

85-832-14693

08/86

A Preliminary Geological Report  
(and initial findings)

on the

K.C.M. CLAIM GROUP

Located in the

Similkameen and New Westminster  
Mining Divisions

Lat. 49°17'N; Long 121°00'W  
Map Sheet, N.T.S. 92H/7W<sup>ice</sup>  
(19 miles east of Hope, B.C.)

for

FILMED

KAM CREED MINES LTD.  
#2105 - 9380 Cardston Court  
Burnaby, B.C.

Report by:

**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

Mr. D.G. Cardinal, P.Geol.  
Consulting Geologist  
Hope, B.C.  
Nov. 9, 1985.

14,693

*D.G. Cardinal*

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A. INTRODUCTION

KAM CREED MINES LTD. of Vancouver, B.C. holds 40 units, K.C.M. Claim Group in the Punch Bowl Lake area about 30 km. southeast of Hope, B.C.

During the brief assessment work conducted on the property in September, 1984 an interesting altered, and mineralized rock section was encountered. A ridge just west and southwest of Punch Bowl was traversed in which encouraging geochemical results of silver, gold, and associated arsenic were collected. A steeply dipping fault exposes a good section of sedimentary clastic rocks which host the anomalous gold and silver. A generalized geological cross-section in this area shows a thick sequence of massive sandstone with lesser, interbedded shale and siltstone.

## B. SUMMARY AND CONCLUSION

- B.1 The K.C.M. Claim Group consists of 40 contiguous, located mineral claims presently held by KAM CREED MINES Ltd.
- B.2 The claims are located some 30 km. (19 mi.) east - southeast of the town of Hope, B.C., and 7 km. (4 mi.) north of the Hope-Princeton Highway (No. 3). Present access to the claims is by helicopter.
- B.3 The property has no mining history, the owners staked the ground based on reported gold showings and placer gold along Punch Bowl Creek. In September 1984, the writer briefly examined the claims and located a geochemical anomalous area associated with gold.
- B.4 The regional geology consists of the Dewdney Group which is made up of undifferentiated tuff, volcanic breccia, grit, argillite, and conglomerate, of Mesozoic age. The claims are underlain by sandstone, siltstone, chert, argillite and conglomerate believed to be part of the Dewdney Group.
- B.5 Sulphides were observed to be hosted in thick sandstone beds, consisting of fine pyrite and arsenopyrite. Some of the beds appear to be replaced by the sulphides and are associated with silicification and mariposite alteration. Six (6) samples collected from various horizons were geochemically anomalous in gold with values ranging between 80 ppb and 300 ppb. The sandstone is a potentially good host rock, and continued sampling from different vertical sections and along strike may outline economic deposits of gold.

C. CLAIMS INFORMATION

The K.C.M. Group consists of a total of 40 contiguous units which cover 1,000 hectares (2,450 acres) of ground. The claims fall in the Similakameen and New Westminster Mining Divisions and claim records can be examined at the Princeton or Vancouver mining record offices.

The pertinent data is as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Anniversary Date</u>
K.C.M. West	20	2206	Aug. 7, 1984
K.C.M. East	20	2205	" " "

D. LOCATION AND ACCESS

The property is located some 30 km. (19 mi.) east - southeast of the town of Hope, B.C.. Presently, the area can only be reached by helicopter.

Highway No.3 (Hope - Princeton Highway) passes approximately 7 km. (4 mi.) south of the property. A well used hiking and horse pack trail leads up Snass Creek valley from the highway and crosses the claims at Punch Bowl Lake.

#### E. WATER AND POWER RESOURCE

The area has an abundant supply of water with a number of streams and creeks crossing the property. Hope is the nearest source for electrical power. A portable generator would be required for the initial phase of development work.

