

Prospecting Assessment Report

on portions of the

Carthage Group

(Dufferin, Beresford, Carthage, Pat, Ray Fr., X-Ray,
Ray, Wild Horse, Golden Calf, Oronoco, S.J.M.,
Joplin, Maude Fr., and Ramsey)

and

Gilbralter and Inkerman

Reverted Crown Granted Mineral Claims

Situated
just east of
Ymir

Nelson Mining Division
British Columbia

Latitude 49°20'N; Longitude 117°10'W
N.T.S. 82F/6 (E 1/2)

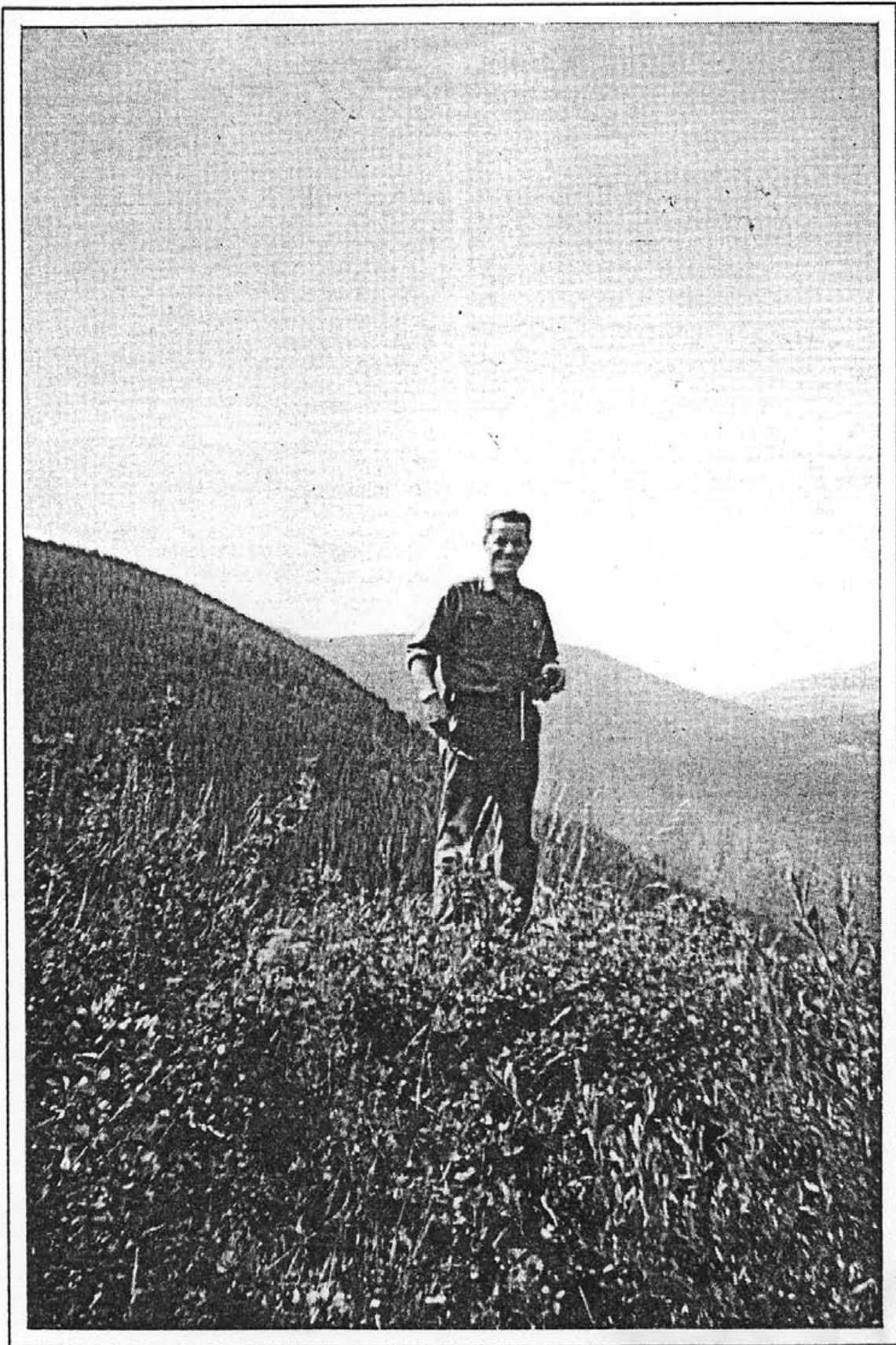
Report by

D. R. Cochrane, P. Eng.
September 10, 1979,
Delta, B. C.

7490

YMIR VENTURE

CARTHAGE GROUP, GIBRALTER and INKERMEN



Frontispiece.

C.F. "Chuck" Graham, prospecting for Ymir Venture.

YAMIR VENTURE

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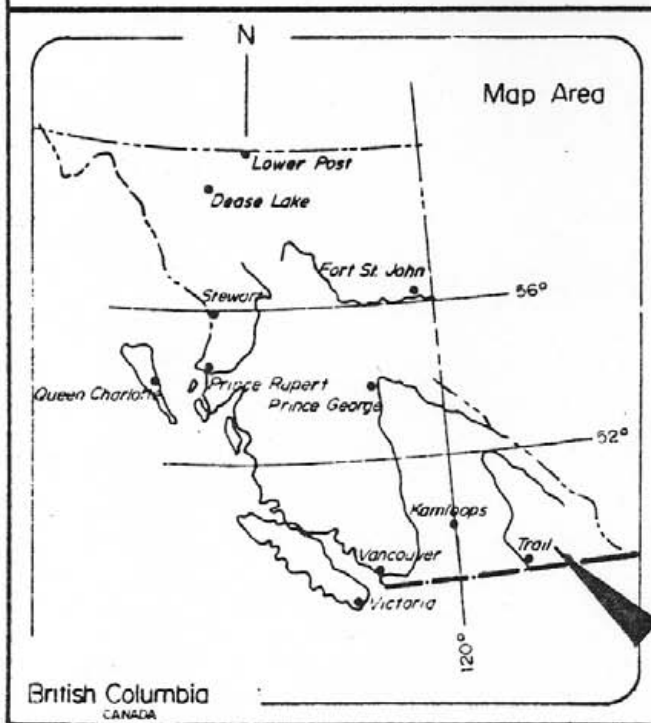
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INTRODUCTION

The historic Ymir Gold Mining Camp is situated midway between Salmo and Nelson in the Kooteney District of South Central British Columbia. There are twenty odd former gold producers in the camp, and at one time the Ymir Mine was the largest gold mine in Canada. Early in 1979 Messers. Graham and Urquhart of Merritt commenced claims aquisition in the Ymir area, with the purpose of re-evaluation of the claims in light of recent increases in the price of gold and silver.

In July 1979, the author, accompanied by Messers Urquhart and Graham, inspected portions of the Carthage group of reverted crown granted mineral claims. The Carthage group adjoins to the east of the old Ymir Mine.

This report is prepared for assessment work submission and assessment work details are listed in an appendix at the back of this report.



YMIR VENTURE **CARTHAGE GROUP**
GIBRALTER & INKERMEN Ymir, B. C.
 Nelson Mining Division N.T.S. 82 F

Figure 1
 Location Map

Scale : 1 to 250,000 or 1 inch equals approx. 4 miles.

