August 1935.

British Columbia Department of Mines.
Victoria

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Geo. S. Pearson, Minister.

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REPORT ON THE PROPERTIES
of
GOLDSIDE MINES LIMITED

Lillooet Mining Division

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By:

E.T. O'Grady,
Resident Mining Engineer.
In explanation of the issuance of a Special Report on the properties of the Goldside Mines, Limited, it may be said that, as a result of publicity given the British Columbia properties of the Goldside Mining Company, Limited, a company incorporated in the Province of Ontario, and controlling Goldside Mines, Limited, a private company incorporated in British Columbia, the Department has been asked for information as to the progress of development on these properties, and the present conditions on the ground.

This report, by Mr. B.T. O'Grady, Resident Mining Engineer, is dated July 23rd, 1935, and will be found to contain an interesting description of the geology associated with the mineral showings under development on the company's properties, and to give a clear outline of the results of development done up to the time the author made his inspection.

MINISTER OF MINES.
This company's Taylor basin property, where work is proceeding, consists of the following eight claims, all held by location:- Polaris Peak, Tit Bit, Sunburst, Rapidian, Preference, Magma, Vortex, and Octopus Fraction. In addition five contiguous groups of claims have been acquired by the company under option agreements. These, which are also held by location, are as follows:

1) I.X.L. Nos. 1 to 6 inclusive.
2) Northern Light Nos. 1 to 8 inclusive.
3) Homestake Nos. 1 to 5 inclusive.
4) Viking Nos. 1 and 2.
5) Peak group, consisting of the Thunder Peak and Lightning Peak.

The property described is situated within Taylor basin at the head of Taylor creek, a tributary of Tyaughton creek which in turn flows into Bridge river. The mine camp, on the Homestake No. 4 claim, is located 1,600 feet measured south 30° west from the forks of Taylor creek which are shown on the Geological Survey of Canada map of Bridge river, publication No. 1882, in the north-western part of the map-area. The forks referred to can be described in terms of this map as being just south of the "T" in "Taylor" creek. The camp is situated on a wooded knoll within the basin, the boundaries of which consist of broad,
smoothly rounded, bare ridges rising to elevations of about 8,000 feet. The upper slopes consist of talus and rock slides, through which emerge rugged outcrops of solid rock. The middle slopes, covered by a heavy mantle of glacial drift, are traversed by snow-fed creeks and are covered with patches of a shrub-like growth of balsam fir together with a rank growth of grass and wild flowers. The low areas along Taylor creek and basin are well wooded with virgin balsam fir, and occasional spruce. The present means of access is by pack trail, about eight miles in length, which branches off the road near the south-western extremity of Tyaughton lake. This road, about 3.5 miles in length, leaves the Bridge river road east of the Pearson Ponds at a point about 35 miles from Bridge river station on the Pacific Great Eastern Railway. The trail, which is shown in part on the map previously referred to, climbs from 3,200 feet elevation at the lake to 7,200 feet at the Taylor basin pass, in a distance of about five miles. From this point the main trail, three miles in length, descends to the Goldside camp at 6,300 feet elevation. All elevations mentioned are relative being derived from aneroid readings. The natural grade for a new outlet, if warranted by future development, would be down Taylor and Tyaughton creeks to the Bridge river highway. A preliminary survey of this route is said to have been made. Interpreting the formations in the Taylor basin area from the
preliminary classification afforded by C.W. Drysdale and W.S. McCann in the Bridge River Map-area, the oldest underlying rocks exposed consist of highly metamorphosed sediments of the Bridge River series which has been referred to the Pennsylvanian-permian. These are represented by thin-bedded cherty quartzites as exposed in shallow cuts along the edges of a small creek in the north-western corner of Northern Light No. 1 Mineral claim. Next in ascending order are serpentines tentatively assigned to the Triassic. Dense to porphyritic rocks of this general character, more or less altered from their original composition, are exposed in and around No. 2 adit in the northern section of the same mineral claim and at other points in the basin. The Eldorado series, assigned to the Lower Cretaceous, is represented locally by conglomerates lying across Taylor creek where it falls steeply at the eastern end of the property and by grey feldspathic sandstone in the north-western part of the Northern Light No. 5 claim. Included in this series interflows of greenstone, of andesitic type, are reported to outcrop in the area.

