

NAME OF PROPERTY JAN (LINDA)

OBJECT LOCATED - #141, Map 69-1.

UNCERTAINTY IN METRES 1,000. Lat. 54°54' Long. 127°52'15"

Mining Division Omineca District Range 5 Coast

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The deposit occurs in the centre of a small range that is underlain by volcanic and sedimentary rocks of the Hazelton Group and by small porphyry intrusions in the south, and in the north by sedimentary rocks that are probably equivalent to those of the Bowser Group in the Terrace area. In areas that have been mapped, most units strike either easterly or southeasterly and dip moderately to steeply north. Hence the sequence appears to be upright and reasonably uncomplicated away from the intrusions.

The porphyries, which were emplaced as dykes, sills, and stocks, cut all units; however, the largest masses have been emplaced in the volcanic unit between the Hazelton sediments in the south and the Bowser sediments in the north. From limited reconnaissance mapping, most of these porphyry bodies appear to be either large dykes or small stocks. Some of the latter have been only partially unroofed.

The host rock of the porphyries is mainly fairly uniform, medium- and dark-green basaltic or andesitic tuff-breccia and

see Card 2

Associated minerals or products of value - Molybdenum.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at elevations of 4,000 to 6,000 feet on the north side of an 8,100 foot mountain at the head of Kitsuns Creek, approximately 30 miles west-northwest of Smithers.

The prominent gossan zone was discovered and staked in 1964 by Amax Exploration, Inc., as the Linda 1-24 and Thelma 1-18 claims. Geological and geochemical surveys were carried out in 1965. The claims were subsequently abandoned.

Mastodon-Highland Bell Mines Limited personnel rediscovered the showings in 1967 during the course of aerial reconnaissance work and staked the Jan group of 44 claims. Geochemical and geophysical surveys, and trenching, were carried out during the year. Work during 1968 included geological, induced potential, and magnetometer surveys, and 600 feet of diamond drilling in one hole.

On January 1, 1969, Leitch Mines Limited purchased the assets of Mastodon-Highland Bell Mines Limited. The Jan 1-33 and Windy 1-6 claims were optioned to Pechiney Development Limited in 1970. Work under the option agreement included geological mapping, and 2,595 feet of diamond drilling in 7 holes on Windy 1-4 claims.

Leitch Mines Limited in March 1971 merged with Teck Corporation Limited. During 1971 a further 2,206 feet of diamond drilling was done in 2 holes.

120440

HISTORY OF PRODUCTION

REFERENCES

Reports of Minister of Mines, British Columbia: 1965, p. 246;
 1967, p. 84; 1958, pp. 109-111.
 Geology, Exploration, and Mining; British Columbia Dept. of
 Mines: 1970, p. 161; 1971, p. 176.

MAP REFERENCES

#Map 69-1, Smithers, Hazelton, and Terrace Areas, (Geological
 compilation), Sc. 1":4 miles, British Columbia Dept. of
 Mines.

Preliminary Map 44-23, Smithers, (Geol.), Sc. 1":2 miles,
 Paper 44-23, Geol. Surv. of Canada.

Map 5300 G, Lamprey Creek, (Aeromag.), Sc. 1":1 mile.

*Map 93 L/13, McDonell Lake, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	12-75						

PRODUCT

COPPER

PROVINCE OR
TERRITORY

British Columbia

N.T.S. AREA 93 L/13

- Card 2 -
REF. CU 3

NAME OF PROPERTY

JAN (LINDA)

DESCRIPTION OF DEPOSIT (continued)

tuff with fine-grained calcic plagioclase and minor clinopyroxene phenocrysts and crystal fragments.

The porphyries consist primarily of fine- and medium-grained plagioclase and variable amounts of hornblende, quartz, and biotite phenocrysts, set in a very fine-grained to aphanitic quartzofeldspathic matrix. Most of them are probably quartz diorites.

The main mineralization occurs in what could be a large dyke-like body of porphyry that is about one-half mile wide and 1 mile long. The body strikes approximately east, dips steeply, and probably is terminated on both ends by faults. The country rock is mainly highly altered mafic tuff and tuff-breccia.

Including part of the porphyry body and the volcanic rocks, there is an area of about 1 by $1\frac{1}{2}$ miles of intensely stained pyritic altered rocks. This alteration is of the propylitic type, being characterized by the presence of epidote and only small percentages of sericite, carbonate, and kaolin. The pyrite at most localities amounts to at least 2 to 3 per cent of the rock. Within this pyritic, propylitic, altered envelope there is an area of about 1,500 by 2,000 feet that contains quartz and carbonate veinlets and chalcopyrite, pyrite, and molybdenite. The molybdenite is probably more highly concentrated in the central part of this area. The alteration in this area is more intense and is marked by an increase in kaolin, sericite, carbonate, and quartz. Chlorite is abundant both in the outer propylitic areas and the inner sericitic, argillic areas.

For its entire length the 600-foot hole contains pyrite, chalcopyrite, molybdenite, and some magnetite in quartz and carbonate veinlets and along hair-line fractures. However, the over-all grade of copper, molybdenum, and precious metals is low. The copper-molybdenum ratio in this area was found to be approximately three to one.