

A Geological and Geochemical Report on the

Pong (1-40) Claims

Bonnet Plume River Area,

Mayo MD, Yukon



Claim Sheet: 106-C-10

Coordinates: 64° 38' N. Lat., 132° 55' W. Long.

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 4000.00

D.B. Craig
Resident Geologist or
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

[Signature]
Commissioner of Yukon Territory

by:

4000⁰⁰

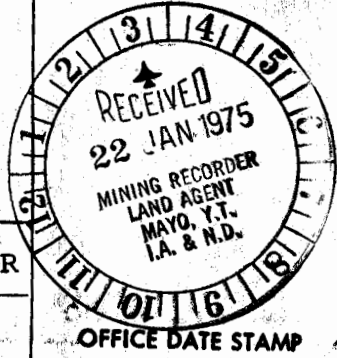
T. L. Sadlier-Brown and
C. Ikona P. Eng.



Department of Indian Affairs and Northern Development
YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



I (Name)	GEORGE BLEILER	Occupation	PROSPECTOR
(Postal Address)	333 - 885 DUNSMUIR STREET, VANCOUVER, B.C.		

MAKE OATH AND SAY, THAT :-

- I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
- I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

PONG 1-40 inclusive Y 86170-Y86209 inclusive

situated at CORN CREEK Claim Sheet No. 106-C-10
 in the MAYO Mining District, to the value of at least \$4,000.00
 dollars, since the 18th day of January 19 74

to represent the following mineral claims under the authority of Grouping Certificate No. _____
 (Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

PONG 1-40 inclusive. Y 86170-Y86209 inclusive (1 year)

- The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

\$4,900.64 expended as per accompanying report by T. Sadlier-Brown and C. Ikona, between August 3 and September 19, 1974 - \$4,000.00 for 1 years assessment work on PONG NOS. 1-40 inclusive.

Sworn before me at Vancouver - B.C.
 this 16 day of January 1975

 Notary Public

George Bleiler
 Applicant.

Bow River Resources Ltd.
+ Highhawk Mines Ltd

PONG 1-40

Remarks:

The claims are underlain by southeasterly dipping sedimentary rocks of the Selwyn Basin. Slate, shale, and ~~the~~ siltstone of the Sheepbed Formation are unconformably ~~to~~ overlain by dolomite, shale, quartzite and siltstone of the Backbone Ranges Formation.

Geological mapping and reconnaissance soil geochemistry were done ~~of~~ on the claims. ~~There~~ No ~~the~~ mineral showings were discovered. The geochemical survey did not reveal any significant lead or zinc anomalies.