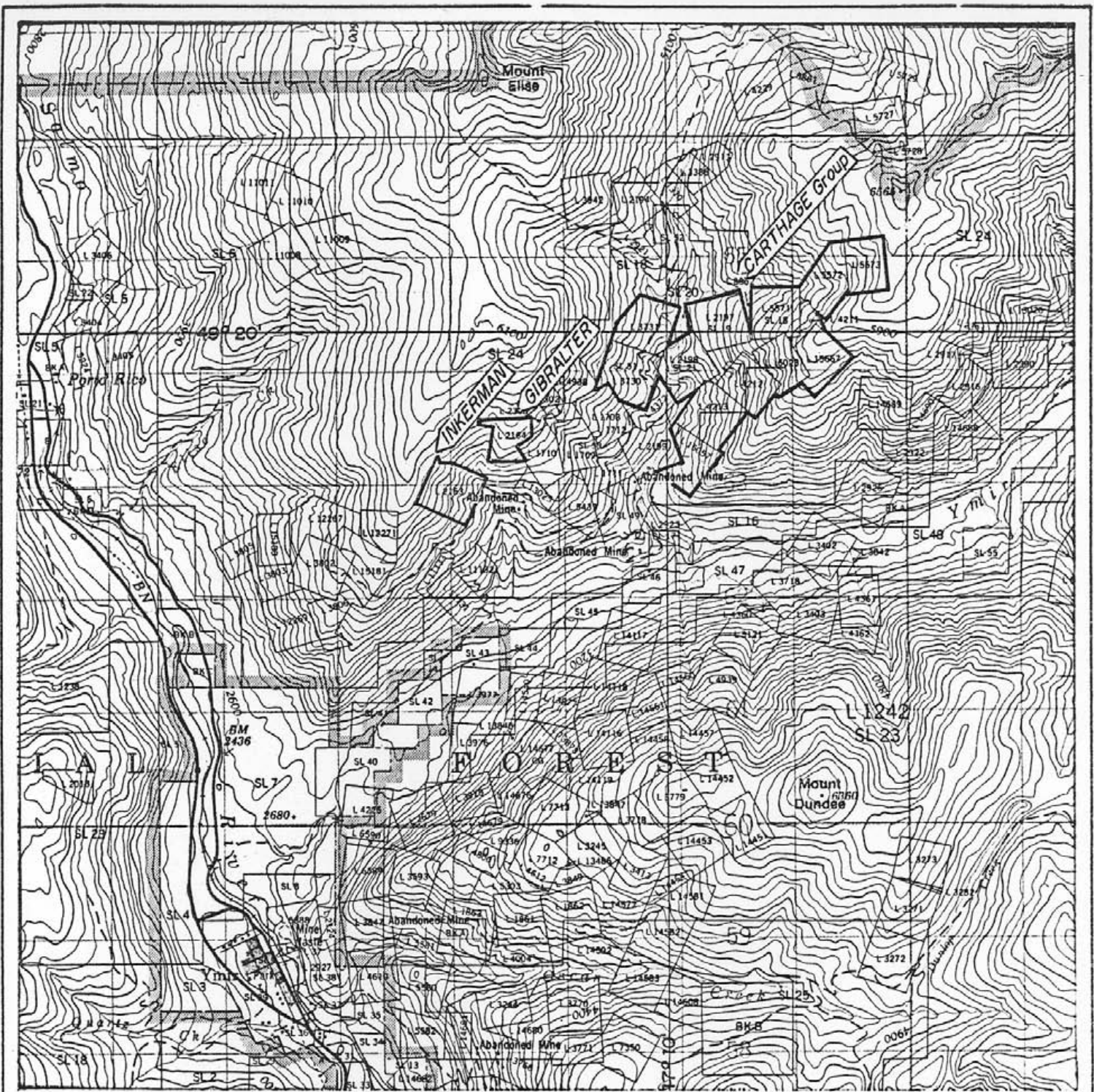


LOCATION AND ACCESS

The Ymir Gold Camp is situated in British Columbia's Kootenay District, some 40 odd air kilometres east and slightly north of Trail, and 20 air kilometres south of the City of Nelson. The town of Ymir is the nearest settlement and consists of a hotel, general store and gas station, and several residences. Ymir is located on highway No. 6 which follows the Salmo River and it is serviced by the West Kootenay Power line and Burlington Northern Rail line.

Access to the Carthage Group can be made by roads and trails by proceeding easterly from the settlement of Ymir along the Ymir Creek road to Huckleberry Creek a distance of some six (6) kilometres. From an old bridge across Huckleberry there is a trail and cut line to the old workings just over a kilometre north and slightly east of the old bridge.

The N.T.S. code for the area is 82F/6 (E 1/2).



