

R E P O R TON RESULTS OF MINING DEVELOPMENT AT THE 300 FT.
LEVEL OF OLD BOYS MINE, MATHINNA.

The work performed by the Messrs. Brock at the No. 3 level of the Old Boys Mine shows many evidences of the peculiar structure of the ore-bodies. In the upper levels these ore-bodies appear ill-defined and very erratic, no direct relation being apparent between closely associated bodies, nor could they be definitely correlated with outcrops.

At this level the main ore-channel is exposed over 500 feet in length. It is a well-defined channel following a fairly regular north-east course and contains several shoots of gold-bearing stone 70 to 80 feet in length and 6 inches to 4 feet in width. From this channel lead off strike veins in bands of quartzite bearing 5° W. of N., and narrow but rich infillings of fissures bearing a little south of west. In addition to those are others coursing east of north almost parallel to the main fissure.

From the shaft a crosscut leads off due west 15 feet then turns west of north where it intersects a narrow gold-rich vein. At a little over 50 feet another gold-rich vein is cut; thence the crosscut turns north-west to meet the main channel where a north-west slide overlies a shoot of rich stone. Again from the plat at the shaft another crosscut bears a little south of west a quartzite strike vein which there turns south-west 80 feet to the point of intersection with another quartzite strike vein.

Continuing along No. 2 crosscut the last mentioned strike vein is intersected and near the main channel a north-west slide is passed. Between the two points of crosscut intersections is a wide shoot of gold bearing stone.

Going south westward along the ore-channel about 100 feet a narrow vein of rich stone leads off a little west of south until it meets at 20 feet a north west slide.

From that point along main channel quartz appears sporadically up to No. 2 winze chamber, in the back of which very rich stone comes in. Ten feet farther on a slide cuts it off, but it follows the slide on its south-westerly dip.

Sixty feet farther on rich stone appears in the channel and at a point 30 feet beyond a body leads off a little south of west 35 feet where No. 1 winze opens it to a depth of 32 feet. No ore appears in the winze to 10 feet at which point a north-west strike dips south westward out of it. Beyond this slide no vein quartz has been found south westward, although the drive has been continued far beyond it and in a semi-circle following the varying course of the strata.

The only other work of note is a long westerly crosscut driven to intersect the large west reef. On the way a rich veinlet was passed and where cut west reef is poor containing quartz veined with ankerite and flecked with galena and pyrite. At the point of intersection it appears to course No. 10° E.

The evidence obtained goes to show that the hanging wall rock of the main channel has been displaced south westward and downward; that north-west slides dipping south-west at 45° terminate the several shoots of gold-bearing stone; and that certain beds of "competent" rocks, such as quartzite, capable of withstanding high pressure without flowage, are veined with gold-bearing quartz. These as a rule course No. 5^o W. and may be described as bedded deposits. The west of south fissures, although short, are rich, and are the result of differential slipping in that direction.

The prospects as a whole appear more favourable at the 300 foot level than at the upper levels.

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