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REPORT ON LAY GROUP (FORMALLY CALLED 'GRANITE BASIN GROUP')

AIKEN LAKE AREA, BRITISH COLUMBIA

Excerpt from Geological Survey of Canada, Memoir 274

The Granite Basin group of claims, owned by the Consolidated Mining and Smelting Company of Canada Limited, covers the south wall of a northeasterly facing cirque draining into Lay Creek, 6 miles by trail from the east end of Aiken Lake. The showings consist of broad, pyritized bands in Takla group andesite and intercalated sedimentary rocks invaded by small bodies of Omineca intrusions.

The predominant rock in the immediate vicinity of the main workings is a moderately dark, grey-green, porphyritic andesite, with small black hornblende and scattered grey feldspar phenocrysts. A few beds of tuff, argillite, and impure limestone are intercalated with the andesite. This rock is cut up by a grey to greenish grey 'diorite porphyry', with hornblende phenocrysts up to 1/8 inch long in a fine-grained matrix. The porphyry closely resembles the andesite, and in places is difficult to distinguish from it. Contacts between the two rocks are in places sharp and definitely intrusive; in other places they appear to be gradational.

Both the andesite and the 'diorite porphyry' are intruded by a medium to light grey or buff-coloured, medium-grained to sugary, 'porphyritic diorite' with abundant feldspar phenocrysts and a few hornblende phenocrysts in a light grey, medium-grained matrix. Although individual bodies of this rock were never traced for more than 300 feet or so, the nature of their contacts and outcrop positions would indicate that they may be irregular sill-like bodies, 50 to 150 feet thick, in the andesites and bedded tuffs.

The andesite, the 'diorite porphyry', and the 'porphyritic diorite' are all cut by well-defined dykes 10 to 100 feet wide of light grey feldspar porphyry.

The andesite and the 'diorite porphyry' are generally sparsely mineralized with fine-grained pyrite, but may be well mineralized where they are in contact with the 'porphyritic diorite', which is everywhere heavily, though somewhat irregularly, pyritized.

Four pyritized bands are exposed within a horizontal distance of about 2,000 feet, between elevations of 5,150 and 6,000 feet, on the east end of the precipitous south wall of the cirque. They appear to consist mainly of sill-like bodies of 'porphyritic diorite' trending about parallel with the bedding of the tuffs and argillites, which are well exposed farther west on the cirque wall, where they strike northeast and dip 40 to 60 degrees northwest. The most easterly of these bands is split by an unmineralized porphyry dyke about 60 feet wide, producing, at the crest of the ridge, five pyritized bands, which the owners have number 1 to 5 consecutively from east to west. The pyritized bands do not have definite margins, and are not uniformly mineralized. Some heavily pyritized areas, as evidenced by dark, rusty weathering patches on the cirque wall, are as much as 200 feet wide and 400 feet long.

Exploration, consisting of trenches, open-cuts, and two adits totalling 379 feet of underground workings, has been confined largely to the most easterly pyritized band. Most of the workings are in a rusty weathering, intensely fractured, friable rock containing much fine-grained, disseminated pyrite. Minute grains of chalcopyrite, and what appear to be bornite and tetrahedrite, were noted in one specimen, but copper mineralization has nowhere been sufficient to yield a conspicuous copper stain.

It is impossible to assign definite widths to the pyritized bands. Workings crossing the easternmost band are from 10 to 90 feet in length. Mr. E. Bronlund of The Consolidated Mining and Smelting Company of Canada Limited reported that encouraging assays had in places been obtained across widths of as much as 45 feet, and that the highest part of the zone carried up to 1/3 ounce gold a ton across 30 feet. A sample taken by Douglas Lay of the British Columbia Department of Mines across 40 feet in the upper underground working assayed: gold, 0.2 ounce a ton.

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July 12, 1963.