

TWO GOAT MINERAL CLAIMS 1 TO 4

OMENICA MINING DIVISION

103I/16

by

TOM RICHARDS

MINERAL RESOURCES BRANCH ASSESSMENT REPORT 8133 NO. _____

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General Information

Nature of the Report: Geologic and prospecting

Claims; Two Goot 1 to 4

Mining Division; Omenica

Map Co-ordinates; 103I/16

Long; 128° 15'

Lat; 54° 48'

Owner of claims; Tom Richards

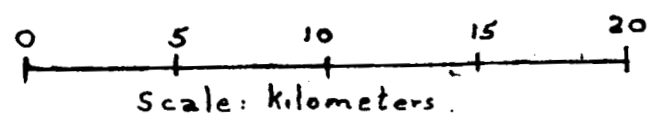
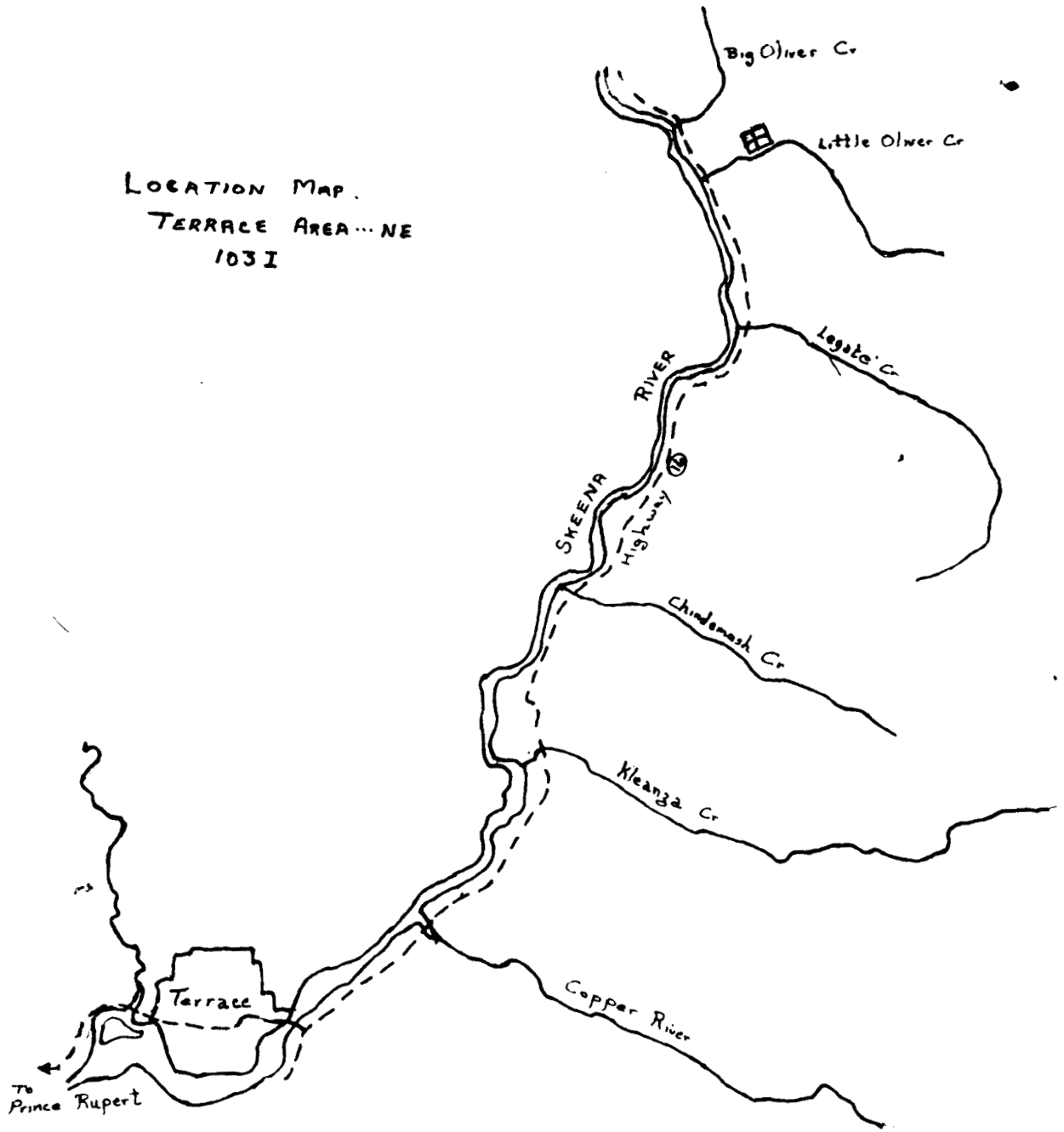
Operator; Tom Richards

