

W.A. No.

NAME WATERLOO

SUBJECT REPORTS

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822628-07
PROPERTY FILE
005188

82N/1W

82N-28

SUMMARIES OF REPORTS
ON
~~SILVER BASIN PROPERTY,~~
WATERLOO PROPERTY,
~~IRON POINT MERCURY PROPERTY~~

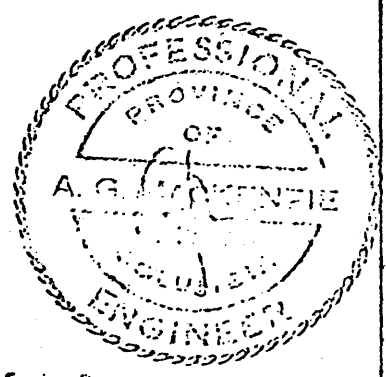
Prepared For
Purcell Development Co. Ltd.
Brisco, British Columbia

Prepared By
Angus G. MacKenzie Mining Consultants Ltd.

Calgary, Alberta

September, 1971

PROPERTY FILE



Expiry Date: September 23, 1971

ANGUS G. MACKENZIE MINING CONSULTANTS LTD.

THE PROPERTIES

1. Silver Basin Property

Purcell Development Co. Ltd. is the recorded owner of the following mineral claims subject to provisions of the B.C. Mineral Act:

<u>Claim Names</u>	<u>Record No.</u>	<u>Expiry Date</u>
Silver 1 to 4	14775 to 14758	January 30, 1972
Silver 5 to 14	14763 to 14772	April 3, 1972
Silver 15 and 16	13336 and 13337	December 23, 1971
Silver 17 and 18	15149 and 15150	September 12, 1972
Silver 19 to 22	15306 to 15309	September 29, 1972

The Company also holds an option from Miss Y. Mercier for two Crown Granted claims, Lot No. 1977 known as No. 21 and Lot No. 1978 known as Western Cross. The above claims comprise the Silver Basin property.

2. Waterloc Property

Purcell Development Co. Ltd. is also the recorded owner, subject to provisions of the B.C. Mineral Act of the following mineral claims:

<u>Claim Names</u>	<u>Record No.</u>	<u>Expiry Date</u>
Waterloo 1 to 6	14884 to 14889	June 17, 1971
Waterloo 9 to 14	15310 to 15315	September 29, 1971
River 1 to 4	15657 to 15660	December 22, 1971

The above claims comprise the Waterloo property.

3. Iron Point Mercury Property

The Iron Point Mercury property, located near Winnemucca, Nevada, U.S.A., is also controlled by Purcell Development Co. Ltd. It consists of six full-sized claims and three fractional claims plus a one square mile mineral lease to the south of the claims.



Expiry Date: September 26, 1971

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WATERLOO PROPERTY

Location and Accessibility (51° 10' N, 116° 25' W)

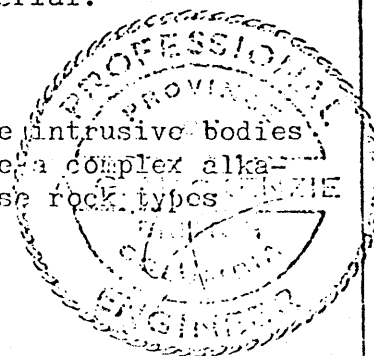
This property is located at the headwaters of Moose Creek in the Ice River area, close to the eastern margin of the Ice River Complex. It is presently accessible by helicopter from Golden.

History

The showing at the head of Moose Creek has been known since 1902. In 1925 the Geological Survey of Canada did some fairly detailed work on the Ice River Complex and mentioned that on Zinc Mountain at the head of Moose Creek there are zones of sphalerite, galena, pyrrhotite and chalcopyrite in limestone and calcareous shales. Later in 1952 and 1953 geologists of the G.S.C. reported minerals containing titanium, thorium and uranium from the area. The occurrence of sodalite had also been noted and some attempts have been made to establish or "sound out" a possible market for this colorful and exotic material.