YMIR VENTURE



CARTHAGE Group, GIBRALTER & INKERMANN



SCALE 1 : 50,000

Nelson Mining Division Ymir, B.C.
N.T.S. 82 F/6E.

CLAIMS MAP Figure 2
From E.M.B.R. map 82F/6 Ed. 3 "Nelson" sheet (1976).

B.A.C. 9-79 Project N° 8080C

TABLE A

CLAIMS INFORMATION						
Name of Claim	Record No.	Lot No.	Owner	Anniversary Date:		
				before credits	after credits	
CARTHAGE GROUP:						
Dufferin	750	3731	D.R. Cochrane	Aug.22/79		Aug. 22/82
Beresford	750	3730	" "	" "	" "	
Carthage	743	2197	C.F. Graham	" "	" "	
Pat	744	2198	" "	" "	" "	
Ray Fr.	753	15064	D.R. Cochrane	" "	" "	
X-Ray	753	4213	" "	" "	" "	
Ray	765	15057	" "	" "	" "	
Wild Horse	752	4212	" "	" "	" "	
Golden Calf	766	15667	" "	" "	" "	
Oronoco	758	5572	Ian Urquhart	" "	" "	
S.J.M.	759	5573	" "	" "	" "	
Joplin	757	5571	" "	" "	" "	
Maude Fr.	767	16023	" "	" "	" "	
Ramsey	767	4211	" "	" "	" "	
NOT GROUPED:						
Inkerman	741	2163	D.R. Cochrane	" "	Aug. 22/81	
Gibraltar	742	2164	" "	" "	Aug. 22/80	

HISTORY

The Carthage claim is first mentioned in the B.C. Minister of Mines Report for 1902, and the report for 1917 (pg. 168 and 169) contains a fairly detailed description.

According to Drysdale (G.S.C. Memoir 94, Ymir Mining Camp (1917)) the Carthage claim was located August 25, 1897, by H. Kerns. In 1902 the claim was bonded to the Chicago National Development Company, and two tunnels were driven, one 150 feet and the second 250 feet in length. The longer tunnel was reported to have encountered two feet of good ore. There is no mention of additional work until the "Report" for 1934 when the Carthage Group is described as owned by the Wesko Exploration and Development Company, operators of the Ymir Centre Star Mine which produced 12,000 ounces of gold and 95,000 ounces of silver from 56,700 tons treated. Apparently in the 30's considerable work was done on the Carthage and

YMIR VENTURE

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surrounding claims since Cockfield (G.S.C. Memoir 191, 1936) describes quite extensive workings. His description is reproduced in full below.

"This group is on the eastern slope of the North fork of * Wildhorse Creek about 1 1/4 miles by trail from the Ymir mine. Workings on the X-Ray claim were examined by the writer's assistants and consist of upwards of fifty cuts, a 50 foot adit, and a shallow incline shaft which was not examined. Five main veins are indicated on the property and, in addition, a number of segments of veins that cannot be related to the main veins."

"The adit, elevation 4,425 feet, and one cut near it are the highest and most northeasterly workings. The adit has been driven northeasterly and exposes a vein striking north 40 degrees west and dipping 17 degrees southwest. At the portal the vein is about 10 feet thick and the back of the drift is in vein matter for about 30 feet to where the vein disappears. At 40 feet, a fault, striking north 55 degrees west and dipping 29 degrees northeast, offsets the vein down to the adit level, and from there it has been followed to

* Ymir Creek

the face, where it has a dip of 29 degrees. The vein conforms with the foliation of the Pend d'Oreille schist, consists of dark quartz with masses of milky quartz, and contains scattered pyrite and iron oxide. The pyrite occurs partly filling drusy cavities."

"About 75 feet southeast of the adit portal the vein is exposed in an open-cut 15 feet long. Here, also, it conforms with the foliation of the schist and has the same strike and dip as given above, but is only 2 feet wide."