#### F. PHYSIOGRAPHY AND CLIMATE

The claims are situated along the western flank of the northern Cascade Mountains, in the Hozameen Range. The elevation on the property ranges from 2,311 m. (7,580 ft.) on Snass Mtn. to 1,463 m. (4,800 ft.) near the headwaters of the Tulameen River. The physiographic changes are quite pronounced, from an alpine, grassy environment at higher elevations to meadow and park-like vegetation along the low lying areas. Weather conditions are generally moderate, influenced by the dry interior climate. Surface exploration is conducive for at least 3-4 months of the year.

#### G. BACKGROUND AND HISTORY

This Spring (1984), Kam Creed staked claims in the Punch Bowl Lake area, following the release, by the B.C. government, of a no-staking freeze on the ground. Prior to the release, the

## G. BACKGROUND AND HISTORY CONT'D

area was under a mineral reserve prohibiting staking, exploration and mining activity.

During the mid 1800's, trade routes were established along this region, connecting the B.C. interior to the coast. Punch Bowl Lake was one of the brief stop-overs for the traders, trappers and early prospectors.

The claims do not have any mining history, although, it is reported that some placer gold was found in Punch Bowl Creek. During the property examination, the writer noted old workings along the creek in mineralized shales and argillites. The writer was also informed that the mineralized zone was worked in the early 1960's and anomalous gold was found in the sediments.

A number of potential mineral occurrences have been discovered on adjacent areas. Approximately 13 km. (8 mi.) north, near Podunk Cr., copper (Cu), gold (Au), and zinc (Zn) were discovered in the 1940's. Presently, a tungsten deposit is being evaluated in this area by a junior company. To the east of the claims, are other lead (Pb), silver (Ag), Zn, and Au showings. More important, to the southeast of the property, and on similar geological formation is an Au, Arsenic (As) and antimony (Sb) showing which is reported to be hosted in sandstones. Unfortunately, the showing falls within the

Cont'd

#### G. BACKGROUND AND HISTORY CONT'D

Manning Park boundary. The majority of the above occurrences were discovered in the 1930's and 1940's; but, have recently attracted more attention because of their Au and Zn potentials, coupled with the increased market price of both metals. Additional attention has also been drawn to this area due to the recent lift of the no staking freeze.

#### H. REGIONAL GEOLOGY

The regional area is underlain by northwest - southeast trending formations and structures. The Skagit River Valley and Snass Mtn. areas expose lithological sections of tuff, volcanic breccia, grit, argillite, and conglomerate of the Dewdney Creek Group. Just east of Snass Mtn. and in fault contact with the Dewdney Creek Group is the Pasaysten Group composed mainly of grit and shale. Both groups are Mesozoic in age (90 - 130 million years old).

#### I. PROPERTY GEOLOGY AND RESULTS

Along the west side of Punch Bowl Lake is a ridge which is made up mostly of sandstone with minor argillite and siltstone. A large angular float or boulder found on the west shore

Cont'd



I. PROPERTY GEOLOGY AND RESULTS Cont'd

of the lake carrying fine disseminated pyrite, arsenopyrite hosted in a highly silified-mariposite altered rock, was traced back up toward the ridge. The writer encountered a thick section of sandstone exposed in a steep gully which in places was altered and mineralized with pyrite and arsenopyrite. The section was observed to be intermittently mineralized along sandstone beds for a vertical thickness of 46 m. - 61 m. (150 ft. - 200 ft.). The gully appears to represent a fault structure which may have served as a channel way for migrating auriferous bearing solutions. Six (6) grab samples collected for geochemical analysis were all consistently anomalous with respect to gold, ranging between 80 to 300 parts per billion (ppb).

South of Punch Bowl and just west of Snass Mtn. (headwaters of Snass Creek), several grab samples were obtained from various sandstones and shales. Two samples returned anomalous gold and silver with values of 170 ppb & 240 ppb Au; and, 5.9 & 7.0 ppm Ag.

J. NORTH - SOUTH CROSS-SECTION

Although other reconnaissance traverses were conducted briefly on parts of the K.C.M. Claim Group, the main interest or target area was centered on a ridge just west and southwest of Punch Bowl Lake.

