

Knight
823412

\$350
80
100

1. I.P. Knight cls ✓

Lines 8200' long.

lines to cover cls — 11 lines.
(line spacing 1000')

$$\text{line miles} = \frac{90,200}{5280} = \underline{17 \text{ line miles}}$$

$$\text{Est. cost @ } \$500/\text{line mi.} = \$8500$$

2. I.P. Crescent cls.

line length — 6,600'

$$\# \text{ lines} = 5 \times 500\text{m} = 2500\text{m} \times 3.28 = \frac{8200'}{1000} = \underline{8.2 \text{ lines}}$$

$$\text{line miles} = 8.2 \times 1.25 = \underline{10.25 \text{ line mile}}$$

$$\text{Est. Cost @ } \$500/\text{line Mi.} = \$5000$$

Airborne work.

Vernon Area — 10 miles \times 4 miles line spacing $\frac{1}{4}$ mi
= 160 line miles.

$$\text{Time} = \frac{160}{70} = 2.3 \text{ hrs say } \underline{\underline{3-4 \text{ hrs}}}$$

Cost 4 hrs @ 320 = \$1280 for Helicopters,
plus R+B. for 3 men @ \$30/man for 2 days
= \$180

Plus operators Salaries — 300 \$
Total \$1760

To: Mr. SIROLA

MARCH 30, 1977

FROM: TATSU TAKEDA

RE: DRILL HOLE 77-6., KNIGHT PROPERTY, KELOWNA, B.C.

1. PERIOD OF FIELD WORK: FROM MARCH 26 TO MARCH 28, 1977

2. GEOLOGICAL FEATURES: In the hole, no coal is noted, but more abundant occurrence of pebble-gravel bearing arkosic sandstone with slightly higher radioactive background than basalts and leucocratic basement intrusive is seen. Serpentinite fills some of the irregular cracks in olivine basalts. The topmost layer of basaltic lava flow is characterized with white zeolite coated gas pores.

Basement intrusive is gradually becoming higher in elevation towards east with decreasing thickness of sediments between basaltic capping and the intensely altered basement.

3. Comments:

- (i) Known anomalous features along Line 21+60N has been well checked with 5 holes of which three reached to the basement intrusive.
- (ii) Protective, basalt capping theory for uranium containing sediments requires revision, because at least on the Knight Group, pre-Miocene sediments is not indicating original high background in radioactivity.
- (iii) Apparently, sub-aerial environment as well as topographic control in recent age may be one of the key factors for uranium concentration in permeable layers such as pebblestone or conglomerate.
- (iv) Knight group is separated by the Davies Creek from the eastern block which shows higher radioactive background, especially in pebble-small gravel bearing layers in eskars and moraines. Potential source.

area must be located in further east, more likely to be outside of the Knight Group.

(V) Intense shattering and alteration in the leucocratic felsic intrusive suggest the similarity to the feature seen in the alteration halo surrounding porphyry molybdenite mineralization. However, no molybdenite occurrence has been confirmed in the current holes, except pyrite hair lines.

Intense argillite alteration together with chlorite stockworks and lesser silicification also suggests a possibility of gold mineralization.

4. Summary and Recommendations

No significant uranium mineralization has been encountered in the current six holes.

Sophisticated, ^{regional} geological mapping is urgently recommended to study environment on the uranium concentration in the area of 10 km x 10 km approximately:

first stage : photogeological study (April, 1977)

second stage : ground survey for geological mapping. (April-June, 1977)

Then the targets will be selected for further detailed exploration in the advanced stage, such as geophysical work and diamond drilling.

Respectfully submitted,

Tats. Takeda

COPY

Mr. D.A. Lowrie

Mr. W.M. Sirola

OKANAGAN PROJECT - KNIGHT CLAIMS COMPOSITE
GEOPHYSICAL MAP AND PROFILES

March 4, 1977

Accompanying this memorandum is a compilation of geophysical material and an attempt at a structural profile. We also enclose logs of 77 - 1 and 77 - 2 plus a very detailed cross section of these drill holes by Tats Takeda.

The magnetic profile seems to delineate the lava cover quite accurately and the P.F.E. high on the west side of line 21 + 60 N probably depicts the emergence of the underlying pyritized siltstone at or near surface. The resistivity profile at 4 + 00 E on line 21+ 60 N indicates a low at the site of drill hole 77 - 3 and may well be indicative of the channel encountered in that drill hole. As you know, that drill hole went through lavas into sandy gravels and conglomerates at approximately 87.5 meters.

Under the circumstances, rather than move the drill to the north east corner of the property near the monashee outcrop, we will drill another hole east of 77 - 3 to get another intercept on the channel. The distance east will be a function of whether or not any radioactivity is encountered in 77 - 3. If significant radioactivity is encountered, we will start a grid drilling pattern after the eastern limit of the channel has been defined. Otherwise we will probably move about 300 meters to the east.

W.M. Sirola

Encls.