811872 SNOW PEAK PROPERTY

COMPREHENSIVE GEOLOGICAL REPORT

SNOW PEAK PROPERTY

(Molybdenum - Copper - Tungsten)

Liard Mining Division British Columbia, Canada Long. 130°20' Lat. 58°30' N N.T.S. 104 J/8

REPORT BY:

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INTRODUCTION

The purpose of this report is to describe the geology and mineralization of 106 claims on the Snow Peak Property (Copper - Molybdenite - Tungsten) owned by Tournigan Mining Explorations Ltd. The mineral claims are located in Northern British Columbia. Approximately four square miles of the claims area was mapped by the author and an attempt is also made to present briefly, geochemical programs done late August 1971 and this summer (1972).

LOCATION AND ACCESS

The Snow Peak Property consisting of 106 claims at the elevations of 6,000' - 4,750' above sealevel, owned by Tournigan Mining Exploration Ltd. is situated 16 air miles west of the south end of Dease Lake in Northern British Columbia. Dease Lake is accessible from Watson Lake, Yukon Territory via the Cassiar - Telegraph Creek Road which joins the Alaska Highway 15 miles west of Watson Lake, Yukon. A D.O.T. landing strip close to Dease Lake is suitable for small aircraft and in summer months, a helicopter base operates from the south end of Dease Lake. The Pacific Great Eastern Railway extension through to the south end of Dease Lake has been surveyed and presence of the rail head about 16 miles west of the Snow Peak Property will considerably alter mineral economics. (Refer to Figure 1).

CLAIMS AND OWNERSHIP

Mack claims number 1 - 28 were staked in 1969 by Tournigan Mining Explorations Ltd. of Vancouver, B.C. and 78 new claims were staked enclosing the Mack claims group by the Company this summer (1972) in accordance with the regulations set out by the Mineral Act of the Province of British Columbia. (Refer to Figure 2)

CHRONOLOGY OF EXPLORATION PROGRAMS TO DATE

The following is a brief summary of exploration programs carried out on the Snow Peak Property by Tournigan Mining Explorations Ltd. since 1969 to the present time. Approximately \$50,000 has been spent on this copper-moly-tungsten property to this date.

Snow Peak Property originally consisting of Mack
 claims group (Number 1 - 28) were staked in 1969 by Tourn igan Mining Explorations Ltd. of Vancouver, B.C.

(2) Tournigan personnel early in 1970 did reconnaissance geological mapping of the property.

(3) During July of 1971, Mr. D.R. Cochrane P.Eng., Consultant for Tournigan Mining Explorations Ltd., visited the Property to examine and evaluate the moly-copper-tungsten occurances on the Property.

(4) Late in August of 1971, Mr. D.R. Cochrane's crew laid out the grid pattern consisting of the base line directed to east of north, with cross lines spaced 400 feet apart and 1500 feet north and south of the base line for a soil sampling program. Soil samples were taken on the grid area on all lines at 200 feet intervals and the samples were analyzed for molybdenite, copper and tungsten. Consequently, two highly anomalous areas of copper and moly were located.

(5) During June - July - August of 1972, further followup programs of geochemical, geophysical and geological mapping were carried out over the Mack claims group (No. 1 - 28) and the newly added 78 claims on the Snow Peak Property. The original grid pattern as described above was extended, the base line was extended to east of north up to 8,000 feet and to the west 1,600 feet with cross lines extended up to 4,800' north and south of the base line for extensive soil sampling and for geological mapping. The geochemical program located two major anomalous target areas (moly-copper); the largest anomalous area is 3,600 feet long and 2,000 feet wide and the second one is 2,600 feet long and 1,200 feet wide.

No drilling or trenching work is done yet to test and estimate tonnage and grade of moly-copper-tungsten occurances below the sub-surface.

GENERAL GEOLOGY

Snow Peak is the most prominent physical feature in the Dease Lake area and is situated in the Tanzilla Plateau Subdivision of the Stiking Plateau physiographic region of Northern British Columbia. It rises to 6,348 feet above sea level from the Tanzilla and Dease Lake Valleys which are close to 2,500 feet above sea level. The local tree line lies at about 5,000 feet thus the claims are covered by alpine flora. A small tarn lake (W/L 5225') is located in the north claims area, and the base camp is located at about 200 feet north-west of the lake; the drainage is northerly into Little Dease Creek. The south claims area is drained by a branch of Tatscho Creek and Auguschidle Creek (H. Gabrielse, J.G. Souther and E.F. Roots).

