

## NAME OF PROPERTY

DOME, DOMINION

OBJECT LOCATED - showing on Dominion claims.

UNCERTAINTY IN METRES 100. Lat. 54°28'15" Long. 127°08'50"

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 bedrocks are gently dipping maroon and olive-grey Hazelton volcanic strata and minor igneous intrusions. The exposed Hazelton section consists of about 2,500 feet of well-stratified pyroclastic deposits and a few basalt lava flows.

The acid pyroclastic debris appears to be mainly avalanche flow breccia. Single beds of this material range from 10 to 20 feet thick. In places near the base of the beds, pumice blocks are flattened and elongated. The upper surfaces of some of the most siliceous beds contain numerous epidote knots about half an inch in diameter.

Thinly bedded pyroclastic zones occur throughout the section. These contain graded lithic volcanic fragments and layers of accretionary lapilli.

Basalt lava flows are locally intercalated with the pyroclastics. The lava forms "shoe-string-like" bodies elliptical in cross-section. Some flows are as much as 4,000 feet long and 200 feet wide. Texturally, the lava is highly vesicular and locally charged with amphibole phenocrysts 2 to 4 millim-  
see Card 2 ....

Associated minerals or products of value - Lead.

## HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located between elevations of 5,000 and 7,200 feet at the head of Denys Creek, 23 miles south of Smithers.

A number of claims, including the Dominion and Black Jack, were staked on these showings in about 1906; open cutting was reported at that time.

The Dominion 1 and 2 claims were optioned from T.S. George by Falconbridge Nickel Mines Limited in about 1968. Adjacent ground was staked as the Dom 1-26 claims. Work during 1968 and 1969 included geological mapping, self potential and geochemical soil surveys, the drilling and blasting of two trenches totalling 60 feet, and 1,296 feet of diamond drilling in 14 holes.

Maharaja Minerals, Limited, held the property during 1972-1973 as the Dominion 1 and 2, Dome 1-17, See 1-7, and Nee 1-7 claims. Trenching was done on Dome 7, a mineralized outcrop 0.2 acre in area was outlined by planetable-stadia survey at 1 inch equals 20 feet, and 25 chip samples were taken covering Dominion 1 and Dome 6.

120397\*

Mineral Development Sector, Department of Energy, Mines and Resources, Ottawa.

HISTORY OF PRODUCTION

REFERENCES

Church, B.N.; DOM; Geology, Exploration, and Mining; British Columbia Dept. of Mines, 1969, pp. 87-91.

Reports of Minister of Mines, British Columbia: 1906, p. 99; 1908, p. 64; 1909, p. 85; 1968, p. 128.

Leach, W.W.; The Telkwa Mining District, B.C.; Summary Report 1906, p. 41, Geol. Surv. of Canada.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1972, p. 383; 1973, p. 341.

MAP REFERENCES

#Geological Map of the Dom claim group, Sc. 1":1,250 feet, Fig. 14, Geology, Exploration, and Mining, British Columbia Dept. of Mines, 1969.

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

Map 5309 G, Thautil River, (Aeromag.), Sc. 1":1 mile.

\*Map 53 L/6, Thautil River, (Topo.), Sc. 1:50,000.

Sketch Map of the Telkwa River and Vicinity, Sc. 1":2 miles - accomp. Report No. 988, Geol. Surv. of Canada, 1908.

REMARKS

Comp./Rev. By	DMacR						
Date	12-75						

## NAME OF PROPERTY

## DOME, DOMINION

## DESCRIPTION OF DEPOSIT (continued)

metres in diameter. Vesicles and larger gas cavities are typically lined or filled with prismatic quartz crystals and abundant pistachio green epidote, and some calcite, chlorite, grossularite garnet, and metallic minerals.

The main igneous intrusions consist of diorite and felsite bodies. In over-all structure the diorite is a sill which appears to swing upward discordantly cutting the strata in the west part of the claim group.

The main felsite intrusion is in the south part of the claim group where only the north contact was mapped. A small apophysis of what appears to be the same intrusion lies immediately south-east of the diorite body and north of Denys Creek. The rock is leucocratic, quartzofeldspathic, and commonly fine grained with sparse rectangular feldspar phenocrysts 2 to 3 millimetres long.

Although no major fold axis could be located in the field, a statistical compilation of cross-joints, sheeting, and bedding-plane attitudes indicates gentle warping of the strata about an axis of 225 degrees plunge 7 degrees southwest.

Faulting trends northerly and displacement appears to be slight. A fault lineament bisects the west central part of the property and a short subparallel lineament cuts the west side of the saddle at the north claim boundary. A considerable amount of barren vein quartz was found in the talus near the latter lineament.

Two distinct types of mineralization are recognized in this area—fissure veining and cavity filling. The mineral showing on the DOMINION claims near the north boundary of the property is the fissure-vein type. A pit near the 6,300-foot elevation yielded specimens of chalcopyrite, pyrite, sphalerite, galena, and bornite(?) in quartz. The vein is about  $3\frac{1}{2}$  feet wide and appears to dip gently to the west. The hangingwall is composed of a brittle andesite tuff and the footwall is a dense magnetite-rich unit, iron, 54.75 per cent; manganese, 0.79 per cent; titanium, 0.05 per cent. The geographical and structural setting suggests that the vein may be an extension of the fault-vein system observed in the saddle several hundred feet to the north. The observed shallow dip of the vein is thought to be abnormal and may be the result of local deflection of the fissure fracture along a bedding plane, the over-all dip of the vein probably being steep.

continued above . . .

## DESCRIPTION OF DEPOSIT (continued)

The type of mineralization associated with cavity filling is widespread in the basalts throughout the area. This mineralization is thought to be a primary feature related to the chemistry and volatile content of the basalt lava. The metallic minerals found in vugs and vesicles are mainly specular hematite, chalcopyrite, and locally magnetite and chalcocite. The cavities range in size from vesicles 3 or 4 millimetres in diameter to openings as much as 1 foot across. The lava is commonly charged with epidote in and around the cavities, suggesting intense metasomatism no doubt assisted by volatile action. In places, pillow-like structures indicate that the lava may have been extruded subaqueously.