

Whitehorse Mining District

Yukon Territory

The property is about 40 miles north of Johnson's Crossing at the north end of Teslin Lake and about 50 miles northwest of Whitehorse. The map location is $61^{\circ}01'$ North and $135^{\circ}40'$ West, at an elevation of about 3500 feet, near the headwaters of Boswell River, a tributary of Teslin River. Access to the property is via charter aircraft from Whitehorse to the mouth of Boswell River, then about 25 miles east by trail to the showings.

The Mobs group comprises a total of 32 claims held by location by Whitehorse Prospecting and Development Syndicate. These claims, which cover an area of roughly 1600 acres, include the following groups:

- 3 Mobs claims
- 8 Cub claims
- 8 Contact claims
- 8 Lily claims

Mineralization in the upper Boswell River area was discovered by William Seary about 1915 and the property was relocated by Percy Sharpe in 1916; by Tunnel in 1917; and again by Sharpe in 1925. Cabins were built on the property in 1928 and the adit was driven in 1929. The ground was optioned to O. Crawford of Seattle in 1931. The ground has lain idle until staked by John Mahagen in 1951. It has been held continuously since 1951 by Whitehorse Prospecting and Development Syndicate.

The upper Boswell River area is underlain by metamorphic rocks of the Yukon Group which are intruded by coarse grained porphyritic biotite granite of the Quite Lake batholith along a northwest-trending front a few miles north of Boswell River. Near the contact, numerous northwest-striking granite porphyry and felsite dykes cut the metamorphic rocks which in this area include: chlorite schist, quartz-mica schist, and some quartzite. In addition, a number of small bodies of serpentine are scattered throughout the area of metamorphic rocks generally near the granite contact.

The Yukon Group rocks lie in a fairly steep northwest-trending trough about 15 miles long and four miles wide, between the granite batholith on the northeast and a stock of quartz diorite on the southwest. The schistosity roughly conforms with the granite contact, striking $N50^{\circ}W$ and dipping about 50 degrees southwest on the property. The granite contact is quite sharply defined and in most places shows steep dips to the southwest. The margins of the batholith are generally porphyritic to pegmatitic. A small plug of serpentine intrudes quartz-mica schist about 1000 feet south of the granite contact.

A series of quartz veins are irregularly exposed in the schists along the granite contact for a length of at least 2000 feet. The veins in general conform in attitude with the schistosity and are considered to follow regional shear fractures developed during compression of the Yukon Group rocks. These shear fractures in a few places degenerate into tension fractures as indicated on the property by the northeast - directed quartz veins. The tension veins are, however, very restricted in both length and distribution.

The vein pattern exposed on the Mobs group comprises three main veins each roughly 1000 feet long with an average width of eight feet. The mineralization consists of bands, stringers, and blebs of silver-bearing galena filling shear fractures and vugs in the quartz with very little replacement. The sulphide bands rarely exceed six inches in width and generally pinch along the strike. A number of these concentrations may occur across the vein. Along both the hanging and foot-walls, the quartz-mica schist is impregnated with fine grained pyrite and pyrrhotite over a thickness of at least three feet, and exhibits a characteristic rusty weathering.

Assay of the sulphide concentrations have given silver values up to 50 oz/ton over widths of two feet. (See assays on attached map).

The quartz vein structure and associated sulphides exhibit considerable persistence and continuity. It is considered that the limited development of tensional stress and the uniform attitude of the schist precludes wider sulphide concentrations. However should the vein structure (tensional veins) cut more competent members, such as quartzite, the sulphide bands might swell to full vein width. This would be of advantage to check the schist assemblage for thick quartzite or limestone members, and to consider the possibility of the veins cutting these beds. On the other hand, the mineralization may widen to some extent at depth. This can be easily checked by opening the adit, which requires some timbering at the entrance, and investigating the quartz veins cut by this opening.

Whitehorse, Y.T.

September 3, 1955.

G.A. Noel