PRODUCT	VANADIUM	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	92 K/3	REF. V 1

NAME OF PROPERTY SENATOR (RADIUM)

OBJECT LOCATED – Senator claim.

UNCERTAINTY IN METRES 1,000. Lat. 50°06'55" Long. 125°16'00"

Mining Division Nanaimo District

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR

DESCRIPTION OF DEPOSIT

The area is underlain by a series of dark green to grey, andesitic, and basaltic lava flows of Triassic age. The flow rocks are commonly amygdaloidal and dip gently south and southwest at angles not often exceeding 15 degrees. Rolls in the flow bedding are not uncommon, however, and numerous fractures and joints along which the rocks are sometimes slickensided and sheared, indicate that there has been some faulting. Within a radius of a few miles there are several showings of copper mineralization.

The vanadium-bearing specimens were collected from an old open-cut at the extreme north end of the company's showings. The cut had been made on croppings of chalcocite in gently dipping lava flows on the west side of a small ridge, and is about 75 feet long north and south with a maximum width near the north end of 25 feet. The cut is about 6 feet deep and shows on the west wall the base of a greenish grey, amygdaloidal flow of augite andesite. The many amygdules are filled with chlorite, quartz, calcite, and a greenish blue to straw-coloured amphi-

see Card 2 ....

Associated minerals or products – Uranium.

HISTORY OF EXPLORATION AND DEVELOPMENT

Radioactive mineralization was discovered at several localities in the vicinity of Gowlland Harbour in 1921. One of the localities sampled was about a mile northwest of Gowlland Harbour on the Senator claim, which was part of the Copper Mountain group (92 K/3, CU 3) owned by Valdes Island Copper Company, Limited.

During the latter part of 1930 carnotite was discovered by R. Crowe-Swords of Vancouver while making an examination of copper showings in the vicinity. He obtained samples of a soft greenish yellow material which were subsequently identified at the University of British Columbia as carnotite. Mr. Crowe-Swords staked 16 claims in this vicinity in 1932 and late in the season an electroscopic survey was carried out. Subsequently a company was reportedly incorporated under the name Radium Explorers, Incorporated to acquire 8 of the claims showing the most encouraging indications of radium; the Province of British Columbia has no record of incorporation of this company.

The property was examined and sampled by the Geological Survey of Canada in 1932.

Mineral Policy Sector, Department of Energy, Mines and Resources, Ottawa
120063

HISTORY OF PRODUCTION

MAP REFERENCES

#Copper Mountain Group, (Claim Map), Report of Minister of Mines, British Columbia, 1918, p. 272.

*Map 92 K/3, Quadra Island, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	11-78						

REFERENCES

+Ellsworth, H.V.; Rare-element Minerals of Canada; Economic Geology Series No. 11, p. 139, Geol. Surv. of Canada, 1932.

Ellsworth, H.V. and Gunning, H.C.; An Occurrence of Vanadium-Bearing Rock on Quadra Island; Summary Report 1932, Pt. A II, pp. 51-56, Geol. Surv. of Canada.

Reports of Minister of Mines, British Columbia: 1922, p. 240; 1932, p. 208 ++ .

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PRODUCT	VANADIUM	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	92 K/3	REF.	V 1

NAME OF PROPERTY SENATOR (RADIUM)

DESCRIPTION OF DEPOSIT (continued)

bole. A very small percentage of chalcocite occurs disseminated in the rock and in some of the amygdules. Beneath this flow, which dips gently to the south, is a second flow of dark grey, amygdaloidal augite andesite which contains, particularly in its upper parts, considerable disseminated chalcocite. This flow contains less augite than the upper one and is more altered, but both are considerably chloritized. Between these two flows, at the base of the east wall of the cut, is the layer of thin-banded, fine-grained, and very hard, black rock that carries the vanadium. This varies in width from about 1 to 4 inches and is exposed for a length of 30 feet. As exposed it shows green and yellow to brownish stains.

All these rocks are broken by joints and fractures, the most pronounced of which trend close to north 70 degrees west magnetic.

In a hand specimen the material of the vanadiferous zone appears to be made up largely of more or less wavy, very thin, dark-coloured, siliceous bands, mostly no thicker than paper, along which some thicker bands and lenses of black carbon, the whole cut in places by minute veinlets of later quartz. A sample tested for vanadium yielded over 3% V_2O_5.

An electroscopic survey succeeded in establishing several points of strong radioactivity, indicating possible radium-bearing minerals at greater depth. Small seams of carnotite were found on the surface, varying from a knife-blade seam to a couple of inches in thickness. Analyses of this material by the University of British Columbia, and also of samples submitted to the Metallurgical Division of the Department of Mines, Ottawa, gave assays of 27.7 per cent, and 28.9 per cent respectively of uranium oxide, which is radium-bearing. These seams occur in the joints and fractures of amygdaloidal volcanics.