

NAME OF PROPERTY      AJAX (LeROY) (IDA) (BUTTE)

OBJECT LOCATED - mineralized zone.

UNCERTAINTY IN METRES    300.    Lat. 55°35'15"    Long. 129°24'10"

Mining Division    Skeena      District    Cassiar

County      Township or Parish

Lot      Concession or Range

Sec      Tp.      R.

#### OWNER OR OPERATOR

Newmont Exploration of Canada Limited.

#### DESCRIPTION OF DEPOSIT

Mid Jurassic sedimentary and minor volcanic rocks of the Hazelton group which underlie Mount McGuire form part of the steep east limb of a northwest-trending anticlinal structure. These rocks are intruded by four small closely spaced stocks of quartz monzonite porphyry. These four stocks are grouped together in an elliptical area oriented northwesterly and measuring 900 by 750 m. The stocks, of varying sizes, are roughly rectilinear in plan and continue downward to the limits of drilling without merging into one intrusive body. However, the area between the stocks is laced with a network of dykes of similar composition.

Contact metamorphism associated with the intrusion of the porphyry stocks has converted argillaceous sedimentary rocks to brown and purple-coloured biotite hornfels in an area 900 m outward from the stock. Within an inner zone, 150 to 300 m from the stocks, secondary bleaching has converted biotite hornfels to a light green rock consisting essentially of sericite and quartz.

see Card 2 ....

Associated minerals or products - Zinc, lead, copper, tungsten.

#### HISTORY OF EXPLORATION AND DEVELOPMENT

The mineralized zone is located at the 3,250 foot elevation on the east side of Mt. McGuire, 8 miles north-northeast of the community of Alice Arm. Mt. McGuire was in the early days of mineral exploration known locally as "Quartzite Peak" and "Red Top Mountain".

Lead-zinc-copper mineralization, peripheral to the molybdenite zone, was explored by prospectors in the early part of the century. About 30 claims were staked on the east side of Mt. McGuire during the summer of 1916; included among these were the Ida and Butte claims. The staking was reportedly done mainly by agents. Little work was reported at that time.

No further activity was reported until 1926 when the Le Roy group of 14 claims covered the main showings. Included in this group were the Le Roy, Anna Condon, June, Summit, Mountain View, Mountain View Nos. 2 & 3, Discovery, One Below Discovery, and Canyon Nos. 1-5 claims. Kitsault-Eagle Silver Mines, Limited, which was incorporated in April 1926, held the property for a number of years. Work on the claims in 1926 included stripping, open cutting, and 100 feet of underground work in one adit. No further work was reported and the claims subsequently lapsed.

A reference to molybdenite mineralization, contained in the 1927 Minister of Mines Annual Report, prompted S.J. Barclay to locate the property for Newmont Mining Corporation of Canada Limited in 1965. The Ajax group of 91 full and fractional claims extended from the 1,500 foot elevation on Dak Creek to the summit of the mountain at 5,374 feet. During the year exploration work included line cutting, trenching, sampling, geological mapping, and 5,185 feet of diamond drilling in 5 holes. Additional staking was done to bring the property to 102 full and fractional claims. Exploration work during 1966 included an airborne magnetometer survey, soil sampling, and 15 NX-wireline size drill holes totalling 13,731 feet. Further work during 1967 included geological mapping and 7,800 feet of diamond drilling in 4 holes. Measured and indicated reserves are reported at 178,540,000 tonnes grading 0.121% MoS<sub>2</sub>. Total reserves are reported as 417,300,000 tonnes at 0.09% MoS<sub>2</sub> (CIM Spec Vol 15, p 422, 1976). The stripping ratio is very high.

The company name was changed in 1977 to Newmont Exploration of Canada Limited. Drilling outlined indicated  
see reverse Card 2 ....

Mineral Policy Sector, Department of Energy, Mines and Resources, Ottawa  
507839 \*

HISTORY OF PRODUCTION

REFERENCES

Reports of Minister of Mines, British Columbia:  
1916, p. 71; 1926, p. 79; 1927, p. 74; 1965,  
p. 63; 1966, pp. 44-46<sup>+</sup>; 1967, p. 42.