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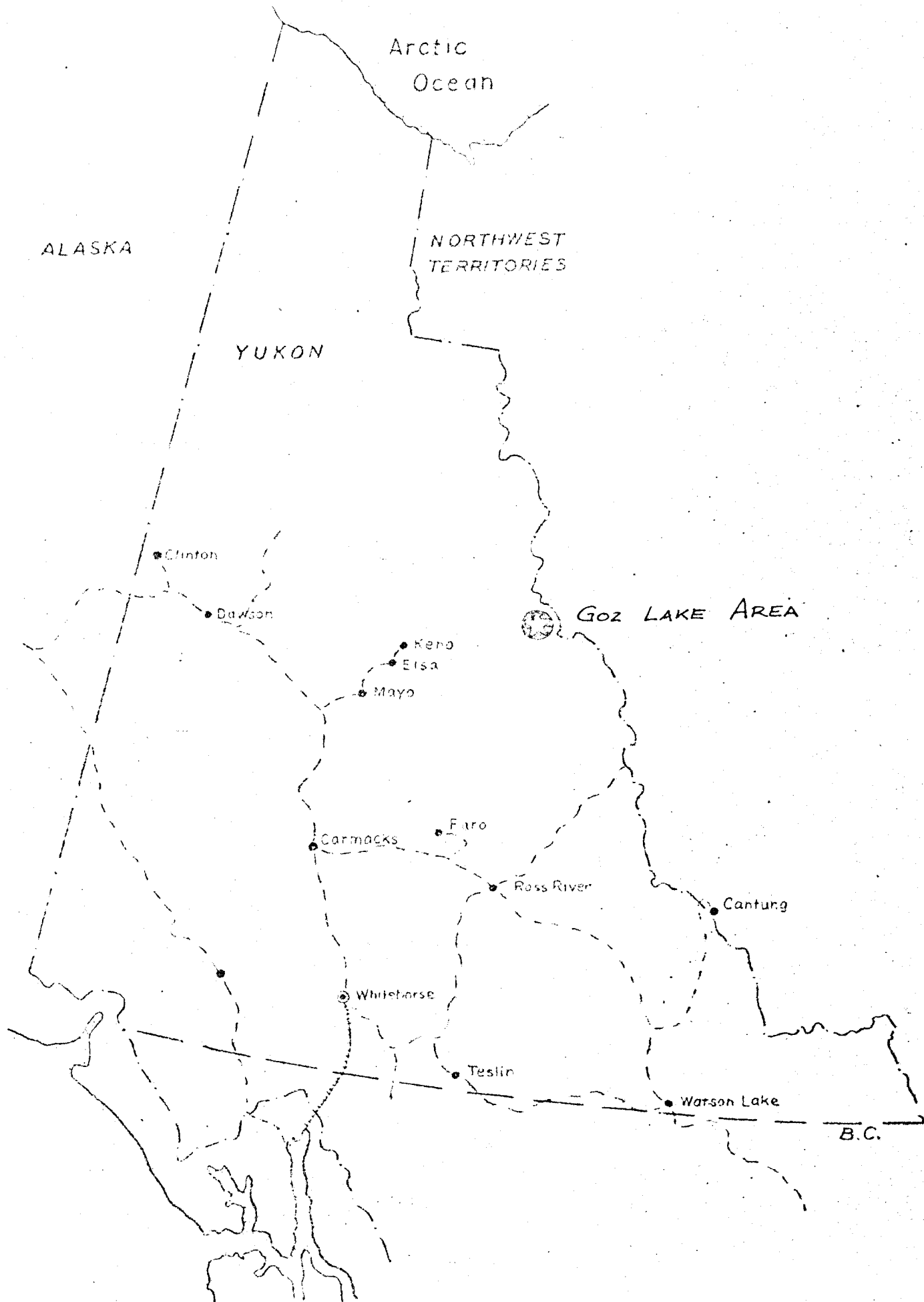
Summary

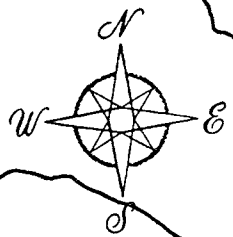
The Pong Claims are located in the Bonnet Plume River area of the eastern Yukon, a region recently recognized as a potentially important zinc province.

The claims are underlain by proterozoic and palaeozoic sedimentary rocks, primarily slates, shales, quartzites and dolomites which dip moderately towards the east. In the vicinity of the claims they are in excess of 5,000 feet thick.