An east-west fault/shear cuts and exposes a thick section of arenaceous clastic units believed to be part of the Dewdney Creek Formation. Summary of the groundwork conducted in this area is represented by a general geological section, figure 4. Traversing up the section along a steep gulch thick, massive beds of sandstone and interbedded shale and siltstone were encountered. The sandstone is light grey in colour with a grain size which ranges from fine to coarse conglomeratic texture. Thinner beds of siltstone and shale make - up the rest of the section.

The bedding is near horizontal and is faulted with little vertical displacement. Some parts of the sandstone, siltstone and shale horizons appear to be replaced and altered by silica, mariposite, and sulphides of pyrite and arsenopyrite. Brief description of the rock samples collected from the section are as follows:

KC-11884 - fine grain, bedded siltstone with minor arsenopyrite; geochem., Ag 0.8 ppm; Au 150 ppb.

KC-21884 - light grey, fine to med. grain sandstone in part sili-  
cified with associated pyrite and arsenopyrite;  
geochem., Ag 1.2 ppm; Au 80 ppb.

KC-31884 - Grey/brown shale, finely laminated partly mineralized  
with pyrite and arsenopyrite; geochem., Ag 2.0 ppm;  
Au 240 ppb.

KC-4 to 5A1884 - massive sandstone, strongly altered with marip-  
osite, silica, pyrite, and arsenopyrite; geochem.,  
Ag 1.5 ppm to 6.0 ppm; Au 110 to 300 ppb.

K. COST BREAKDOWN

Personnel:	Cost
Geologist, 4 days @ \$300.00/day (Sept. 18 - 21, 1984)	\$ 1,200.00
Assistant, 4 days @ \$ 150.00/day (Sept. 18 - 21, 1984)	600.00
Helicopter, 1 hour @ \$600.00/hr.	600.00
Camp and Supplies	90.00
Sampling, 20 Au & Ag @ \$15.50/sample	310.00
Report, Report writing, typing, drafting, & copies	1,200.00
Total	<u>\$ 4000.00</u>

Respectfully Submitted,

  
Dan Cardinal

Mr. D.G. Cardinal, P.Geol.  
Consulting Geologist.

APPENDIX I

Certificate,

I, Daniel G. Cardinal of the Municipality of Hope,  
British Columbia, do hereby certify that:

