

MONTHLY REPORT -- SEPTEMBER 1992

by

Paul Wojdak, NORTHWEST DISTRICT GEOLOGIST

Snip
887744

*New Canamin's **Huckleberry** (93E037) project was visited on Sept. 16, accompanied by Sandra Bishop (Kennecott, property optionor) and Daryl Hanson (Equity Silver). Ben Ainsworth and Dave Jenkins were our hosts. A 20,000 feet drilling program is in progress.

Established reserves on the property are 87 million tonnes of 0.408% Cu and 0.025% MoS₂. Current target is a starter pit reserve of 50 million tonnes at 0.7% Cu. Past drilling shows excellent potential for higher grades (eg 450 feet of 0.73% Cu, 350 feet of 0.82% Cu). The ore zone is in hornfelsed volcanic rocks adjacent to a granodiorite porphyritic stock. The mineralized system is far from closed off, only one hole has been drilled in the stockwork veined intrusive. My chief concern is the practice of drilling vertical holes, chalcopyrite occurs in a steeply dipping (75 degree) fracture set, resulting in a poor core intersection angle in vertical holes.

***Telkwa Coal** (93L152) was visited on Sept. 21 with Daniel Gariépy and Angelo Ledda (Manalta project geologist). A combined diamond and rotary drill program is in progress. Manalta's program is focusing on an area north of the Telkwa River (previous work by Shell focused south of the river). Reserves are in the order of 50 million tonnes. The north deposit is contained in an arcuate zone 500 meters wide by 3500 meters long around a Cretaceous stock. Coal measures are within the late Lower Cretaceous Skeena Formation. Manalta predicts a market opportunity for thermal coal in the late 1990's (cf Ron Smyth's recent Japan coal write-up). The entire coal deposit does not outcrop, till cover is 7-15 meters thick. (A lower coal seam exposed on the Telkwa River is not within the proposed pit.) The most significant geologic complexity is block faulting which causes coal seams to dip in different directions in various fault blocks.

Some environmental considerations are: the deposit does not appear to be visible from the village of Telkwa and acid rock drainage is not expected to be a problem. Initial results from Barry Ryan/Greg Dawson's methane tests are encouraging. The quality of coal from Telkwa is fairly comparable to the ~~Manalta~~ deposit, near Campbell River.

***Equity Silver's** (93L001) trial underground mining of the North Zone was examined on Sept. 23, guided by mine geologist Trevor Wall. Underground ore reserves are 750,000 tonnes at 0.68% Cu, 209gpt Ag and 4.18gpt Au (577 Ag equivalent) at a 250 Ag equivalent cut off. J.S. Redpath Limited (mining contractor) has driven two 200 meter long drifts in ore from the Waterline Pit. Ring drilling is in progress but some significant problems are identified now. Flat faults, with 1-2 meter displacement threaten to increase ore dilution. Ring drill hole assays show erratic/variable grade (although there is some very high grade). A ~~northward~~ facies change into argillaceous rocks will pose significant ground control difficulties if ore extends into those rocks.

***Snip Mine** (104B250) was toured hurriedly on the CIM trip on Sept. 26. Guides were Mine Geologists Ken Donner and Bruce Coates (formerly in Vancouver exploration office). It was a real pleasure to see such a well run, successful operation, with geologists who are highly enthusiastic. Gold production costs are \$130-160 per ounce. Snip produced its 200,000th ounce on Sept. 15. Employees benefit from a very popular (rich) gain-share program.

The Twin Vein derives its name from a biotite-rich mafic dike that has intruded along the same fault that hosts the vein and bisects the vein into hanging wall and footwall segments. Vein splays in the Twin footwall are small in tonnes but high in grade (eg 150 Vein contains 60,000 tonnes at over 32 gpt Au). Wallrock to the Twin Vein is Stuhini arkosic wacke. The vein is derived from the nearby Red Bluff K-feldspar megacrystic porphyry. Red Bluff is dated at 185 Ma, identical to the age of the

EQUITY
SILVER

SNIP



MONTHLY REPORT - MAY 1994

by

Paul Wojdak, NORTHWEST REGIONAL GEOLOGIST

JUN 6 1994 - Smithers
Geological Survey Branch
MEMPR

HIGHLIGHTS

* First shipment of **Snip concentrate** (500 sacks) to be treated at Premier Gold arrived at the mine-site for production of gold dore. Sacks weigh approximately 1.5 tons and average about 7 opt Au.

* Habsburg Resources Inc. has reached a tentative settlement with 12 creditors owed \$1 million, that would permit reactivation of mining at **Dome Mountain**. There are hurdles to overcome; outstanding mine safety issues, reclamation bond, milling contract (with Equity closed, Premier Gold is the only option).

