PRODUCT	COPPER	PROVINCE OR TERRITORY		N.T.S. AREA	93 L/10	REF. CU 2

NAME OF PROPERTY EUREKA

OBJECT LOCATED - adit.

UNCERTAINTY IN METRES 100. Lat. 54°33'42° Long. 126°43'

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 rocks underlying the map-area belong mainly to the Hazelton Group. They consist of an assemblage of gently dipping resistant lavas and pyroclastic rocks exposed on the summit and north slope of Grouse Mountain plus scattered weaker sedimentary units found mainly near Coppermine Lake on the plateau area and locally west of McQuarrie Lake on the northeast slope. These beds are cut by a system of subparallel dykes representing a variety of compositions and possible ages. The Hazelton volcanic rocks are undivided in the map-area. They consist primarily of massive maroon and grey breccia and tuff deposits interspersed with a few greenish lava flows. A composition breakdown of the rocks based on arc fusion analysis shows 38 per cent basalt, 44 per cent andesite, 15 per cent dacite, and 3 per cent rhyolite. The rocks are never entirely free from the effects of cataclasis or alteration of some type. The most competent units are normally well jointed or cleaved and often display tectonic breccias of varying development in the vicinity of faults. The less completent facies are commonly foliated. The products of

see Card 2 ....

Associated minerals or products of value - Silver.

HISTORY OF EXPLORATION AND DEVELOPMENT

The Eureka claim is located on Grouse Mountain, on the north side of Coppermine Lake, 16 miles southeast of Telkwa.

The Eureka (Lot 6473), and Copper Crown, etc. 93 L/10, ZN 1, claims were staked in 1914 by Samuel Bush, Joe Bussinger, and Louis Schorn. Later that same year the claims were optioned to Trimble and Anderson, of Portland, Oregon, who formed the Cassiar Crown Copper Co., with head office in Tacoma, Washington. Work on the Eureka showings to 1920 included pits and trenches, and an adit of unknown length. The Eureka claim was Crown-granted to the company in 1920. The company was apparently re-organized in 1926 under the name Cassiar Crown Mining Co. and exploration work was resumed on the Copper Crown showings. Work was suspended in the summer of 1927; no work was reported on the Eureka.

The Crown-grants subsequently reverted to the Crown and were leased in about 1950 by A.B. Goodridge, Frank Cooke, and associates. Copper Ridge Silver Zinc Mines Limited was incorporated in February 1951 to explore the property. Diamond drilling totalling 306 feet in 3 holes was done on the Eureka claim during the year. The company suspended exploration work in August 1952. The company name was changed in 1962 to Copper Ridge Mines Ltd. An electromagnetic survey was carried out in 1965.

120425
Mineral Development Sector, Department of Energy, Mines and Resources, Ottawa.

HISTORY OF PRODUCTION

MAP REFERENCES

#Geology of the Grouse Mountain Area, Sc. 1":1,800 ft., Fig. 49, Geology, Exploration and Mining, 1972, British Columbia Dept. of Mines.

Diagram of Copper Crown Group, (Geol.), Sc. 1":1/5 mile, Map 1608, Summary Report 1915, Geol. Surv. of Canada.

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

Map 671 A, Houston, (Geol.), Sc. 1":4 miles (1942).

Map 5311 G, Quick, (Aeromag.), Sc. 1":1 mile.

*Map 93 L/10 E, Quick, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	12-75						

REFERENCES

Church, B.N.; Geology of the Grouse Mountain Area; Geology, Exploration and Mining, 1972, pp. 397-417, British Columbia Dept. of Mines.

MacKenzie, J.D.; Telkwa Valley & Vicinity; Summary Report 1915, pp. 65-67, Geol. Surv. of Canada.

Reports of Minister of Mines, British Columbia: 1914, p. 228; 1916, p. 127; 1920, p. 349; 1951, p. 115; 1965, p. 74.

NAME OF PROPERTY EUREKA

DESCRIPTION OF DEPOSIT (continued)

partial or complete degeneration of the primary mineral component of these rocks (mainly feldspar, ferromagnesian minerals, and glass) are mica and clay minerals, chlorite, and fine iron oxide dust, carbonates, and less commonly epidote.

The sedimentary rocks comprise an assortment of grey and light brown volcanic wackes and siltstones with some intercalated tuff and breccia lenses. Conglomerates are less common as are shales and argillites; quartzites, cherts, and limy beds are scarce. The main panel of sedimentary rocks, near Coppermine Lake, dips gently to the south and appears to pass laterally into massive volcanic formations from which the clastics were probably originally eroded.

The intrusions on Grouse Mountain are essentially dyke-like bodies which strike north or northwest and dip westerly. Four possibly related varieties have been identified and mapped. These include two types of feldspar porphyry, a feldspar biotite porphyry and aphanitic basic dykes.

A large dyke found on the west side of the mountain is the most conspicuous. This is a bladed feldspar porphyry with exceptionally large plagioclase phenocrysts—some measuring as much as 4 centimetres long and one-half centimetre thick. A second large dyke parallels and locally cuts across the bladed feldspar porphyry. This younger intrusion is typically charged with randomly oriented tablet-shaped plagioclase phenocrysts averaging between 3 and 8 millimetres in diameter. A number of large dykes partially exposed in the central and northeast parts of the map-area are possibly kindred to the bladed and tablet feldspar porphyries. These are fresh rocks composed largely of varying mixtures of fine-grained alkali feldspar, plagioclase and biotite hosting very large poikilitic biotite plates, as much as 1 centimetre in diameter, and scattered smaller plagioclase phenocrysts. In addition to these intrusions, the area is traversed by numerous narrow aphanitic basic dykes. These are light grey in colour, granular in texture,and seldom more than 15 feet wide.

The Eureka showing is a pyrite-chalcopyrite-quartz vein system dipping about 75 degrees northwest and striking 070 degrees subparallel to the central part of the north shoreline of Coppermine Lake. The geological setting is similar to the Lakeview property; beds of tuffaceous sedimentary rock are cut by an aphanitic basic dyke near the veins.

continued above

DESCRIPTION OF DEPOSIT (continued)

The mineralization was intersected in a crosscut adit (now caved) driven from lake level. On surface a vein was traced about 300 feet to the northeast following a line of old sloughed trenches.

MacKenzie (1915, p. 67) provides a detailed description of an open cut in the area above the adit:

"....Following is a section of the zone, from the hanging-wall to the foot-wall:

Chalcopyrite, pyrite, and quartz	6 inches
Rock, slightly and irregularly mineralized	6 inches
Ore shoot, about 25 per cent chalcopyrite	2 feet
Rock, slightly and irregularly mineralized	2 feet
Ore shoot, about 25 per cent chalcopyrite	5 feet."

A sample across a width of 5 feet at the base of this cut assayed: gold, trace; silver, 4.8 ounces per ton; copper, 6.2 per cent (Minister of Mines, B.C., Ann. Rept., 1914, p. K 228).