yard, and the gauge 2ft. The grade of this tramway is very slight, being only 1 in 144 and 1 in 179. The new tunnel is now being driven to intersect the coal, which it is expected to do at about 450ft. from daylight. This tunnel will avoid all necessity of pumping, and the coal will be won level free. The grade of this tunnel will be the same as portion of the tramway, viz., 1 in 179. So far as it has been driven (195ft.) the strata passed through consists of an exceedingly hard but poor quality of limestone. The output for the year ending the 31st December, 1887, has been 11,240 tons; the total number of men employed being thirty-three.

6. *Taupiri Reserve Colliery.*—This is one of the newly-opened mines in which operations for mining coal were begun in June last. This company's lease consists of 7,000 acres of the University College Reserve land, near Huntly, having Lakes Kimihia and Hakanoa as its western boundary. I am informed that permission has also been obtained from the Crown Lands Board to work the coal under Lake Kimihia. Boring operations were first commenced in June, 1885, and coal was found in several bores, the most important being a seam about 20ft. thick, situated near the northern boundary of the lease. To get the coal to market it was necessary to connect with the Waikato Railway, and a branch-line was constructed from it to the mine; this branch, which skirts the border of the Kimihia Lake, is two miles and a half long, and quite level; the cost of construction being £3,600. This work was well advanced before it was considered necessary to begin mining operations, which commenced in February, 1887, by sinking a trial shaft on a spur leading up from Lake Kimihia. The coal was reached at a depth of 31ft. from the surface, the dip being ascertained from a bore that was made about 8 chains away from this shaft. It was decided to drive a dip, or incline-tunnel, at a grade of 1 in 5. This tunnel reached the coal at 165ft., and at 63ft. further to the dip, or 228ft. in all. The first working-level was opened out at right angles to the inclination or dip of the coal. The extension of this incline-tunnel has been continued beyond the workings; the total length at the date of my last visit, on the 1st February, 1888, being 530ft. This extension, so far, shows that the seam continues very regular in its incline downwards, and that it dips right under Lake Kimihia. The dimensions of this tunnel are 6ft. 3in. high by 9ft. wide, which allows for two lines of rails, with water-channel on each side. The timbers consist of kauri cap-pieces, 10ft. long by 10in. by 10in.; legs, 8in. by 5in., 6in. by 6in. long, backed by 3in. side-slabs. The shaft is a small one, being only 5ft. by 4ft. It is 43ft. deep, and is used for pumping and ventilation, it being made into the upcast, or return-air course, a heading having been connected with it from the workings for this purpose. Up to the present the means employed for haulage has been a horse-whim, but a pair of 28 horse-power engines with necessary boiler-power are about to be substituted. The drainage is effected by a 6in. pulsometer, steam for which is supplied from the boiler of the locomotive-engine used on the railway, but the total quantity to lift at present is small, being only about 1,500 gallons in twenty-four hours. This mine is under the management of Mr. John Ord, and the work of opening it out has been done very creditably by him. The output for the six months it has been opened (tothe 31st December, 1887) is 2,226 tons; an average of eighteen men being employed.

7. *Miranda Colliery.*—This is another of the mines opened during 1887. Operations for raising coal were began in May last. It is owned by a company called the Miranda Coal and Iron Company, whose property consists of about one thousand acres, situated at Bridgewater, fourteen miles east from Mercer. The approach to the mine is by one of the tributaries of the Waikato River, called the Maramarua Stream, which is navigable to within half a mile of the colliery. Between the head of the navigable part of the stream and the mine-shaft a canal has been cut, the cost of which was £1,800. At the foot of the Maramarua Stream a wharf has been erected, to which a siding from the Auckland–Waikato Railway has been constructed. From the mine to this wharf the coal is conveyed in barges, which are towed by a specially-constructed stern-wheel steamer, the barges having a carrying capacity of 40 tons. The shaft has been sunk about 50ft. from the edge of the vast swamp that stretches from this place to the Waikato River, a distance of about twelve miles. The coal is in one seam, which is 53ft. in thickness. By boring, coal has been proved to extend nearly over the whole estate; but whether it maintains the same thickness all through I have not yet learned. The shaft has been constructed 14ft. long by 5ft. wide, and securely timbered with totara, the principals being 9in. by 9in. The top of the coal was reached at a depth of 145ft. from the surface; this, with 53ft. of coal, and including well-hole, makes the total depth of shaft 210ft. It is divided into two main compartments, one being for double winding, and the other for pumps and ladder-way. The poppet-heads are 30ft. high, the legs consisting of 12in. by 12in. kauri timber, the sills being of totara, 15in. by 15in. by 40ft. The ropes and cages have been fitted with detaching-hooks, and safety-catches, as required by the Act; but operations have been begun with only the small engine that was employed for sinking the shaft; the winding-drums in connection with which, being only about 4ft. 6in. in diameter, are far too small for the continuous working of a wire rope, the poppet-head pullies have also the same fault; the result being that the best steel ropes, which, with drums and pullies of not less than 10ft. in diameter, would last for years, do not last for a couple of months. The water in the mine is at present raised by tanks. The inflow of water is very heavy, necessitating about sixteen hours' constant winding out of the twenty-four; but regular pumping-machinery is about to be erected, the pipes for which (9in. in diameter) are already on the ground. The system of working the mine will be "bord and pillar," the bords to be 12ft. wide, with 16-yard pillars. So far the mine has been ventilated by making the pumping-division of the shaft the up-cast, but this is about to be altered to furnace-power; for this purpose a 9ft. circular shaft is about to be sunk at some distance from the present shaft; this will be lined with brick set in mortar. As there is plenty of clay in the locality the bricks will be made on the spot. Preparations for making these are now begun. As I mentioned in my last year's report, the mode of conveying the coal from the mine to the railway is the same as that first introduced into this district by Mr. E. B. Taylor, manager of the Waikato Collery, viz., that the body of the truck unships from the frame, and is lifted into the barges, and from thence emptied into the railway-wagons, so that no handling of coal takes place between the mine and the railway-wagons—which, from the tender nature of the coal, is very desirable.