FIELD ACTIVITIES

* Toured two visitors from P.T. Kelian Equatorial Mining to **Equity Silver Mine** on May 3. Kelian is a large (20,000 Tpd), 2-year old, open-pit gold mine in central Borneo with a substantial ARD problem. The Mine Superintendent and Environmental Officer came to benefit from Equity's experience. There is a mining boom in Indonesia that has outpaced government policy but Kelian's parent company (CRA Group of Australia) intends to operate to "international" standards.

* **Morning Star** (103P 034, 039) drilling program near Kitwanga was visited on May 12 and 19. Mineralization is related to a cluster of five small quartz monzonite stocks and comprises a zonation from quartz-molybdenite stockwork to peripheral veins containing arsenopyrite, sphalerite, chalcopyrite and galena. Amax mapped and 'geochemed' Morning Star in 1980 as a moly target, and Equity Silver drill-tested the arsenopyrite zone for gold-silver in 1991. Owner-pro prospector Ed Carlson is also targeting the arsenopyrite veins; however the S.P. anomaly tested in the first two holes proved to be graphite in the Skeena Group country rocks. Unfortunately Carlson was unaware useful data in Amax's assessment report which I provided to him, and alternate targets are being considered for remainder of the program.

* **Red Mountain** (103P 086) was visited on May 10. Underground development is 25 meters behind schedule. Underground drilling has been slowed as a result but reserve definition of the AV zone is expected by the end of June. Analysis of 1993 work shows that gold grade determined by bulk sampling in two of three Marc zone cross cuts is comparable to drill indicated grade; in the third cross cut the bulk sample grade is higher. Drilling of the 141 zone has given mixed results, geometry of the zone is not clear and is to be addressed by surface drilling to begin in early June. Current plans favour an underground mill on site, rather than custom milling at Premier. Another tailings disposal option, suggested by MoE is being considered; separate pyrite and dispose of it underground (as backfill) and discharge the benign component of the tails under Cambria Icefield.

SNIP

EQUITY SILVER

MORNING STAR

RED MOUNTAIN

VOS → K6-Smithers



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

MEMORANDUM

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MONTHLY REPORT - SEPTEMBER 1995

by

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OCT 5 1995
Geological Survey Branch
MEMPR

HIGHLIGHTS

Red Mt.

***Royal Oak BC** regional office to be located in Smithers. Peggy Witte and an entourage of investors visited Stewart, Red Mountain and Kemess in early Sept. Royal Oak is having trouble hiring capable geological personnel with Red Mountain experience (everyone is busy/ committed). Major 1995-96 exploration program planned for **Red Mountain** to include an extension of the exploration decline plus surface and underground drilling. Metallurgical test sample to be extracted at **Kemess** by surface excavation.

SNIP

***Cominco-Snip** is preparing an underground development proposal to evaluate its new Twin West discovery (refer to my Aug report for description).

HEARNE HILL

***Booker Gold** have encountered good grade porphyry copper and breccia mineralization in drilling at **Hearne Hill** in the Babine camp.

***Teuton Resources** have discovered new bonanza grade gold mineralization in their EXPLORE BC funded exploration near Red Mountain.

FIELD ACTIVITIES

Telkwa Coal

***Manalta Coal's Telkwa** project was visited with Bruce Graff on Sept 6. We reviewed the project with Terry Brazzoni (Exploration Superintendent), Kendall Umscheid and Glenn Seve. Manalta's program consists of 2-300 meter spaced drilling of the Tenas deposit and broader, 7-800 meter spaced drilling to test their extensive coal licenses for coal-bearing stratigraphy. The reconnaissance drilling has encountered glacial overburden up to 160 m thick and except for one 6 m intersection, not much coal. The Tenas deposit is emerging as the best resource on the Telkwa property. The coal seam is up to 9 m thick, dips 10-15° west and is bounded on the west by a normal fault. Geometry is ideal for a shallow open pit. Coal quality is very good: high BTU thermal coal with low sulphur content and locally clean enough not to require washing. Manalta is likely to re-evaluate proposed development and locate the plant site south of Telkwa River, instead of on the north side near the #7 and #8 deposits which were proposed for initial mining. The 1995 program will comprise 95-100 rotary and a few diamond drill holes, and 4 trenches to test ARD potential of the enclosing Skeena Group sandstone and shale.

*Organized/ participated in the **Babine Field Trip** with Don MacIntyre and Co. held on Sept 7. There were 13 registrants (advertised as 15 max) with representatives from Inco, Teck, Kennecott, Rio Algom and several junior companies.



YOS → RG
- Smithers

MEMORANDUM

To: Wally Bergen, Manager Northwest Region

MONTHLY REPORT - MARCH 1997

by

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HIGHLIGHTS

*Very successful Rock Talk meeting held by Smithers Exploration Group, 60 people attended talks on March 4 (record turn-out?) and 12 participated in Snip mine field trip on March 5.