On the north-western side of the basin several areas of diorite, believed to be lenticular in outline, are exposed in extensive outcrops. These rocks, to which occasional patches of roof-pendant sediments adhere, have been mapped as being related to the Bandor batholith of Post Lower Cretaceous age. The
deposits of interest, found in the diorite, consist of curving fractures, with general north-easterly strike and dips from vertical or nearly so to the north-west. Mineralization consists of quartz containing banded and disseminated sulphides, the most abundant mineral being arsenopyrite, frequently accompanied by pyrite and occasionally with both pyrite and sphalerite. Chalcopyrite is reported to have been identified in some specimens. Oxidation is not much in evidence, being confined to staining of the sulphides at surface outcrops with seams of rusty decomposed material along fracture planes. Gold values appear to fluctuate in proportion to the percentage of arsenopyrite present. The assay and analysis of 4,643 pounds of ore shipped to the Tacoma Smelter by the Goldside Mines Ltd., in December 1934, is as follows:

Gold, 1.74 oz. per ton; silver, 0.06 oz. per ton; copper, 0.05 per cent; zinc, nil; arsenic, 19.56 per cent; antimony, trace; iron, 13.9 per cent; silica, 44.0 per cent; lime, nil; sulphur, 6.0 per cent; alumina, 5.9 per cent.

Mineralized fractures have been persistent as far as development work has gone. Widths are generally very narrow, the largest zone, from which the shipment was made, being 18 feet long and 10 to 12 inches wide with a local swelling to 20 inches in the central part. The first staking of mineral claims in the immediate area is reported to have been that done by Grant White.
in 1910 on the divide between Taylor and Eldorado basins. These claims adjoin the I.X.L. group. In 1912 E.J. Taylor and his partner, while prospecting, are said to have panned gold colours along the upper reaches of Taylor creek leading to the subsequent discovery of auriferous arsenopyrite on what is now the Northern Light group, staked in 1932. Additional claims having been staked since. The workings examined are on the slope forming the northern side of the basin.

Taking the camp as a starting point, the No. 1 adit, which is the principal working, is on the Northern Light No. 6 claim 3800 feet distant along a bearing north 63° west. This is being driven as a crosscut to test the projected downward continuation of the surface showings which are as follows: At 7513 feet elevation a shallow pit, from which the previously mentioned test shipment was extracted, exposes a zone 18 feet long and from 10 to 12 inches wide, well mineralized with arsenopyrite, which strikes north 20° east, along the contour of the mountainslope and dips 70° to the north-west, or into the hill. At the southern extremity of this zone the arsenopyrite mineralization, in streaks an inch wide or less, turns and follows a slip or fracture striking south 80° west up the hill and dipping at from 86° to the north to vertical. At 14 feet along this course a curving south-westerly-striking fracture, in which streaks of
similar mineralization, up to 3 inches wide are exposed by cuts at intervals, is traced for 155 feet to where another definite zone is exposed at an elevation of 7615 feet. At this point the mineralized fracture continues for a length of 20 feet along a strike of south 80° west, the dip being from 85° to the north to vertical. This 20-foot section, throughout which arsenopyrite mineralization occurs from 3 to 5 inches in width, is represented by sample No. 6678. This assayed: gold, 1.68 oz. per ton; silver, 0.3 oz. per ton. At the upper or western extremity snow prevented further tracing of the fracture.

