

Crowsnest
82G/2E 82GSE 037, 038, 048

882131

FLATHEAD ("Crowsnest")

Aug. 25/28

- chat with Bill Morton (Eastfield)
- 'picked up' (from Pete Fox - Phelps Dodge)
- liked variety of targets - e.g. Carlin

Ref: TGS Monthly Report - Aug. '88

HOWELL CK. (Flathead) May 25/93

- chat with Rob Cameron (fox Geol.) - contract work for Phelps Dodge
- Phelps Dodge now own all claims (need updated claim map), with small retained interest by Cominco, ?
- work by Andrew Logun + Andrew Sheplawski was "totally bogus/useless" (1988)
- Deposit Target:

Alkaline epithermal system - host rocks incl. alt'd syenite and limestone

- several assays @ over 1 opt Au (up to 18 opt in alt'd syenite)
- iron-stained, - high sulphide
- still searching for high grade source of boulders

- Analogies: a) Idaho - Gilt Edge
- Golden Reward

heap leachable

b) Montana - Kendal

- Zoritsman - Landusky

→ will be drilling mid-July - mid-Aug.

Oct. 3/94

HOWELL ck / FLATHEAD

- Rob Cameron (Fox Geol.)
- "Alkalic Epithermal Gold" Flathead/Crowsnest alkalic rx.
- 98 Ma L. Cret. syenite intr. - window thru the Lewis Thrust (i.e. in the W)
- seismic work by petroleum co. (ex. Shell) - helpful to Fox Geol. (incl. drill holes)
- younger Tertiary extension - Flathead Fault up to 2500' vertical disp. (W-side down)
- Soil anomaly > 200 ppb Au
- Host = Elko Fm. + 1st.
- To note: > #2m > 45 ddh on 5 sep. areas
- phonite / trachyte plots $Na_2O + K_2O / SiO_2$ or "microsyenite"
- foid syenites + analcite / tringuite; sanidine megacrysts
- diatreme bx. (+ carb. clasts) - heterolithic
- Soil geochem: coincident Au, As, Sb, Ag fr. Mo
- Best RC hole = 190' @ 1.93 g/t Au in silic/carb. 1st.
- failed mafic intrusion
- fluorite in Philips Fm. bx.
- local 'bonanza' grade qtz veins (Flathead end) (q. > 1 g/t Au) with sig. tellurium (i.e. fits alkalic model!)

→ Alkalic → ex. Cripple ck. (Colo.) → Flathead

Continental setting
rifting env.

- Cripple ck (26 Moz)
- South Dakota (1 Moz)
- Zoroman landusky (2 Moz)
- Golden Sunlight (2 Moz)
- Flathead top Franklin camp?

- assoc. with underthrust. vates. (acid or basic)
- magmatic fluids → inh. meteoric component
- 'porphyry' link
- Altn. - pyritization, carbonatization, argillite, silice
- Min. - f, ka, roscoelite (V-mica), py, PbS, ZnS, MoS₂, tellurides, magnetite

- ① Hope enjoyed variety of days' talks
 - good exchange of info - common - esp. TRGS
 - each learned a little bit more of each others activities
 Thanks - Organizers - esp. Local Chamber of Mines & local mining community.
- ② Thanks - all sponsors
- ③ Thanks - slide - Rob & Derek. etc
- ④ Poster / core session + BEER - if energy left
- ⑤ Have a Good Field Trip S. of border
 - Guidebook tonight from Don - either new or at Poster Session

- 2nd mass, tellurides, magnetite
 - Mn. - (?) for associated (V-manganese) etc
 - Altr. - pyrite, carbonates, quartz, etc
 - 'gold' but
 - magnetite, fluorite
 - with magnetite, etc. (acid to base)

- Cripple Creek (lab) → Flattop
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FLATHEAD (HOWELL CREEK) No. MI - (1) to MI 826/SE-048 and 037

On August 29th ~~to~~ 31st I visited the Placer Dome - Cominco joint venture: FLATHEAD (Howell Creek) property located approx. 30 km southeast of Fernie and 20 km north of the B.C. - Montana border. Access is via a good logging road network. Rob Cameron, geologist in charge, kindly acted as host and freely discussed the project. Andrew Legun & Andrew Shapinsky also acted as hosts and tour guides. They are working on a mini-project on the property trying to sort out the complex geology affected by structure, particularly thrust faulting.

In 1987 Dome drilled 10 holes totalling 1262 metres on their Grid A target, primarily intersecting syenite and trachyte. Regionally numerous small Cretaceous stocks, sills, and dykes of syenite and trachyte have intruded Paleozoic limestones and quartzites. The region is full of thrust faults and the exact nature of emplacement of syenites is still conjectural. Mineralization consists ^{primarily} of pyrite associated with fractures and locally fine disseminations within the altered syenites. The best assay obtained to date was 7.5 g/t Au over a 1.5m width. The target is a large tonnage, low grade deposit amenable to heap leaching methods à la the Zortman Landusky mine in Montana (Pegasus). There anomalous soil geochem for gold ranges from 300 to 800 ppb; at Flathead values locally exceed 900 ppb Au. Other 'signature' elements include Mo (up to 20 ppm), As (up to 900 ppm), Sb (up to 80 ppm), Cu (up to 300 ppm), plus anomalous Pb and Zn.

Stratabound to breccia filling purple fluorite (\pm bitumen) also occur in the limestones. Placer Dome has just begun a program of reverse circulation drilling (to 100m depths). Assay results were pending.

[Ref: BCDM A.R. # 15, 095 (Cominco) plus 1987 A.R. by Dome on Howell cr., plus AR # 16, 676]