

In all, forty-three holes, the total depth of which amounted to 12,282 ft., were drilled during 1945, details of which are as follows:—

*Strongman Colliery.*—An underground air drill has been in constant use during the year, prospecting through faults and determining seam levels as well as drilling directional holes for guidance in driving stone drives.

*Dobson.*—Drilling deep holes on the Dobson Flats, ahead of the Dobson Mine workings, to prove the extent of the coal in that direction was completed during the year. Four holes, with a total depth of 7,908 ft. were completed in this locality.

Of the four holes drilled, No. 252, situated 15 chains ahead of the workings, penetrated a seam of coal 10 ft. thick at a depth of 1,500 ft., and No. 254, approximately 55 chains ahead of the workings, disclosed a seam of coal 13 ft. 6 in. thick at a depth of 2,020 ft. from the surface, but No. 253, drilled to 2,201 ft. disclosed only narrow seams less than 2 ft. thick, and No. 251, drilled to 2,166 ft., disclosed only a seam of coal 1 ft. thick. These results indicated that there was not sufficient coal to justify opening up this area by deep vertical shafts as a separate colliery, but the area proved by holes Nos. 252 and 254 will be further explored by extending the Dobson dip, which had been discontinued during the drilling operations.

It is of interest that in three bores traces of crude petroleum oil with high wax content were obtained. The services of a petroleum engineer were obtained from the New Zealand Petroleum Co. and the bores were electrically logged with the object of determining the porosity, &c., of the sands containing the oil. These results have been kept for future reference.

*Rewanui.*—Drilling to the west of the Seven-mile Creek and below the old bins section has been in progress most of the year. The results have been encouraging, and with one or two more bores sufficient information will have been obtained to successfully determine the approach to the Kimbell, Morgan, and other similar seams in that locality.

*Brunner.*—In May of this year a bore was started at a site near the old Brunner Traffic Bridge to determine whether or not the Goldlight, Anderson, and Morgan seams were present below the Brunner series. This bore penetrated all the coal series and was drilled to basement at a depth of 2,023 ft. The results from this bore were such that another bore was started in Gage Creek about one mile north-west and outside the boundaries of the old Brunner workings. This hole was drilled to basement at a depth of 2,413 ft., but did not disclose any seam of coal. The area will, however, be further explored and an additional hole will be commenced at an early date.

*Dunollie.*—Two bores totalling 1,468 ft. were drilled on an area westward of the old Point Elizabeth Coal-mines to ascertain if coal was present between two parallel faults, one of which determined the westward boundary of the old workings. The boring proved that the coal had thinned and was very dirty, and further work has accordingly been abandoned.

*Stuart and Party.*—A bore was drilled to a depth of 230 ft. at the mine mouth to determine the interval between the seam being worked and the seam below. The coal was struck at a depth at which it would be too costly for the party to gain entry, therefore a further bore was drilled to a depth of 151 ft. from a position lower down-stream. Coal was struck at an economical depth, and the party started driving to the seam.

*Fisher and Party.*—Drilling has commenced on a lease west of the Seven-mile Creek, near Dunollie, to locate a seam of coal for a new co-operative party. Drilling is in progress.

*Kawakawa.*—A drill was despatched to Kawakawa, North Auckland, to drill at sites in Waiomio Basin recommended by the Geological Survey Department. Results have been disappointing, as no coal was disclosed, and drilling has been discontinued.