should be extended nearly to the horizons at which the shoots were cut off. The bores should be so directed that they will not, at each of these horizons, be more than 200 ft. apart. It should be noted that the lost part of the Progress shoot lies considerably to the north-west of the Dam and Middle shoots and thus its position cannot economically be determined from bore-sites in Devil Creek. If, however, the position of any shoot of the Progress lode west of the fault should be determined the location of other shoots becomes simple.

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6. THE CHERTSEY OIL-BORE.

(By J. Henderson.)

An account of the oil-bore near Chertsey Railway-station has already been given (see N.Z. Geol. Surv. 14 Ann. Rep., C.–2c, p. 8, 1920). The well was again visited on the 15th and 16th September, 1921, and the following additional information obtained.

The well had reached a depth of 2,170 ft. when quicksand showing a little thick oil was penetrated, and rushed up the bore several hundred feet. This caused the company to abandon the well, and a general meeting of shareholders held on the 20th September passed a resolution that the affairs of the company be wound up. When visited the 2½ in. casing had been withdrawn and the 4 in. casing was being cut.

In all 230 tons of casing were used—namely, 18¼ in. casing to a depth of 220 ft., 16 in. to 319 ft., 14 in. to 680 ft., 12 in. to 895 ft., 10 in. to 1,050 ft., 9 in. to 1,220 ft., 7½ in. to 1,485 ft., 6 in. to 1,605 ft., 5 in. to 2,067 ft., 4 in. to 2,132 ft., and 2½ in. to 2,170 ft.

Log of Chertsey Bore (10 ft. below railway-station level—354 ft.). Drilled by the Canterbury Petroleum Prospecting Company, 1914–21.

Feet.	
0– 319	Loose gravel and boulders; water-level at 230 ft.; at 190 ft., clay band with little water above.
319– 515	Conglomerate gravels.
515– 534	Loose gravel; water-level at 230 ft.
534–1,056	Hard conglomerate gravel, cemented.
1,056–1,171	Clay and boulders.
1,171–1,172	Loose gravel; water-level at 360 ft.
1,172–1,355	Gravel with large boulders.
1,355–1,368	Dark blue (clay?) with boulders.
1,368–1,370	Brown sand and clay showing gas (CO_2) and oil of tarry nature.
1,370–1,374	Sand and gravel; oil and gas (CO_2); water-level at 360 ft.
1,374–1,387	Dark-coloured sandy clays.
1,387–1,396	Sand; gas (CO_2).
1,396–1,397	Dark-coloured sand showing heavy petroleum butter and inflammable gas.
1,397–1,420	Blue clay with streaks of sandstone gravel.
1,420–1,423	Sand.
1,423–1,437	Clay and gravel.
1,437–1,443	Sandy gravel; gas and oil shows in sludge; water-level at 360 ft.
1,443–1,447	Brown clay.
1,447–1,456	Gravel; water-level at 360 ft.; inflammable gas.
1,456–1,502	Clay mixed with gravel.
1,502–1,506	Sandy gravel; gas; water-level at 360 ft.
1,506–1,512	Clay and gravel.
1,512–1,524	Gravel with large boulders; water-level at 360 ft.; gas.
1,524–1,605	Gravel mixed with clay.
1,605–1,690	Gravel with more clay in it.
1,690–1,695	Dark-coloured clay.
1,695–1,745	Hard conglomerate gravel; shows oil and gas.
1,745–1,782	Brown clay streaks, sand, and gravel; gas and oil.
1,782–1,812	Hard boulder conglomerate.
1,812–1,864	Brown sandstone grits, streaks clay, and sand; water-level at 360 ft.
1,864–1,905	Yellow clays showing streaks blue- and lighter-coloured clays.
1,905–1,998	Sandy and clayey conglomerate gravels.
1,998–2,025	Hard blue clay.
2,025–2,028	Sandy brown clay.
2,028–2,040	Blue and yellow clay with large boulders.
2,040–2,111	Blue and yellow clay.
2,111–2,124	Hard blue clay.
2,124–2,130	Grey-blue quicksand.
2,130–2,170	Hard blue clay; below 2,170 ft. quicksand with gas (CO_2) and oil shows; runs in badly; water-level at 470 ft.(?)