Regional Geology

The Ice River Complex is the largest and best known of the intrusive bodies in the Rocky Mountains. Lithologically the rock series comprise a complex alkaline laccolith; magmatic differentiation resulted in the diverse rock types found in the area.



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The many rock types of the complex are transitional and represent a single period of intrusive action. The overall structural picture is that of a laccolith with predominant alkaline composition. One of the alkaline constituents of this complex is sodalite (this mineral has a deep blue colour). It has some commercial value as a semi-precious stone and appeal as a decorative stone where impregnated into other rock. Sodalite is apparently concentrated along the roof of the laccolith and has also been found as veins in other rocks of the area.

Mineralization

Within the boundaries of the claims held by Purcell Development in the Moose Creek area are two very different types of mineralization. One, sodalite, could be termed either an industrial mineral or semi-precious stone, depending on its usage. The other is a distinct siliceous limestone striking N15°E and dipping 42° west. This "bed" appears to be associated with the "floor" portion of the laccolith. Within this limy zone is a band of base metal mineralization up to 6 feet in width (but apparently somewhat lenticular) containing sphalerite, galena, chalcopyrite, pyrrhotite, arsenopyrite and pyrite.

It appears that each of the minerals outlined above occurs as a distinct, individual blob or patch. Chalcopyrite and pyrite are particularly clean. Where well-crystallized pyrite is strong, very little, if any, of the other minerals are present. It seems that the greater concentration of chalcopyrite and pyrrhotite are relegated to the more limy portion of the zone. A check on the gangue material of the mineralized zone at the lower adit indicates much more calcite than at the upper portal. At the upper portal the gangue is highly silicified. The deposit appears to be the result of hydrothermal alteration and magmatic segregation.

Very little can be determined about the nature or the extent of the mineralized zone from the surface and it is not known if the deposit had been previously diamond drilled.

A grab sample of the ore from the dump was assayed and ran as follows: 3.69% lead, 16.10% zinc, 1.59% copper, 27.30% iron, 2.90 oz. silver, 0.05 oz. gold. To illustrate the variation possible, another grab sample from the dump assayed as follows: 15.7% lead, 1.28% copper, 0.017% nickel, 7.92 oz. silver. One other grab sample assayed 11.62% zinc, 0.49% copper, trace of nickel, trace of platinum, trace of gold and 8.8 oz. silver.

Conclusions

We believe that the Waterloo property deserves a well-planned and concerted exploration program to assess the potential of the base metal mineralization and the sodalite. There is little data on the potential market for sodalite but it is felt that if it is sold as gem material then a small amount could yield a fairly high profit and if it is sold as a cut, decorative stone then it might have considerable value, albeit the mining cost could be very high per unit.

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One of the remarkable things about the area is the amount of magnetite in the bedrock and in the gravels of Moose Creek. Others have investigated the so-called "Iron Formation" for its titanium and iron content. It is our opinion that at this point in time this type of deposit is uneconomic. The usual association of base metals with iron formation cannot be ignored and it is for this reason that we feel the base metal prospects of the Waterloo property are good and should be given a thorough examination.

Recommendations

We recommend a planned program on this group of claims, to include the following:

1. Detailed geology of area.
2. Detailed magnetometer survey.
3. Clean out, examine and map geologically and sample all adits and/or test pits.
4. Detail the exposures of sodalite and try to classify them as to quality, quantity and mineability.

If the results of this work are at all encouraging then serious thought should be given to establishing an access road to the property.

An estimated cost for a suitable work program would be in the vicinity of \$32,000.00.

