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No 15.

93G/1E

ANNUAL REPORT OF THE MINISTER OF MINES

Part C -- Special Report

By

Douglas Lay

AHBAU LAKE AREA. Quartz veins are known to occur at several points in this area. In addition to those described on Moosehorn Creek, others, situated 2 miles north-east of the south end of Ahbau Lake, are described in Memoir 118, Geological Survey of Canada, 1920. The occurrence of quartz veins is also reported at several points more immediately west of Ahbau and Lodi Lakes. In the case of those examined, the host-rocks are schistose sediments.

← 93H024 (5W)

MOOSEHORN. This group, consisting of a number of claims owned by H. Guthrie of Cottonwood, is situated on Pre-emption Lot 5623 on Moosehorn Creek, a tributary of the Willow River. It is reached by following from Cottonwood the main Cottonwood-Ahbau Lake pack-trail across the timbered rolling plateau to a point near the south end of Ahbau Lake. At this point a branch from the main trail follows closely the east shore of the lake to its northern end, and thence runs north-easterly to the Willow River, which is crossed on a log-jam or at low water may be forded by horses. From this point the trail follows the right bank of the Willow River and the right bank of Moosehorn Creek to the owner's cabin situated at elevation 3200 feet in close proximity to the mineral showings. From a point 10 miles from Cottonwood onward for 12 miles the trail passes through an extensive burnt area. With this exception the plateau is well-timbered. More immediately west of the Willow River the trail passes over a hill, but a more favourable route could be found in this region. Except as noted, the grades on the trail are nowhere steep, but there are some soft places.

In the vicinity of the mineral showings, Moosehorn Creek has incised a steep-sided narrow valley. The right bank rises from the creek at an angle of about 30 degrees to steep bluffs, save that at one point a low bench occurs between the creek and the sharply-rising rim of the valley. The top of the bluffs is about 350 feet above the creek, and above this elevation the heavily-timbered slopes are less abrupt. Within the area occupied by the mineral showings, the formation is well exposed but elsewhere is obscured by dense timber and vegetation.

The formation consists of intercalated schistose argillites and quartzites which strike in main north-west, with dips varying from 25 to 78 degrees to the north-east. At one point in the vicinity of the principal vein, there is an anticlinal fold in the strata trending north-east. There appears to be a narrow acid intrusive tongue in the formation on the hanging wall-side of the principal vein. Other observers report the presence of several small dykes, but close search

failed to reveal them, and they may be obscured by extensive sloughing of the largest open-cut. A large number of quartz veins occur within an area about 1200 feet in length and 500 feet in width. The veins vary in width from mere stringers up to in one case 13 feet and in another case 5 feet, but are generally narrow. They are of two different types, some striking with the formation, others cutting across it at a small angle. The latter show considerable evidence of post-mineral movement, and both walls are free. Mineralization in evidence is on the whole sparse, occurs mainly in bunches, and consists essentially of galena and pyrite, with a small amount of sphalerite.

The property was discovered by H. Guthrie in 1918, and little beyond assessment work was carried out until 1933, when an option on the property was acquired by a syndicate known as "Eskridge Syndicate No. 2". The syndicate in 1933 erected a cabin, and commenced driving an adit-crosscut to explore the region below the principal vein. This adit was continued the following year to its present face a distance of 147 feet from the portal. Operations were thereafter suspended, and have not been subsequently resumed. (Refer to Annual Reports of the Minister of Mines for 1920 and 1933, and Memoir 118, Geological Survey of Canada, 1920, pages 99 to 101).

The surface showings comprise exposure by open-cuts of a number of quartz veins within a horizontal range of 1200 feet and vertical range of about 350 feet, and are situated entirely on the Willow mineral claim. Of these exposures, three are immediately adjacent to the creek and the remainder are on the steep slope on the right bank. Exposures do not afford much information regarding the veins or their continuity in depth or along the strike.

An open-cut 25 feet above the creek, on the right bank, exposes a vein, 20 inches in width, with several small stringers in close proximity to the hanging-wall. The vein strikes north 52 degrees west and dips 65 degrees north-easterly. A sample across 20 inches assayed: Gold, nil; lead, trace.

About 220 feet upstream on the left bank and just above creek-level is a vein of lenticular character, 8 inches wide, well-mineralized with pyrite and galena, strike north 57 degrees west, and dip 50 degrees north-easterly. A sample across 8 inches assayed: Gold, nil; lead, 0.2 percent. Another sample of the best mineralized portions only, assayed: Gold, trace; silver, 5.0 oz. per ton; lead, 2.0 percent; zinc, trace. This vein appears wider in the bed of the creek. Another quartz vein appears to cross the creek immediately south of it, but was inaccessible at the time of examination. These veins were called Nos. 1 and 2 by the owner.

Distant 320 feet north-east from the last-described vein, at an elevation of 3365 feet, is an open-cut exposing a quartz vein known as No. 3. This vein appears to be about 13 feet wide and to strike north-east and dip north-west. It is of drusy character and somewhat oxidized. A sample taken across 13 feet assayed: Gold, nil.

Distant about 800 feet in a north-westerly direction is the vein of apparent premier importance known as No. 5. It is exposed by 3 open-cuts and by natural agencies for a length of approximately 275 feet along its strike, and over a vertical range of about 125 feet. The ground in this region is precipitous, and access to the outcrop is limited. The average width of the vein where exposed is 5 feet and in places it contains bunches of galena and pyrite. The walls are free and it strikes north 63 degrees east, and dips 45 degrees north-westerly. The host-rocks at this point exhibit an anticlinal fold, strike nearly due east and west and dip north. This vein was sampled at 3 points along the strike at intervals of 10 feet. One sample assayed: Gold, trace; silver, 6.0 oz. per ton. The two remaining samples showed a trace of gold in one case, and no gold in the other.

Close to and somewhat above No. 5 is No. 6 vein, width 2 to 3 feet, exposed by an open-cut and natural agencies for a length of 25 feet along the strike. It strikes north 53 degrees east and dips 60 degrees north-westerly, and is therefore likely to intersect the No. 5 vein in depth. Three samples were taken at different points along the strike of this vein, all of which assayed: Gold, nil.

No. 7 vein is situated about 80 feet north of No. 6, and is exposed at one point only. It strikes north-east, dips 40 degrees north-west, and has a width of about 15 inches. It contains some galena and pyrite. A sample across 15 inches at the point of exposure assayed: Gold, trace; silver, trace.

No. 8 vein, about 15 inches in width, is approximately 35 feet north of No. 7, and its strike and dip are similar. A sample at the point of exposure across 15 inches assayed: Gold, nil.

Underground workings consist of two short adits, now caved, and inaccessible, at elevations of 3305 feet and 3310 feet. Another adit at 3210 feet elevation is driven on a bearing north 14 degrees east for a length of 147 feet to explore the region below the surface exposures of No. 5 and neighboring veins. Schistose argillites, strike north 17 degrees west,

dip 75 degrees north-easterly, are exposed in this adit, and six quartz stringers; four in the face, and two in the west wall near the face. The quartz stringers conform in strike and dip with the host-rocks. Samples taken from one of the more promising stringers, and also across the full width of the face, yielded negative results on assay.

Examination at the base of the steep bluffs on this property disclosed the existence of several additional small veins. One about 9 inches in width is continuous for at least 300 feet and its strike is similar to that of veins Nos. 5, 6, 7, and 8. There is evidence that the veins of this type may persist for considerable distances along their strike and dip, and in the circumstances, it is unfortunate that stronger evidence of gold values was not obtained.

All elevations in this report are barometric.