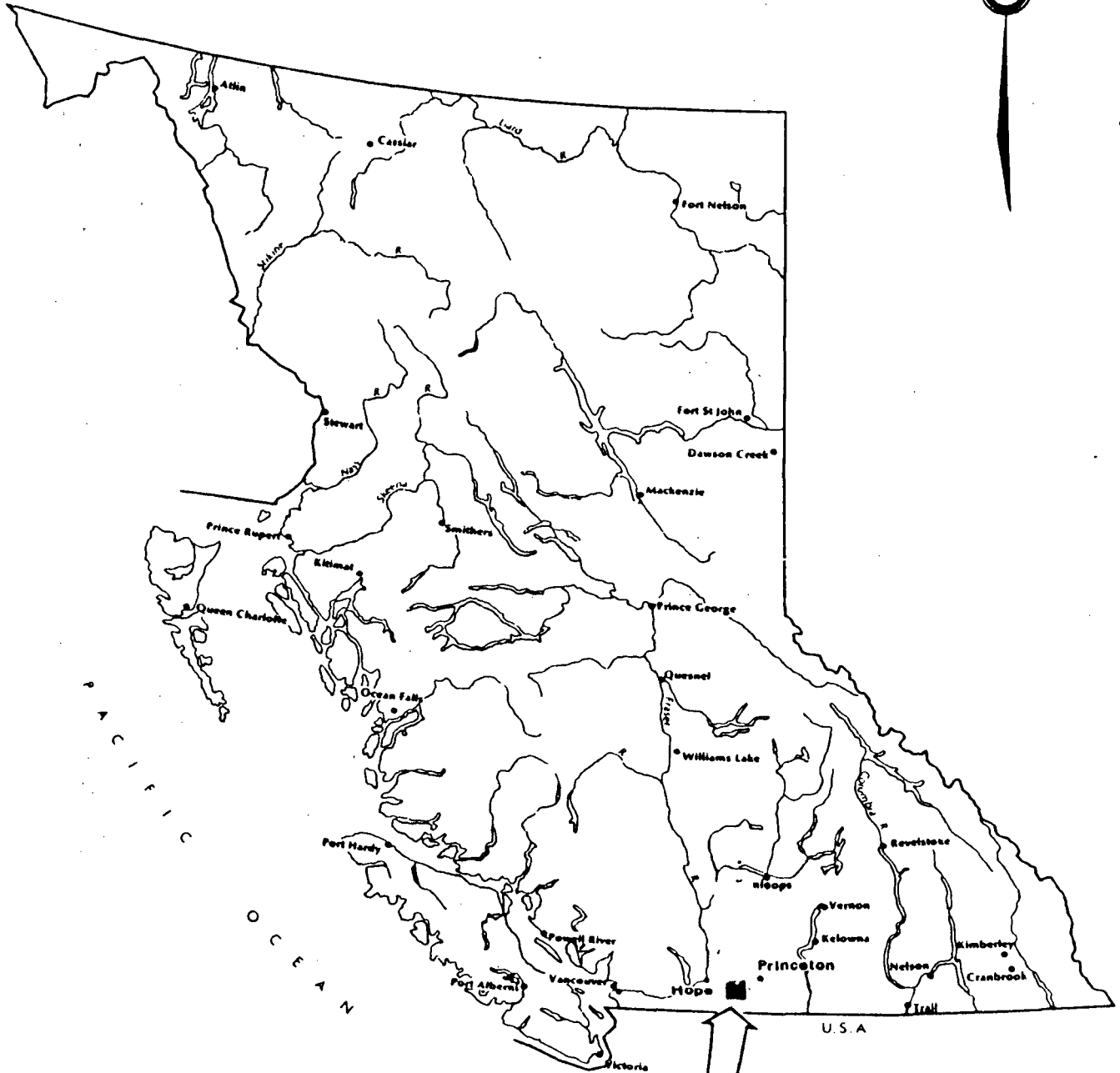
1. I am a professional geologist residing in Hope, B.C., mailing address; P.O. Box 594, Hope, B.C. VOX 1L0.
2. I am a graduate of the University of Alberta and a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA).
3. Since 1970, I have been actively involved in the Canadian mining industry, both as a project manager and consulting geologist for major and junior resource companies.
4. The findings in the report are derived from data acknowledged and from personal examination of the property during September 18, 19, 20, 21 Sept., 1984.
5. The full text of the report and accompanying maps may be reproduced in the Company's Prospectus or Statement of Material Facts.



A handwritten signature in cursive script, appearing to read "Dan Cardinal", is written over a circular stamp. The stamp contains the text "REGISTERED PROFESSIONAL GEOLOGIST" around the perimeter and "1984" in the center. The signature is written in dark ink.

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Daniel G. Cardinal, P. Geol.

