

FISHPOT LAKE AREA

On August 21, Bob Lane and I visited Fox Geological's (representing Phelps Dodge) base camp located at Fishpot Lake resort, approx. 120 km west of Quesnel. Geoff Goodall was in charge of the program which consisted of regional reconnaissance silt sampling, as well as detailed property work on their MAC property located just west of Fishpot Lake. Phelps Dodge have a number of properties in the southern Interior Plateau region and are also examining the Clisbako and OBOY prospects. Targets include high grade, bonanza vein type and large, low-grade disseminated bulk-tonnage type gold deposits host in either Ootsa Lake Group or Hazelton Group host rocks. It will be interesting to see what further moves Phelps Dodge makes in this whole area.

FISH LAKE - [MI 920/041, 042]

On August 24 (at the invitation of Phelps Dodge) I visited the Fish Lake porphyry Cu-Au project located 170 km southwest of Williams Lake. Others on the visit included Michael Gray (Phelps Dodge-Toronto), Geoff Goodall (Fox Geol. - Van.), and Dan Niosi (Taseko Mines - Vanc.). Hostess at the site was Nadia Caira (Taseko Mines- Vanc.). Nadia has been in charge of the geological aspects of the project over the past several years. She presented an excellent overview/update which included graphic material prepared for the CIM Porphyry Sequel (see photos). Dan gave an excellent presentation on the mineral economics/mine engineering phases of the project (Dan had previously spent the past 30 years with Noranda in Toronto). We briefly examined selected core and made a brief traverse across the property.

The next day, August 25, Taseko Mines issued a Press Release announcing that the company has filed a Pre-Application for a Mine Development Certificate. Mineable reserves are estimated to total 960 million tons (note: Dan feels more comfortable with 600 million at this time) containing 12.0 million ounces gold and 4.4 billion pounds copper (head grades of 0.43 g/t Au and 0.23% Cu). Upon commercial production annual metal production is forecast to range up to 260,000 ounces of gold and 109 million pounds of copper during a mine life of 30 to 40 years.

A 'pre'-feasibility done by MRDI from San Mateo, California this spring has provided the necessary background material to complete a 'full' pre-feasibility study (by IMC-Tuscon, Ariz.) by month's end. Knight Pieshold have been retained for engineering details. The 1993 program consists of geotechnical studies (5 drill holes in the southwest area of the proposed open pit), archeology studies (objects found along Fish Creek), reclamation of exploration sites, continued environmental studies, compilation and interpretation of all geological information to aid in the pre-feasibility study and for the CIM Porphyry Sequel paper, detailed mine, engineering plans associated with the pre-feasibility study, and most importantly the search for capital/buyer for the project. In addition, with the filing of the pre-application for a Mine Development Certificate, Taseko Mines Ltd. plan to accelerate its comprehensive Public Information Program. During the last week of August the company hosted representatives of environmental groups (incl. B.C. Wildlife Federation, B.C. Endangered Species World Wildlife Fund, East Kootenay Environmental Society, Canadian Parks and Wilderness Society, Earthlife Canada, and the B.C. Environmental

Mining Council) on a site tour to discuss all aspects of the proposed mine. At the time of my visit the site looked immaculate including recently grown lush green grass on reclaimed sites.

Geologically, the Fish Creek Intrusive Complex (consisting of quartz diorite, quartz feldspar porphyry, igneous breccias, and post-ore diorite), with an estimated age of 77 to 80 Ma, intrudes (spatial and genetic relationship), Early Cretaceous andesitic pyroclastic (tuffs) and flow rocks with minor sedimentary rocks (Spences Bridge Gp. equivalent?) and in older quartz diorite (see photos). Approximately 60% of the mineralization (cpy, bn) is estimated to occur within the permeable, 'receptive' pyroclastic volcanic rocks (cf. volcanic porphyritic flows = waste, especially on the west side). The package of rocks plunge southerly at 70° and is cut off by a major fault (with sedimentary rocks below it). The deepest drill hole on the property (919 meters) ended in ore at the fault. The grade of the ore vertically is remarkably uniform making it ideally suited for open pit mining. Laterally, there is a classic outward zoning from high grade ore (> \$12/tonne NSR) through \$10 to \$12/tonne NSR, \$8 to \$10 tonne NSR, to low grade ore (\$4 to \$8/tonne NSR). The lower grade material may be stockpiled, with an ultimate cut-off grade of \$7 to \$8/tonne NSR. There is very little internal waste in the deposit.

The ore consists primarily of disseminated and fractured filled chalcocite, bornite, and pyrite-the total sulphide content being about 3% (note: Pyrite content in 'halo' will range up to 7% total sulphide). Gold values make up approx. 50% of the ore values and are mainly associated with cpy-bn distribution. Silver is associated with tetrahedrite-tennantite. Molybdenite is rare (av. 19 ppm) and no fluorite has been observed. Potentially significant impurities include arsenic, antimony, and mercury. The following concentrate grades (payable) and impurities (treatment charges) respectively are estimated: Cu-25%, Au-47 g/t, Ag-89 g/t and As- 0.39%, Sb-0.43%, and Hg - 142 ppm. Recoveries of copper and gold are estimated at 87.5% and 71.7% respectively. Treatment costs (incl. penalties for impurities) are estimated to be about \$ 200/tonne; total value of the concentrate is estimated to be \$830/tonne. The total cost of production is estimated at \$185 per ounce Au and \$0.54 per pound Cu. The overall capital cost of the 66,000 tpd conventional open pit project may be as high as \$650 million.

K-silicate (predominantly secondary biotite) characterizes the orebody. A later (overprint) phase of phyllic alteration (sericite) is particularly prominent at the east end of the mineralized system. Late stage propylitic alteration (incl. abundant ankerite) peripheral to the orebody, has contributed to a relatively low work index of the ore (12 to 15) and also has contributed to a non-acid generating rock drainage scenario.

The ultimate pit will be 1.6 km across and 500m deep with 15 m benches. Five phases of pit development are planned over the life of the mine. The overall strip ratio is estimated to be 1.96:1. Previous drilling has been conducted on 100 meter centers; ultimate drilling will require 25 meter centers (similar to Mt. Milligan). Estimated cost of an average drill hole drilled to depths of 500 m average \$70,000.

The development/production scenario at Fish Lake is forecast to create 700 to 800 jobs during the two-year construction phase and about 400 permanent jobs during mine operations. The bottom line for the immediate future will be the ability/need for Taseko to "sell" the project to a major. If a production decision is not made by 1995, the bulk of the ownership of the property reverts back to Cominco.