

92H/2W  
92L-19

GOLDEN HORN GROUP = Homeward  
NOMASH RIVER,  
ZEBALLOS, B. C.

P. W. Racey

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The claims, Golden Horn Nos. 1 to 9 inclusive, as described by Mr. Smith, cover a roughly shaped square with sides measuring approximately 4,500 feet. They cover the ground in the directions of the strike of the veins for that distance and over elevations of from about 1,100 feet at the north-east corner to over 3,000 feet on the ridge where the claims join the North Star Group. The topography is such as to permit development by tunnels to very considerable depths.

The rock formation consists of granodiorite which appears slightly darker in color, or more basic, than that found toward the west on the North Star and Spud Valley properties. It is a portion of the Zeballos batholith which invaded older rocks of sedimentary and volcanic origin. In it are found the veins of the Spud Valley, North Star, White Star, Central Zeballos and Re Ora, etc., properties. The veins of the Privateer and Mount Zeballos mines are in the sedimentary-volcanic complex from the Homeward group which is close to the north-east margin of the granodiorite.

All veins found in the granodiorite, including those on the Homeward group, are thought to be the result of fractures formed by the shrinkage strains set up in the rock when cooling and by

subsequent minor movements set in the planes of the fractures. This movement, though small, has caused the formation of considerable gouge material in the veins and the combination suggests that the fracture now best exposed in the tunnels should extend for quite long distances both to depth and laterally.

All the veins observed strike generally east and west and dip very steeply to north or south and are filled with quartz, gouge, crushed rock and small amounts of iron pyrite, arsenical iron and zinc blend. The gold is associated with the sulphides and is often found in native form so that the sample returns from the ore are sometimes quite erratic necessitating close sampling carefully averaged or else bulk sampling in order to obtain accurate figures of the average gold content.

The main vein on which most work has been done strikes east and west and dips at 80 to 90 degrees northward. It is located on the Golden Horn No. 4 claim not far from the center of the group and has been followed by the tunnels and many opencuts for distances of over 1,500 feet horizontally and some 700 feet vertically. It varies from 2 to 30 inches in width and averages about 6 inches. Two small dark-colored dikes follow it for long distances, although the one nearest the face of No. 1 tunnel shows first only 30 feet back from the face.

No. 1 tunnel was sampled continuously for its entire length of 638 feet at intervals of 5 to 10 feet. From the portal on in to 235 feet the vein shows to be non-commercial. From 235 to

310 feet it averages 4.6 inches in width and \$30.93 gold per ton which gives \$3.95 per ton over a stoping width of 36 inches. Company sample results given the writer for this area average \$10.23 over a calculated width of 36 inches. From 310 to 420 feet the vein is non-commercial. From 420 to 580 feet, 610 feet, the vein averages 5.64 inches wide and \$58.55 per ton or \$9.18 over 36 inches width. The Company's samples average \$16.00 over 36 inches width. From 580 to 638 feet it is non-commercial. In addition to these, other Company samples without widths were given the writer some of which were extremely high grade and a number were over \$5,000.00 in gold per ton.

At a distance of 370 feet from the portal of No. 1 tunnel a crosscut has been driven 130 feet northward in the hope of exposing a vein that shows in a small opencut at 115 feet north of the tunnel portal where it assays \$6.30 per ton over a width of 3 inches. The crosscut had not reached this vein at the time of this examination, and if it is not found very soon it would be better to try and follow out the vein on the surface to learn what has happened to it.

No. 2 tunnel is located 120 feet vertically below No. 1 tunnel and at the time of examination had been driven a distance of 466 feet. Sampling was done only at those places where Company returns suggested the presence of commercial ore. The vein is first seen at a distance of 115 feet from the portal although a very tight and narrow stringer shows to near that point

and contains nothing but low values. At 240 to 260 feet the vein averages 8.3 inches and \$47.26 per ton or \$10.90 over a width of 36 inches. At 255 to 270 feet the average width is 7.6 inches and \$52.68 per ton or \$11.10 over a width of 36 inches. The remainder of the tunnel showed to be non-commercial. The tunnel has some 40 to 50 feet to go to get to the point where the better ore in No. 1 tunnel might extend to.

Sufficient ore of commercial grade has not yet been developed to warrant the erection of a mill, but it is possible that it may be found in the process of carrying on further work.

In addition to what is suggested regarding the crosscut in No. 1 tunnel, it is advised that No. 2 tunnel be extended well beneath the position of the ore in No. 1 tunnel so as to be able to study what changes, if any, take place in the ore shoot with this depth. Assuming that results are satisfactory, then both No. 1 and No. 2 tunnels should be continued in search of new ore shoots and another tunnel could be started at a convenient distance above No. 1 tunnel.

Mr. Smith exhibited a vein said to be located on the End Fraction close to the north boundary of the Golden Horn No. 5. Water in the creek there prevented a close examination, but the vein appeared quite strong and assayed \$45.50 over a width of 4 inches. It strikes N 86° W and dips at 67° southward. Some work is warranted on this if it is on Company ground.

The resulting conclusion reached is that further development of the Homeward group is warranted, that sufficient ore of com-

mercial grade has not yet been developed to warrant consideration of mill installation, that ore as now exposed could be sorted to a very profitable grade and that with the development of sufficient ore the undertaking could be operated at profit.

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