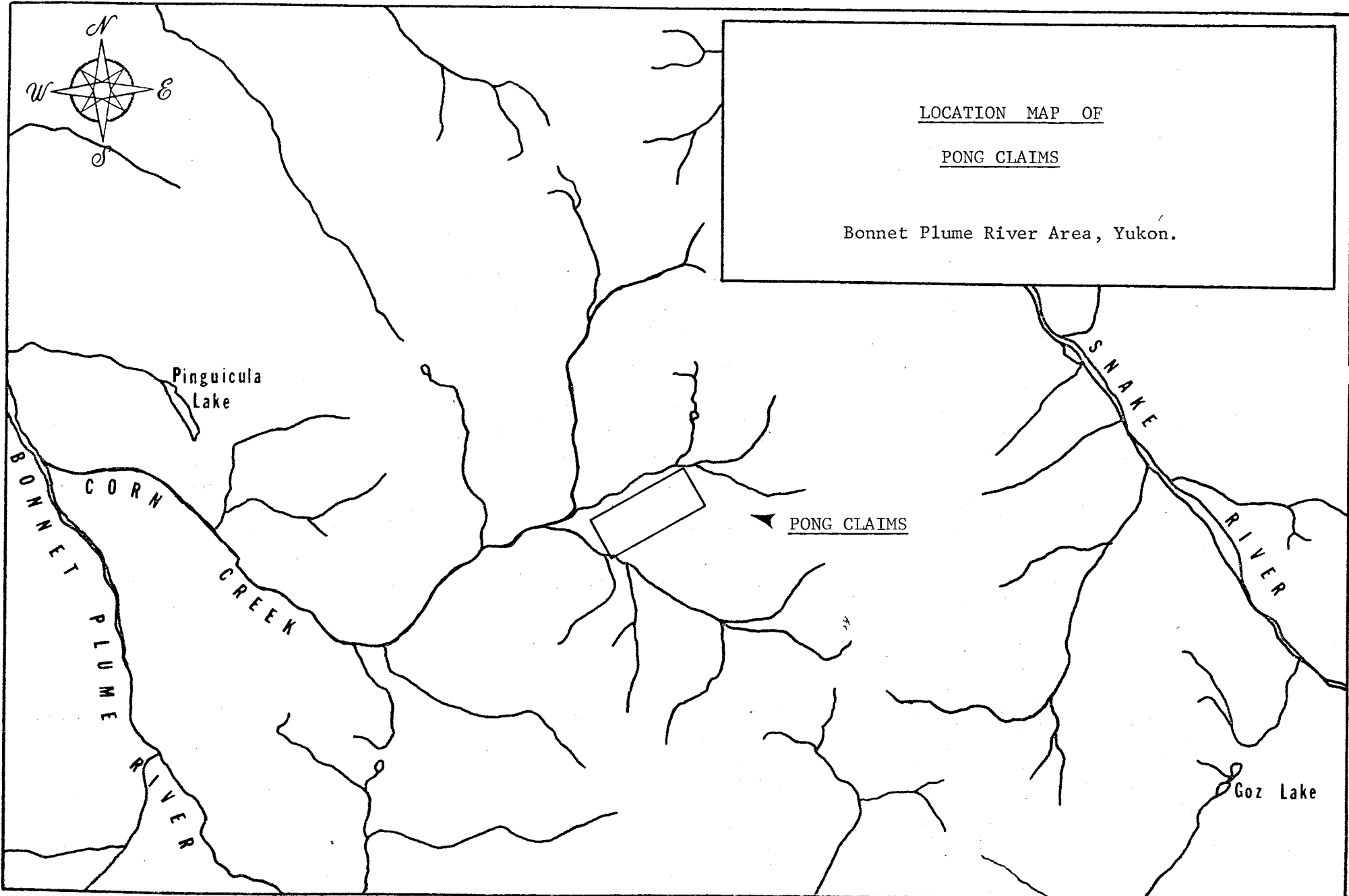
No mineralization was observed on the property but one geochemical sample taken near a lower Cambrian dolomite unit gave a twice background Zn value.

Additional prospecting particularly in the dolomite terrain is recommended.





LOCATION MAP OF
PONG CLAIMS
Bonnet Plume River Area, Yukon.



1 Introduction

1.1 Property Description & Terms of Reference

The Pong Group consists of forty contiguous mineral claims held by Bow River Resources and Highhawk Mines Ltd. of 335-885 Dunsmuir St., Vancouver, B.C. They were staked to cover rocks similar in age and lithology to those known to contain zinc sulphides further to the east. The present program is intended as a preliminary geological assesment and was carried out on behalf of the properties holders.

