

89/416

Harrison Lake

896472

Bema - took over management  
in July 1988 - Bema acquired  
Kerr

Mike Bealy V/P Bema Gold/Corp

- ABO RES - Opt by Kerr Addison  
- joint ventured w. Bema

• Drilled to Xmas 88  
~ 23000' of drilling

George Norman  
Proj. Manager

Barney Bowen<sup>a</sup>  
Jenner Stock

- Rel. Low grade so not easy.

• ownership Bema ~60% / Abo ~40%

Berna Kahlert - modelling

25 claims ~ 220 units

- Geology

Volcanosed rx

volc fragmental rx

monger - suggests Brokenback Hill

Fmn - as at Doctors Point

- Jura - Cretaceous

- Chilliwack Group faulted N to the south

- Property monocline 15-20° E dip  
@ Dio stock off Hicks Lake  
Batholith?

- Hicks Lake -

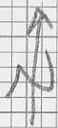
Strong magnetic anomaly

- Probably 23 - 25 Ma

- Stocks multiphase intrusions

- many phases - vertical bending

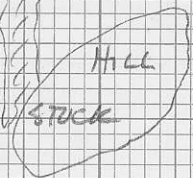
- passive intrusion, stoping, margin xenos abundant



Bx



SLIDE  
○  
STOCK



SWAMP  
STOCK



Near the roof - Hfls above +  
in HW - FW dyked, narrow  
metam. halo.

- contact hybridized (granitized)

- Last summer

mapped by Rob Edmonds +

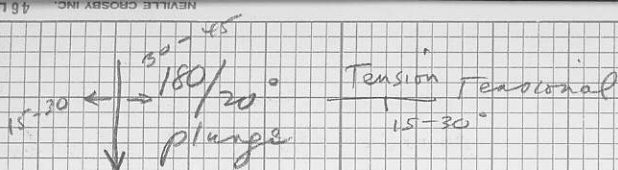
split generalized "stock"  
into a series of small  
stocks.

• N end stocks - no expln in '88

• Worked on Hill + Lake stocks  
@ S end of prop

- Bx zone extends ~ 500 m north  
from Hill stock

- Stocks have strong contact  
aureoles - Bx - CR + intrusive  
- Hybridized / Hornfelsed  
- Dyking



Vince Campbell - Structural interpretation

conj. sets of ~~S-SE~~<sup>NW</sup> veins - dip gently SW + NE / shear fractures due to pressure Pt?

Jenner 70 x 100m on surface  
 Bra set - tensional - S dip  
 stronger gold in the

Tensional N dip - "dry"

\* Property maps -

All contact zones lumped as hornfels

- silica in sedo - can get pyrrho blobs but no gold
- Hfls ~100 m from stock - end of Hfls = end of pyrrhotite - then get pyrite
- Gold with pyrrho/py ~ 9% where you get sulphides
- GOLD WITHIN THE STOCKS + related to the stocks
- ? STOCKS AS IRREGULAR PULSES

PORTAL / JENNER - NORTH  
HILL STOCK - SOUTH

Edges of stocks better merged than the cores - brittle zones over hot cores?

- New drill pattern on Jenner stock is N-S.

46LM NEVILL CROSSBY INC.

# LEVEL OF EMPLACEMENT

PORTAL - within 250m of surface?

HILL STOCK - possibly 7-800m depth.

sericitized  
intensely

Bx - rel small  $\frac{1}{2}$  frags

matrix 20-30%

clino chlo carbonate

~~qtz~~

- good mntgn <sup>in</sup> the bx / <sup>on</sup> <sup>adj</sup> <sup>to</sup> <sup>the</sup> <sup>stock</sup> / polymictic + chlorite

3-400m long ~ 30m wide

widens at depth ~ 100m wide

cupolas - off Hides Lk pluton?