Author of report; Tom Richards

Date submitted; June 30, 1980

INTRODUCTION

The Two Goat mining claim lies in the Omenica Mining Division, about 2 Km east of highway 16, on the north side of little Olive Creek, about 35 Km north of the town of Terrace. It lies within a deeply incised creek on the west flank of the Hazelton Mountains.



Five days, from April 13 to April 17 were spent by four men doing prospecting and geologic mapping on the claims.

The claims underlie a buff rhyolite member containing numerous small zones of fracture controlled copper mineralization in the form of malachite and chalcopyrite.

GEOLOGIC SUMMARY

The rocks underlying the claims comprise an unknown thickness of thick, interbedded acidic and basic volcanic rocks. They have been classified as Jurassic Hazelton, but possibly may be of Cretaceous affiliations. They, in the main, dip gently eastwards.

STRATIGRAPHY

Strata on the property are divisible into four mappable units; a lower, massive, fine-grained, light grey to mauve rhyolite that probably includes more than one flow unit,

; a diabase-basalt that is moderately altered to epidote-chlorite. It ranges from 10 to 30 meters thick and is conformable with over and underlying members. It may be a sill.

; a highly fractured, rusty coloured, buff to cream to light rose/mauve rhyolite 20 to 50 meters thick. Most of the mineralization occurs in this unit,

; and a massive, mauve coloured rhyolite.

Overlying the latter unit, but illdefined because of steep topography, are a sequence of interbedded rhyolite, andesite and basalt.

The rhyolite rock units are probably fine-grained ash flow tuff units. In few places where exposure permits, good pumice-wisps were noted. Phenocrysts of feldspar are small (1-2mm) and comprise less than 10%. Quartz eyes are rare and mafics, if present, have been bleached out. Lithic fragments are uncommon 1mm-1cm angular clasts of rhyolite generally similar to their hosts. Flow banding was noted in few places, generally in float.

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The diabase is a very massive, blocky fractured, fine-grained rock that often has a distinct greenish tint from epidote-chlorite alteration. It may be porphyritic with phenocrysts of feldspar. Amygdules of quartz, calcite and epidote are common.

Float of crowded feldspar-biotite porphyry was noted but not located.

STRUCTURE

The structure of the strata of the claims describes a gently east-dipping homoclinal assemblage of massive bedded volcanics modified by numerous faults. The homoclinal form is broken around mineral zone B, where for about 200 meters strata appear to dip gently west, whence to the east, the east dip is resumed. This flexure probably results from fault displacement.

Faults are numerous and frequently define gullies. They strike mainly within 20 degrees of north-south, with few eastward trends. Displacements do not appear to be major.

All the rhyolite rocks are strongly fractured, although the mineralized member displays the most intense degree of fracture. There appears to be a positive correlation between the degree of fracture and mineralization, particularly where the fracture is of close, parallel sheet-like nature. There is a like correlation between sheet fracture and faulting. The diabase unit is very coarse fracture, being a very competent member, in strong contrast to the rhyolites.