The claims are plotted on map 106-C-10, have consecutive record numbers from Y86170 to Y86209 inclusive, and become due for renewal on January 18th, 1975.

1.2 Location and Access

The property is centred about three miles east of Corn Creek and 15 miles east south east of Pinguicula Lake in the east central part of the Yukon Territory. The nearest supply centre is the town of Mayo 115 miles southwest of the property.

Access for the work described below was from Mayo via Goz Lake, a float plane base 20 miles southeast of the claims and by helicopter from there to the property.

1.3 Topography and Physiography

The claim group lies, for the most part, on the north slope of a 5,000 foot ridge in the Bonnet Plume Range of the Wernecke Mountains. Topography is rugged with maximum relief being about 2,300 feet. The northern part of the property is in a creek valley and is lightly timbered with spruce while the southern part is on the ridge where only alpine vegetation is present.

Drainage is northerly via a number of steep intermittent streams to a tributary of Corn Creek which itself empties into the Bonnet Plume River.

Overburden is extensive on the lower slopes, below say 4,200 feet, and in the valley. It consists mainly of alluvial, colluvial and glacial material.

1.4 Survey Methods

The area covered in this report has been mapped by the Geological Survey of Canada at scales of 1 : 50,000 and 1 : 250,000. Data from these maps was used for both geological and topographical control during the present survey. Traverses were also done using pace and compass.

2 Geology

2.1 General Statement

The Bonnet Plume Range, in which the Pong claims are located is made up of the proterozoic and palaeozoic sedimentary rocks which formed in the Selwyn basin. Proterozoic rocks tend to consist of clastic sediments, carbonates (mainly dolomites), and thin units of quartzite and shale. The palaeozoic rocks are predominately carbonates (limestone & dolomite) represented by the Kindle and Camsell formations with lesser, but significant thicknesses of shale. The basin occupies a large area of the eastern Yukon extending into the western part of the District of MacKenzie NWT. It has recently been recognized as potentially important zinc province and extensive exploration efforts by a number of mining companies are presently under way.

2.2 Previous Work

To the best of the writers knowledge no work other than the GSC mapping mentioned earlier has been undertaken on the claims. The GSC maps are presently available as Open File documents 205 and 206 dated June 1974.

2.3 Stratigraphy and Structure

The claims are underlain by a southeasterly dipping section of Cambrian and Hadrynian sedimentary rocks with an estimated thickness of about 5,000 feet. The dip is generally moderate in the Cambrian rocks but somewhat steeper and probably more variable in the Hadrynian sequence which lies unconformably below. In these rocks, the Sheepbed Formation, pervasive regional metamorphism has produced a slaty cleavage which sometimes obliterates bedding and can easily be confused with it. No major folds or faults were observed in the area.

The stratigraphic sequence is given in the following table:

Table of Formations

Palaeozoic

Cambrian:

<u>Backbone Ranges Formation</u>	Eq ² Brown and grey weathering quartzite and siltstone. Black and grey shale. Undivided.
	Ec ² Brown weathering buff-grey dolomite.
	Eq ¹ 1/ Grey quartzite
	2/ Rusty weathering brown quartzite
	3/ Greenish brown shale
	4/ Grey and brown quartzite
	5/ Green and red shale.
	Eqc 1/ Buff grey dolomite
	2/ Dark grey platey silty dolomite
	3/ Orange weathering platey dolomite
	Ec ¹ Massive to thick bedded orange to buff weathering grey dolomite

Proterozoic - Palaeozoic

Hadrynian - Cambrian:

<u>Sheepbed Formation</u>	HEs Grey slate locally relict bedded.
	HEsc Brown and reddish brown shale, silty shale, siltstone and slate.

2.4 Economic Geology

The unit presently considered most likely to act as a host for mineralization on the Pong claims is the lower dolomite (Ec¹). It resembles zinc bearing rocks elsewhere in the region although it is not known to be mineralized here.

