

This incline, from the face to a point some 15 chains up, has been since under water, which is now being drained to admit of the area of coal being worked towards the back portion of the lease. Along the lower side of the main level, from the top of the incline to the thin coal, a distance of 28 chains, a rib of coal 2 chains wide has been left at the desire of the Inspector of Mines, and, having in view the future development of the mine, we consider that this rib of coal should be left, as a means of providing access to the back of the lease. This coal at present serves the purpose of keeping the water from gaining access to the dip workings, but the chief object in leaving it was to provide a roadway, should it be decided to further prospect the line of thinning—a roadway which would also be the best for the future working of any coal that may be found beyond that line in the western portion of the Brunner lease. A lower level has also been driven from a point 10 chains down the incline; and the coal from this up to the rib already mentioned has been formed into pillars, the most northerly of which are now being taken out. At this level face the coal is 9ft. in thickness, the upper half of which is of unsaleable quality; the rails have been lifted, and the pillar-work, as already mentioned, started, but the fact of the coal having maintained a good workable thickness right up to the line where it commenced to thin in the end of the main level, which is 10 chains to the rise, gives good grounds for expecting a fair area of coal to the dip, and possibly the dying out altogether of the thinning. This will be proved as the lower levels extend westward from the incline, a position further away from the stone drift, and more favourable for the haulage of the coal. Almost all the way along this lower level, clear and unmistakable signs of stress and movement are visible both in the coal and hard grit roof; this is in the structure of the measures, and is in no way due to any of the workings, but no actual displacement is to be seen anywhere near the face.

A prospecting drive was extended from the face of the main level into thin coal a distance of 13 chains some six years ago. Mr. Bishop informs us that the coal in this drive was irregular, being in some places one foot and at other only a few inches in thickness, and finally, after passing the shear of a fault, of which the amount of throw was not apparent, cut out altogether. It was impossible to examine this drive, owing to falls from the roof, which have precluded access to it for years back. This thinning of the coal, at the western side of the working, would appear to run in a north-easterly direction, and is likely to be irregular in course, but how far it may continue is uncertain, and there is no evidence apparent to base any calculations on.

#### NEW WORKS.

A shaft was sunk on the north-east corner of the Brunner lease, when the mine was worked under the Nelson Provincial Government, and this went through coal about 5ft. in thickness. It is, however, a question whether the coal found in this shaft is not the upper seam, which was cut through in the shaft sunk by the present company about two years ago, and that the main seam may yet be found below this. The present proprietary, about two years ago, sunk another shaft in this part of their lease, about 20 chains nearer their present workings, and coal was found in it about 8ft. in thickness, of good marketable quality. With the exception of these two shafts, there is nothing further known respecting this part of the leasehold beyond the fact that the coal in the old workings adjoining this block was stated by the manager to be soft and unsaleable.

Portion of the area proposed to be worked lies directly northward of the workings on the western side of the Brunner No. 1 fault, and, on the northern faces of these workings, the coal, although it maintained a thickness of about 8ft., is stated by Mr. Bishop to have been of inferior quality, being neither suitable for market nor coke-making. How far this soft unmarketable coal may extend northwards is unknown, but it is not likely to extend for a great distance, or, at least, it has not proved to be of any large extent in other portions of the mine where it has been met with. This question, however, affects the probable extent of the coal area proposed to be opened up.

The probable area of coal to be worked by the proposed tramway has been referred to as being 20 acres in extent, but this area is problematical, and, until further prospecting is done, all that can be said is that there is a certain known area containing marketable coal, the extent of which is at the present time unknown; and while it might be less than 20 acres in area, it might equally as well be said that it may prove to be very much more. Further, if the line of thinning should not continue to the northwards, the working of this block would be the means of prospecting the western area of the Brunner lease, and perhaps of disclosing a large field of coal in that direction.

Having examined the mines as far as practicable, and obtained information from Mr. Bishop of the workings which are now closed, we consider there is a probability of opening up a considerable area of coal from the proposed tramway, if the coal extends further to the northward from the old prospecting shaft, already referred to, sunk by the Nelson Provincial Government. From the explorations made by Messrs. McKay and Cochrane in tracing outcrops in the Coal Creek lease, and on the Bald Hill, above the Brunner lease, it is not likely that the coal seam will prove to be the same thickness at the western boundary of the lease as is found in the old workings. But, although the strata immediately covering the coal can be seen in some places near the most northerly point of the lease, there are no thick outcrops of coal to actually prove that there is a workable seam, beyond the fact that the coal again crops out in the Coal Creek lease, about a mile further to the north-west.

Although we have stated that there is a certain area of coal that can be worked from the proposed tramway, this area is not sufficiently proved to justify a large expenditure being made in opening it up; and, before any money is expended in the construction of a tramway, it would be desirable to further prospect the seam.

In regard to the present workings, unless prospecting-works are carried on simultaneously with the working of the coal, it will have a disastrous effect on the Grey Valley District, and place the Government in a worse position than it is at present in regard to getting revenue from these mines.