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Report on the  
T.M.S. SHOWING, ALICE ARM, B.C.  
and on a  
COPPER-GOLD SHOWING AT EALUE LAKE, B.C.

by

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August 24, 1961.

### Alice Arm Showing

On August 14, 1961, the writer, in company with Mr. Lee Cannutt, prospector, examined a silver showing on the T.M.S. group of claims, south of Alice Arm, B.C. The prospect lies in the headwaters of Lime Creek at about 3,500 feet elevation and is accessible from tide water by trail starting at a point about 2 miles south of Alice Arm. The prospect is about 1 mile south of the Kemco Molybdenum showing, now being actively explored. The writer was taken by helicopter from Alice Arm wharf to a clearing about  $\frac{1}{4}$  mile from the silver showing. A cabin here is adequate for 2 men and room can be made for tents.

The showing lies near timber-line and widely spread clumps of trees stand in patches of heather and buck brush. Outcrops are very few except along the creeks which have cut canyons 50 to 300 feet deep and where bed-rock is nearly continuously exposed.

The rocks in the vicinity are graywackes, argillites and conglomerates of the Hazelton Group. They strike northwesterly and dip 35 to 60 degrees northeasterly. A 10-inch basic dyke cuts the bedded rocks near the main showing.

The silver showing is exposed at creek level in a 10-foot adit that extends into the southwest wall of one of the several tributaries of Lime Creek (see sketch map).

The rock in the adit is somewhat sheared black argillite and graywacke. Two distinct mineralized zones are present (see sketch of face). Vein A strikes 120 degrees and dips about 40 degrees northeast, thus lying close to the bedding. Over most of its exposure it averages

about 2 inches in thickness but where it passes into the floor it is about 4 inches thick. It is mineralized with pyrite, chalcopyrite, galena, sphalerite, and argestiferous tetrahedrite. The adjacent black argillite is pyritic. Vein A is interrupted by a nearly vertical fault zone, is deflected upwards and eastwards and disappears into the back, still on the east side of the zone. The fault zone consists of several faults striking north 15 degrees east and dipping vertically to 85 degrees west, ranges up to 2 feet in width, and shows slickensides pitching steeply south. Judged by drag effects, the west side appears to have moved relatively upwards. The lowest 16 inches of the zone consists of sheared rock with abundant quartz stringers, parallel to the zone, a few of which, each some  $\frac{1}{2}$  inch thick, extend upwards towards the back. The stringers contain finely divided pyrite, sphalerite, chalcopyrite, galena and tetrahedrite. All of the mineralization described appears to be primary.

Samples were taken as follows (see sketch). AA 1 and AA 2 are each of vein A, in the back (roof) and each represents the whole thickness, 3 inches of the vein. AA 3 is the whole thickness (3 inches) of vein A close to the point at which it disappears into the floor. AA 4 and AA 5 are each channel samples in the rather sheared, weak material of the main shear zone, across a width of 15 inches, and AA 4 is considered to be more representative than AA 5. AA 6 is of vein A,  $1\frac{1}{2}$  feet above the floor,  $2\frac{1}{2}$  inches true width, and AA 7 is of a 2-inch piece of pyritic black argillite adjacent to and beneath vein A at AA 6. The assays of these samples are shown in the appended statement.

Vein A was not seen except in the adit. The main shear zone probably occupies one of two depressions in the northeast wall of the canyon but in these, soil and talus cover the bed-rock. Immediately to the south, the

continuation of the zone is similarly concealed but beyond, some 200 feet southerly, the zone may be present high in the canyon walls. These were not explored. Highly irregular and branching quartz veins up to 5 feet thick are conspicuous on these slopes. Some 300 feet to the west, in another branch of the creek (see sketch), two adits are driven south-westward into the canyon wall. One of these is caved and the other comprises about 400 feet of workings. A small pile of mineralized material at the first shows pyrite and quartz, and at the second, the small dump shows quartz, pyrite, sphalerite, tetrahedrite, pyrargyrite, chalcopyrite and galena. There was not time to examine these workings.

Conclusions. The favorable factors are these: silver assays are high, the fault zone is strong and probably continues well beyond the presently known limits, the wall-rocks carry silver-bearing minerals and may have the effect of widening the rather narrow veins and pyrargyrite (rich in silver) is apparently present in the western adit.

The negative points include: the narrowness of the veins, the presence of complicating faults, and the situation of the showing in the bottom of a canyon, where exploration at depth is difficult.

Recommendations: (1) That the surface in the vicinity be thoroughly prospected, and that cuts be made along the strike of the main shear zone.

(2) That the adit be cleaned out and further sampling done, especially on the wall-rock, and also on the large quartz vines nearby.

(3) That the adit in the creek to the west be examined and sampled.

(4) That if the above recommendations give encouraging results that a small drilling program, with X-ray drill, be carried out.

J.R. WILLIAMS & SON LTD.  
Provincial Assayers  
580 Nelson Street

Vancouver 2, B.C. August 18th, 1961.

RESULTS of Assays made on samples of ore submitted by Mr. Ken McTaggart

MARK	Gold Ozs.	Silver Ozs.	Copper %	Lead %	Zinc %
15051 AA1	0.155	140.35	0.42		
15052 AA 2	0.045	169.80	9.70		
15053 AA3	0.03	26.25	0.10	0.17	0.65
15054 AA4	0.04	76.20	0.40		
15055 AA5	0.02	102.40	0.40		
15056 AA6	0.015	43.70			
15057 AA7	.01	9.75			
15058 EL1	0.005	2.40	0.15	0.05	Trace
15059 EL2	0.005	1.30	1.45	0.20	Trace
15060 EL3	0.08	1.35	2.30		
15061 EL4	0.12	1.50	3.65		
15062 EL5	0.20	1.25	3.75		
15063 EL6	0.03	0.60	0.05	0.22	Trace
15064 EL7	1.04	1.35	0.80		
15065 EL8	0.08	2.30	6.55		