- stocks have dissemin. pyrrho  
- several %
- Qtz veins - blobs + lenses  
of pyrrho  
- GOLD / VA / WITHIN QTZ - may  
be proximal to pyrrho  
- veins weakly banded -  
gold follows bands

scheelite

bit of MoS<sub>2</sub> arseno

sphalerite

Portal Stock - tellurides

South Stock - more <sup>sulfides:</sup> Zn, some Cu,  
some Mo, scheelite, silver-rich

Best hole 8m of 8 1/2 gm / T

\* old mapping DIORITE = @ diorite +  
all border altn types

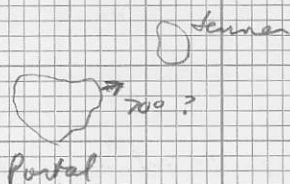


451M NEVILLE CROSBY INC.

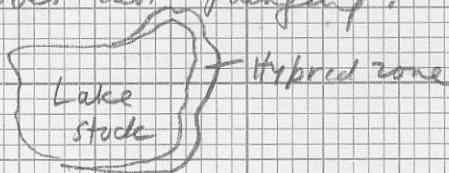
Biotope phases - not gen. mined

Gold zones in Hb Brg phases

Portal + Jenner stocks may  
form @ depth



Stocks east plunging?

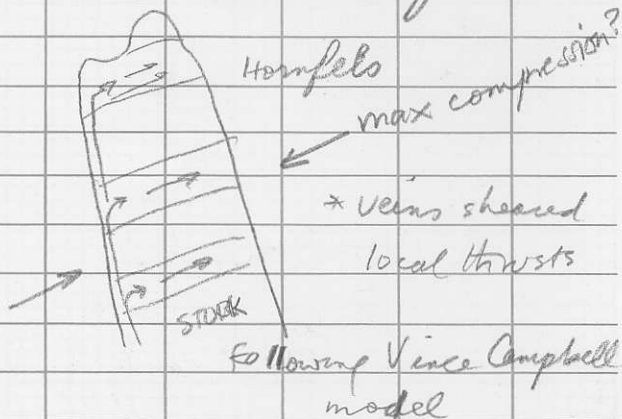


- zones - several flat-lying mineral zones - must be bulk mined to make it go
- Sublevel casing?

GOLD ZONES - MODEL ASSUMES  
LOW  $\phi$  VEINS

Senner stock - pipe-like -  
amphibole-rich phase  
preferentially mineralized

zones apparently feather  
out to the East toward  
the stock boundary



Underground - start in "diouite"  
 siliceous thin bedded <sup>volc?</sup>  
 arg dips  $\approx 35^\circ$

cut by low K gtr 2 veins

(4) Garnet vein (PHOTO)  
 symmetrical tension gashes

Other veins in sedo have  
 pyrite but not gen.  
 mineralized

(5) (PHOTO) veins / sedo

(6) (PHOTO) Dykelet cuts old

Banner gtr in sedo

STOCK BORDER

Flat +  $30^\circ$  into adit

massive pyrite lenses  
 $\approx 1$  cm wide

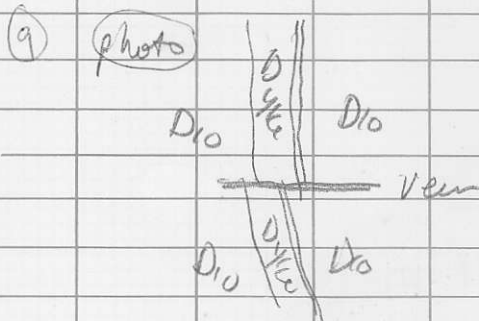
Qtz veins + pyrrho + gold + scheelite  
in the diorite -

mafic xenoliths

(7) (photo) Contact on sed  
screen + mafic xenos

(8) (photo) leucocratic dyke  
sharp contact with  
Qtz Diorite

Qtz vein + sulphides  
cuts both - flat-  
lying



Veins along dykes

but others

cut dykes

———— X cut ————

Sulphides in stringers,  
blebs, selvages



Horseshells -  
movement during  
formation

(10)

PHOTO

Mineral banding  
light + dk - see at  
Doctor's Point

(11)

PHOTO

Dark dyke - cut  
by veins (flat)

(12)

- See xeno on edge of  
stock

(13)

PHOTO

View near 1179/T  
cuts + offsets a light  
colored dyke

POSSIBLE THESES

OLGA I.

