

86/08/29
29/08/86

Mosquito Creek Gold Mine

Richard Hall

new extension of Island Mtn mine
(+ 50% is Carbon Gold Qtz)

- Hecla has dropped their option
underground development
drift in the 1st on two levels
to find x tons of ore / linear foot
of drift

Curium 1960-67 mined 80%
replacement ore avg 0.66 oz Au - 6 tons/ft
+ 2 tons/ft of development drilling
they got a FAME GRANT

Mosquito Ch - Richard tried to remap
the mine

Lots of drilling / developed on 4 levels
Trying to develop a stratig. picture

- can only look at the 1st + 2nd levels
Frick

- mainly replacement ore will be seen

- Qtz (vein) ore not important at Musg. Ch

Qtz veins - coesalite with gold
(Bi-sulphide)

ages 140 Ma cluster - K/Ar sericite in
if good - mainly post-dates ^{several mines}

Richard relates mainly to transcurrent
movement on Willow Creek fault
- started ~ 140 → through Cretaceous?

ore samples - gtz / py / gold
- gtz / coesalite / gold

Flat faults - important - subparallel
and controls distn of limestone

- plunge - down axis of ore

- ore bodies folded, faulted &
cleaved + rec'd

- lineation formed due to movement on
Willow Creek fault?

Flat fgs with variable orientations due
to rotation? [Bruce]

Isoclinal folding early - but
there are several generations of
cleavage - later lineation
has marked stretching. - one zone
parallel to stretch line - therefore
pipe-like ore is due to stretching
deformation (shear involved also?)
- Qtz veins also deformed - but differently.

old fold axes were also likely
rotated into the last stretch

Barkerville + Cariboo terranes separated
by the Pundara Thrust - see notes

Qtz veins - high angle and conformable

Richard has no surface geol. info
- where is it? -

Portal

Qtz - chl - carbonate nodules (calcite)
thinly bedded, gen. est. size

→ talc dol py rock with

Qtz carb py stringers

runs 1000 pp billion on often

— VERY IMPORTANT MAPPING UNIT —

Derived from TUFF?

[Caen appears to add dolomite]

Start in core of syncline - upper stratig.
on 1st level - main 1st

portal sheared / my bands / sh parting

① on main band 1st

Qtz vein folded with axes parallel
to the strong lineation

rocks calc / talcose schistose

Qtz has py & biot. Qtz

② Crosscut - Tuga stage

Thinly bedded dol gneiss

- phyllitic -

- ③ Back in the main edit - the '1st' [schist] has ~~so~~ light gray & dark gray zones cm to a meter wide - cut by late unroofed, gtz veins

(photo) Fold axes of older gtz veins are $\parallel$ to line

Pale, talcose zones are pyritic - do not run much in gold

'1st' unit generally pyritic & known in gold

Folds & folds folding folds

- ④ Photo of refolded silic lat finely layered graphitic / limy / gtzose

dol talc pyrite

tan colored in core

dol porphyroblasts

talc parting

Rock type varies ab.

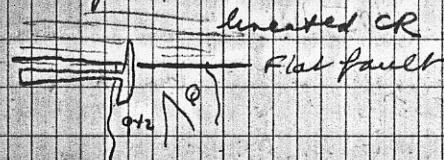
alt variations

otherwise
gtzsch

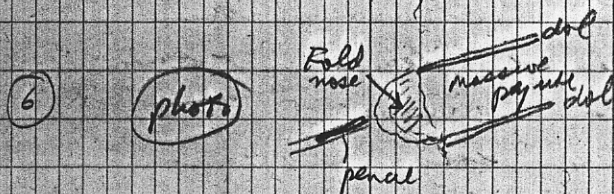
In cross cut - orange w/rg thin banding / talcose cleavage / limy layers 'Quartzite'

- gtz veins have spindly dol with ankerite

- ⑤ photo of gtz vein cut off by a flat fault



Qtz veins several trends / large pyritic masses then replacement ore (photo)



Some gtz dol veins have black pods & fringes (graphite? chl?)

Some massive py zones are at high & to schistosity also

⑦ crosscut - green, orange string
+uff(?) that we saw near
the portal
(KEY MAP UNIT)
cut off by a flat fault

⑧ Stope - cy replacement
ore - finer grain = better
grade
cut by late gtz
ore - py spindly dol gtz

- next X cut - mg dark '1st'
layer outlines crinkled folds

Vens at high & to lower / folia
cut ore but some (chalc)
are cleaved
- can follow 1st layer into
replacement ore

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Conclude - most veins are post
pre- or syn-~~vein~~ ^{vein} formation
Clearance formation

- some of the quartz veins have subedges
+ pockets of sericite

#2 Level / 20 Stope
⑨ gtz py gal sphal - arsenic
in vein core
some arsenic in chalc
stungers
chalc has lots of pyrite also
sulphides as blebs + stungers

• Veno pinch + swell rapidly.

⑩ large gtz vein - sulphides have
fracture cut + also occur as
blebs - margins often sheared
sulphides mainly pyrite here
black chlorite along edge locally
photo

- (11) photo. steeper ore -
cut by gtz vein -
'getting closer'
Flooded by flat flr
then strike let layers
some vfg good ore
lenses (sample)
Dol at edges

Veins raggy & locally get cavities
in the replacement ore

- (12) Ore vein - folded & fractured
runs ~ 0.5m over 8ft

Then to siltstone
marker unit - folded
but folds fold & cleavage
and bedding

- (13) photo of folded siltstone
(looks like well chert
or gyps))

- (14) Down the drift the siltstone
is 'underlain' by mineralized
auriferous (339?) ls
Get fuchsite above ore
in this above Auriferous ls

- (15) Rainbow Ptite Tblade
Dk graphitic partings, gritty
pyrite porphyroblasts
gtz swarms, folded

NOTE Hwy 9% - conglomerate with
clasts of gtz detrital chromite
(→ fuchsite) sst arg. - clasts
stretched, pervasive Fe dolomite
siltst - should be mineralized at ppt
level in Au? - 50ppm target!
Similar to rx at Kerr Address on
in Motherlode district