

Prior to the passing of the Act active measures had been taken with a view to commencing operations as soon as proper authority had been obtained. Certain preliminary steps had been taken in connection with the face-digging works at Mangawai and at Waiharara, and arrangements in connection with the purchase and storage of kauri-gum had been put in hand.

#### FACE-DIGGING WORKS.

Operations in connection with the above were commenced at Mangawai towards the end of October, and the works were in actual operation shortly after. Work of a similar nature was commenced at Waiharara about the middle of November, and at Waihopo early in January of this year. It may be here interesting to indicate the actual localities of the various works and the means of access thereto.

Mangawai is a small township on the east coast, on an inlet of the same name, situated about seventeen miles south of the entrance to the Whangarei Harbour. The port of Mangawai is navigable for boats drawing about 6 ft. of water.

Waiharara is a kauri-gum settlement on the western shores of Rangaunu Bay, about twenty miles west of the Town of Mangonui. The port of Waiharara is at Kaimaumu, which lies about three miles and a quarter to the north-east. Goods are transported from Waiharara to Kaimaumu by launch and punt.

Waihopo is situated at the northern end of the Houhora Harbour, about twenty-five miles south of the North Cape. The port of shipment for Waihopo is at Pukenui, on the southern side of Houhora Harbour, at a distance of about two miles from the entrance. From Waihopo goods are transported by launch and punt to Pukenui.

"Face digging," as the name implies, consists of turning over the land on a face—or, in other words, of digging the ground to the depth the gum is found—all timber met with being thrown up on the surface, and the ground left in a fairly even state suitable for subsequent farming operations. In the course of the work care is taken, as far as is found practicable, as the digging proceeds, to throw the top spit of the ground well back on to the surface of the ground already turned over. All the kauri-gum swamps contain buried timber in almost inconceivable quantities. The presence of the timber makes the work slow and arduous, and necessitates the use of jacks and explosives to facilitate the operations.

The actual scene of the works at Mangawai is about three-quarters of a mile from the village, on what is known as the Mangawai or Coal Hill Kauri-gum Reserve. This reserve comprises an area of 3,669 acres, of which about 800 acres is rich gum-bearing swamp land. The face-digging works were started on the eastern boundary adjoining Mr. Hogan's property. The swamp area being dealt with contains about 200 acres, and the whole of this area had been dug over and extensively potholed for the past forty years.

At the time of the great Austrian influx to the gumfields in 1896 Mr. Hogan informs me that from seven hundred to eight hundred Austrians were engaged in gum-digging on the land where the face-digging works are now going on. For several months this huge band of men were rooting up this area of land in all directions, and during that time dug tens of thousands of pounds' worth of gum from this Crown property. There could be no better illustration than is here afforded of the great wealth originally contained in the gum lands of New Zealand. It is suggested that some of these lands contained deposits of kauri-gum worth two or three thousands of pounds per acre. It may be here relevant to point out that these alien diggers enjoyed the privilege of digging all this wealth from the Crown lands of New Zealand on payment of the merely nominal license fee of less than 1s. a week per man.

Up to the end of the year an area of 15 acres had been turned over at Mangawai, at a total wages-cost of £1,673, and the estimated value of the gum recovered on the basis of July prices amounted to £2,200, showing a surplus of £527. To this should be added the improvement to the land, which may on a conservative estimate be put at £10 an acre, which represents a further sum of £150 to the credit of the works. The land operated upon has been dug to an average depth of 3 ft. Drains have been cut at frequent intervals, and about 8½ acres of the land has been logged up and the timber stacked in rows on the sides of the drain. As an indication of the large quantity of timber handled it may be pointed out that the timber, consisting of roots, stumps, and logs, is stacked in rows ranging from 3 ft. 6 in. to 4 ft. in height, the rows extending for a total length of about 70 chains. In the course of the work several fine kauri logs were uncovered, some of which have been cut into fencing-posts, of which there are now over seven hundred stacked ready for sale.

At Waiharara the work is being carried on in a locality known as the Big Flat, situated about two miles to the west of the Waiharara landing. The Big Flat contains an area of 900 acres, and is all land of a good quality. The flat is surrounded by an amphitheatre of low sandstone hills nowhere exceeding 250 ft. in height above sea-level. This area of land when all the gum has been recovered from it offers exceptional facilities for intense cultivation for fruit and general farming purposes. Lying to the south of the Big Flat, and separated from it by a low range of sandstone hills, lies the Waiparera Lake, which covers an area of 265 acres. The lake has an average depth of about 12 ft., and the surface of the water is 65 ft. above the level of the Big Flat. A tunnel 7 chains long will be sufficient to irrigate the whole of the Big Flat and the vast areas of land adjoining. Here an area of about 11 acres has been turned over at a wages-cost of £506, and the value of the gum produced on July prices is estimated at £447. Putting down the improvement to the land at £10 an acre, which amounts to £110, the works show a credit of £41. In connection with these works there were many disadvantages to be contended against, and considerable lengths of draining to be done, the cost of which has militated against the production of gum.