520756

MEMORANDUM

TO: John Brock June 29, 1979

FROM: G.H. Rayner

SUBJECT: Sand Creek Area MAP N.T.S. 92N/11

CONCLUSIONS AND RECOMMENDATIONS

The Sand Creek property is an extensive multiple intrusive complex carrying low values in molybdenum and copper at surface. Substantial areas of strong pyritization and of secondary biotite have been mapped by previous workers in parts of the area.

The alteration and geochemical picture as previously mapped should be confirmed by surface examination. Further mapping of geology and alteration should be carried out at a scale of 1:4800 in those internal areas not yet covered.

The Cities Service ground where secondary biotite has been mapped is expected to expire in August and should be staked as available.

Following the completion of the above, a drilling decision should be made. The biotite and silica alteration patterns and the surface distribution of molybdenite should carry major weight in this decision.

In view of the difficult topography and the wide distribution of pyrite it is felt that Induced Polarization would not be a useful tool here.

LOCATION AND ACCESS

The property is located about 50 kilometers southwest of Tatla Lake. From Tatla Lake settlement on the Bella Coola-Williams Lake road there is access by private ranch roads to within 5 kilometers of the property. For exploration purposes practical access is by helicopter.

HISTORY AND PREVIOUS WORK

Some very old claims have been staked in the area but nothing is known of work done at that time.

More recently, part of the ground was staked by Pacific Petroleum Ltd. in 1970 and the western portion in 1973 by Cities Service Minerals Corp. The eastern part was later restaked by Canex-Placer who held the ground briefly.

As a result of the work of these companies the area has been covered by soil and rock geochemical surveys, in part mapped at a scale of 1:4800 and in a cursory manner at larger scales.

Mineralized sections have been trenched and sampled with the best area of about 200 meters by 500 meters returning 0.03 percent Mo.

GEOLOGY

The property lies on the eastern margin of the Coast Crystaline complex. It is an area of younger intrusions, dykes and complex geology about 4 kilometers long by nearly 1 kilometer in width. It is aligned in a NE - SW direction and is probably controlled by a regional cross structure with this orientation. Dykes in general follow the same trend.

Various acid intrusive rocks have been mapped. The country rock is a granodiorite which is gneissic in part.

Younger intrusives noted include biotite granite, porphyritic biotite granite, quartz monzonite porphyry and quartz feldspar porphyry. In addition the area is extensively cut by dykes of a wide range of compositions.

HYDROTHERMAL ALTERATION

Alteration types observed include secondary biotite, silicification and magnetite development. Of these, both the biotite and silicification are important from an economic point of view.

The secondary biotite has been outlined in the Cities Service mapping over an area about 700 meters by 1000 meters. It is uncertain if it occurs in the area mapped by Pacific Petroleum or in the area between the two mapped sections. This should be checked in the field.

Silicification has been noted by Cities Service as being strongly developed in their biotite granite unit, however they do not outline it in detail.

MINERALIZATION

Chalcopyrite and molybdenite on fractures have been noted in modest amounts throughout the area. The best known grades are in the area sampled by Pacific Petroleum which gave 0.03 percent Mo over a zone 200 meters by 500 meters.

The material sampled was in part taken from blasted pits and trenches and in part from surface material. It may have been subject to some surface mechanical depletion of MoS_2, however probably not enough to significantly affect the grade.

Between the outcrop areas there are substantial sections of cover and of ice and névé. These are usually topographically low and may represent preferentially eroded areas with stronger alteration, fracturing and perhaps, mineralization.

June 29, 1979.

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