"Two lines of open-cuts, fourteen in number and extending over a length of 475 feet, expose what are believed to be faulted segments of the same vein. The uppermost of the cuts is about 750 feet southwest of the adit. Eight cuts, about in line, expose a quartz vein 18 inches to 3 feet wide, striking north 40 to 50 degrees east, dipping 40 to 55 degrees to the southeast, and mineralized by pyrite and iron oxide. Between the fourth and fifth cuts, the southwesterly part of the vein is offset a few feet to the southeast of the line of strike. Below the sixth cut the vein is again moved over a few feet to the southeast. Cuts 9 to 14 are on a vein that lines up about 75 feet to the southeast of the line of strike of the vein as deduced from the upper cuts, and if these lower cuts expose the same vein there is

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a fault of considerable magnitude between the eighth and ninth cuts. The lower six cuts extend for nearly 300 feet and expose a vein that strikes from north 35 degrees east to north 50 degrees east and dips from 40 to 55 degrees to the southeast. The width varies from 3 to 4 feet and the mineralization is the same as in the veins previously described."

"About 300 feet further east is another vein exposed for 100 feet by a line of open cuts. **This** vein strikes north 45 to 48 degrees east and dips from 38 to 60 degrees southeast. It is from 1½ to 2½ feet wide and is identical in mineralization with the veins previously described."

"Two other cuts, from 50 to 75 feet east of the last mentioned vein, disclose veins about 15 feet apart and 4 feet wide striking north 45 degrees east and dipping vertically. Both show strong pyritization."

VAMIR VENTURE

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"Another line of cuts, 200 feet west of the lower end of the line of open-cuts first described and extending over a length of 200 feet, exposes vein segments striking north 30 to 67 degrees east and dipping 55 to 70 degrees southeast. Vein widths cannot be exactly measured in many of these cuts but appear to vary from 1 to 4 feet."

"A number of other cuts to the west and north-east disclose isolated vein exposures that cannot as yet be correlated."

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GENERAL SETTING

The Ymir Gold Camp lies in the Selkirk Mountains, a rather rugged upland surface with broad valleys such as the Salmo near Ymir at 750 metres above sea level, and peaks in excess of 2000 metres above sea level. Locally the hill sides contain scrub brush and overburden is widespread.

The old gold camp lies on the east flank of what appears to be a large, north trending synclorium whose axis runs from Salmo to Nelson, a distance of about 40 kilometres. To the west of the synclorium is the extensive Nelson batholith, and to the east additional plutonic rocks and then a sequence of Cambrian and Ordovician sedimentary rocks. (G.S.C. map 1090A)

The synclorium consists of the following sequence (from outside or oldest, towards the center):

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1. Lower or Pre-Jurassic Ymir Group (formerly Pend D'Oreille by Drysdale) consisting of argillite, slate and paragneiss.
2. Lower Jurassic Rossland Formation consisting pre-dominately of greenstones.
3. Mid/Upper Jurassic Hall Formation, which conformably overlies the Rossland, and consists of argillite, sandstone and conglomerate.

This entire complex is intruded by various small dikes and plugs possibly related to the Nelson plutonic suite. Locally bedrock is strongly deformed and metamorphosed.

