

Mar 7/80

BELL

Mining 2140 Bench
(2500 - surface)

880656
Bell 093m001
93m1E

012 g/ton Au
(25 to 30 g/day)

Au - good correl. with cpx zone

Reserves

56 m tons @ 525% Cu
(i.e. 10 yrs.)

BELL

Maggie Dittrock/Ross McArthur May 19th 1982
Good & Chief Mine Inc. SUNNY 1982

Stothart 'Rob' (1720 bench) (1)
Project straight (1)
Current = 1540 bench — One more bench left (down to 1500)

~ 90,000 tons blasted
(1/2 month left) ~ #/m of ore left in pit.
- tailings pit emergency
→ put 1/2 into pit
~ March 15th - end of mining

* 60,000 tons @ 1.87% Cu
(underwater now)

Total ~ 200,000 tons of ore left in bottom of pit

wetlands project
0.17% → .07 ppm
ppm in water ~ 240 employees still
April 16th - shut down

June 12th - Shut down
Vorex (Van.) - lv. ~ 30 persons on site
'maintenance + care'

Closure Plan — this Oct.
Test dump leaching - still going

Economics 'A' frame - best potential
4% rate of return on pit expansion

60m tons waste - 2 yrs to access expansion reserves

GLEN

Geol. Reserves ~ ~~500 million~~ 500 million tons
Strip Ratio 2.5:1 @ 0.2% Cu cut off
+ lost 0.4% Cu + lost 0.01% Cu
To dev. 2400 ft. (cf. bottom of 1500 ft.)

10 yr. mine life with expansion

Memison - 'no go' - tried all scenarios incl. pipelines, rail, truck - too low grade

Tailings - fill! - no room left!

Granite maps in bell office otherwise - all other geol. data 'lost' in Van. warehouse! (Granby) / Zappala
→ Ross M. + Maggie very supportive of Jno. Capt.

16 Zone - western 'finger' almost reached with current pit (~ 0.3% Cu) est. 3.5 m tons ore

Drill into to 560 level. (~1000 ft. below present level)

- Maggie has identified / mapped a 'later' stage QFP on east / SE edge of BFP (i.e. 'last' stage) → Post-Mineral

BELL

May 19/92

Sparrowhawk showing - ^{WINK} _{mine} % (3)
(0.6% Cu) - new (1991)

6 out of 27 geophys. anomalies investigated during 1991

Granite - 3 yrs mining from northern side of pit. (if expansion were to go on BELL)

BELL

.005 opt Au - 'historical'

but now up to 0.01 opt Au

PHOTOS

Scale: 1" = 100' GEODAY/BENCH MARK

orange = rhyolite

blue = BFP (bio cell)

Pink = BFP (glz-ser cell)

Brown = sedts.

Yellow = QFP

'A-Frame' dump could 'go' on its own (Flour Daniel)

eg. 10 to 15 m tons @ > .27% Cu (perhaps higher at depth) - needs further testing

BELL

May 19/92

Sparrowhawk showing - ^{WNNW 1/8} mine (3)
(0.6% Cu) - new (1991)

6 out of 27 geophys. anomalies investigated during 1991

Granite - 3 yrs mining from northern side of pit. (if expansion were to go on bell)

BELL

.005 opt Au - 'historical'

but now up to 0.01 opt Au

PHOTOS

Scale: 1" = 100' GEODAY/BENCH MAP

orange = rhyolite

blue = BFP (bio cell)

Pink = BFP (glz-ser cell)

Brown = sedts.

Yellow = QFP

'A-Frame' dump could 'go' on its own (Flour Daniel)

eg. 10 to 15 m tons @ > .27% Cu
(perhaps higher at depth)
- needs further testing

BELL COPPER Porphyry Paper
(+ Granite)

1. Maggie Dittick
2. Peter Ogryzlo (Saskatoon)
3. Gavin Diron
4. (Ross McArthur)
5. Jill Pardoe
6. Gord Stothart - Mine Engineer

~~Paul to: Photograph Bell core~~

TO DO
① Send 'Formal' letter to Ross/Maggie
re - a) Mine Closure scenarios
b) Por. Sequel

② Send Maggie copy of all
prints taken at Bell

③ Send Paul W. copy of all
Bell photos.