At the northern end of the principal surface showing at the pit, elevation 7513 feet, seams of the typical mineralization follow a fracture down the hill along a course north 55° east for 19 feet then north 68° east for a length of 50 feet to the limits of the open cuts in this direction. Dips along these last two bearings are from 77° to 80° to the north-west. In the vicinity of the pit a triangular condition is indicated by the apparent junction of the curving, more easterly striking fractures, just west of the 18 foot length (striking north 20° east) combined with the slip mineralization striking south 80° west. The triangle so formed would be 18, by 14, by 28 feet, the first dimension representing the principal zone at the pit. Parallel fracturing accompanied by streaks of mineralization is indicated by cuts 100 feet westerly from the pit at
elevations between 7550 and 7600 feet. Farther up toward the summit other zones of similar character, are said to be exposed but snow conditions handicapped inspection at higher elevations. Before driving the No. 1 adit, hereinafter described, a hole was drilled, with a Boyle Bros. X-ray diamond drill, to a depth of 90 feet below the surface.

On July 10th, 1935, the face of this adit, at 7350 feet elevation, measured 414 feet from the portal, having been driven as a crosscut along a course of north 78° west which is in direct line with the centre of the principal surface showing at 7513 feet elevation. A point vertically below this surface exposure is reached at 239 feet in from the portal. Allowing for the 70 degree westerly dip the projected position of the objective, is about 298 feet in from the portal but a steepening of dip apparently occurred as conditions of mineralization somewhat similar to those at the surface were encountered at points 267 and 277.5 feet in from the adit portal. The details of this main working are as follows:

The formation cut is diorite grading from dark unaltered rock to light coloured phases.
<table>
<thead>
<tr>
<th>Distance in feet from portal</th>
<th>Description of intersections in No. 1 adit</th>
</tr>
</thead>
<tbody>
<tr>
<td>153</td>
<td>1-inch stringer containing arsenopyrite, strike north-easterly, dip 88° to the northwest. Company assay supplied by management: gold, 0.04 oz. per ton.</td>
</tr>
<tr>
<td>185</td>
<td>Similar stringer striking north 12° east, dipping 66° to the north-west. Not assayed.</td>
</tr>
<tr>
<td>255</td>
<td>2-inch fragmental veinlet, flat-lying. Company assay: gold, 1.50 oz. per ton.</td>
</tr>
<tr>
<td>263</td>
<td>Small patch pyritized silicified wall-rock no definition. Company assay from selected sample: gold, 1.10 oz. per ton.</td>
</tr>
<tr>
<td>267</td>
<td>Quartz vein 7 inches wide on which curving drift extends 103 feet to the north-east. Company assay, across 7 to 8 inches at intersection, gave: gold, 1.89 oz. per ton. The quartz is mineralized with disseminated pyrite and arsenopyrite. The strike is north 30° east, and the dip is from 53° to 55° to the north-west. The drift on this vein to the north-east will be described separately.</td>
</tr>
<tr>
<td>277.5</td>
<td>Well-defined fracturing, striking north 45° east with dip of 70° to the north-west, filled with partially decomposed gangue containing bands of arsenopyrite, the total width being 7 inches. The apparent continuation of this mineralized fracture is cut in the north-east drift at 47 feet from point 267 in the main adit (where it is 6 to 8 inches wide, containing bands of sulphides including arsenopyrite, pyrite, and occasional sphalerite.)</td>
</tr>
<tr>
<td>307</td>
<td>Pronounced shearing striking north 53° east along which a drift, to be described, has been driven to the south-west. Shearing is accompanied in places with silification and scattered, irregular mineralization. Dip steep to the north-west.</td>
</tr>
</tbody>
</table>
Distance in feet from portal | Description of intersections in No. 1 adit.
--- | ---
322 | 3 inches of quartz containing pyrite and sphalerite. Strike north 30° east, dip 55° to the south-west. Its apparent continuation cut in south-west drift, where it is 4 inches wide, at 62 feet from point 307 in main adit.
335 | Fracture striking north 40° east, dip 78° to the north-west. Rusty sheared wall-rock with arsenopyrite and a little pyrite. Width varies from 3 to 10 inches. Company assays gave: gold, 0.20 and 0.16 across 9 and 8 inches respectively.
356 | 2 inches of white quartz sparingly mineralized with iron sulphides. Strike north 30° east, dip 52° to the south-east.
414 | Face at July 11th, 1935. Some indefinite silification with scattered pyrite and sphalerite.

