

September 9th, 1970.

To: Mr. Jarl A.B. Whist,  
Taseko Mines Ltd.,  
248 - 2nd Avenue,  
Kamloops, B.C.

From: M.F. Cowan, P.Eng.

Re: Examination, during August 24th and 25th, 1970, of a lead-zinc showing and several copper showings on the southeast side of East Barriere Lake, approximately 45 miles northeast of Kamloops, B.C. (See attached map for location)

#### LEAD-ZINC SHOWING

The showing is on the south side of East Barriere Lake, adjacent to a good logging road, approximately 3 miles from the west end of the lake. Access to the logging road is by 11 miles of gravel road from Barriere, on provincial highway number 5, approximately 40 miles north of Kamloops.

Galena, sphalerite, and chalcopyrite occur across a strike length of 250' in strongly sheared, northeasterly-dipping, finely banded grey limestone. The sulfide mineralization is scattered and is generally associated with quartz lenses within the sheared limestone. The quartz lenses have dimensions of up to several feet in cross-section. Galena and sphalerite occur as isolated blebs and as bands up to  $\frac{1}{2}$ " in width along the shear planes and around quartz lenses. Massive galena occurs in several isolated pods up to a foot across. Chalcopyrite occurs sparsely as isolated blebs associated

with the lead-zinc sulfides. Pyrite occurs in minor amounts. Chlorite is well developed in the strongly sheared sections of the limestone and talc is not uncommon. The mineralized portions of the sheared limestone are rust-stained.

No intrusive rocks were noted in the immediate vicinity of the showing where overburden covers at least 95% of the terrain. A granitic intrusive mass lies several miles to the northeast.

Because of the limited size and erratic occurrence of the massive galena pods, and the generally erratic nature of the lead-zinc mineralization, economic potential of the showing appears remote.

#### COPPER SHOWINGS

The showings are approximately 1½ miles east of East Barriere Lake near John Creek, on the southeast side of a logging road, where minor trenching has been done. The copper occurrence was originally discovered by examination of rusty residual rock fragments in the vicinity. High concentration of pyrrhotite in the mineralized zone produced a ground magnetometer anomaly and it was this anomaly which was trenched.

Pyrrhotite, chalcopyrite, and minor pyrite occur in a dark, rust-stained, quartz-mica-chlorite schist, on the east side of the logging road near John Creek. The sulfides occur as streaks and blebs following the more mafic and chloritic bands. Copper content of the better sections in the trench was visually estimated at 2-3% over lengths and widths of less than a foot. The better mineralization is of limited extent.

A mineralized skarn zone occurs on the northwest side of the logging road several hundred feet to the northwest of the mineralized schist. Trenching across a ground magnetic anomaly has exposed the copper mineralization. Chalcopyrite occurs as isolated and scattered blebs associated with minor magnetite and pyrite in a silicified skarn. Epidote, garnet, chlorite, and quartz are well developed in the skarn.

Some boulders of granodioritic to quartz monzonitic composition were found along the logging road about  $\frac{1}{4}$  mile north of John Creek in the area shown on the Geological Map of B.C. (1 inch = 20 miles) as underlain by Jura-Cretaceous granitic intrusive rocks. No sulfides were observed in these boulders.

Drill core from an X-Ray diamond drill hole collared in schist several thousand feet east of the road showings was examined. Bearing of the hole was N56°E at -65°. The core consisted essentially of quartz-mica-chlorite schist of variable composition with sparse disseminated chalcopyrite and pyrrhotite in some sections. A very brief and generalized log of the hole is as follows:

<u>Footage</u>	<u>Description</u>
0'-25'	Sericite-biotite-chlorite schist with minor pyrrhotite and a few specks of chalcopyrite; schistosity 90° to axis of drill hole.
25'-46'	Porphyroblastic quartz-mica schist; garnetiferous from 35'-37' with very minor chalcopyrite.
46'-67'	Quartz-chlorite-sericite schist.
67'-76'	Chlorite schist.

<u>Footage</u>	<u>Description</u>
76'-89'	Quartz-chlorite-sericite schist.
89'-147'	Chlorite-biotite-quartz schist sparsely mineralized with chalcopyrite and pyrrhotite; copper content estimated to be approximately 0.01%.
147'-199'	Quartz-sericite schist with a few specks of chalcopyrite; schistosity 90° to axis of drill hole.
199'-205'	Dark chlorite-quartz schist with trace of pyrrhotite and pyrite.

The skarn type mineralization is of negligible grade and very limited areal extent as indicated by a ground magnetic survey. The disseminated mineralization in the schist is of very low grade and is apparently contact metamorphic in origin. Although widespread copper mineralization in the area makes it interesting from a regional exploration standpoint, material of potential ore grade and tonnage is not evident at the showings examined by the writer.