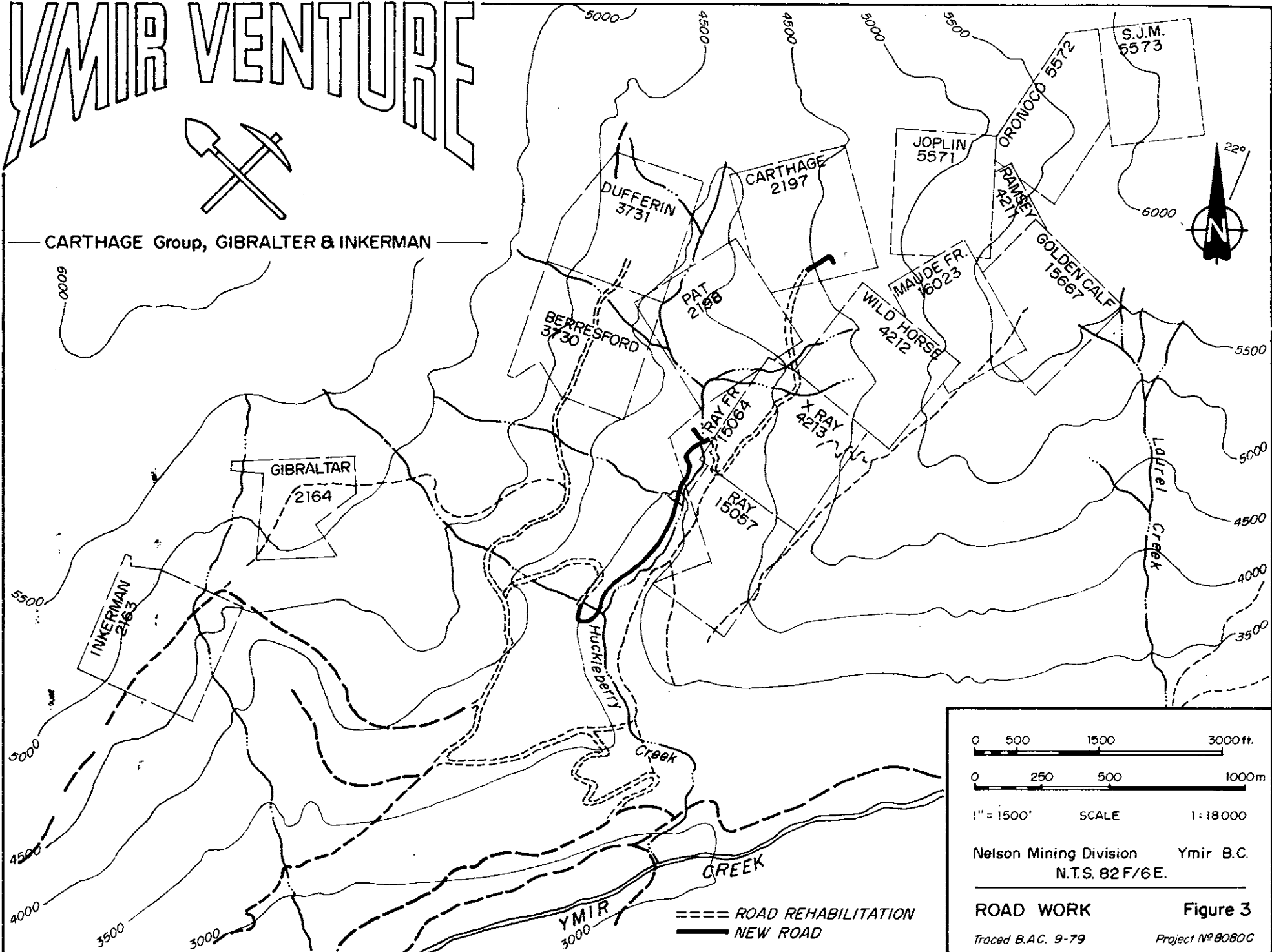
The Carthage Group lies within Ymir Group metasediments but close to the contact with a tongue of Nelson plutonic rocks. The vast majority of the bedrock is obscured by overburden, and bedrock exposures are essentially restricted to old workings.

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CARTHAGE Group, GIBRALTER & INKERMEN



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WORK DONE

On July 26, 1979, a traverse was made along the west side of Huckleberry Creek in search of old workings and natural outcrops. None were observed. (Inkerman)

On July 27, a line was blazed, flagged and chained (hip chain) at 50 metre intervals from the old bridge across Huckleberry to the old Carthage workings (see map). The author inspected adits that were open and sampled vein material from dumps. The samples were assayed for gold, silver, lead and zinc by Bondar Clegg and Co. of Vancouver, B. C.

RESULTS OBTAINED

The adits and open cuts expose a series of quartz veins which are erratically mineralized with blebs to clusters of pyrite, sphalerite, pyrrhotite and galena. Mineralization appears to be essentially restricted to veins except in the case of adit "C" where the portal exposes a stock-work of quartz and sulphides, however the sulphides are also disseminated in altered host rocks.

The following table summarizes the observations.

Adit A: partly caved portal; drifted on two quartz veins which vary in attitude from a strike of 040° to 085° (true) and dips at moderate angles to the southeast. Veins are sub-parallel and vary in width from a few cm to over one metre. The tunnel is in good shape, no timber and is 6' x 7' (1.8m x 2m).