<sup>++</sup>Woodcock, J.R. and Carter, N.C.; Geology and Geo-  
chemistry of the Alice Arm Molybdenum Deposits;  
Porphyry Deposits of the Canadian Cordillera, The  
Canadian Institute of Mining and Metallurgy, Special  
Volume 15, pp. 467-469, 1976.

Hanson, George; Portland Canal Area, British Columbia;  
Memoir 75, pp. 56, 68, 70, Geol. Surv. of Canada, 1935.

Mineral Policy Sector; Corporation Files: "Kitsault-Eagle  
Silver Mines, Limited".

Porphyry Copper and Molybdenum deposits, West-Central  
British Columbia, Bulletin 64, p. 99, BCDM 1981.

Geological Fieldwork, BCDM: 1985, p. 219.

MAP REFERENCES

#Geology of Ajax Group, Mt. McGuire, Sc. 1":1,000 ft.,  
Fig. 8, Report of Minister of Mines, British Columbia,  
1966.

Generalized geology of the molybdenum deposits at Alice Arm,  
Fig. 2, Spec Vol 15, p. 465.

Map 307 A, Portland Canal Area, (Geol.), Sc. 1":4 miles -  
accomp. Memoir 175.

\*Map 103 P/11, Kinskuch, (Topo.), Sc. 1:50,000.

Porphyry Molybdenum Deposits, Alice Arm-Nass River Area,  
Figure 19, Bulletin 64.

REMARKS

Comp./Rev. By	DMacR	DMacR					
Date	2-79	08-86					

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DESCRIPTION OF DEPOSIT (continued)

Sulphide mineralization exhibits a zoning pattern which, near the outer limits of the biotite hornfels zone, consists of sparse pyrrhotite as disseminations and in widely spaced fractures. Proceeding inward toward the intrusive complex, hairline fractures contain chlorite and pyrrhotite. Nearer the intrusive complex, these fractures become wider and are filled with quartz, which carries pyrrhotite as well as coatings and minute bands of molybdenite.

Sulphide minerals constitute less than 2 per cent (by volume) of the rock, with pyrrhotite in the major amount. Molybdenite is always associated with quartz and occurs in the pyrrhotite-bearing veinlets and in the hairline fractures as stringy lenses or smears along shears. Molybdenite is usually concentrated along selvages of the veinlets. The quartz veins or quartz stockwork are present in both intrusive rocks and in the contact zone of the hornfels. Very minor amounts of scheelite have been noted within the quartz veinlet zone or associated with garnet skarn within areas of hornfels.

The deposit has several significant features evident on plans and cross sections. In the upper part of the mineralized area, the strata dip about 60 degrees northeast, compared to dips greater than 70 degrees at lower parts of the stocks. The strata near the surface are cut by numerous parallel or sub-parallel faults. The molybdenite mineralization is controlled by these pre-existing structures and the grade contours form bands that are subparallel to, but definitely crosscutting, the stratification. At a lower level, a somewhat arcuate form for the molybdenite zone is evident in which there is a relatively lower grade core area that parallels the many northeasterly striking, steeply dipping faults. The outer diameter of the molybdenite zone at this level is about 425 by 520 m.

At a much lower level, the molybdenite zone has expanded to 850 by 610 m, oriented in a northwesterly direction. The ore area has a definite partial ring or arcuate shape with steeply dipping internal structures, as indicated by the grade contours, and with a definite barren core measuring 490 by 300 m and also oriented northwesterly. However, a zone of molybdenite mineralization about 180 m wide trends northeasterly through the middle

of the barren core. This represents mineralization controlled by faults and shear zones. At higher levels, this fault-controlled linear zone merges with the northwest side of the main arcuate zone, leaving the barren core with an apparent northeast trend.

continued above .....

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)  
reserves of 526 967 000 tonnes grading 0.09% MoS<sub>2</sub>  
(Geological Fieldwork, 1985, p. 219).