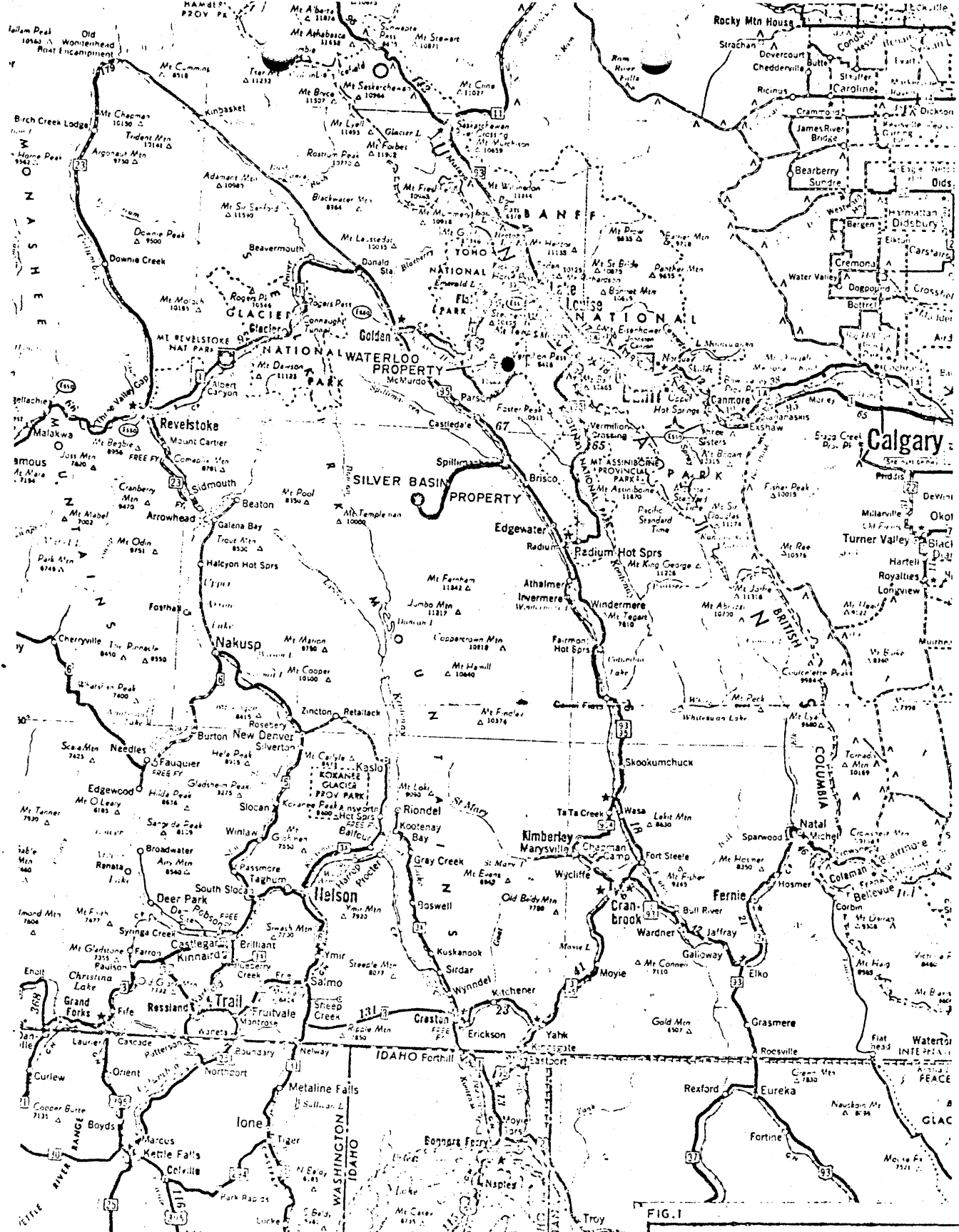


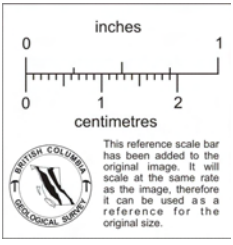
FIG. 1

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FOR
PURCELL DEVELOPMENT CO LTD

INDEX MAP

JAN 1971



Entry based on ... 1971