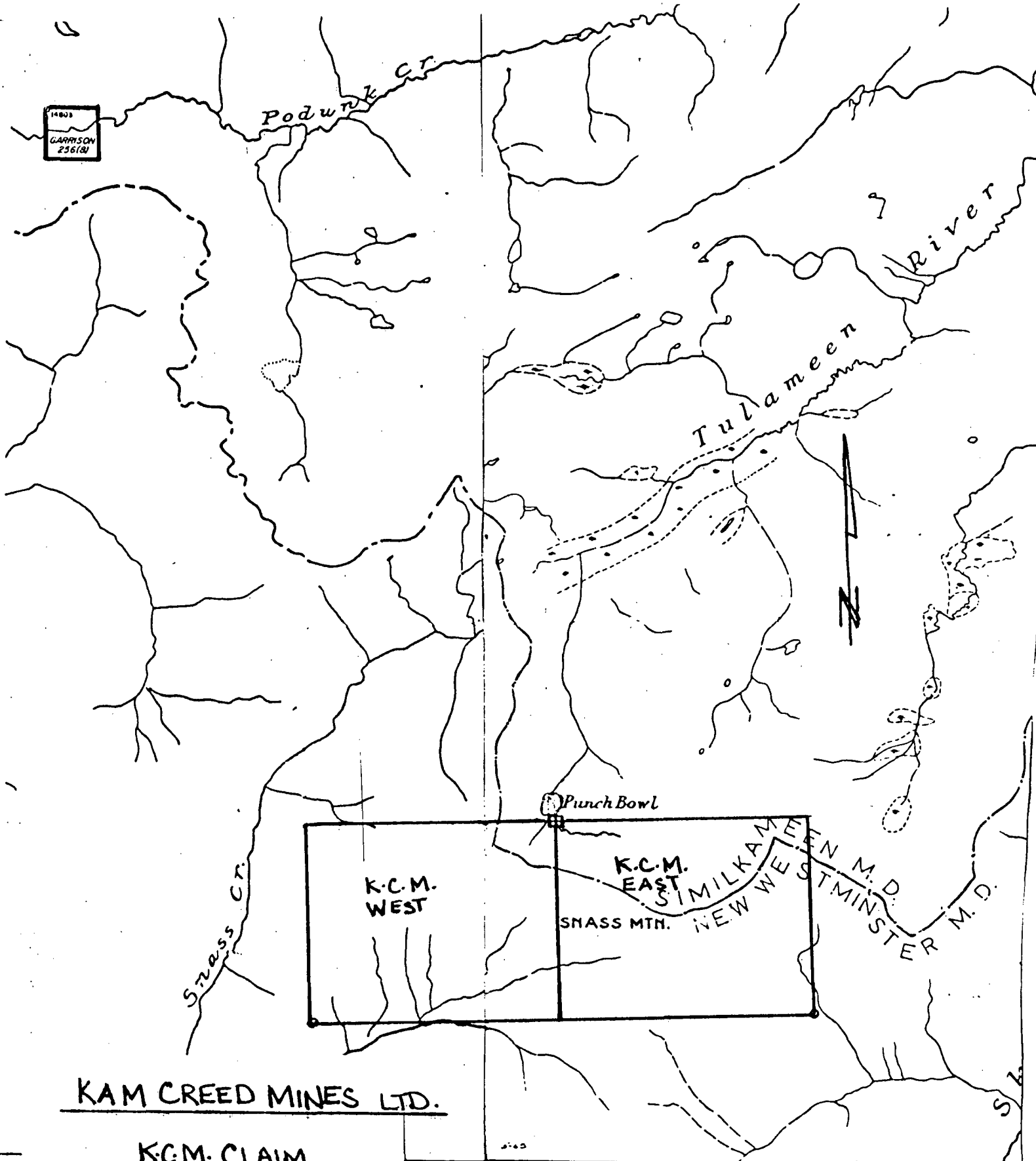


KAM CREED MINES LTD.

Property

Figure 1

- Location map



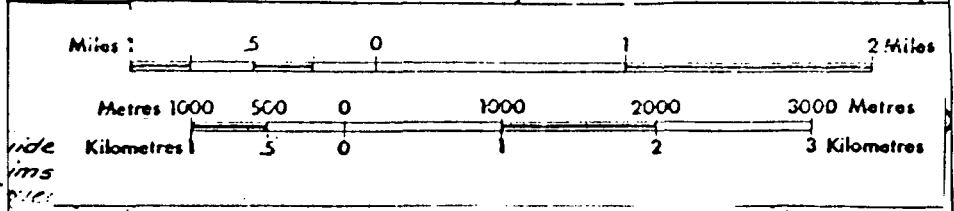
14803  
GARRISON  
256(2)