Molybdenite-copper mineralization on the Property occurs in granodiorite approximately two miles wide and three miles long, that intrudes mostly Lower Jurassic metasediments (Hornfels) which consist of dykes and sills of quartzfeldspar porphyry.

Briefly, the bedrock complex is divided into:

Triassic intrusive

Lower Jurassic metasediments

Middle Jurassic and/or Cretaceous intrusive The predominant mineralized fracture sets are shown as trending north-west by west through the triassic intrusive. (Refer to Figure 2).

LOCAL GEOLOGY AND MINERALIZATION

Apparently there are two main rock types in the mapped area. The older unit is an intrusive stock of granodiorite (6A) of Triassic age and is about two miles wide and three miles long and is in contact with Lower Jurassic metasediments (8A) at the east, south and west.

The granodiorite (6A) in the mapped area is coarse-grained and is generally fresh containing light grey euhedral grains of orthoclase and plagioclase with books of biotite and minor hornblende; quartz is generally anhedral. Peripheral magnetite and pyrite are often noticed along the mafics. Mild K-feldspar alteration is noticed in places; argillic alteration is almost absent.

The most extensive exposure of the granodiorite (6A) occurs along the northwest face of the cirque rim which bisects the claims area. Along the cirque wall, the coarse-grained granodiorite has been well fractured and silicified in places. The dominant fracture attitude is 100° - 120° (azimuth) dipping steeply (70° - 90°) to the southwest. These fractures contain flakes and blebs of molybdenite, traces of chalcopyrite and pyrite. Pyritization increases in intensity to the southwest, away from the tarn lake. It appears that silicification of fractures favours mineralization since more often molybdenite and chalcopyrite are associated with quartz veins up to 3" wide in places. Protore grade of molybdenite and chalcopyrite mineralization occurs along the rim of cirque for distance of about 3,000 feet. South and east of the cirque rim bedrock is covered with glacial morraines and non-directional eskers. Definite outcrop does not occur for about 3,000 feet southeast of the rim, where glacier scoured and exposed rocks are similar to the rim area. Occasionally, disseminated type of molybdenite and chalcopyrite mineralization is present in this area.

A strong pyrite-gossan zone is noticed on the cliff in granodiorite (6A) near the metasediments contact at the southern rim of the cirque. This pyrite zone may well be related to molybdenum mineralization at depth.

The lower Jurassic metasediments (8A) are identified as hornfels which are fine to medium grained, buff to brownish grey in color. The sharp contact of hornfels (8A) with granodiorite (6A) is observed on the southwest wall of the cirque area. No significant mineralization is observed in hornfels.

Naming of the actual rock units mapped on the Property is based on the G.S.C. regional map of Dease Lake area (Gabrielse et al).

RECOMMENDATIONS

The extensive and widespread moly-copper-tungsten mineralization on the Snow Peak Property coupled with the extremely high and so far unexplained geochemical values derived from recent and past geochemical soil surveys, demands that this property be further evaluated and explored by a comprehensive sub-surface exploration program which should include a minimum of 5000' of BQW or preferably NQW diamond drilling in the major anomalous areas.

> Respectfully submitted: August 25, 1972

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LIST OF REFERENCES

- Gabrielse, H., Souther, J.G., Roots, E.F., (1962)
 Geological Survey of Canada, Map 21 1962,
 Geology of the Dease Lake Area, B.C.
- Ariz, J.F. (1969), Preliminary Survey Report, Mack Molybdenum - Copper Property, Dease Lake, B.C. (Private Report)
- Ariz, J.F. (1970), Photogeology of the Snow Peak Area, Molybdenum - Copper Property, Liard Mining Division (Private Report)
- (4) Cochrane, D.R., P.Eng. (July, 1971) Preliminary Economic Geology Report on the Snow Peak Property.
- (5) Cochrane, D.R., P.Eng., Scott A. (September 1971)
 Geochemical Report on the Mack No. 1 28 Mineral
 Claims, Dease Lake, Liard Mining Division, Northern
 British Columbia.
- Ariz, J.F. (April 1972), Composite Report, Geological, Geochemical and Photogeological, Snow Peak Property, Mack 1 - 28 Mineral Claims, Liard Mining Division, Dease Lake, B.C.



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