Respectfully submitted,

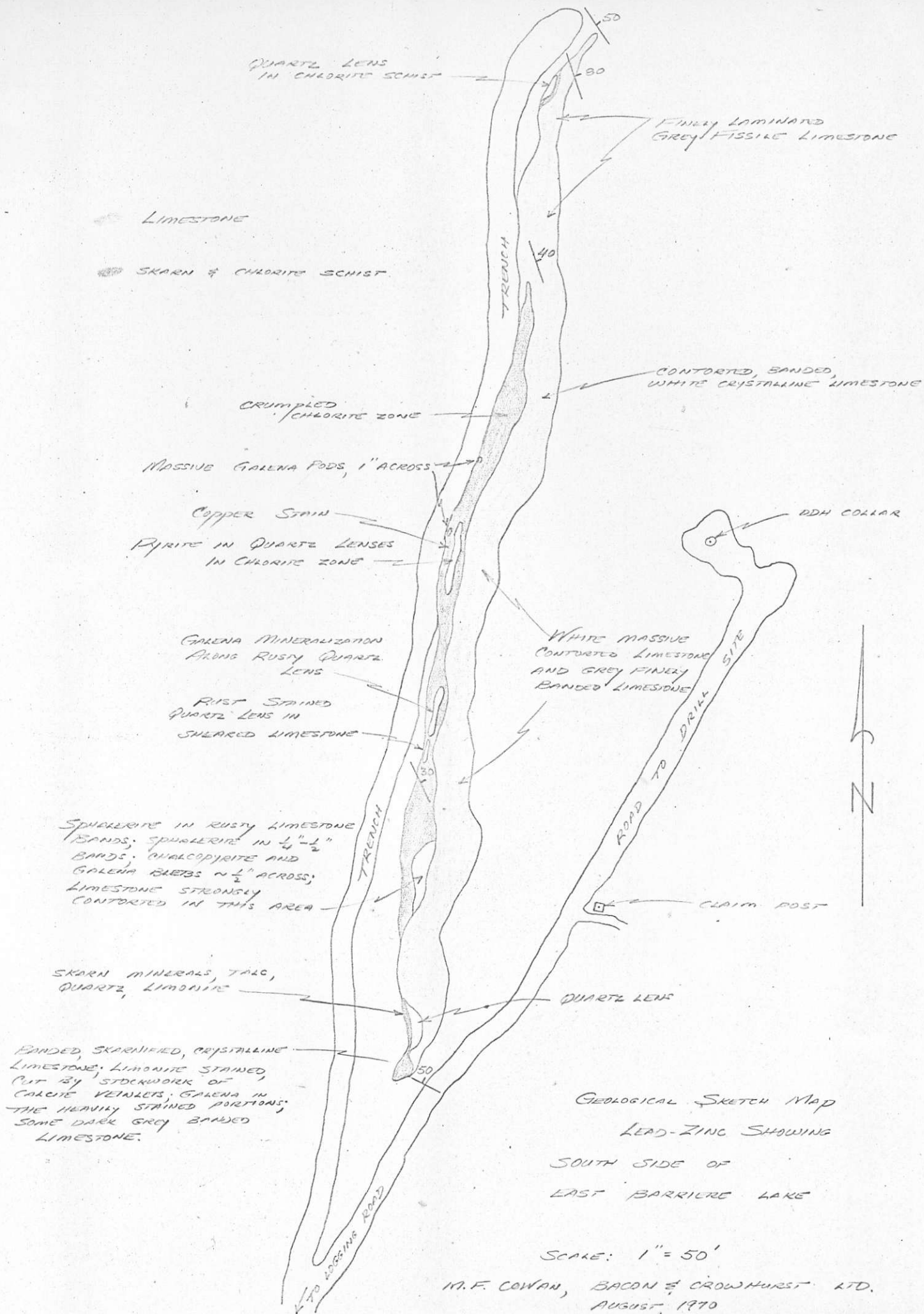
BACON & CROWHURST LTD.



M.F. Cowan, M.Sc., P.Eng.

Attached: Location Map, 1:250,000  
Geological Sketch Map, 1" = 50'





GEOLOGICAL SKETCH MAP  
LEAD-ZINC SHOWING  
SOUTH SIDE OF  
LAST BARRIERE LAKE

SCALE: 1" = 50'

M.F. COWAN, BACON & CROWHURST LTD.  
AUGUST, 1970

December 9th, 1970.

Taseko Mines Ltd.,  
248 Second Avenue,  
Kamloops, B.C.

Attention: Mr. John H. Foster

Dear John:

The samples arrived the same day you phoned. I have been out of town on a job, which accounts for the delay in my reply to your letter.

Re the Bloomfield property, it apparently has very little potential as a base metal deposit. The combined lead-zinc, as indicated from my observations during the examination and from your recent assays, is sub-economic in both grade and extent. The only other possibility for the property would be the silver accompanying the sulfide mineralization. In this case the silver assays are sub-economic for a small operation. In essence then, there is insufficient tonnage for a base metal mine and too little silver for a precious metal mine, leaving no economic potential. Thus, my original appraisal of the property still stands.