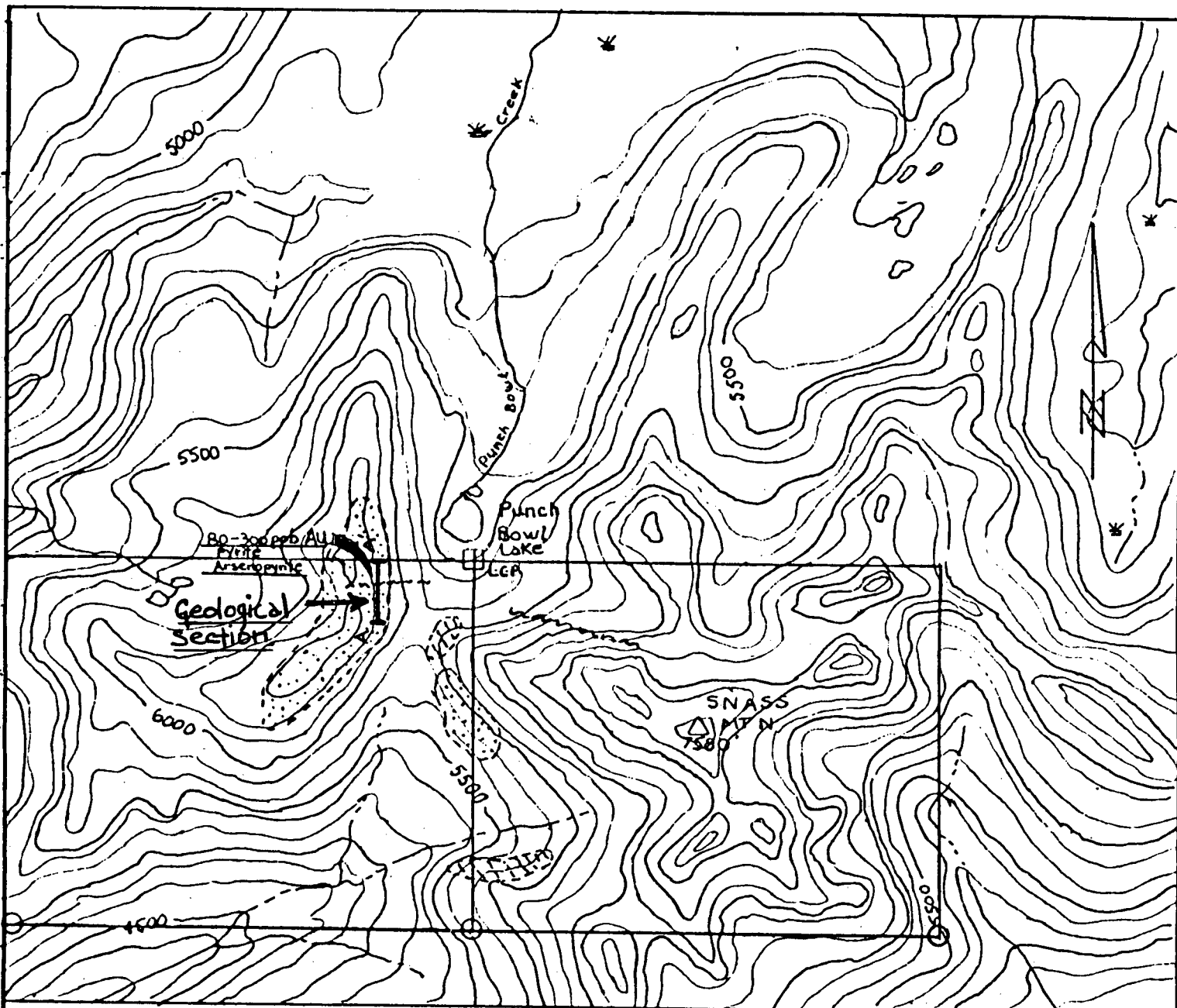
KAM CREED MINES LTD.