DIOR STOCKS

(photo)

Qtz "stockwork" close to

(14)

Edge of stock

pyrrho masses

steep or flat veins

cut by felsic dyke with

Qtz saw edge

— other X cut — crossed East

(photo)

Banded Qtz - pyrrho

(15)

/ vein  
partings

\* veins carry carbonate

(photo)

(16)

steep veins affect shallow  
veins here

o

- End of X cut

garnet epid amphib altn

in hornfelsed CR

at stock contact

- sets cut by many  
dykes



Drill core - Bx zone

pyrrho cpy local vuggy

(17)

qtz local sphal, cpy

(18)

fract & 1/2

(19)

frags sericitized -

early ? or selective act

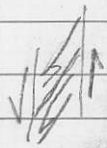
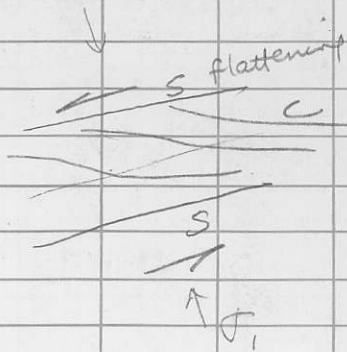
sericit. then bxtol

(several photos)

(20)

(photo)

garnet skarn





273NNN+ NL-2

Bema-Harrison Lake property -  
underground -

granitic vein + quartz

having sigmoidal tension fractures



273NNN+ 2L-2

Bema - Harrison Lake Property  
Underground

Bases of veins in sedimentary  
county rock.



273NNN+ 1L-2

Bemo - Harrison lake property -

Dioute dyke cutting bemo

8/2 ven in sed. CR.





273NNN+ 2L-2

Berna - Harrison Lake property

Diabase cutting grt veined seds



Bema - Harrison ~~(Lake)~~ Lake property

Relatively leucocratic dykes cut

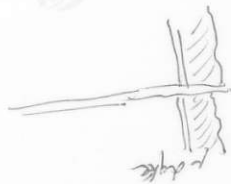
Q 010 host - both cut by flat -

lying gts vein.

273NNN+ 2L-2



Bema - Hanson lake property  
several dyke phases cut Diabase  
host - all cut by flat-lying  
gtz vein



273NNN+ 1L-2

9  
=







Bema - Harroon lake property -  
Odd mineral banding - sub-vertical -  
in diorite stock.

273NNN+ 1L-2





11

Bema - Harrison l.k Property

Dark Dyke cuts diorite -

cut by flat <sup>qtz</sup> veins

Diorite looks bxt d

April/89/

273444+ 2L-2



273NNN+ 2L-2

Bema - Harrison Ik property

Dark Dylce cuts bxt d(?) diouke -

Both cut by flat - byeng gt 2 veins.



↑

273NNN+ 3L-2

13

Bema - Harrison Lake property

Irregular felsic dyke cuts diorite &

both cut by <sup>offset by</sup> quartz vein that ren 1179/7 Au





Bema - Harrison Lake Property  
April '89

273444 + 2L-2

Qtz 'stockwork' near  
edge of stock - has pyrrho  
masses; felsic dykes have  
Qtz veins at borders  
veins steep + flat





Bema - Harrison Lake property -

banded qtz vein with

pyrrhotite partings

273MMH+ 2L-2



273NNN+ 2L-2

16

Steep qtz veins cut + offset shallow  
veins here - Diorite Host

Bema / Harrison Lk / April '89



122561

273NNN+ 1L-2

17

Bema - Hamson Lk property

Textures:

Banded breccia frags sulphides in  
'vugs'



10029/25.86

273NNN+ 1L-2

Bema - Hamson Lk property  
Textures in the Bx zone





130.15

45232

61 N

Bema - Harrison Lk Prop

April 89

Brecciazone - textures

273MM+ 1L-2



201

Diouste, a relatively  
leucocratic dyke &  
banded garnet skarn.

Bema - Harrison UG  
Property - April 89

273HNN+ 1L-2