

Friday PM

Tulsequah DIST
Chief
888119

6
CIRM
- Victoria
Oct. 30/81

continent.

We anticipate construction could begin by mid-1983 pending approval of our environmental impact statement and completion of a final feasibility-engineering report. Without political and environmental delays, the Greens Creek deposit could be in production by 1986.

*Portman
10/2/81
10/2/81*
Paper 4 — 4:00 p.m.

Geology and Mineral Deposits of the Taku-Tulsequah Region, Northwest B.C.

JOHN G. PAYNE, Anglo Canadian Mining Corporation, Vancouver, B.C.
McMaster Martin (1981)

7/81
Geological study of the Erickson Ashby property in 1979 confirmed its volcanogenic origin, and suggested a link with other known deposits of this type in the region (Big Bull, Tulsequah Chief). A regional study was made in 1980. Further examination of properties is continuing in 1981. Numerous other exploration companies are active in the area.

Two broad divisions of layered rocks are separated by a major period of deformation. The older division to the west is part of the Stikine assemblage as reported by Monger (1980) in studies mainly to the south. In the map area, these rocks are divided into an older, more highly metamorphosed unit to the west (Tulsequah gneiss), and a younger, less highly metamorphosed unit to the east (Mt. Eaton formation). These rocks are complexly folded, with abundant evidence for more than one period of major folding.

Upper Triassic and younger strata in the Taku embayment to the east (Stuhini group, King Salmon formation, Sinwa limestone and Takawahoni facies of the Laberge group) are gently to moderately folded about axes trending 110-120°, and plunging gently northwest and southeast. The fold axes parallel major thrust faults farther east (King Salmon and Nahlin faults); probably folding and thrusting are tectonically related over a moderately long time interval.

The Sloko Group of Late Cretaceous to Early Tertiary age was formed during a major period of block faulting, possibly in part related to late stages of the deformation of the rocks in the Taku embayment, and in part related to intrusion of medium to high-level plutons and stocks.

Plutonic rocks ranging in age from Early Triassic to Early Tertiary intrude the Stikine assemblage along the eastern margin of the Coast Plutonic Complex. Plutons of Upper Cretaceous to Early Tertiary age intrude the rocks in the Taku embayment. A late period of faulting produced moderate right-lateral displacement along a set parallel to the Taku River.

Massive volcanogenic deposits occur in the Mt. Eaton formation, and are associated with felsic volcanic centres in several stratigraphic levels. The deposits range widely in detail, occurring in felsic volcanic rocks, chert and limestone.

The Polaris-Taku gold deposit occurs in rocks of the Mt. Eaton formation, probably associated with major faults, the nose of a steeply plunging anticline and possibly with a small diorite.

A belt of several small intrusions (Lester Jones intrusions) cuts the rocks of the Taku embayment. Associated with these are broad zones of country-rock alteration, dominated by pyrite and carbonate with veins containing quartz, carbonate and a wide variety of sulphides. The Red Cap deposits may occur in a felsic volcanic center in the Stuhini rocks which has been modified by hydrothermal solutions associated with the intrusions.

The Omni molybdenum deposit occurs just outside the mapped area in a Na-rich leucocratic quartz monzonite (alaskite) which intrudes schists and gneisses of the Stikine terrain.

Tulsequah

old Tulsequah gneiss - older unit (west side of Tul. K)
↓ (may be at Maly-taku also)

upper Paleozoic vols.

Ex. Polaris Taku

Ax-bearing veins on limbs + nose
of antiform (steep plunge 65° SE)

Stuhini Gp. breakout down to 3 qps.
→ Paleozoic rx. Mt. Eaton Fm.

Ex. Erickson-Ashby
Sassa Ck.

Tuli Chief → 'Hing' rhy. zone (~ $\frac{2}{100}$ side of Sassa Ck.)
- at top of felsite volc-rk.

Erickson-Ashby - Taku R. fault & offsets N-S
rhyolite-dert unit.

Big Bull - gtz-ser. schist.
(top to west)

- frags. of pumice i.e. explosive felsic volcs.

2 types

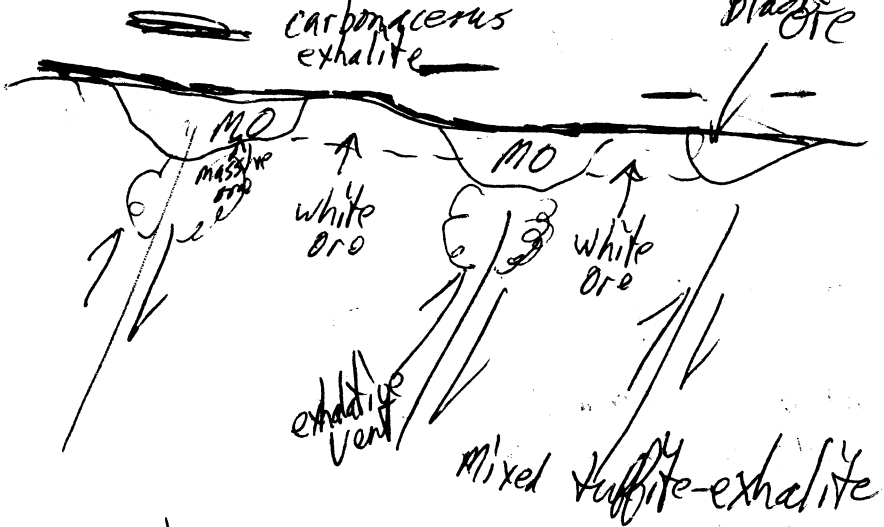
- i) skarn - assoc. w. chert + ls.
- ii) massive assoc. w. rhy.

Greens ch. (c. 4)

Carbonaceous
argillite

Carbonaceous
exhalite

Black ore



- proximity to a vent

Tubagud (cont'd)

↓ - Upper Triassic - Stuhini

Inklin Gp.

↓ Sloka Gp.

qtz-poor

Ex. Red Cap - Redfern - Suthikini intrusives
↳ "rel. to Stuhini felsic centre" - John P.
moly-taku - qtz-rich