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ANNUAL REPORT OF THE MINISTER OF MINES
FOR 1936.

Part D -- Special Report
by
M.S. Hedley.

LOST HORSE. This group of six claims was owned in 1936 by Hedley Mascot Holdings, Ltd., and is now part of the holdings of Hedley Shamrock Gold Mines, Ltd. It is 4 miles west of Similkameen River between elevations of 6,000 and 6,400 feet. The claims are high up on a prominent mountain mass that attains, 1 mile to the north-west, a maximum elevation of 6,616 feet. Two small steep summits rise from the claims, but in general the moderately-sloping ground is wooded and in no place precipitous. Outcrops are quite plentiful. Access is by trail up Paul Creek some 6½ miles in length from the Similkameen River. The trail climbs rapidly 1,000 feet above the river-flat up a steep hillside of blocky sediments and slide material; the route is then up open, and finally timbered, drift-covered slopes to a tent camp on a small creek at an elevation of 6,075 feet.

The geology in this section is rather complex. Steeply tilted, banded sediments strike north-south and are intruded by dykes and sills of augite and/or hornblende andesites and diorites. Just north-west of the claims are banded, purple and green andesite flows and some breccias, and to the west to at least as far as the 6,616-foot summit is a light gray intrusive dacite. Cherty (probably sedimentary) breccias lie between the sediments and the andesite and dacite on the west. The sediments are argillaceous to quartzitic rocks, all metamorphosed, and are in many respects similar to those encountered on Nickel Plate Mountain; the average strike is 5 degrees west of north and the dip is nearly vertical. An anticlinal fold occurs in the centre of Lost Horse Nos. 2 and 4 claims, immediately to the west of which are chert breccias grading northerly into banded andesites and intruded on the south-west by dacite. The dacite is a fresh, variable rock of considerable area and contains phenocrysts of quartz and feldspar. The distribution of diorite and andesite dykes in the sediments is irregular; these rocks are probably closely related in age and origin and include many medium to fine-grained greenish-colored types, some of which carry fine pyrrhotite that is apparently related to the pyroxene constituent.

Mineralization includes, besides the primary (?) pyrrhotite, arsenopyrite, pyrite and pyrrhotite. It is found almost entirely in the sediments and appears to occur selectively in a fine dense brownish rock which is probably an altered shale. Sulphides, particularly arsenopyrite, are closely associated with green to whitish alteration of this rock in a system of fine interlocking and coalescing veinlets, an inch in width to paper-

thin. The green colour is due to diopside and less actinolite in one thin-section studied; the lighter seams, sometimes appearing marginal to the green seams, represent a kaolinization of the rock. Work on the property is insufficient to show the extent of this alteration and mineralization, except to indicate that the two are very closely associated.

At the time of the writer's visit in June, 12 open-cuts had been made at scattered intervals and others were made later in the season. Many of these open-cuts were designed principally to expose the formation and were not directed to follow up particular mineralization; they will not be described individually. The principal points at which mineralization has been encountered are in or close to the bed of the small creek. Alteration of brownish fine sediments in reticulating veinlets, is accompanied by scattered crystals and thin seams and blebs of arsenopyrite; local patches of alteration of irregular shape may contain lenses and masses of arsenopyrite an inch in width and several inches in length. The total amount of sulphides is low. Two picked samples returned 0.01 ounces gold per ton and trace in silver. Structural conditions on this ground appear not unfavourable, although to date no commercial mineralization has been found.

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Montello Resources Ltd **MEO**
Shares issued: 1,710,001 Dec 9 close: $2.70

DEC 10/87. News Release S.W

Mr Romano Giusti reports:

Chevron Canada Resources Limited has completed its 1987 work program on the Lost Horse claim group in the Hedley area.

Chevron reports that the work consisted of geologic mapping, geochemical rock and soil sampling, bulldozer trenching and diamond drilling. 92HSE050

Geologic mapping has shown that the geology of the claim group is similar to that of the nearby Hedley gold deposit. Similarities include: the on-strike extension of the Hedley-hosting stratigraphy; the presence of arsenopyrite-bearing diorite sills; extensive hornfelsing and calcic alteration of siltstones and some skarn development in the limestones.

Trenching (370 metres) and diamond drilling (one hole to a depth of 188 metres) tested the area of most extensive alteration. Geochemical results are pending.