The writer's samples taken in the same adit are as follows:

<table>
<thead>
<tr>
<th>Number</th>
<th>Location in feet from portal</th>
<th>Width in inches</th>
<th>Gold Assay oz. per ton</th>
<th>Silver Assay oz. per ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>6677</td>
<td>277.5</td>
<td>7</td>
<td>0.06</td>
<td>0.6</td>
</tr>
<tr>
<td>6680</td>
<td>335</td>
<td>5</td>
<td>0.14</td>
<td>0.3</td>
</tr>
</tbody>
</table>
The north-easterly drift, at 267 feet in from the portal of the adit crosscut, is 103.5 feet long measured from the centre line of the main working. From the point of commencement to 28 feet it is driven north 30° east; from 28 to 42 feet north 40° east; from 42 to 68 feet north 29° east; from 68 to 78 feet, north 70° east; and from 78 to the face at 103.5 feet north 20° east.

The quartz vein, followed by the drift for the first two courses, dips at from 70° to 55° to the north-west, and is from 3 to 8 inches wide exclusive of silicified, slightly mineralized adjacent wall-rock. Sample 6674 covering the section from 0 to 15 feet and representing an average width of 8 inches, assayed: gold, 0.06 oz. per ton; silver, trace. Sample 6675 representing the section from 15 to 30 feet from 7 to 3 inches wide, assayed: gold, 0.24 oz. per ton; silver, trace. Beyond the latter point tracing of this vein is difficult owing to pronounced shearing, accompanied by heavy gouges, having caused caving from the roof. At point 47, a quartz vein 6 to 8 inches wide, represented by sample 6676 which assayed: gold, 0.34 oz. per ton; silver 0.8 oz. per ton, appears in the western wall of the drift. This strikes north 40° east with a dip of 75° to the north-west, apparently being the continuation of the mineralized fracture intersected at point 277.5 in the main adit. Beyond this point caving from the roof made close inspection impracticable but the last-
mentioned vein can be seen at point 52 where it follows along the eastern wall of the drift for a short distance. From that point the roof was caving dangerously and the last thirty-foot section to the face was completely blocked. Company samples taken along this drift gave the following results:

<table>
<thead>
<tr>
<th>Location measured from point 267 in main adit</th>
<th>Width (inches)</th>
<th>Gold oz. per ton</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>3</td>
<td>0.24</td>
<td>Quartz vein</td>
</tr>
<tr>
<td>44</td>
<td>5</td>
<td>0.07</td>
<td>Quartz vein</td>
</tr>
<tr>
<td>56</td>
<td>4</td>
<td>0.53</td>
<td>Quartz vein (solid arsenopyrite)</td>
</tr>
<tr>
<td>57</td>
<td>3.5</td>
<td>0.26</td>
<td>Quartz vein</td>
</tr>
<tr>
<td>60</td>
<td>12</td>
<td>0.28</td>
<td>Banded vein (strike north 40° east)</td>
</tr>
<tr>
<td>61</td>
<td>3</td>
<td>0.61</td>
<td>Separate stringer</td>
</tr>
<tr>
<td>78.8</td>
<td>Selected</td>
<td>0.89</td>
<td>Clean arsenopyrite.</td>
</tr>
</tbody>
</table>

