BELL COPPER

880655

Location: 60 km NE Smithers
History: Disc. – 1963 ; Prod. – 1972 ~100 ddh
Age: 50 my
Geol: horseshoe-shaped in plan, steeply dipping. 150 to 300 metres wide X 1000 metres long. Orebody follows + overlaps western + northern edges of BFP plug – emplaced along a major block-fault (Newman). Host – Hazelton volcs. + seds. Post-ore bx pipes
Mineralization: 3/5 Cu in plug. cpy + bn + py (+ Au Ag)
- contains 2 internal high grade zones 80 to 100 m diam av.
- no change of grade with depth.
- Supergene – on py + cpy = chalcocite enrich. in upper 50–70 metres of qtz-ser-py rich segment during pre-Pleist. time (covered + preserved by interglacial material ∴ 43,000 yrs (min) + 34,000 (max)
Alt'n: – halo 3500 X 2500 metres at surface
- orebody in zone of strong hydrothermal bio. rimmed by chl. but zone of irreg. shaped intense qtz-ser-py-cpy superimposed (overprinted) on earlier bio-cpy core – prob. caused by later influx of meteoric or connate H_2O into upper part of system.

Reserves: (Before Mining) 116 m. tonnes @ .48% Cu, 0.35 ppm Au + <.005% Mo
1976-77 (Can. Min. Hdbk) – 27 m tonnes @ 0.494% Cu + 0.012 g/t Au

History of Mtn. 1) main stage sulphides + bio-chl alt'n zones
2) initial cooling + retrograde sericitization
3) cont'd cooling + influx of non-mag. H_2O
4) late-stage / breccia pipes.