*The short-list of serious bidders for Endako includes International Skyline Gold Corp., Princeton Mining Corp. and two or three other companies. Bidding closes on April 3.

PROPERTY VISITS

X (C) *Snip mine visited on March 5. The 1997 goal is to maintain production levels achieved in 1996, perhaps a daunting task as high-volume mechanized stopes will fall to 25% of ore production and conventional (cut-and-fill) stopes must contribute 75%. Reserves (proven + probable) are 334,899 tonnes at 24.77 g/t Au (Jan 1997). Production costs are being analyzed with a view to re-assessing the 12 g/t Au cut-off which has been used since mine start-up. (The cut-off for development muck is 8 g/t Au.) Twin West drilling has been completed and results are being evaluated but property exploration will continue in high gear in 1997. The Twin West resource identified from initial drilling is 36,500 tonnes grading 19.9 g/t Au. The Twin vein, which contained 80% of the gold ore at Snip and associated biotite lamprophyre dike (BSU) have been traced northwest of the Monsoon Lake structure with essentially no displacement. There, the Twin vein is visually identical to the ore zone except there is no gold. Twin West vein is northwest of the Monsoon Lake structure too, but is located 300 metres in the hanging wall of the Twin structure. Four exploration targets identified for 1997 drilling are:

- "Eastern deeps" in search of the down plunge extension of the Twin vein northwest of the Monsoon structure (follow up of a deep footwall hole drilled northeast from the Twin West zone which intersected 45 g/t Au over 2 m.)
- Search for Twin West southeast of the Monsoon structure.
- Pursue 150 vein (30 m in footwall of Twin vein) below 220 m elevation
- Pursue 130 vein (100 m in footwall of Twin vein) above 450 m elevation and below 400 m elevation.

*Porcher Island project of Porcher Island Gold Corporation was reviewed with Carn Scott (Pamicon Developments Ltd.) on March 10-11. A first phase of drilling was completed in Nov-Dec 1996 and about nine more holes (4300 ft) have been done in the just-completed program. Two types of gold-bearing quartz veins occur:

Ministry of
Employment and Investment

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*Decorative facing stone samples were collected from road accessible sites in the Smithers-Houston area for office display: Equity bladed feldspar gabbro and Nanika granite. Limestone yet to be collected from site near Granisle.

*Fireweed core review begun. Little published material available in ARIS or elsewhere on this silver-lead-zinc prospect. Aim is to attract interest in it.

MINESITE NEWS

- 1) *Endako expects to mill 10.6 million tonnes at 0.131% MoS₂ in 1997 from 20.8 million tonnes of rock, producing 14.3 million pounds of molybdenum (Lyll Chapman, Minerals North). In addition to a 10 year ore reserve, Endako has an additional 10-12 year resource. Depending on approach taken by Thompson Creek Mining, \$1.5 million may be spent on exploration over the next 2-3 years and, if successful, production increased from nominal 30,000 tpd to 36,000 tpd. In conjunction with mine expansion the grinding and milling circuits would be further automated, a new crusher and a second roaster installed.
- 2) *Snip mine operating costs increased to US \$204 per ounce compared to US \$185 in the first quarter of 1996, due to increased reliance on more labour intensive narrow vein mining methods. Completion of the Iskut road would help reduce costs.
- 3) *Golden Bear has re-commenced site work on the gold heap leach operation. Two deep holes are being drilled on the Grizzly zone.
- 4) *Table Mountain produced 1523 ounces of gold in the first quarter, down 16% from 1996. The mill was shut down for 5 weeks while development work was completed. Cusac lost \$1.38 million in the first quarter. Production throughout 1997 will come from the Vollaug vein. First quarter average grade was 0.354 oz/t Au but grade and ore production are expected to increase.
- 5) *Premier Gold has been reviewed by about 6 companies (Canarc, Royal Oak, Treminco, Kinross?, etc). A tentative purchase agreement is expected by late June.

EXPLORATION ACTIVITY

Red Cap *Claim staking continues to be active. Areas of note include Anyox, Todd Creek (reported last month), upper Copper River (near Smithers), Babine camp, north Iskut (Sphaler Creek) and Taku (Red Cap).

Sulphurets *Sulphurets-Bruceside (Brucejack) to be acquired by Treminco Resources Ltd. for \$4 million with closure on Sept 8. The property has a MDC and the company's intent is to place it into production as soon as possible. Treminco owns and operates the 275 tpd Ptarmigan gold mine near Yellowknife, and owns the idle Silvana mine/mill near New Denver.

Galore Ck. *Kennecott's 55% interest in the Galore porphyry copper deposit will be put up for sale. This is one of the premiere undeveloped resources in B.C. Total resource in three zones is 284 million tonnes at 0.67% Cu and about 0.38 g/t Au. Hudson Bay Mining and Smelting owns the other 45%.

Wojdak - MR, May '97