Westmin is still very actively searching for potential properties to provide **mill feed** to their mill (eg. Red/ ' Mtn.). Some gold ore from **Dome Mtn.** is scheduled to be treated soon (long transportation haul).

TGS MR Sept 91 676993 Glisbako

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# SILVER BUTTE (SB) MINE - Westmin/Tenajon [MI 104B150]

On September 23rd Bob Lane and I visited the Silver Butte underground gold mine. Rex Johnston and Dave Kaywood were our hosts. Under a joint venture agreement with Tenajon Resources, Westmin hopes to mine about 90,000 tonnes of ore grading about 10 g/t Au (at a cut-off of 5 g/t Au) by the end of November this year. To date, they had mined about 40,000 tonnes. To Sept. 1st the Premier mill had processed 29,941 tonnes of SB ore. Another 21,000 tonnes was expected to be milled on the 10-day run which began on September 17th. Three trucks are operating twenty hours a day to haul ore from the SB Mine to the Premier stockpile. Mining rate from the decline is averaging about 1400 tpd.

The development phase (completed as mining progressed) consisted of 932 metres of decline and drifting on the 35 Zone. The decline was driven beside the orebody, with levels established every ten meters vertically, with drifts through the ore on each level. Westmin's charge for milling is approx. \$20/tonne. Approx. 160 meters of strike length and 180 meters of depth (855 to 755 levels) are the dimension of ore to be mined.

Geologically, mineralization at SB is similar to that at Big Missouri (i.e. base-metal rich), but the mineralized zones have steep dips. The "massive sulphides" appear to occur at the contact between two andesitic units with a 'cherty' unit as a 'cap'. Preliminary observations suggest a higher Zn (+Ag) zoning to the north and a higher Au zoning to the south.

The Kansas Zone, with estimated reserves of 183,000 tonnes grading 14 g/t Au, is a relatively flat-lying quartz-stockwork zone (erratic in grade distribution) but will not be mined during this phase.

CLISBAKO - Eighty Eight Res. / Minnova [No MI]

On Sept. 24th Bob Lane and I visited the new (1990) Clisbako epithermal (acid-sulphate breccia) gold prospect located 100 km west of Quesnel. Access is via 150 km of good quality, newly constructed logging roads. Minnova optioned the property this summer and had just completed a 19-hole diamond drill program.

The Clisbako claim area is predominantly underlain by a well-differentiated sequence of subaerial tuffs, flows and volcanic breccias of probable Eocene age (Ootsa Lake Group). Extensive normal (extensional) faulting has created a number of tilted blocks. At least three major hydrothermally altered zones occur within the eastern half of the claim block. Alteration zones are characterized by an Internal zone of intense silicification  $\pm$  breccia flanked by widespread bleaching and argillic alteration accompanied by a pervasive moderate to strong stockwork of quartz veinlets and microveinlets. Very fine grained pyrite marcasite and arsenopyrite locally are present in amounts up to 5%. Pyrargyrite (ruby silver) has been identified in at least two separate zones.

The three separate northeastern trending mineralized zones (South, Central, and North) appear to occur in an 'en echelon' manner over a strike length of 2500 metres (N-S trend) and a width of 1400 metres. During 1991 Minnova conducted extensive trenching on all three zones and conducted 'preliminary' diamond drilling. The **South Zone**, consisting of an intense silicified breccia, was exposed by trenching over a strike length of about 250 metres and a width of 150 metres. The **North Zone**, consisting of pervasive silicification and argillization, was exposed by trenching over a strike length of 350 metres. The **Central Zone** was also trenched but appears less well defined. Host rocks (tuffaceous) trend 135<sup>0</sup>/35<sup>0</sup> NE. Good top indicators (graded bedded, flame textures) exist. Synsedimentary tight folds occur within the fine-grained tuffaceous beds. Quartz veinlets display multistage characteristics.

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#### COMMENT:

This new discovery of a classic high-level, volcanic-hosted, epithermal precious metal system, similar to many deposits (eg. Round Mountain, Aurora, Bullfrog) currently being mined in the Great Basin of the western United States, is further evidence of the potential of this area of the Province (i.e. the northwesterly trend from Blackdome to Endako). I still believe this area deserves more attention from our regional mapping and sampling surveys.

## FRASERGOLD - Eureka Re./Asarco Inc. [MI 93A150]

On September 25th Bob Lane and I visited the Frasergold project located 100 km east of Williams Lake. The joint venture is spending \$2 million on both underground and surface programs. Project manager, John Kerr, and contract geologist, Lori Walters, were our hosts. Work consisted of underground bulk sampling from the 55 (south) and 5387.5 (north) crosscuts (extensions of the earlier underground workings on the Historical Main Zone (HMZ), and approx. 10,000m of reverse circulation drilling. Sampling is a major concern in this very low grade target (i.e. 13 to 15 million tonnes grading 0.055 opt Au) to a 100 meter depth). Preliminary results do not suggest any upgrading from the underground sampling program.

Mineralization in the Historical Main Zone occurs over a width of 28 to 30m with grades of between 0.03% and 0.04 opt Au. Underground sampling and drilling to date over a strike length of approx. 800 meters and an average width of 18m has outlined a 'reserve' of 5 million tonnes grading 0.065 opt Au to a 100m depth (with a total potential for 10 million tonnes). Drilling is continuing on a 25 meter diamond-shaped pattern. Reverse circulation drilling was in progress to the southwest on the Grouse Creek where a potential reserve of 1.6 million tonnes grading 0.044 opt Au is indicated (albeit rather steep terrain for open pitting). Preliminary metallurgical testing on 'ore' indicates possible recoveries of gold by flotation (65%) and by gravity (20%).

#### COMMENT:

The economics of the Frasergold project remain "up in the air" (quote - John Kerr), even after this summer's work. It will be interesting to see Asarco's next move.

### OTHER PROPERTY NEWS

1. MM100 - KRL Res./Granges

On September 23rd I very briefly discussed the MM100 project with project manager, John Watkins, in Stewart. The MM100 property is underlain by a granodiorite which hosts a series (network?) of quartz veins carrying auriferous arsenopyrite (i.e. bulk mineable target). The past producer Dunwell Mine occurs on the periphery of the intrusive. The mineralized zone(s) are apparently geochemically anomalous in bismuth and cobalt. This phase of drilling will probably tell the ultimate fate of this property.

#### 2. BAKER MINE [MI 94E026]

On September 25th I spoke with Nick Carter who had recently visited the Baker Mine site on behalf of Multinational Res. Under an option agreement, Sable Res. (who have completed mining at the SHASTA MINE) have begun mining of the 'B' Vein. Apparently they plan to mine out the higher grade (i.e. ~25,000 tonnes) portion of the 50,000 tonne reserve with head grades expected to average 0.7 opt Au and approx. 2 opt Ag, by the end of November. The adit (decline) was collared at the 1725m level. The mineralized quartz vein underground averages, 2 to 3 meters in width and appears to contain more chalcopyrite than the previously mined out 'A' Vein (i.e. mineral association of gold with chalcopyrite?).