

MINNOVA INC.M E M O R A N D U M

TO: A.J. Davidson
COPY: DHW, CMB
FROM: IDP
DATE: July, 1989
RE: Premier - Silbak/Tenajon Properties, Stewart, B.C.

Colin and I visited these properties on July 6th and 7th. At Tenajon, Dave Hasagi (ex Newmont) has recently taken over as chief geologist and is trying to piece together the rather haphazard work done by Esso and Tenajon in the past. Towards the end, Esso started to project mineralized zones as flat lying (as at Big Missouri) rather than steep (as in Premier Silbak) but the sections do not seem to support that theory. They also had sections oriented in various directions without showing all the influencing holes on many of the sections. Tenajon has now put the data into PC Explore and is producing consistent sections.

Tenajon is now 100% owner of the property subject to a 20% NPI on the Big Missouri claim. Up to the end of 1988 they had spent \$4 million and were budgeting \$5 million for 1989. However, markets being what they are, they have had to cut back substantially (they raised \$1 million in April). They have curtailed underground development for now and are concentrating on surface drilling of the Kansas, West Kansas and anomaly zones.

Highlights of 1989 work to date are the connecting of the Facecut and Kansas zones to give an overall mineralized strike length of 300 m, and the recognition of the West Kansas zone as a strong well mineralized structure. Unlike the Facecut zone which is high sulphide, the West Kansas is clearly a multi-stage quartz-carbonate vein with minor sulphide and free gold. Intersections to date includes 20' of 0.43 opt (cut to 1 ounce) and 6.5' of 0.44 opt. This appears to have potential to add significantly to the previously estimated 308,000 tons of 0.35 opt Au. Also discovered recently is the anomaly zone located on the east side of the property, approximately 500' east of the existing underground workings, it has returned values of up to 0.51 opt Au over 7'.

At Westmin's Premier Gold project we were shown around by Alf Randall and Sean Dykes. The project is a combination of two properties, the Premier Silbak and the Big Missouri.

- current status: mill built and operating, tailings facility built but they can not use it because they do not have the permits in place. Thus they are having to store and/or dry vast amounts of tails.
- they are mining from both the Premier and Dago pits; however the main haul road from Premier is not expected to be completed until this month (August). Thus they have an intermediate stockpile and will have to rehandle later. Likewise much of the ore removed from the Dago pit was oversized and was stockpiled near the pit. When we were there the geology department was lobbying strongly to have a private contractor break and truck this stockpile to the mill but there were indicators that it might just be abandoned!
- the original plan called for a 200 day stockpile to be established at the mill site to allow for winter mining shutdowns (the area holds the Guinness Record for annual snowfall - 200'). However, a combination of the mill starting up above its 2000 tonne/day capacity (at 2300 t/d) and the problem with haul roads has resulted in zero stockpile and no capability of blending lower grade ore with higher grade ore.
- as a result, of most of the ore coming from the lower grade Big Missouri Dago pit, their head grades are reported to be 0.05 opt, well below the target 0.09 opt. This presumably will improve when Premier ore becomes more readily available.
- current geological reserves 3,685,000 tonnes 2.5 g/t Au 21.3 g/t Ag at Big Missouri of which about 1.7 m tonnes @ 3.1 g/t are minable in 3 or 4 open pits.

At Premier, open pit reserves are only (6 m tonnes 3.5 g/t ?? Check). Underground reserves are just starting to be evaluated.

- at Premier, the reserves consist of high grade pockets not mined by previous operations, diluted by low or no grade material and, of course, the old stopes. Definitely a Mascot-like situation. It makes for relatively costly and inconsistent mining. At Big Missouri on the other hand, any previous workings are well below pit limits and the ore is more evenly distributed in zones of multi-stage silica-carbonate flooding. Interestingly, the model that works for exploration is of shallow, west dipping zones which they interpret as stratigraphic horizons. Conversely, at Silver Butte, which is almost surrounded by the Big Missouri property, the zones appear steep dipping. The Silver Butte ores are, however, much more sulphide rich than at BM, so they may both be right.

- current mins life is 10.5 years, which may just be enough to pay back the \$92 million + capital costs.