K.C.M. CLAIM  
Group  
CLAIMS MAP




Fig. 2

DG.C.





Legend:

-  Sandstone, Conglomerate
-  Argillite, siltstone, shale
-  Fault/shear

ppb - parts per billion  
 ppm - parts per million  
 Au - gold

L.C.P. - Legal Corner Post

KAM CREED MINES LTD.

K.C.M. CLAIM GROUP

Anomalous Zones  
 Reconnaissance Geology

Fig. 3 Scale 1:30,000  
 0 300 600 900 1200 metres

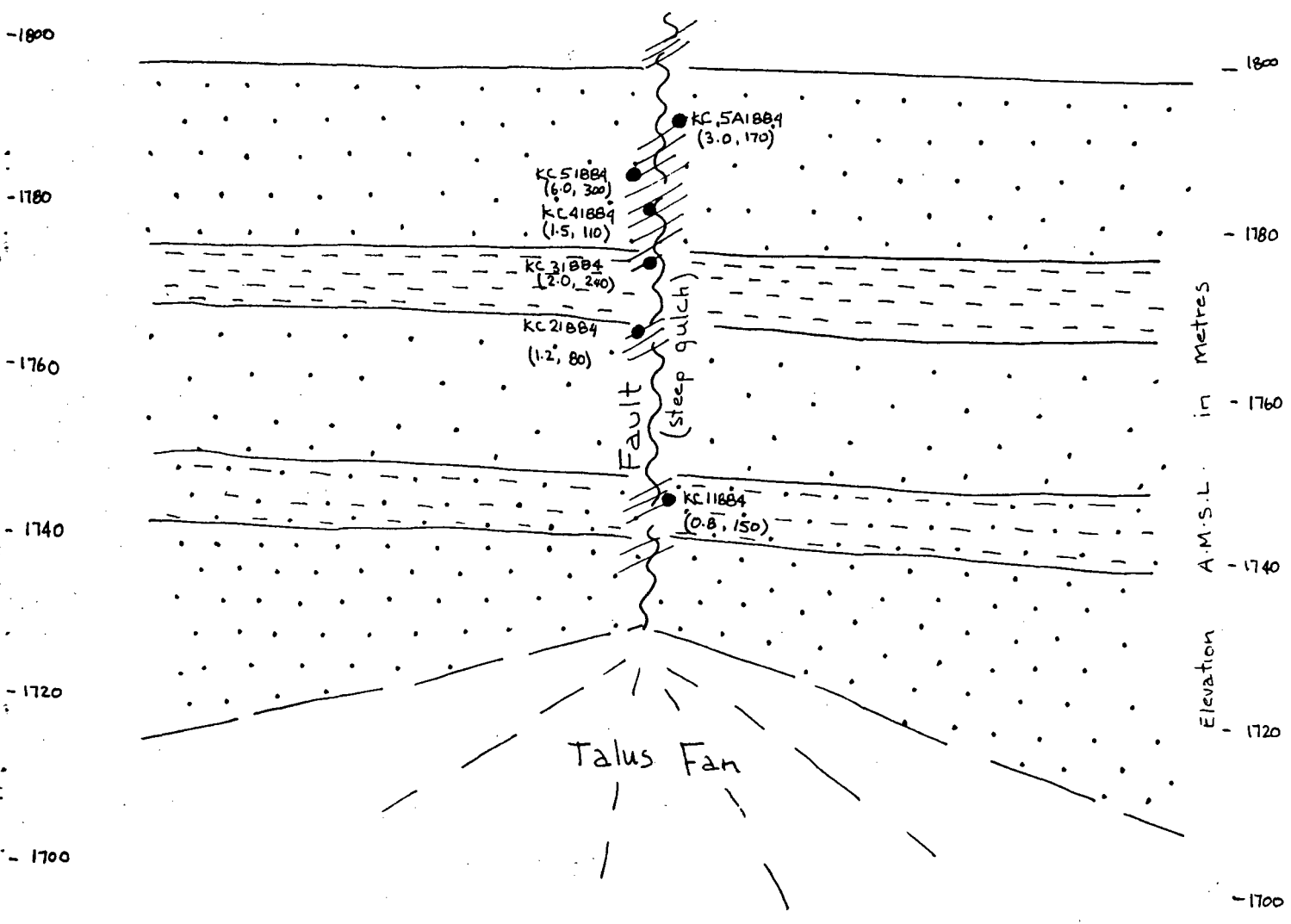
Map Sheet 92H/647

D.G.C.

**GENERALIZED CROSS-SECTION**  
 (Ridge immediately S.W. of Punch Bowl Lk.)  
 Ridge Summit @ 2,000m elev. <sup>11</sup>

South  
A

North  
A'



metres 0 20 40 60 80 100 120

(Punch Bowl Lake @ 1,650m elev. <sup>11</sup>)

Legend: - General geological section exposed along fault scarp.

● Massive, bedded, gray sandstone with minor siltstone

● grab sample  
 sample no. KC41884  
 (Ag ppm, Au ppb)

--- siltstone, shale

--- bedded shale, finely laminated

~ steeply dipping fault

/// Alteration; malapelite, arsenopyrite, silicification & pyrite

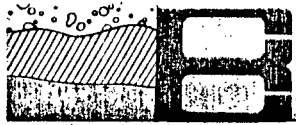
Scale = 1 : <sup>800</sup>~~2,000~~ Fig. 4.

0 10 20 40 metres

K.C.M. CLAIM GROUP  
 92H/6E,7W

D.G.C.





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PROJECT: PUNCH BOWEL PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Zn PPM	Ag PPM	Au PPB	wt/Au gm	NOTES