A Geochemical survey discussed in detail below did not detect any significant concentrations of either zinc or lead in the area covered. Higher Zn values, however, were noted in the area closest to the lower dolomite unit (Ec¹).

3 Geochemistry

3.1 General Statement

A reconnaissance geochemical survey was carried out along four chain and compass lines including two claim lines on the Pong claims. Samples of "B" horizon material, where available, were taken using a mattock, placed in paper sample bags, and sent to Vangeochem Labs Ltd., of 1521 Pemberton St., North Vancouver B.C. for analyses. One gram samples of the - 80 mesh material were digested in hot acid then tested for Pb and Zn content using an atomic absorption spectrophotometer. Results in parts per million were plotted on the accompanying maps.

3.2 Observations

Pb values varied from 13 to 103 PPM with a mean background of 30 to 40 PPM. Several possibly significant values, in excess of 60 PPM are present as individual occurrences on claims 27, 28, and 30. The source of these highs is unknown.

Zn concentration range in value from 36 to 245 PPM but average about 100 PPM. Only one distinctly anomalous value was obtained, 245 PPM on claim # 15. It appears isolated but does occur at the end of a line and in the general vicinity of the lower dolomite unit which would make a likely host for sulphide mineralization.

4 Discussion

4.1 Observation and Conclusions

The rocks underlying the Pong Group consist of a sequence of proterozoic and palaeozoic slates, quartzites, shales, and carbonates with the latter being mainly dolomites.

No mineralization was observed during the course of the mapping, prospecting or geochemical survey. One soil sample on the Pong # 15 claim was found to contain about twice background Zn value. This may be explained by its proximity to a dolomite horizon (unit Ec¹) which resembles sphalerite bearing rocks elsewhere and could contain mineralization in the area.

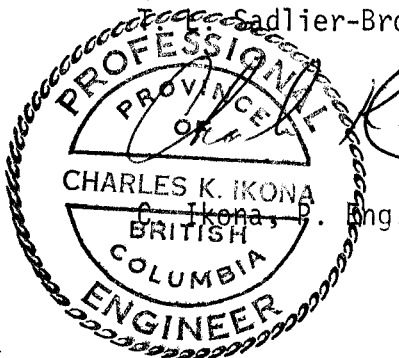
4.2 Recommendations

Additional geochemical and conventional prospecting would be worthwhile in the areas underlain by the Cambrian rocks, particularly the thicker dolomite units of the Backbone Ranges Formation (units Ec¹ and Ec²). The area concerned would be the eastern part of the property on and near claims 9 to 15 inclusive

Respectfully submitted,



Charles K. Ikona, P. Eng.



List of personnel for the Pong Group:

Tim Sadlier Brown
1307 Harwood Street
Vancouver, B.C.

August 19, Sept. 19

Steve Toporowski
812 Seafair Place
Richmond, B.C.

August 18

Graham Baird
74 Withrow Ave.,
Ottawa, Ontario

August 3/4/9

W. Cain
General Delivery
Whitehorse, Yukon Territory

August 3/4

PONG MINERAL CLAIM GROUP

Statement of Expenditures

November 6, 1974

Direct Costs:

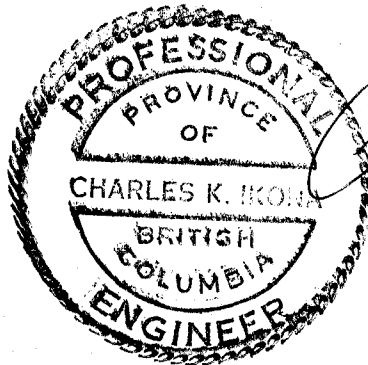
wages	\$ 190.00	
tagging posts	320.00	
geologic fees	240.00	
helicopter support	815.90	
geochem samples	115.00	
field equipment expense	42.00	
camp cost expense	<u>70.00</u>	\$ 1,792.90

