented up to the 1,800 ft. mark, and special tools to force the drill out of its old course were ordered from the United States. Early in 1939 boring was resumed, the deviation from the vertical having been reduced to $2\frac{1}{2}°$.

Near Dargaville a $2\frac{1}{2}$-in.-diameter borehole was put down by the Northern Oilfields, Ltd., a Sullivan "N" diamond drill being used. By the end of the year the hole had been drilled to a depth of 552 ft.

No drilling was done on the Kotuku or Moturoa fields during 1938. From the three producing wells owned by Moturoa Oilfields, Ltd., Nos. 1, 2, and 4, a total of 116,585 gallons of petroleum was obtained, all of which was treated by New Zealand Refineries, Ltd.

VI. STONE-QUARRY INSPECTION AND STATISTICS.

By section 2 of the Stone-quarries Amendment Act, 1920, the application of the Stone-quarries Act, 1910, was extended to include every place, not being a mine, in which persons work in quarrying stone and any part of which has a face more than 15 ft. deep. The Act also applies to any tunnel in the construction of which explosives are used, but it does not apply to any Government operations, or any road or railway cutting, or excavations for buildings.

The following is a table showing the number of quarries under the Stone-quarries Act, also the number of persons ordinarily employed thereat, and the annual output and value of crude stone during 1938 :—

Provincial District.	Name and Address of Government Inspector of Stone-quarries.	Number of Working Quarries under the Act.	Number of Persons ordinarily employed.	Output of Stone.							
				Stone or Gravel for Macadamizing or Ballast.	Stone for Harbour-works.	Building or Monumental Stone.	Limestone for Agriculture.	Limestone for Cement or Mortar.	Phosphate for Agriculture.	Miscellaneous.	Value at Quarry.
				Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	£
Auckland ..	R. H. Schoen, Mines Dept., Huntly	243	1,445	942,706	..	360	110,037	219,118	..	46,025	270,125
	E. J. Scoble, Mines Dept., Waihi (Hauraki Mining District only)	23	153	146,781	..	4,476	..	..	..	..	50,700
Hawke's Bay	R. H. Schoen, Mines Dept., Huntly	24	116	28,004	..	..	29,998	..	..	..	7,541
Taranaki ..	Ditto	22	143	43,461	3,004	..	8,533	..	..	..	16,642
Wellington..	,, ...	34	250	95,907	3,226	..	32,440	..	..	134,238	31,645
Nelson ..	G. W. Lowes, and A. W. Turner, Mines Dept., Greymouth	21	81	21,056	19,377	..	10,155	60,449	..	..	17,332
Westland ..											
Buller ..											
Marlborough											
Canterbury..	T. McMillan, Mines Dept., Dunedin	62	479	165,610	29,566	20,503	290,549	52,888	..	..	161,310
Otago ..											
Southland ..											
Totals, 1938	..	429	2,667	1,443,525	55,173	25,339	481,712	332,455	..	180,263	555,295
Totals, 1937	..	378	2,117	1,156,876	52,246	35,731	410,770	268,190	..	64,708	444,837

Quarry Accidents.

The following is a summary of serious accidents during 1938 at quarries under the Stone-quarries Act :—

Cause.	Number of Accidents.		Number of Sufferers.	
	Fatal.	Serious.	Killed.	Seriously injured.
Haulage	1	1	1	1
Machinery	..	..	..	..
Explosives	1	1	1	1
Falls of ground	..	..	..	..
Miscellaneous	1	2	1	2
Totals	3	4	3	4

For the fourth year in succession there was no fatal accident in the South Island quarries, but in the North Island quarries there were three fatal accidents in 1938 : one in the Hunua quarry, Papakura, on 27th June, one in the Opahi quarry, Bay of Islands, on 29th June ; and the third in the Moa Point quarry, Wellington, on 27th September. A runaway truck on an inclined plane caused the Hunua fatality, the premature explosion of gelignite in a bulled hole the one at the Opahi quarry, and the workman killed at Moa Point was struck by a flying piece of stone from a shot.