Open cuts between Adit A and Cookhouse:

Several open cuts expose well mineralized vein material. Vein appears to be parallel to road and up to one metre wide.

Adit B: No distinct vein - a few narrow quartz stringers in safety bay at 70.5 metres from portal. Old drill hole in face oozing limonite which was sampled and geochemically analyzed by Min-En Labs of North Vancouver. The material ran 36 parts per million (ppm) lead; 172 ppm zinc; 2.3 ppm silver and 10 parts per billion gold.

Adit C: Rusty quartz stockwork at portal, apparently trending northwesterly. Just inside portal there is a flat vein 1.5 metres thick with clusters of pyrite, pyrrhotite, galena, sphalerite and a trace of chalcopyrite.

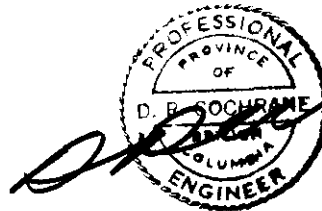
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Adit D: Stub adit exposing slightly mineralized quartz vein.

See accompanying map for assay results.

Respectfully submitted



D. R. Cochrane, P. Eng.

YMIR VENTURE

APPENDIX I

ASSESSMENT WORK DETAILS

PERSONNEL AND DATES WORKED:

D. R. Cochrane, P. Eng., July 26 and 27, 1979.
I. Urquhart, Field man, July 26 and 27, 1979.
C. F. Graham, prospector, July 26, 27 and Aug. 13, 1979
Cat operator, August 7, 8, 9, 10, 11 and August 13, 1979.
Cat Swamper, August 7, 8, 9, 10, 11 and August 13, 1979.
Draftspersons, and typist, various dates throughout
the project including report preparation.

COST STATEMENT

D. R. Cochrane, 2 days at \$250/day	\$ 500.00
Field man, 1 1/2 days at \$100/day	150.00
Prospector, 2 1/2 days at \$100/day	250.00
Cat time, 49 1/2 hours at \$36.75/hr	1,819.13
Cat Swamper, 5 1/2 days at \$100/day all found	550.00
Assays, 6 at \$6.00/assay	36.00
Meals and Lodging, 4 1/2 man days at \$25/man day	112.50
Truck Expense, 1 1/2 days at \$35/day all found	52.50
Drafting, 32 hours at \$14/hr	448.00
Typing, 4 hrs at \$10/hr	40.00
	<hr/>
* Total (prospecting and physical)	\$ 3,958.13

* Excludes final report reproduction

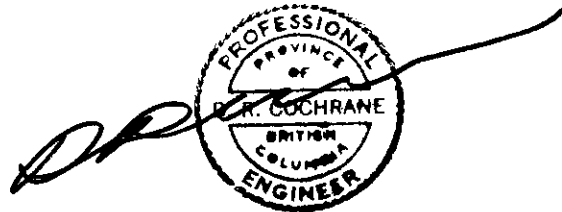
YMIR VENTURE

APPENDIX II

CERTIFICATE

I, Donald Robert Cochrane, of the Municipality of Delta, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with an office at 4882 Delta Street, Delta, B. C.
2. I am a graduate of the University of Toronto (1962) with a degree in Applied Geology (B.A.Sc.) and a graduate of Queen's University (1964) with a degree in Economic Geology (M.Sc., Eng.).
3. I have practiced my profession continuously since graduation while being employed by such companies as Noranda Exploration Co. Ltd., Quebec Cartier Mines, and Meridian Explorations Syndicate. I have been in private independant practice since 1969.
4. I am a member in good standing of the Association of Professional Engineers (A.P.E.) of the Province of British Columbia, and also a member of the A.P.E. in the Province of Ontario, Saskatchewan, Alberta, and the Yukon Territories.



The image shows a handwritten signature in black ink, which appears to be 'D.R. Cochrane', written over a circular professional seal. The seal is for the 'PROFESSIONAL ENGINEER' of the 'PROVINCE OF BRITISH COLUMBIA'. The name 'D. R. COCHRANE' is printed in the center of the seal.