Pro-Rata General Expense Costs

equipment and supply depreciation	243.72	
contracts and rentals	23.84	
wages (mob & demob)	633.75	
food	per diem	
fuels	per hour	
helicopter (general)	720.45	
fixed wing (general)	631.06	
travel and accomodation	49.04	
sundry and administration	435.70	
geochem supplies	27.79	
expediting services	224.43	
air travel and airfreight	<u>97.36</u>	<u>3,107.74</u>

Total on Account

4,900.64

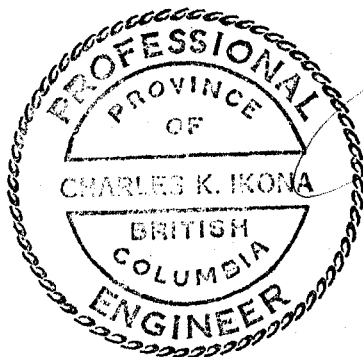


ENGINEERS CERTIFICATE

I, CHARLES K. IKONA of 2614 St. John's St., Port Moody, in the Province of British Columbia do hereby certify that:

1. I am a consulting mining engineer with offices at 609-850 W. Hastings St., Vancouver, B.C.
2. I am a graduate at the University of British Columbia with a degree in Mining Engineering.
3. I am a member in good standing at the Association of Professional Engineers of the Province of British Columbia.
4. The work described in the accompanying report on the Pong Claim Group was performed under my personal supervision.

Dated this 30th day of August 1974 at Vancouver, B.C.



A handwritten signature in cursive script, appearing to read "Charles K. Ikona".

Charles K. Ikona, P. Eng.

Heli Ventures Ltd.

SOLD TO HARMAN MANAGEMENT LTD.
Box 4509 WHITEHORSE YUKON
SHIPPED TO _____
ADDRESS _____ VIA _____

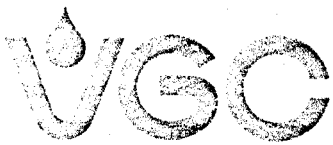
OUR NUMBER	275612
DATE	Aug. 3-74
CUSTOMER'S ORDER	
SALESMAN	R. G. STURGES
TERMS	
F.O.B.	

INVOICE

	CYPRESS (CHARGE TO CYPRESS)	3	9		
	R.A.F. GROUP (CKD)		7		
	BAT -PONG GROUP (GRAHAM & WILLIAMS)	1	6		
	PING. M'LBES & BLYLER				
		6	2	299	3

TIME BREAKDOWN - T.L. SADLER-BROWN.

<u>Days Charged</u>		<u>Charge To.</u>		
August	7 - 1	Vancouver to Goz Lake (travel)		
	8 - 1	Goz Lake (Bar Group visit)		
	9 - 1	" (Gyr Group visit)		
	10 - 1	Sun Group		
	11 - 1	"		
	12 - 1	King Group		
	13 - 1	Goz Lake		
	14 - 1	King Group		
	15 - 1	Peso Group		
	16 - 1	"		
	17 - 1	"		
	18 - 1	Bid Group		
	19 - 1	Pong Group		
	20 - 1	Bat Group		
	21 - 1	Arctic Red - DeBock Showing		
	22 - 1	Goz Lake		
	23 - 1	D.J. Group		
	24 - 1	Goz Lake to Mayo (travel)		
	25 - 1	Mayo to Vancouver		
	27 - 1/2	Bid Group report		
	28 - 1/2	"		
	29 - 1	"		
	30 - 1	"		
Sept.	5 - 1/2	D.J. Group		
	6 - 1/2	"		
	9 - 1	King, D.J.		
	10 - 1	King Group		
	11 - 1	King, Peso		
	12 - 1	Peso		
	13 - 1/2	"		
	16 - 1/2	"		
	18 - 1/2	"		
	19 - 1/2	Pong	Sept. 24 - 1	Bat Group
	20 - 1/2	"	27 - 1	Bat Group
	23 - 1	Pong, Bat	30 - 1/2	D.J. Group.
	24 - 1	Bat		



VANGEOCHEM LAB LTD.
 1521 PEMBERTON AVE.,
 NORTH VANCOUVER, B.C.,
 CANADA V7P 2S3

TELEPHONE: 938-2172
 AREA CODE: 604

• Specialising in Trace Elements Analyses •

Certificate of Geochemical Analyses

-IN ACCOUNT WITH-

Harman Management Ltd.

