

86/08/26

Nickel Plate Mine

516 (w/190.0M) cut up to Nicola Liny
614 tonnes

- as Telluride skarn
- ore at outer skarn boundary

- 7.1M tons @ 0.15oz Au open pit

- 1.5M ounces produced so far -

- mine started 1902, Mill @ Hedley

- Gold in sulphides u. with arsenopyrite

- Skarn prograde Fe Pyrox garnet
retrograde Trem cal qb.

some scap: arsenite

gold + Tellurides together

- sulphides mainly open space filling

- ore with retrograde phase

millings

Crack 80% - 1000 mesh / cyanide

Sill margin / dyke - sill zone

sills after skarned / some mineral

- mined 200' down dip from surface
- fold axis control also
- skarn + ore with sills - lithologic control but gold structurally controlled
- need outer edge of skarn + structural complication to make ore
- retrograde tremolite
- ore arsenic pyroxene epidomgrosdenite
(Ni sulpharsenide)
 ratios vary
- CO can be 10% but spotty
- Bullseye - some electron

Toronto strike - sills correlative from it

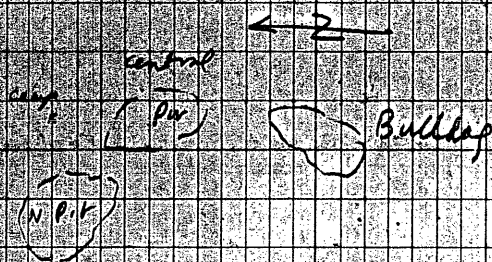
- compare the same

Dikes + sills synchronous although some dikes cut sills



Sunnyside 450 zone
 avg grade was 0.9oz

ore sills / skarning post sills but may be related to the igneous event.



- 2700 TPD planned / cutoff .05oz

- Mine area - sills bleached.

By diopside replacement + ksp

- iron-actinolite replaces garnet + pyroxene

- Bullseye of pyrox caliche pyrox + arsenic

- grades ~ 202 Au

Question: relationship of carbonate + sulphide to gold? None apparent

Will gold be there? Depends on where you are - in Nickel Plate, arsenic = gold elsewhere, no

- look for retrograde minerals

- Wallrock - the py limy argillite

Silver - related to copper more than gold - all low

- Co, Bi are closely related to gold - also As, Te?

- very minor Hg, Sb

- Depth Temp. 400°C prograde
prob. a few km - mesothermal

are .15 Ag -.05 Pb Ratio high

He (me) O O (me) Ore dip 30°

on (bleached)

me

(me)

PHOTO

old Glory Hole - will be in the new open pit

one was followed down dip - 2500' /
max width - 300' width 100 - 150'
one with several faults & one
gone with it

Nickel Plate 1-2 million

others 0.5 million

Nickel Plate Fraction 0.5 million

Total 2 million

Brucite will
hand to be
grossularite

grossular-
andradite
series

ferrosalite

Glory Hole - skarn top side / pink garnet / bleached
pit, coarse calcite pods (should have
excellent fluid inclusions)

- If someone collects & documents samples -
Ransom would be willing to look at the
inclusions

- Garnets - strained (birefringent)

Washington State
Ungeat North Meenart

Bulky Adit

grade ~ 0.202 - massive
arenaceous essentially at
the marble line
beds above have a light
calc silicate altm

w. 25' thick / 150' wide
500' down dip
- mgs as lenses
- overall 0.202

upward → pyrox skarn
altered volcanoclastic?

locally decry. ls. → white marble
cut by pyrox veinlets
→ diopside-magnetite skarn

local sphat. pyroxite (trachelidite)
Collection with quartz/sphat
young?

photo



sample 86-143

process

ls. decarbonized
creates more porous pyrox skarn

SUNNYSIDE 250 Coarser beds run
well - eg drop/calc
Contact skarn (bedding skarn) / sulphides
garnet - iron removed / fluid
to drop - allows rx with ad. side
garnet - composition change minimal
- mainly reflects original
composition

ENDOSKARN - in dioritic intrusive
EXD 1 10 CR

LUNCH

Market got cut from Borden Investments
- they have ~ 5% MPT

Capital cost ~ \$75M CIBC

→ A Partial / Nickel Plate Deposit

TOP OF DICKSON MINE

Area 1000' x 1000' - 1000'
 location of mine etc
 about 1000' x 1000'
 then some of the copper a 'Thrust'??
 has some other copper patches
 with them.

Red zone is a level of ^{red} ore
 hematite quartz calcite skarn
 layer various
 hematite veins, massive layers
 Red horizon in old mine usage
 cutting across several beds
 purple and orange yellow

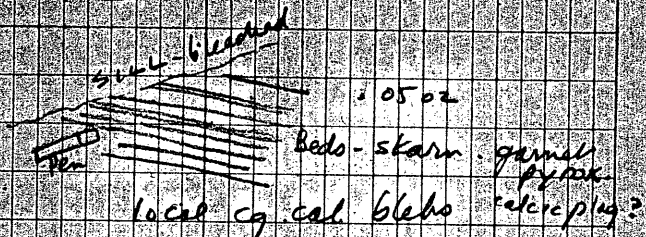
Sample 28-4

Beyond Stop 1-7
 Bleached antiskarn dyke
 Diopside / reagan (rare)

next stop, stop 104

Skarnified sed cut by endoskarn
 fill of iron & Fe blebs

(2 photos)



GENERAL

* local oxide (glory hole)

magnetite - several ages BUT not
 prominent in sulphide zones

- END OF TOUR -

NI CP BI good path finders

Sequence

↑ more & more volcanic rx
 Sed