

(Lat. 60°38', Long. 135°3')

References: McConnell (1909, p. 53); MacLean (1914, p. 162);
Wheeler (1961, p. 141).

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The Valerie property was staked by Gustave Cervais in August 1899. The claim is 2 miles west of MacRae and is reached by an old truck road from MacRae.

The early development work consisted of sinking shallow shafts on the ore outcrops and from these 40 tons of high-grade chalcopyrite ore was shipped in 1904. McConnell (1909) stated that this ore averaged 18 per cent copper and more than \$5.00 per ton in gold. A. B. Palmer of Whitehorse carried on additional exploratory work in

1907. A steep, inclined shaft was sunk to the 84-foot level, from where drifts totalling 270 feet in length were run in various directions. These workings were described by McConnell (1909) as follows:

"The upper part of the present working shaft is sunk in an outcrop of chalcopyrite ore, 10 to 15 feet in width. At a depth of 25 feet, the ore ceased, and the shaft was continued through barren rock, mostly altered diorite, down to the present 84-foot level. Short drifts to the north and northeast from the foot of the shaft, soon entered ore, and further exploratory work outlined a shoot of rich ore, approximately 50 feet in length, with a maximum width of 17 feet."

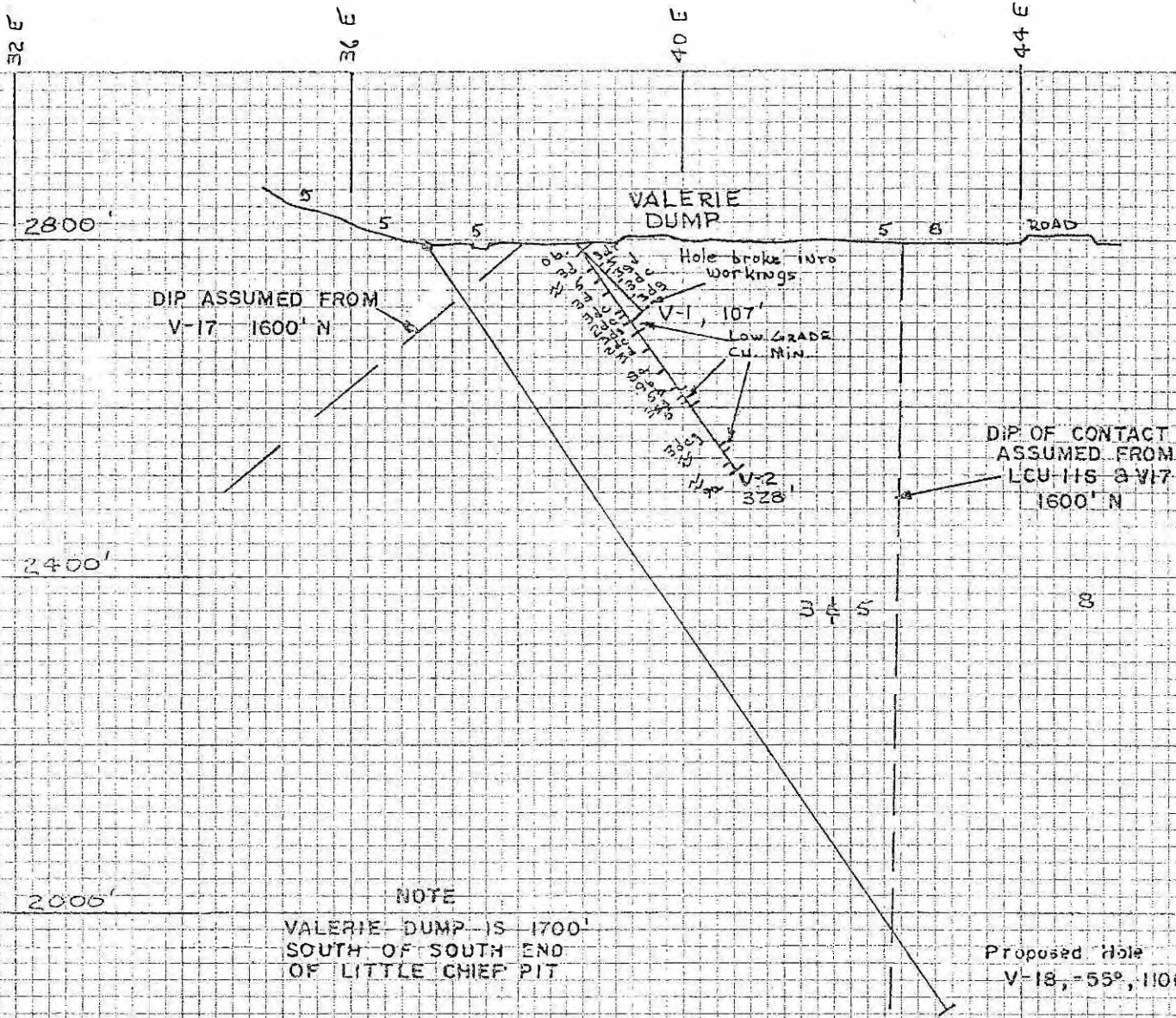
MacLean (1914) reported that the Atlas Mining Company held an option on the mine in 1912. The inclined shaft at that time was said to be 190 feet deep and some exploratory work was being done on the 84-foot level in the hope of finding other ore shoots.

The ore occurs along the northerly striking contact zone between Triassic limestone and grey granodiorite. Drift conceals these rocks north and east of the main shaft but limestone is exposed west of and for 150 feet south of the shaft, and granodiorite outcrops are numerous south of the contact which lies 150 feet south of the shaft. The limited exposures indicate a flexure in the granodiorite-limestone contact 150 feet southeast of the shaft, where a southerly trending contact swings west for 200 feet and then southwest. A brown-weathering diorite dyke, 20 feet wide, intrudes the limestone 150 feet west of the shaft.

At a 10-foot-deep shaft, 115 feet south of the main shaft, there is a lens of magnetite-rich skarn 2 to 3 feet wide. The magnetite holds bornite and is stained with azurite and malachite. The mineralization occurs along a narrow zone of faulting that strikes north towards the main shaft. Garnet and epidote are prominent in a skarn zone that extends 130 feet southwesterly from the 10-foot shaft, but the copper content is low.

According to McConnell (1909) the ore shoot penetrated in the mine on the 84 level is bordered on the south by a wide zone of altered and unaltered limestone, and altered diorite impregnated with arsenical pyrites in grains and bunches associated with small quantities of chalcopyrite, magnetite, augite, garnet, and calcite.

Several tons of sulphide ore that now lies on the dump east of the shaft, consists largely of pyrite, pyrrhotite, and chalcopyrite. A typical sample of this ore, collected by the writer, assayed: gold, 0.02 ounce per ton; copper, 1.65 per cent; cobalt, 0.12 per cent; nickel, 0.06 per cent; palladium, 0.002 ounce a ton; platinum, 0.004 ounce a ton. A spectroscopic analysis indicated less than 0.01 per cent gallium and vanadium.



NOTE
 VALERIE DUMP IS 1700'
 SOUTH OF SOUTH END
 OF LITTLE CHIEF PIT

WHITEHORSE COPPER MINES
 WHITEHORSE, B.C.

LITTLE CHIEF SECTION 7500 N
 1" = 200' FIG. 5