Attention:

Report No: 74-45-003

Page 2 of 5

Samples Arrived:

Report Completed:

For Project:

Analyst:

Sample Marking	Pb ppm	Zn ppm				
Pong L1 # 4	43	110				
5	13	45				
6	47	95				
7	23	70				
8	15	76				
9	23	52				
10	27	130				
11	57	107				
12	27	100				
13	103	106				
14	17	62				
15	37	125				
16	47	115				
17	47	120				
18	73	176				
19	13	36				
20	53	110				
22	55	125				
23	83	94				
Pong L1 # 24	43	102				
Pong L2 # 1	47	72				
silt # 1	33	82				
# 2	35	100				
silt # 2	43	125				
# 3	27	152				
4	27	140				
5	27	85				
6	27	47				
7	63	65				
8	33	90				
9	35	102				
Pong L2 # 10	17	50				
Pong L2 # 11	23	46				
Pong L3 # 1	57	155				
2	43	67				
3	43	140				
4	35	126				
Pong L3 # 5(A)	37	102				
5(B)	35	109				

MASTER PRINTING LTD.

REMARKS:

Signed: 

% Mo x 1.6883 = % MoS₂ 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million
 All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.



VANGEOCHEM LAB LTD.
 1521 PEMBERTON AVE.,
 NORTH VANCOUVER, B.C.,
 CANADA V7P 2S3

TELEPHONE: 988-2172
 AREA CODE: 604

• Specialising in Trace Elements Analyses •

Certificate of Geochemical Analyses

- IN ACCOUNT WITH -

Harman Management Ltd.

Report No: 74-45-003

Page 3 of 5

Samples Arrived:

Report Completed:

For Project:

Analyst:

Attention:

Sample Marking	Pb ppm	Zn ppm				
Pong L3 # 6	27	60				
Pong L3 7	17	50				
Pong L4 # 1	25	72				
MISS 1	35	90				
2	35	78				
3	40	125				
Pong L4 4	43	245				25 mesh
JT 2B	107	90				
3	45	75				
4	167	320				
5	53	162				
6	67	103				
7	57	126				25 mesh
8	53	120				25 mesh
9	33	85				
10	123	235				
12	63	220				
JT 13B	95	340				
JT S-1	47	90				
S-2	50	105				
JT S-3	77	152				
JT 10	53	124				
11	73	153				
12	97	205				
13	120	190				
14	50	170				
15	103	335				
16	43	55				
17	83	175				
18	95	270				
19	65	220				25 mesh
20	80	255				
21	37	120				
22	37	65				
23	132	500				
24	75	145				
25	117	405				
JT 26	47	223				
27	63	115				

MASTER PRINTING LTD.

REMARKS:

Signed: 

