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REPORT ON

"DEN" CLAIM GROUP

VAVENBY AREA

KAMLOOPS MINING DIVISION, B. C.

FOR
DENISON MINES LTD.

BY

B. M. ARNOTT, P. ENG.

TORONTO, ONTARIO

17 OCTOBER, 1969

PROPERTY FILE

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SUMMARY:

The DEN claim group, owned by Denison Mines Ltd., is near Vavenby in the North Thompson River area, B. C.

This report is based on geological and radiometric surveys conducted by the writer in October, 1969.

The claims are underlain by sedimentary schists. Approximately at the east boundary of the property these schists are in contact with an intrusive and metamorphic complex consisting largely of granite, pegmatites, etc.

The geological investigation disclosed no evidence of the presence of economic mineralization. Trachytic tuff is the host rock for the uranium-molybdenum-fluorite deposits of the nearby Rexpar property but there is no evidence that this rock type occurs on the DEN claims.

The results of the radiometric survey were uniformly negative except over areas of exposed granite and pegmatite where readings of two to three times background can be obtained.

The anomalous uranium stream sediment samples reported from previous work occur in areas underlain by granite and pegmatites. The uranium values are adequately accounted for by these rocks, and they cannot be considered to be of significance.

This report does not make recommendations for additional work on the property.

INTRODUCTION:

At the request of Mr. Philip Donnerstag I have carried out reconnaissance geological and radiometric surveys of the DEN claim group. The field work was carried out October 2 - 9, 1969, inclusive.

PROPERTY:

The DEN group consists of 148 contiguous claims. They cover an area about six miles in an east-west direction by two miles in a north south direction, and lie in the Reg Christie drainage basin, in the Kamloops Mining Division, B. C.

The claims were staked for Denison Mines Ltd., during April and May of 1969 and were recorded as shown below:

<u>Claim Number</u>	<u>Record Number</u>	<u>Date of Recording</u>
Den - 1 to 34 Incl.	79302 to 79335	April 30th
Den - 35 to 78	79066 to 79109	April 28th
Den - 85 to 96	79336 to 79347	April 30th
Den -99 to 106	79110 to 79117	April 28th
Den-107 to 110	79348 to 79351	April 30th
Den 79 to 84	80578 to 80583	May 30th
Den - 97 to 98	80584 to 80585	May 30th
Den -111 to 148	80586 to 80623	May 30th

LOCATION AND ACCESS:

The property is located about five miles north-east of Vavenby, a small settlement on B. C. Highway 5, a distance of 85 miles north of Kamloops. The trans-continental route of Canadian National Railways runs through Vavenby.

The Caribou Mountain road traverses the centre of the property in an east-west direction and is accessible to 2-wheel drive vehicles. There are few branching tractor

roads on the main part of the property, but the area immediately to the east is covered by a network of logging roads. The south-western part of the property is most readily accessible from the Adams Lake road.

MAPPING METHODS:

The enclosed map, on a scale of one inch equals one quarter mile shows all the outcrops that were located. All roads and tractor trails were traversed and plotted by compass and odometer or pacing. Areas not covered by roads or tracks were crossed by cross-country traverses and the locations of these traverses are marked on the enclosed map to show what parts of the area have been examined.

SURFACE FEATURES:

The property lies in the valley of Reg Christie Creek, a tributary of the North Thompson River. The valley is incised to a depth of 2500 feet into the surrounding rocks at the west boundary of the property and the stream gradients are high. Near the headwaters, on the eastern part of the property, the valley becomes broad and shallow with swampy areas. Elevations on the property area range from 2200 to 4400 feet above sea level.

Many years ago the area was swept by fire and it is now largely covered by a dense mass of second growth which makes cross-country traversing difficult.

GEOLOGY:

Rock outcrops are few and scattered. With the

exception of some hills of quartz-sericite schist near the center of the property, most rock exposures are found along bulldozed logging roads or where water has removed the soil cover from steep banks. It is believed that overburden is very shallow over most of the area. The underlying soft schist forms soil readily and supports a growth of vegetation wherever it has not been recently disturbed.

The claims are underlain preponderantly by quartz-sericite schists with minor amounts of interbedded argillite and chlorite schists. Due to the paucity of outcrops it was not possible to recognize any distinctive horizons within this series. Chlorite schists and argillite seem more common in the southern part of the mapped area, but narrow bands occur throughout the area and it appears that the three rock types are part of the same stratigraphic unit.

The average strike of the schists is a little north of east with a moderate dip to the south. Locally the beds are contorted with barren quartz stringers filling fractures.

On Claim DEN 33 a number of narrow basic dikes of dioritic appearance intrude the quartz-sericite schist. They strike at about 20° and are vertical. About one half mile to the east a much finer grained basic dike strikes north-east. It has the appearance of a lamprophyre.

Approximately at the east boundary of the property the sedimentary schists are in contact with the Shuswap Metamorphic Complex. These rocks consist

of a contorted assemblage of muscovite, granite, granodiorite, gneisses and pebbly quartzite. All these rock types are intruded by basic dikes and by dikes and masses of pegmatite.

The contact between the Shuswap Complex and the sedimentary schists is not exposed. Dr. Forgeron expressed the opinion that the contact was gradational, but the writer could find no evidence to support this belief. It seems more probable that it is a fault contact.

RADIOMETRIC WORK:

A scintillometer was carried on all of the geological mapping traverses. On the main part of the property, which is underlain by sedimentary schists or covered by overburden, there were very uniform readings of 40 c.p.m. Background readings over the Shuswap Complex were 60 c.p.m. Readings of 100 to 140 c.p.m. were obtained on well exposed outcrops of pegmatite and muscovite granite. These results are normal and can not be considered significant.

CONCLUSIONS:

The main part of the property is underlain by quartz-sericite schists with minor amounts of interbedded argillite and chlorite schists.

No outcrops or boulders of the favourable trachytic tuff were found. Although there are large areas

obscured by overburden, it is most probable that these are also underlain by schists since the overburden is light and any trachyte, being a resistant rock, would cause a surface expression. Also, no trachyte was observed among stream transported boulders.

The area immediately east of the property is underlain by pegmatite and granitic rocks which are mildly radioactive. The anomalous uranium stream sediment samples reported from previous work occur in this area and cannot be considered to be of significance.

Dated: October 17, 1969
Toronto, Ontario

B. M. Arnott
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