

J. T. Fyles.

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DEPARTMENT OF MINES AND PETROLEUM RESOURCES

Nelson, B.C.

MAR 5 '75

REFERRED TO	DATE	INITIALS
CTS	310	Wald St., February 28, 1975.
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Dr. N. Carter,
 Senior Geologist,
 Dept. of Mines & Petroleum Resources,
 Victoria, B.C.

Dear Dr. Carter:

Monthly Report - February, 1975.

General.

Topics are G.S.C. Convention, Victoria, Reeves MacDonald Mine, property visits, training courses, and office studies.

G.S.C. Convention:

Like a good sermon I appraise a convention by what I can remember.

Dr. Seregaroli's paper on "Nature and Distribution of Porphyry deposits in the Canadian Cordillera" was important to me for two points.

1. They are all multistage events.
2. They occur in tension release areas. This means that with a good understanding of the regional structural geology one could begin to predict where the porphyry deposits should occur.

Of course the best part of these meetings is to re-establish contacts.

One of the achievements was to get several of the major companies to contact Pete Leontowicz, of New Denver, concerning his properties. (Pete is one of our best prospectors on the Prospectors Assistance Grant).

Victoria:

The visit to "headquarters" was most interesting. One look at Douglas House was enough to convince me that Nelson is the only place to be. On the positive side it was very important to me to meet the people with whom I am in telephone and mail contact. I especially appreciated visiting the lab. and seeing their problems (i.e. renovation). These meetings are indeed justified by better cooperation and increased efficiency.

Reeves MacDonald Mine:

As mentioned in last month's report negotiations were in progress. Apparently these have failed as the Reeves is closing down. Date of closure is unknown, but expected to be soon. Mr. Lang, Mines Inspector, has made arrangements to get the maps and survey data.

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A move is being made by Mr. Ray Cline, of Salmo, through K.I.D.A. (Kootenay Industrial Development Association) to buy the Reeves.

One of the factors to keep in mind is that Bunker Hill was only offering a return of 42% on the gross value of the metal mined, and this was supposed to be a new "sweetheart" contract. In the past I have in mind that the net smelter return was at least 50%. The new contract was therefore not as good as the old. Some deal! Some sweetheart! In effect then, it is Bunker Hill that is closing the mine; the royalty question was simply an excuse, a precipitation factor.

For what it is worth department: The following metal prices were predicted by Bunker Hill.

	<u>1975</u>	<u>1976</u>	<u>1977</u>
Lead c/lb.	21.50	21.00	21.50
Zinc c/lb.	34.50	34.50	34.50
Silver \$/oz.	3.65	5.00	5.25
Cadmium	2.62	3.25	3.50

In our discussions, the predictions of future metal prices weighed heavily. This particular branch of our economics is very uncertain and yet, for evaluation purposes, is essential.

Property Visits:

Phoenix Copper Division of Granby - The reserves at Phoenix Copper are rapidly being depleted. To a large extent this is because the predicted grade of old stope fill is not being realized.

The new prospect pit at the Oro Denoro location is in massive lime garnet skarn with some blebs of chalcopyrite. As you can gather the showing is not yet exciting. However, a strong linear mag anomaly is present leading southward from the pit, and I believe the potential is good that significant ore will be found in the future. The surface geological mapping has been exceptionally well done. Mr. Jim Paxton is their geologist.

Colt Resources Ltd. - Mr. George Stewart is the manager and engineer in charge. This is a small (500 tons per month) operation on a gold telluride bearing quartz vein. The width is two to three feet wide in a very strong shear in Nelson granodiorite. The dip is 35-32°. Grade approximately 0.3 oz/T. Reserves are in the order of 40,000 T. I was amazed that such a narrow flat vein, with relatively low grade gold, can be mined at a profit. I attribute this to extraordinary good miners-----several were from the old Bralorne mine. Should the price of gold continue to increase, I believe this mine has a good potential for developing new reserves both

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on strike and down dip. The vein structure is known for several thousand feet. No visible gold was seen on this visit, but I expect to see some as the workings are extended into the Jewel property.

Training Courses:

Crash courses in rocks and minerals were completed at Rossland and Creston. A new class has been started at Grand Forks. The Nelson class continues to be well attended. The course was enhanced with special speakers. Mr. Phil Olson on Staking and Prospectors Assistance; Mr. Jim Lee on Mine Gases and Hypothermia; Mr. Vince Killeen on Blasting; and Mr. A. Gerun on Geochemical Prospecting.

Office Studies:

Office research is hampered by a steady stream of visitors. However the following topics have been researched.

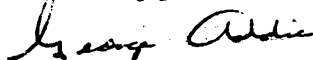
1. Reeves MacDonald Mine.

The intersection of the Salmo Anticline axial plane at $N80^{\circ}E - 70^{\circ}S$ and the Reeves Syncline bisecting plane (assumed to be the axial plane) on a Stereonet is at $S54^{\circ}W - 49^{\circ}S.W.$, exactly the rake of the Reeves orebody. It is possible then that the interaction of two periods of deformation provide the ore control.

2. Cd/Zn studies.

The plot of the log Cd (lbs) to log Zn (lbs) from the production figures of mines in the Kootenay Arc, i.e. H.B. mine, Jersey mine, Annex mine, Reeves mine, are on the same straight line. I am finding that other mines from Ainsworth and Slocan also fit the same line. Maybe all this proves is that Cd and Zn have a constant relationship. Note the ratios are not the same, as the line on the log log graph is not at 45°

Yours truly,



George Addie, P.Eng., P.Geol.,
District Geologist

GA/hr

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