% Mo x 1.6693 = % MoS₂

1 Troy oz./ton = 34.28 ppm

1 ppm = 0.0001%

nd = none detected

ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

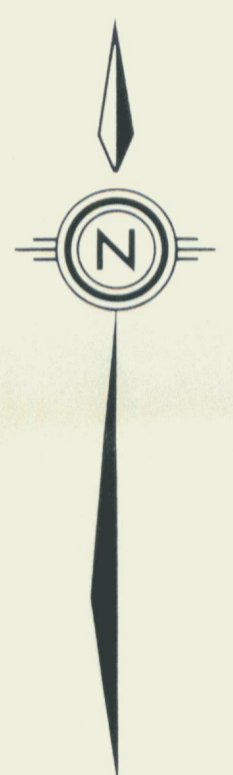
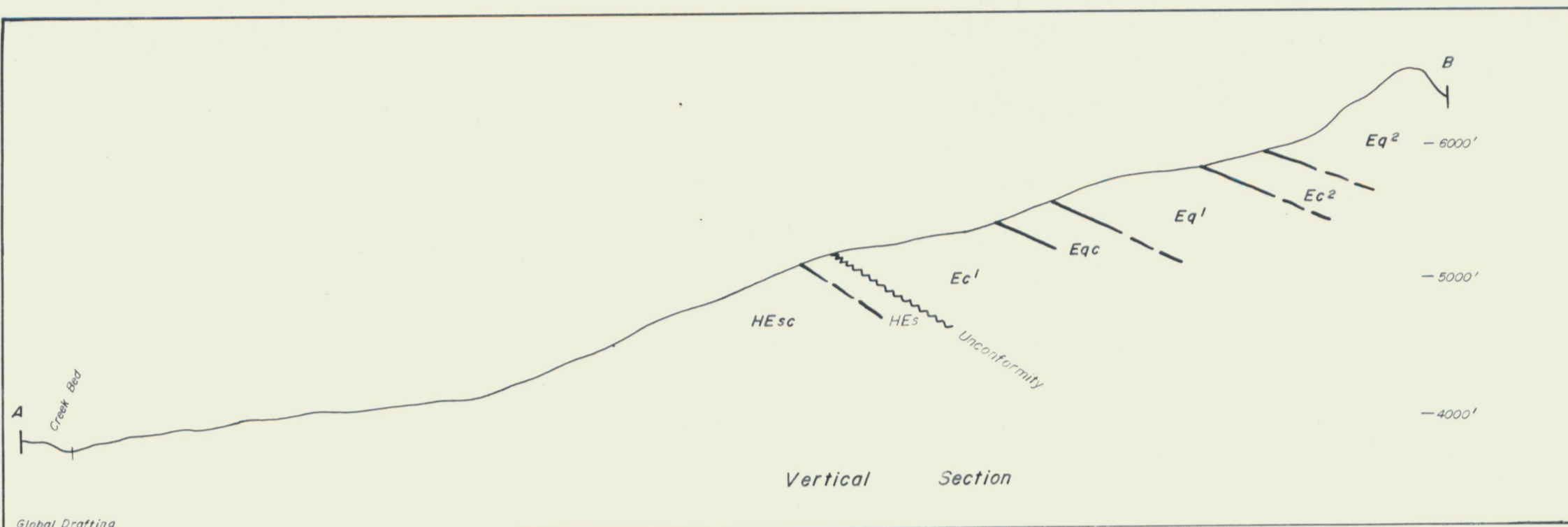


TABLE OF FORMATIONS

PALAEOZOIC

Cambrian

Backbone Ranges Formation

Eq ²	Brown and grey weathering; quartzites and siltstones, black and grey shale.
Ec ²	Brown weathering grey to buff dolomite
Eq ¹	Grey and rusty weathering quartzite, green, red and brown shale.
Eqc	Platy orange weathering; grey dolomite, silty dolomite and buff weathering grey dolomite.
Ec ¹	Massive to thick bedded orange to buff weathering grey dolomite.

PROTEROZOIC - PALAEOZOIC

Hadrynian - Cambrian

Sheepbed Formation

HEs	Grey slate
HEsc	Brown and reddish brown shale, silty shale and siltstone.

LEGEND

- Geological boundary - defined
- " " - approximate
- Strike and dip of bedding
- " " " " slaty cleavage
- Fault - defined
- " - approximate
- Limit of outcrop
- Claim post - defined
- " " - approximate
- Stream

BOW RIVER RESOURCES LTD. — HIGHHAWK MINES LTD.

BONNET PLUME RIVER AREA, YUKON

GEOLOGICAL MAP OF THE PONG CLAIMS (1-40)

Scale: 0 to 2000 feet

By - T.L.S.B. August 1974

