is confined to a narrow area, not exceeding 40 chains in width, the extension through the plateau to the westward, as I have already stated, being interrupted by the basement rocks reaching the surface.

Towards the brink of the plateau, on the west side of the basement rock, the coal grits again appear, with a dip of 15° to the west; but they only contain, so far as yet ascertained, a thin band of shales, with one 16-inch seam of coal. To ascertain if any coal seam crops out on the seaward face of the plateau, which is exceedingly deep and covered with débris, a search was made from the outcrop of this seam, at 1,700 feet altitude, down to the base of the mountain. Four men were employed for a month in making this exploration, by excavating among the débris and in the creek beds.

No fresh seam of coal was discovered by this work; but a trench cut in the face of the hill, for 500 feet above the old Bore-hole camp, proved that the 16-inch seam found there is only a repetition of the thin seam exposed on the surface of the plateau.

The result of my examination, up to the present time, does not, therefore, enable me to recommend any place where boring should be undertaken on the low ground between the base of Mount Rochfort and Westport.

Ngakawau River.

This river is eighteen miles north of Westport, and is a comparatively small stream, taking its rise in the plateau to the north-west of Mount Frederic. It is the only locality where any mining for coal has been carried on in the district, except in the trial workings at Coalbrookdale, and those at the Mokihinui, to which I shall afterwards refer.

The coal at this place was discovered many years ago, but, until four months since, was neglected on account of the soft friable nature of the seam at the outcrop. The coal mine is 60 chains from the mouth of the river on the south side, at the head of a straight reach which runs east and west from the bar, with an extreme width of 5 chains, but narrowing very much at the outlet, as shown on the attached plan.

At low water the river is a succession of pools and rapids, from the coal mine to where it runs over the beach; but at high water it is a wide basin, with 8 to 10 feet of water on the entrance. The coal is within a few feet of the granite, with a sandy shale between. It dips 40° to the west, the strike varying a little from south to south 10° west, as far as can be judged of from the outcrop. The roof is a tough sandy grit, with mica and carbonaceous markings (20 feet), covered with micaceous flags and thin beds of brown sandstone (60 feet). These beds are followed by gritty sandstones and indurated sandy shales, the above formations forming a ridge that runs parallel with the coast to he south, rising from 300 to 1,000 feet in that direction. About halfway down to the mouth of the river the grits dip for a short distance at 70° to the south-east, but this is probably a local disturbance, perhaps due to the under-cutting of the river.

The excavation that had been made in the coal was only 4 fathoms in length, at the time of my visit (20th May, 1872), on a steep hill side, 30 feet above the water-level, and 40 feet back from the brink, as shown in section AB. A stage and shoot has been erected, with a slope of 1 in 3, and a breastwork in front that will enable it to carry 100 tons of coal in such a manner that it can be discharged at once into a vessel from a height of 20 feet, above a pool 170 feet wide by 5 chains long, in which there is 12 feet depth at low water. There is a pinnacled rock in this pool, which will have to be removed, after doing which, any vessel of a size that can cross the bar, will not only have room to swing, but may lie alongside and load during the ebb without taking the ground.

The seam is 16 feet thick, and though very friable and irregularly jointed, with a sooty and rather shaly fracture, it stands well in the face of the drive. There is a "brow" fault about 15 feet from the entrance, through which the surface water leaks, but otherwise the coal is quite dry. Its quality is excellent, and I saw it tested both in a forge and on the open hearth, and nothing better could be desired. It burns freely, with a bright flame and no unpleasant smell. If allowed to remain undisturbed it forms a compact coke, which, with the addition of a little fresh coal, can be entirely consumed, leaving only a small proportion of dull grey ash. The coal can be traced round the point of the spur to the south, the highest point of the outcrop being 100 feet above the water level, and there the coal is a good deal harder than in the mine. The outcrop then descends to a branch stream (Mine Creek), which it crosses about 13 chains (estimated) in a direct line from the mine. The coal has not actually been found where it crosses Mine Creek, as the grits and sandstones there form a very bold but short gorge, which is occupied by a deep pool, so that the bed of the stream cannot be examined. Below this point, Mine Creek flows over granite to where it joins the Ngakawau, about 100 yards above the mine. Following up this creek, the sandstones are seen gradually to pass into sandy clay shale and compact marl of a dark colour, still preserving the same dip as the beds at the mine, namely, 40° to the westward. Half a mile up the creek, in a south-south-west direction, marine fossils, like those in the Cobden limestone, occur in a brown marl-stone. About three-quarters of a mile up, the creek divides into two branches, and in the east branch nothing but the marl-stone is found, but the bed of the west branch is full of large blocks of sandstone and grit, with fragments of coal. On the hill face, east of Mine Creek, the grits are found to rise, still preserving their steep westerly dip, to a height of 800 feet; the outcrop rising at an angle of 15° to 20° to the south-east, as far as could be ascertained in the heavy timber and dense scrub which covers every part of this valley. At 960 feet above the creek, the open surface of the plateau is reached, and there the grits and sandstones are found lying flat, but with a general dip to the north and east. No coal has actually been found on this part of the plateau, nor in the outcrop on the face of the hill above described, but, on following the plateau to the south, towards Mount Frederic, there is a 16-foot seam of coal, of equal quality to that at Coalbrookdale, at an altitude of about 1,300 feet. Across the plateau to Coalbrooksale, a distance of about ten miles, the surface is tolerably level, and many outcrops of coal were discovered by Mr. Burnett in this line.

From the level at which the present mine has been opened, up to the outcrop of the seam, I do not estimate more than 80,000 tons will be available, even if no break occurs between the mine and the creek at the back, and about twice as much may be available in the block between the mine level and the water-level, so that for shipping this small quantity of coal the river in its present state is quite