

PRELIMINARY REPORT
on the
J. A. W. GROUP.

Location:

This mining property is situated along the divide between the Duncan and Lardeau rivers in the Trout Lake and Ainsworth Mining Divisions of the Kootenay District, B. C. It is from 4 to 5 miles west of the Duncan River, and 10 to 16 miles N. E. of the Lardeau River. It is 19 miles by trail from the middle of the property to Girrard at the lower end of Trout Lake and the terminus of the Trout Lake branch of the Canadian Pacific Rlwy. whence communication is maintained with the smelters and sources of supply the year around. It is on the crest of the southern extension of the Selkirk Mountain Range with elevations varying from 5,000 ft. at the lowest point to 8,000 ft. at the highest.

Property:

The group is composed of the consolidation of three groups of Crown granted mining claims and one millsite beginning at the southeast end with the "Abbott Group" of seven claims and one millsite; the "Jewell" of seven claims, and the "Wagner" of 23 claims. The south end being at the head of Lake creek tributary of the Lardeau river and the north end N. 45° W. six miles on Stevens Creek tributary of the Duncan River.

Operating Conditions:

The area covered is steep mountain sides and glaciers. There is no timber suitable for mining or construction work on the property itself but at the millsite and lower down along Healy Creek there is an ample supply for all purposes. On the Duncan side of the divide there is also plenty of timber at lower altitudes.

Water power can be developed along Healy Creek at or below the millsite for while the fall is not as heavy as on Hall Creek the minimum flow during the freeze-up will be greater as it heads at lower altitudes. While Hall Creek falls at the rate of 1,000 ft. to the mile, its source is the glaciers and from high altitudes which freeze up during the cold months.

Communication can be obtained with the Trout Lake branch of the C. P.R. at a point 4 miles east of Girrard by a 12 mile wagon road. The grade is only 200 ft. to the mile and a branch from the railroad could be built and operated. Properly located such a road could be kept open the entire year.

The climate is one of long winters and heavy snowfall, the snow going off in the lower altitudes by June and coming in the latter part of November. On the surface of the mining property the snow does not go off until August, of course never on the Glacier and snowfields.

When the property is developed and equipped for production there will be no difficulty in operating the year around. Compared with the San Juan and the Gunnison District, Col. and the Park City District, Utah, the operating conditions are much better

The geological conditions are the very best for the expectation of the occurrences of tonnages of commercial silver, lead, zinc ores of a grade varying from that of Abbott #3 to Jewell #1.

There are three distinct occurrences of ore observed. The Contact, the Vein in the broken slates; and the bedded veins in the slates. The contact should be the most dependable and only one real opening on it and one on the replacement in the limestone adjoining it. The vein in the sheared slates - while this shows a remarkable persistency on the Abbott Group the only mineralization is at the caved tunnel on the Jewell. The bedded veins in the slates show up only on the Wagner Group, and while the outcrop and surface showing are from all reliable reports good, no depth has ever been reached on them to determine their persistency.

With these three possibilities, I have no hesitation in recommending the property as a high grade exploratory proposition justifying a sufficient investment to determine its possibilities for commercial tonnages of silver-lead ore.

Respectfully

"J. H. Eby" (signed)
Mining Engineer and
Geologist.

Dated at Spokane, Wash.
Aug. 1, 1929.

GEOLOGY

The rock formations on the property consist of a series of black slates with occasional interbedded quartzites and a white limestone highly metamorphosed, to a marble. An anti-clinal fault passes through the middle of the property for its entire length. The slates were lifted up by a mass of eruptive magma and the limestone dragged along and tilted. The slates in the undisturbed area to the S. W. of the fault dip 45° - 50° S.W. with a badly broken and sheared zone of slates adjacent to the contact with the limestones and for a distance of 200 ft. and more from it. The limestones dipping at 75° - 80° to the N. E. are highly metamorphosed indicating the intensity of the movement.

This fault contact, which extends for the entire length of the property, can only be seen at a few places at the south end on the Abbott Group where mineralizations occur along the contact itself and replacements extending into the limestones (all the samples taken on the Abbott are along it). The reason why it cannot be seen further north is that the solar slates adjoining it were more easily eroded ~~so that~~ by the ice and water forming a V-shaped trough along the harder limestones which, in turn, were filled by the talus from the steep walls of limestone adjoining.

In the broken and sheared zone of slates adjoining the fault of Hell's Kitchen or Hall Creek occurs a well-defined quartz vein 10 ft. and more in width. It shows very little, if any, mineral on the Abbott claims, but on the Jewell is claimed that it is what the tunnel now caved and from which sample Jewell #1 taken on the dump, and Jewell #2 from a piece of Float were obtained, cut.

To the north, this same vein could not be identified but it may be the showing along one of the gashes cut by the streams from the Glacier on the north side of the basin of Hell's Kitchen. Farther north the heavy morainal debris and the Glacier itself cover it, but to the west in the regularly dipping slates, occur bluffs showing bedded quartz veins with intrusive schist showing a little mineral and 1/2 mile farther north in the middle of the Glacier a bluff with a ridge extending N. W. said to go to the northern limit of the property, occurs. In this bluff are seen a number of mineralized beds 16 inches to several ft. thick, varying in content from solid galena to scattered mineralization in quartz. A tunnel was driven into this bluff and a winze sunk could not be entered but was reported to have in its bottom 8 ft. of solid galena. A sample from the dump, Wagner #1, was said to come from it.

Ore Possibilities:

The exploration work has not reached the point where any assurance of tonnage of commercial ore sufficient to justify the investment of capital to develop the orebodies and install a plant to produce on a scale capable of returning a profit on the investment. The showings of ore are not of a sufficiently high grade to pay for hand sorting and shipping by pack train.

Even if the outcrop extending north from the bluff in the Glacier on the ridge which bisects the Glacier were as rich as reported, probably about like samples Wagner Samples Nos. 1 and 2, it would not be a commercial proposition.

DESCRIPTION OF SAMPLES.

- ABBOTT #1 14 ft. wide lime-slate contact, 500 ft. east of the divide between Halls and Abbott creeks, probably on Jewell Group. Lead - 3.9%. Silver 2.2 oz.
- " #2 Sample of 15" streak stringer replacement in the limestone 1,000 ft. E. of Hall - Abbott Creek divide. Lead - 72% - Silver 21.4 oz; Zinc - 0.60
- " #3 Average sample big replacement in limestone above the tunnel about 1 mile East of the divide Hall and Abbott creeks. Lead - 8.9%. Ag - 5.8. Zn. 16.1% (approx. value at Smelter \$20.00)
- JEWELL #1 Average sample from orepile on dump at caved tunnel in the slates, ore said to come from face 10-20 ft. wide. Lead - 28.7%; Ag. - 22 oz. Zn. 3.8%. Approx. value at smelter \$40.00
- " #2 Average end of a block of float ore representing a section of a vein. Sample taken across end. Block 4 x 8 x 10 ft. Pb: 13.4%; Ag: 8 oz. Zn. 1.9%.
Approx. value at smelter \$17.00
- WAGNER #1 Sample from dump at Glacier outcrop, said to have come from the bottom of a winze in tunnel from a face of ore 8 ft. wide.
Pb - 34.6%; Ag: - 43.2 oz. Zn: 6.3%
- " #2 Sample from a 16" streak of pure galena in the bluff on the Glacier. Pb - 60.2%; Ag. 70.6 oz. Zn. 3.0%. Au: 0.40 ozs.