Bell will contact Miranda Expl. (NOREX)
in Tor. + Van. to ask what they want
done with 'Geol.' pkg. → TOB to send letter

PHOTO

BELL

May 19/92

(2)

Blue = BFP

1" = 500 ft.

Orange = extr. equiv

Yellow = QFP

Brown = sands

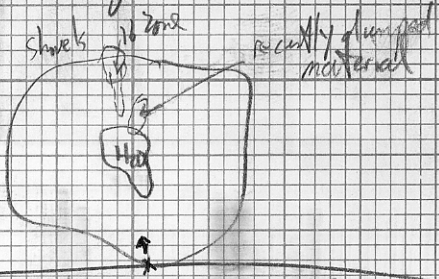
Green = volcs. (inter.)

Scale: 1" = 500'

(A) = all n limit (cht-camp)

(S) = all n (glz-ser-p x)

Photos - pit - looking NW
140 ft. of water (1700 ft. level)



Photos - Looking S over 'A-Frame'
waste dump

photos - Looking W over pit

Photos - Look S over pit

METRIC LEVEL

Photo Lock N from #1 Dam (6)

- Babine Lk did not freeze
over for the first time in
modern history!

- wetlands project to continue

① BELL COPPER

Wed. Sept. 18/91
Sunny +15°C

- Bob Lane, Al Wilcox, self
- Steve ?, Mike ?, Mark Tindall, (Wick Carter) - (over)
- Mine Gen. - Maggie Dittrock
- ~~mine manager~~ Ross McArthur

150 ft. left to bottom of pit

1990 - 60 ddh - expansion
- NW side of pit (15-20 yrs. max)

1991 - 62 ddh - perimeter of pit

- grad ore to depth

- a lot of ~~ore~~ rock to strip to expand

- Expansion ^(waste) would be 500 ft. in every direction

16 Zone ~ 0.3% Cu on NW side
of pit - small new ore zone

~~CANONS~~ Heap Leach - experiment

Pyrite halo - 3000 ft. across

- design in Jan - Feb
- constr. in May (cribs)
- 8 diff. cribs

① old dumps - ex. 'A Frame Dump'
(highly oxidized) - up to 0.5% Cu
~ 100 ft. thick

② North Dump: 1985 → (2)

③ South Dump: incl. QFP platon
(mixed bag)

④ SW wall: py seds.

⑤ NE wall - Hazelton tuffs

⑥ 'Ore Bin'

⑦
⑧

Pot. Tonnage: good!

Good cylindrical ore body to depth?
Depth: $> 1\%$ over several 100 ft.

High grade pockets ($\geq 1\%$) possible
to recover by u/g from pit.

Ore left in catchment berms
3 to 4 m fans of "high grade"
we need to steepen walls down
from 1820 level

"ROBCUT" → "ULTIMATE CUT"

in for gov't approval

* mine life to Aug. '93

- new feasibility study in progress (old study at 93 & Cu)

③ BELL COPPER Sept. 18/91

- no evidence of 'breccia pipes' in later mining (since 0'gruzlo) - but breccia do occur
- Rhyodacite host ~ 50% of mined
- BFP - main ore host.
- North end of Newman Is. to be re-looked at - ex. future leaching
- Ca grade up to 0.62% Ca in remaining ore reserves

Current mining

1660 Bench (2580 - top bench)
i.e. ~ 900 ft. deep

- 'Boomerang' shaped zone on the east side of the BFP.

Brenda Mines' personnel helped put secondary crusher (fire-damaged) (Aug. 28th) - running Sept. 16/91

Photos: Looking NW over pit
1990: 2600 ft. ddk on NW rim.

HEARNE HILL

Sept. 13/91

- 100,000 tons @ 1.25 to 1.5% Cu
- Breccia
- Peter Ogryzlo + Pete Bland
(owners)
- option by Noranda soon.