

14. *Albury Mine*.—(8/6/93): The seam is about 21ft. thick, and stands nearly vertical. The outcrop was discovered crossing a branch of the Opawa Stream, and has been opened by a dip-drive to the seam and a level following the coal eastward, at a depth of about 17ft. below the flat or bank of the stream. About 5ft. of coal is being taken out on the footwall side, leaving from 15ft. to 17ft. to be taken out at some future time. It is intended to work on this level for some time, to avoid pumping the drainage to any greater height than is absolutely necessary till some power other than man-power is erected to do the work. Possibly a siphon to the creek-bed would drain to the level of the present workings. It has been suggested by some one that a small water-wheel would do the pumping, but it is doubtful if there will be sufficient water in the creek all the year through to do this work. A drive westward from the bottom of the dip has been opened some little distance, and an upcast shaft sunk at the end. At the time of my visit there were three men employed in the mine. I was told by one of the men that he had found some small pieces of anthracite coal in the creek, close to the outcrop of the big seam, but he failed to find the seam *in situ*.

15. *McPherson's Mine, Waimate Forks*.—(28/6/93): This seam, or seams—there are several exposed to view in the high face of a very steep terrace on the west side of the Waihao Stream—dip at a steep angle in a south-west direction from the stream. The most eastern part of the outcrop is very little above the ordinary flood-level, but following the outcrop to the west it is slightly higher. Two or three short tunnels have been driven on the coal into the terrace a short distance, till the drainage became a trouble: the driving then ceased. The present mining is being done in an open face, where the top 6ft. of good coal is being got out handy. This 6ft. rests on a band of a few inches thick, which is on top of more coal, said to be 4ft. thick.

16. *Studholme Waimate Coal-mine*.—(28/6/93): This was my first visit to this mine, which appears to have been working for many years. It is situated on a terrace on the north-east side of Stoney Creek, and about 15ft. above the stream. It rises gradually into the terrace as far as driven on (3 chains), and is supposed to be 20ft. thick; the bottom, 8ft. only, is being taken out at present. The first chain of the tunnel is timbered, and appears to be safe. The coal in the face is very compact and hard; do not think it commands a big sale in the district. There was only one man at the mine.

NORTH OTAGO.

17. *Wade's Awakino Mine*.—(27/4/93): Wade's old pit on the east side of the Awakino Stream has not been opened since the big flood, over two years ago, which filled up the pit mouth and buried it out of sight. Some attempt was made, a few months ago, by Mr. Cairns, of Wharekuri, to get into the mine again, by erecting a small water-wheel, which worked a pump continuously for some weeks, but without making any perceptible reduction of the body of water in the mine. The creek-bed at the time of the big flood was so much altered and raised near the pit mouth—where the stream is now running—as to give strong grounds for believing the present stream to have direct communication through the gravel with the old pit mouth.

Wade's Pit on the west side of the Awakino: Since the flood, this old pit has been reopened, and put in working-order. The seam stands nearly vertical, and lines nearly north and south. A new adit above the highest flood-mark was driven into the terrace a distance of 3 chains, where it intersected the seam at a depth of from 50ft. to 60ft. from the surface. The old workings at a higher level were then driven into; a drive in this about 3 chains long going northward was examined, where the coal is said to be from 18ft. to 20ft. thick, the mining here having been done six years ago, it is said, from a shaft which is now used as an air-shaft. The air is good throughout the workings.

18. *Phillips's Awakino Mine*.—(27/4/93): A vertical seam opened on the east side of the Awakino. The pit mouth is a little below the highest flood-mark, and the workings are about 50ft. below that level. The seam is about 20ft. thick, but only a portion of it is hewn out. The coal is hoisted by a horse-whip, and the pump is driven by a small water-wheel. The output of coal is small.

19. *Cairns's Wharekuri Mine*.—(26/4/93): This mine was on fire when I was placed in charge of this district, and was for a time abandoned. It is again opened by a new dip-drive to a level where the roof is said to be 6ft. below the floor of the old workings—which I have not yet seen—and 100 yards has been driven along the seam, 9ft. wide by 6ft. high. There is an airway about midway along this tunnel going up to the surface 60ft. overhead, creating a good current of air. Cairns promised to make another upcast shaft further ahead when the work is advanced the required distance. The seam stands nearly vertical, and is calculated to be 30ft. thick. The present level is the fourth in this mine, and now on a level below the bed of the creek, a short distance in from the tunnel mouth. The drainage is taken out in a barrel on a trolley by a horse. There is a doubt about the coal extending to any great depth, since the Lias bottom is to be seen at a lower level down the creek, at the road-crossing.

20. *J. Collins's Mine, Wharekuri*.—(26/4/93): Since my previous visit this mine has been opened in a second place 250ft. higher up the creek, but at a slightly lower horizontal level. This new opening has a dip of 1 in 12, and intersects the coal at a distance of 5 chains, through very good standing ground all the way. The coal stands nearly vertical, and is said to be 30ft. thick. The previous workings were examined, and found in good order. There is generally 20ft. of the seam hewn out, which leaves about 5ft. of coal on each side to keep the walls intact. The new workings are through into the old, which keeps the mine well ventilated. A shaft has been sunk 28ft. below the floor in good coal all the way. There is no water in the workings, although they are below the bed of the creek, only a short distance from the mouth of the tunnel. The bed of the creek is stiff clay, with a very steep fall to the Waitaki.