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ANNUAL REPORT OF THE MINISTER OF MINES

1938

Special Report

by

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92I/11E

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CORONATION GROUP. The group consists of the Coronation and Coronation Nos. 1 to 3 mineral claims, held by right of location by A. Johnson and associates of Ashcroft. The property is east of Ashcroft on Barnes Creek, and is accessible from that town by  $3\frac{1}{2}$  miles of good road, succeeded by three-quarters of a mile of trail. There is little timber on the ground and only sparse vegetation of any sort. An adequate supply of domestic water is available from the creek. No camp buildings have been erected on the property.

The area under development is underlain by "Cretaceous sediments of the Queen Charlotte Islands group" intruded by "Triassic greenstones, volcanics with common diabase porphyrites" as defined by G.M. Dawson. Slightly above the level of the creek at elevation 1844 feet, a shear-zone is under investigation at the contact of the sediments and the volcanic member. The sheared rock at this location is silicified and mineralized by irregular quartz and calcite stringers. The walls of the shear are well-defined, but the silicification and quartz and calcite mineralization do not constitute true vein structure. The strike of this zone is south 80 degrees west, the dip 65 to 75 degrees south. The volcanics are exposed on the south of the contact, the sediments represented by fine grained, light coloured sandstone, on the north. Within the shear, mineralization by galena and sphalerite is sparse, by pyrite more pronounced; chalcopyrite is reported, but none was seen.

On this showing a drift, No. 1, had been driven 64 feet. Samples taken over the full width of shearing in this drift were as follows:

Description	Gold oz. per ton	Silver oz. per ton	Lead oz. per ton	Zinc oz. per ton.
1/2 inch gouge, quartz stringers, slight mineralization.	nil	0.8	0.7	1.2
1/2 inches at face minus 10 feet above	nil	0.2	0.4	nil
1/2 inches at face minus 20 feet above	nil	nil		
1/2 inches at face minus 30 feet, slightly more silicification	nil	nil	nil	nil
1/2 inches at face minus 40 feet preceding sample	nil	0.4	nil	nil
1/2 inches at face minus 50 feet preceding sample	nil	0.2	nil	nil

A select sample of mineralization by phalerite, galena and slight pyrite taken from the small ore pile, assayed: Gold, nil; silver, 15.8 oz. per ton; lead, 5.5 percent; zinc 22.01 percent.

A diamond-drill hole was collared of the surface, 30 feet from the portal, 10 feet below the drift level, at a point slightly south of the line of the drift. Bearing north, inclined at minus 45 degrees, the hole was in basic volcanic rocks for 12 feet where it entered a zone of intense silicification, assumed to be marginal to the sediments. Still in silicified rock containing little or no sulphide mineralization, the hole was bottomed at 48 feet. Heavy core loss and difficulty of operation due to shattered ground prevented satisfactory interpretation and rendered further drilling impracticable.

Approximately parallel, another shear-zone has been exposed 125 feet farther north. This second shear crosses the creek almost at right angles and cuts have been made at creek level, elevation 1794 feet, and on both banks. In these exposures the strike of the zone ranges from north 85 degrees west to north 70 degrees east, dip from 55 to 60 degrees south. As far as could be determined, this occurrence is also on a contact between the volcanics and the sediments, with, as in the first, the sediments to the north and the volcanics to the south.

This similar condition arises from an irregularity by which, slightly east of the No. 1 portal, the volcanic member is carried northward across the strike of the No. 1 showing for approximately 100 feet. The cut at the creek level has been extended eastward into a 16 foot drift in which the exposure has a maximum width of 14 inches, made up of 1 inch to 7 inches of quartz mineralized by galena, sphalerite and pyrite, sheared wall rock and graphitic gouge. The quartz seam pinches and swells, narrows abruptly at 5 feet from the face; at the face, its width is 1 inch or less. The hanging-wall is strong but irregular. A sample taken 5½ feet from the face, across 6 inches of almost barren quartz, assayed: Gold, nil; silver, 0.4 oz. per ton; lead, 0.6 percent; zinc, nil. A sample across 4 inches of quartz mineralized by pyrite, galena and sphalerite, at the portal, assayed: Gold, 0.26 oz. per ton; silver, 0.7 oz. per ton; lead, 0.5 percent; zinc, 15.7 percent. A third sample, across 9 inches of graphitic gouge on the foot-wall of the sample at the portal, assayed: Gold, nil; silver, 0.2 oz. per ton; lead, nil; zinc, nil.

The easterly extension of the shear from the face of the tunnel is exposed at 100 feet from the creek at elevation 1824 feet as having widths up to 24 inches of which up to 17 inches is quartz. Mineralization within the quartz is sparse. A sample over the full 24 inches assayed: Gold, nil; silver, 0.2 oz. per ton; lead, nil; zinc, nil.

The cut on the west side of the creek, 75 feet from it, at elevation 1849 feet, has exposed a sheared zone 8 to 13 inches wide; any mineralization originally present has been removed by leaching. A sample taken across 13 inches, assayed: Gold, nil; silver, 0.2 oz. per ton; lead, nil; zinc, nil.

Extension eastward of the line of the No. 1 shearing would enter the volcanics; extension westward would bring the No. 2 shear to the sediments. Under these conditions the effect is problematical but it is doubtful if any such extension, in the sediments at least, would be as strong as the contact shearing at present exposed.