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October 4, 1985

MEMO

TO: File

FROM: A.E.H.

RE: SPROUT CLAIM GROUP, KAMLOOPS M.D. OWNED BY NEWMONT EXPLORATION

PROPERTY

The 26 unit SPROUT 1 to 3 claim group lies immediately south of the Trans-Canada Highway, approximately 11 kilometres southeast of Savona, B.C. The property was staked by Newmont Exploration of Canada Limited in May 1982 to cover rusty, galena bearing quartz-carbonate float discovered during a reconnaissance heavy mineral overburden sampling program. The claims lie immediately west of the BRUSSELS claim group owned by Goldstone Exploration Ltd. Ready access is provided by dirt range roads.

DEVELOPMENT

Field work by Newmont Exploration in 1982 and 1984 included: 24 backhoe trenches, geologic mapping, grid soil sampling (341 samples), rock chip sampling (100 samples), and orientation geophysical surveys (VLF, magnetometer and IP).

GEOLOGY

The claims are underlain principally by Triassic Nicola Group andesitic volcanic rocks. Major lithologies include: thick sequences of fine-grained to coarsely porphyritic andesite flows, fine tuffaceous sediments, rhyolite and trachyte porphyry dykes, and minor intercalated argillite, limestone and siltstone. A few small intrusive bodies are also present. The volcanics commonly exhibit intense ankerite alteration.

Younger mixed volcanic and sedimentary rocks of the Eocene Kamloops group are also present in the area.

### Structure

The property lies on the eastern limb of a broad, south plunging anticline in the Nicola group. Three north-south faults have been mapped on the claims and at least one has associated intrusive emplacement.

### MINERALIZATION

The main showing is an apparently sub-vertical mineralized fissure vein 1 to 3 metres wide. Mineralization consists of galena, sphalerite, pyrite and chalcopyrite "clasts" in a chalcedonic quartz-carbonate matrix. The silicious zone is bordered by a 10 to 20 m wide zone of carbonate altered, carbonate veined, pyritic andesite.

The zone strikes easterly and is cut by post mineral trachytic dykes. The strike length of the main zone is at most 30 to 50 metres. A second similar zone found to the west of the main showing might be a faulted extension or an in echelon lense (C. Leitch).

Other showings include a silica carbonate rock with traces of malachite after tetrahedrite and a small showing of stibnite in pyritic silicified volcanic rocks.

### GEOCHEMISTRY AND ASSAYS

The best assay obtained was a chip sample which over 3 m averaged 2.9 g/t Au (0.085 oz/ton) and 27.0 g/t Ag (0.79 oz/ton) and included 1 m of 7.1 g/t Au (0.21 oz/ton) and 50.0 g/t Ag (1.5 oz/ton). Anomalous gold values (50 to 200+ ppb Au) are widely associated with altered andesite. Mercury and arsenic geochemistry is associated with the precious metal geochemistry.

Spotty gold and mercury soil geochemistry anomalies appear to be related to fine silica carbonate veinlets.

### GEOPHYSICS

The results of the VLF survey are not available. The IP survey indicated a uniformly low sulfide content. The magnetometer survey showed rapid variation indicating variations in the magnetite content of the near surface lithologies. The extent of the magnetometer survey was too limited to define a clear correlation with the alteration zones.

### DISCUSSION

Work to date on the SPROUT claims has identified structurally controlled fissure type silica carbonate veins carrying galena-sphalerite pyrite-mineralization with low precious metal values.

The extent of the known showings on the claims is limited. On the BRUSSELS claims to the east much larger carbonate alteration zones exist and drilling reportedly intersected a silica rich breccia vein zone. However both the carbonate and silica zones are essentially barren of precious metals.

Although the alteration and mineralization on both claim groups appears to be very favourable, the lack of significant precious metal values is discouraging. However, given the propensity of gold to be erratically distributed within a vein system further work on the claims can be justified.

### RECOMMENDATIONS

Although not a high priority target more work is justified on the SPROUT claims. As a preliminary to drilling, a suggested program would be to:

- 1) re-establish grid and re-locate showings
- 2) carry out detailed magnetometer and VLF geophysical surveys as an aid to selecting drill targets
- 3) spot test drill holes most likely angled holes across the strike of the main showing.

The second stage program would consist of an initial 1000 feet (5 Holes x 200 feet) of BQ core diamond drilling. Additional footage would be drilled depending on the results of the initial drilling.

#### REPORTS EXAMINED

Bohme, D., Summary Report on the SPROUT Claims. Newmont Exploration  
May 7, 1985

Turner, J.A. and H. Limion, Geophysical Report on the SPROUT Claims 1 - 3,  
Newmont Exploration March 26, 1983

Miscellaneous Reports on the SPROUT Precious Metal Survey, Newmont Exploration

#### USEFULL ADDRESSES

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893 Greenacres Road  
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V2B 6J6 579-9331 \$45.00 per hour (1982)