MINERALIZATION

Mineralization is mainly copper, in the form of malachite and chalcopyrite. Minor galena and shalerite were noted in the creek 70 meters from the initial post. Magnetite was noted in float from the eastern part of the property. Pyrite is extensive imparting a general rustyness to the region, and only locally exceeds 5%.

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Copper mineralization is confined mainly to one stratigraphic member, the rusty, buff rhyolite that overlies the diabase. Small pods of malachite and chalcopryrite are found in the diabase, usually in amygdules, and float indicating mineralization in higher strata was noted in one locality. Much, but not all the mineralization is within 15 meters of the diabase.

Copper mineralization is distributed over a length of 1000 meters within the buff rhyolite, and appears to be mainly fracture controlled. Copper distribution is erratic and appears mainly in four zones (A, B, C, and D). In each of these zones, faulting is extensive.

Zone A contains a number of mineral zones. Three are reasonably inaccessible and appear in close proximity to shear zones. These are recognized by prominent staining. The lower and most westerly mineral showing comprises two parallel fracture zones (110/60N), each 1 meter wide, 2 meters apart and traceable for some 10 meters. Mineralization here comprises thin films of chalcopryrite coating numerous fractures. 100 meters to the east, a 2 square meter malachite-chalcopryrite zone occurs in the diabase. At this point, the rhyolite below the diabase is strongly bleached and pyritized over 3 meters, 6 meters below the diabase.

Mineral zone B covers a zone about 160 meters across in which extensive copper staining can be noted along the cliff face. Mineralization appears strongest in proximity to fault zones and is associated with a close, parallel sheet jointing that runs dominantly north-south and dips steeply. Mineralization is chalcopryrite and occurs as fracture coatings with or without pyrite.

Mineral zone C comprises few showings, the best of which encompasses three occurrences in a prominent north-south gully, over a vertical distance of 40 meters. Few small occurrences were noted to the east and three occurrences of mineralized float.

Mineral zone D occurs in the creek at the west end of the claims. This region was snow bound at the time of investigation. Chalcopyrite, pyrite and very minor galena and shalerite were noted in buff rhyolite, silicified rhyolite and diabase.

Tom Richards.

Box 44, R.R. #1

Kispiox Valley.

Hazelton B.C.

ASSESSED VALUE OF WORK

Geologist- Tom Richards	5 man days
Prospectors- Willis Korff	5 man days
Pat Suratt	5 man days
Mike Clarke	5 man days

Geologist- rate per day---\$150/day @ 5 days = \$750.00

Prospector- rate 60/day @ 15 man days = \$900.00

Total-- = \$1650.00

Transportation- Two vehicles, Kispiox Valley and return, 100 Km @ 4 = 400KM/10¢/Km = \$40.00

Food, \$10/day/man @ 20 man days = \$200.00

Total Assessed Value of Work = \$1890.00

Application of Assesment to the Two Goat claims,
4 claims for three years = \$1200.00

Tom Richards.
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STATEMENT OF THE AUTHOURS QUALIFICATIONS