Particulars of the drift run to the south-west, from point 307 feet in the main adit-crosscut (centre line) are as follows: From 0 to 31.2 feet the course is south 53° west; from 31.2 to 55 feet south 35° west; and from 55 to the face at 84.5 feet south 60° west. In the section towards the main adit the drift follows a zone of shearing accompanied by some silification and scattered, irregular, iron sulphide mineralization.
At points 20 and 36 feet, company samples across 4.75 and 4 feet respectively assayed: gold, 0.03 and 0.16 oz. per ton. At chainage 62 the drift cuts a 4-inch quartz veinlet, mineralized with banded sphalerite, pyrite, and arsenopyrite, which strikes north 45° east and dips at 56° to the south-east. This occurrence is the apparent continuation of the 3 inches of mineralized quartz cut at a point 322 feet in the main adit-crosscut. Continuing along the drift a 3-inch quartz stringer, mineralized with sphalerite and arsenopyrite, is intersected at point 68. Beyond here to the face nothing of interest was noted.

The No. 2 adit, at 6450 feet elevation, is on the Northern Light No. 1 claim 1300 feet measured along a bearing north 65° west from the camp. Exploration conducted in this vicinity has no connection with the previously described deposits in the No. 1 adit area. Extensive ground-sluicing, known as the "big open cut" was done from 6450 to 6475 feet elevation prior to the driving of the No. 2 adit crosscut immediately adjoining this surface working to the south-west and roughly parallel with it. The big open-cut, trending north-westerly up the hillside, is about 210 feet long, tapering from a narrow ditch at both extremities to a width of between 20 and 30 feet towards the centre. The
overburden is from 10 to 12 feet deep and the sides have largely caved in. According to the Report of the Minister of Mines for 1934, page F. 32, several narrow partially decomposed quartz stringers, mineralized with arsenopyrite, were originally exposed in the long ground-sluice open cut. The writer's sample No. 6679, which assayed: gold, 0.30 oz. per ton and silver, trace, was of selected arsenopyrite in more or less decomposed gangue from what appeared to be a pocket or small lens in the central part of the big cut. Conditions were obscured by water and caving. The No. 2 adit, where work has been suspended, is 272 feet long following a bearing north 67° west. At a point 95 feet in from the portal a branch extends north 22° west for 33 feet to where it forks, one sub-branch being driven to north 25° east for 28 feet, the other north 45° west for 29 feet. The underground workings expose an irregular contact between diorite and serpentine. Measured from the portal the main adit is in serpentine for 174 feet, then in diorite for 250 feet and serpentine again from the last point to the face at 272 feet. From 122 to 224 feet the main adit is directly under the wider part of the big open cut. From near the portal to point 44.6 a highly metamorphosed dyke, 3 to 4 feet wide, trends with the adit, and dips from 30° to 50° to the north-east, cutting the serpentine. The branch workings, which also extend under the surface workings, are in
serpentine with the two extremities just entering the diorite. The only mineralization noted underground is in the main adit between 232 and 237 feet from the portal where it is very indefinite and consists of films of arsenopyrite in cleavage planes in diorite associated with a zone of fracturing striking from north 37° east to north 40° east. A grab sample of this mineralized rock, assayed for the company, gave: gold 0.04 oz. per ton.

All the underground workings described were driven since the inspection of A.M. Richmond, recorded in the Report of the Minister of Mines for 1934.

Summarizing existing conditions in the No. 1 adit area, widths of auriferous arsenopyrite mineralization are extremely narrow. It is not known if the fractures extend into other rock formations, the situation being obscured by snow at the upper or south-western end, and overburden at the north-eastern extremity of the area explored. In the No. 2 adit area no definite measurable mineralization is exposed. In addition to the workings mentioned a considerable amount of surface prospecting has been done on the company's Taylor basin property, consisting of test pits, open cuts, and trenches. The sides have in most cases caved, preventing inspection. However, no discovery of
importance has been reported in connection with them and efforts have been concentrated in the No. 1 adit area, considered the more important objective by the management. All work has been done by hand. S.H. Davis is in charge of the present crew of 8 men.