Re the Brewer property, it is difficult to make an appraisal on the existing information. The lithology is not particularly favourable for a copper deposit. However, the samples you sent do contain considerable very fine-grained chalcopyrite and pyrrhotite occurring along narrow quartz-carbonate stringers, along numerous microfractures, and as disseminated grains and streaks throughout the rock. The possibility exists of favourable structural control of the mineralization, in which case ore shoots may be present in the area. Even the possibility of a large tonnage, low grade type of deposit cannot be ruled out.

It is highly improbable that a nickel deposit exists in a slate phyllite host rock. The nickel geochemical response is very likely due to release of Ni bound up in the pyrrhotite structure.

Although your chip samples gave discouraging assays, a further examination of the property to examine structural aspects might be worthwhile. If the mineralization as evidenced in the samples you sent is widespread on the property, the possibility of an I.P. survey could be considered.

Yours truly,

BACON & CROWHURST LTD.

M.F. Cowan, P.Eng.

MFC/ic

# TASEKO MINES LTD. (N.P.L.)

248 SECOND AVENUE  
KAMLOOPS, B.C.

PHONE 372-7147

PRESIDENT: DR. L. E. ROSS

EXECUTIVE VICE-PRESIDENT: J. AA. B. WHIST

SECRETARY-TREASURER: C. W. DANSAY

CARRYING ON ACTIVE EXPLORATION IN THE TASEKO LAKE AREA AND IN THE HIGHLAND VALLEY

ATTENTION:

FILE-

Mr. Mike Cowan,  
1720 - 1055 W Hastings St.  
Vancouver 1 B.C.

Dear Mike,

I am enclosing some specimen samples that are from the Bloomfeild property that you looked at on the south shore of Barriere Lake. The prospectors have blasted a trench 3 ft. deep and 14vft. long at right angles to the major fault. and along a small cross fault. From it they are getting massive fine grained galena-silver (not enclosed).

The enclosed samples typical of the rock in this trench, the mineralization is in pods and in seams. I have chip sampled over 7 ft. ( the rest of the trench was under water) and I took a sample of the fine muck from the muck pile.

Jarl would like to know if this extension of the work on this property adds anything to its merits.

I visited the Brewer copper nickel property in the Monashee. It is in flat bedded slate phylite (GSC). The enclosed rocks will give you some idea of the alteration, the samples are typical of the rock over a large area. The copper mineralization is sparse, in blebs, disseminations and seams and is seen throughout the area. Some of the float found up to a mile away is interesting with more mineralization and some bornite as well as chalco. The prospector has done a geo- chem over the property and the results are enclosed.

I have some samples away to chemex but no results yet.

We are wondering if this geological set up has a chance. The property might be worth a geo-chem as the overburden situation looks fairly good.

I will send you the geo-chem results and assays that I have taken on these properties as soon as I receive them. Any advice you can give us on the meager information above would be appreciated.

Yours very truly

  
John H. Foster



Mike:-

Enclosed letter & tickets sent to you a week ago but miss addressed & returned. Since then I have received the assays.

Bloomfield property E Barriere Lake

picked sample

.06 cu, 20% pb, 2.10 Zn, 11 Ag, .003 Au

chip 7'

.06 cu, 3.0% pb, 3.10 Zn, 1.87 Ag, .003 Au

grab Trench muck

.02% cu 3.4% pb, 2.50 Zn, ~~1.87~~ 2.13 Ag, .003 Au

Brewer property Monashee

chip 6'

.07 cu, .01 Ni, .06 Ag, .003 Au

grab

.09 cu, .01 Ni, .05 Ag, .003 Au

I will phone in a few days.

Foster.



**GEOCHEMICAL LAB REPORT**

No. 20 - 613

Extraction Hot aqua regia

From Derry, Michener & Booth

Method Atomic absorption

Date September 4, 1970 19

Fraction Used -80 mesh

Analyst K.B.

SAMPLE NO.	Cu ppm	Ni ppm		SAMPLE NO.	Cu ppm	Ni ppm	REMARKS
A 1	78	88		C 3	1050	102	
A 2	46	44		#1 Bridge	28	32	
A 3	40	42		#2 Bridge	33	35	
A 4	95	88		First Blast	2550	82	
A 5	76	80		Second Showing	1440	80	
A 6	44	37					
A 7	36	37					
A 8	152	98					
A 9	88	90					
A 10	132	128					
A 11	132	118					
A 13	137	95					<i>Cut Creek Cu</i>
A 14	94	88					
A 15	92	80					
A 16	32	30					
A 18	54	39					
A 19	52	33					
A 20	37	34					
A 21	140	108					
B 1	36	32					
B 2	120	56					
B 3	104	62					
B 4	34	34					
B 5	58	84					
B 6	82	87					
B 7	380	385					
B 8	245	166					
B 9	53	80					
B 10	27	38					
C 1	98	89					
C 2	320	130					