BSc, Honours Geology 1965

PhD, Geology, University of B.C., 1971

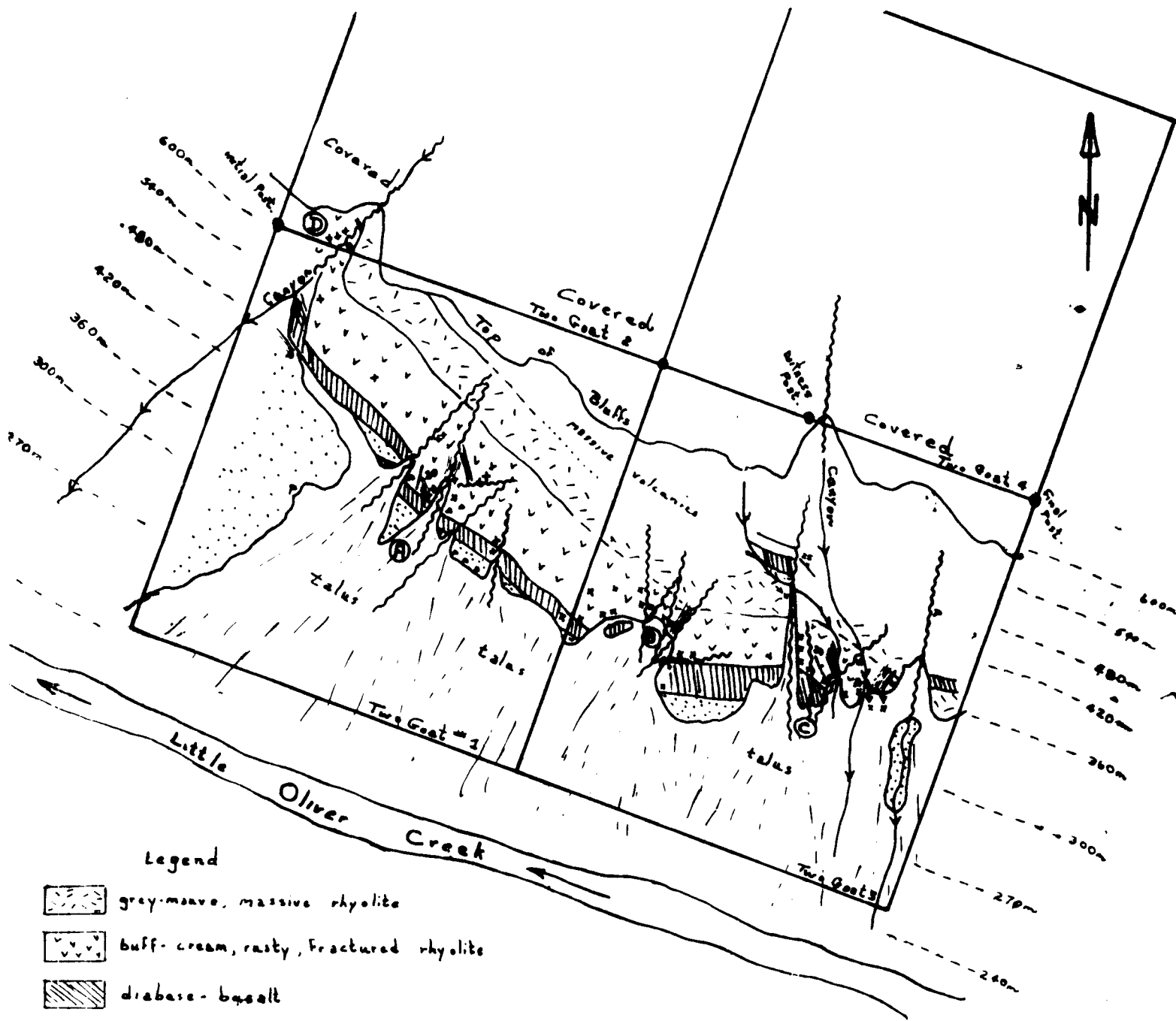
Research Scientist, Geological Survey of Canada 1972-78

Tom Richards





Tom Richards.

Geologic Map, (Sketch), Two Goat Mineral Claim

Omineca Mining Division, B.C.



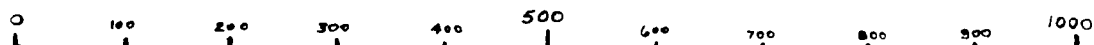
Legend

-  grey-mauve, massive rhyolite
-  buff-cream, rusty, fractured rhyolite
-  diabase-basalt
-  massive, light grey-mauve rhyolite

- x Copper occurrences; malachite/chalcopyrite
- P pyritic zones > 5%
- o galena-sphalerite
- >x malachite/chalcopyrite float
- ~~~~~ Fault
- ==== close, parallel fracture zones
- contour, meters
- outcrop boundary
- bedding
- talus apron

Ⓐ Mineralized zones (see text)

Geology: Tom Richards, April 1980



Scale: meters