S KC-S1				<0.2	5		
S KC-S2				<0.2	<5	16.00	
S KC-S3							
S KC-S4				0.7	<5		
S KC-S5						15.00	
S KC-S6				0.4	5		
S KC-S7				0.2	45		
T KC-SS1				<0.2	<5	14.00	K.C.M. CLAIM GROUP
T KC-SS2				<0.2	<5	16.00	
T KC-SS3				0.2	<5	15.00	
T KC-SS4				<0.2	15	17.00	
R KC-11884				0.8			From w. of Punch Bowl Lk along steep gorge
R KC-21884				1.2			
R KC-31884							
R KC-41884							
R KC-51884							
R KC-5A1884							
R KC-61884				0.2	40		
R KC-71984				0.2	20		
R KC-81984				0.8	<5		
R KC-91984		565	48	0.8	10		From Punch Bowl ck. PUNCH BOWEL CLAIM GROUP
R KC-101984		335	48	0.3	40		
R KC-111984		15	49	<0.2	10		
R KC-121984		116	284	0.8	<5		
R KC-131984		74	75	0.2	5		
R KC-141984		37	184	0.6	5		Argillite pyrite zone
R KC-151984		52	2750	1.5	25		
R KC-161984		39	185	0.5	10		
R KC-171984		144	3300	2.8	20		
R KC-182084				<0.2	<5		
R KC-192084				<0.2	10		
R KC-T1				0.3	10		

## APPENDIX II

### REFERENCES:

Rice, H.M.A.  
1960

Geology and Mineral Deposits of the  
Princeton Map-Area, British Columbia,  
Memoir 243; Geological Survey of Canada.

National Geochemical Reconnaissance  
Regional Geochemical Survey - 1981  
Ministry of Energy, Mines and Petro-  
leum Resources.

Cascade Wilderness Study, Status  
Report, 1981; Ministry of Municipal  
Affairs.

Mr. R. (Dick) Rabbit - personal communication