D. R. Cochrane, P. Eng.
September, 1979,
Delta, B. C.

YMIR VENTURE

APPENDIX III

PHYSICAL WORK (see Figure 3)

EQUIPMENT:

Cat D6c

CONTRACTOR:

J. and L. Logging Ltd.

PERSONNEL:

1 cat skinner

1 swamper

WORK DONE:

1. Road rehabilitation from Ymir Creek road to Dufferin Claim and providing access to the Inkerman and Gibraltar Claims, 4 wheel drive (3200m x 3m).
2. Road rehabilitation from Dufferin Road to millsite, 4 wheel drive, (685m x 3m)
3. New road from millsite to creek on Ray fr. 4 wheel drive (195m x 3m)
4. Road rehabilitation from Ray fr. to Carthage claim, 4 wheel drive (915m x 3m)
5. New road from end of 4 above to old cook house on Carthage. 4 wheel drive (0m x 3m)

BONDAR-CLEGG & COMPANY LTD.

DATE: August 13, 1979

#1 - 4882 Delta Street
Delta, B. C.
V4K 2T8

Samples submitted: August 8, 1979
Results completed: August 13, 1979

CERTIFICATE OF ASSAY

PROJECT: Y VENTURE

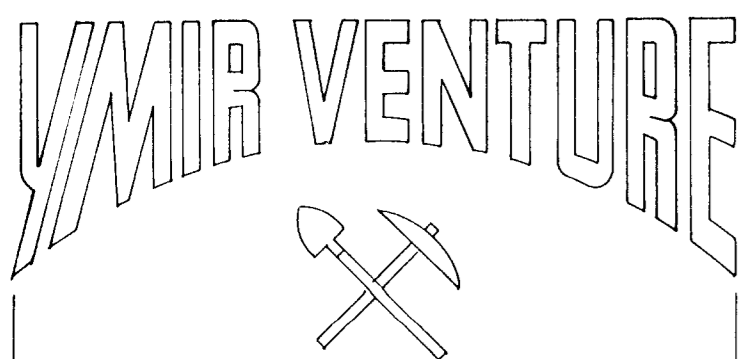
I hereby certify that the following are the results of assays made by us upon the herein described ore samples.

MARKED	GOLD		SILVER		Pb	Zn					
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
7960	0.005		1.91		0.06	1.80					
7961	0.010		1.84		0.06	1.08					
7962	0.036		4.36		0.14	10.90					
7963	0.010		5.48		0.16	3.23					
7964	0.005		1.17		0.03	2.42					
7965	0.050		4.79		0.13	2.05					

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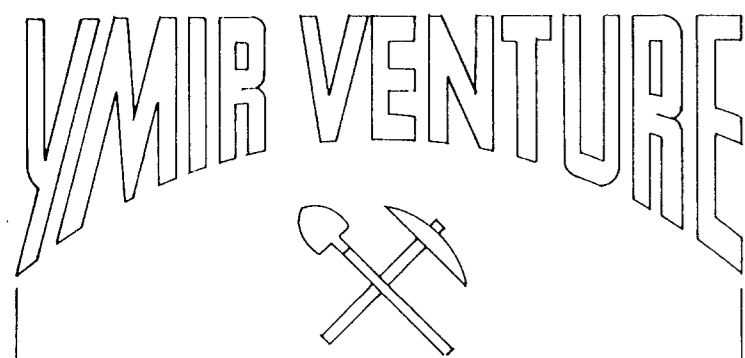
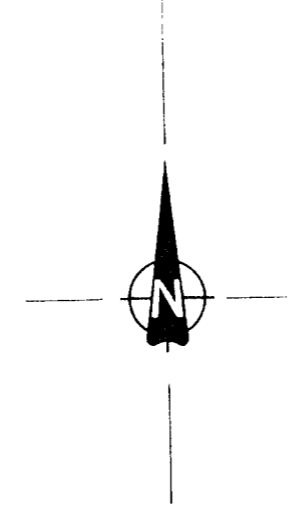
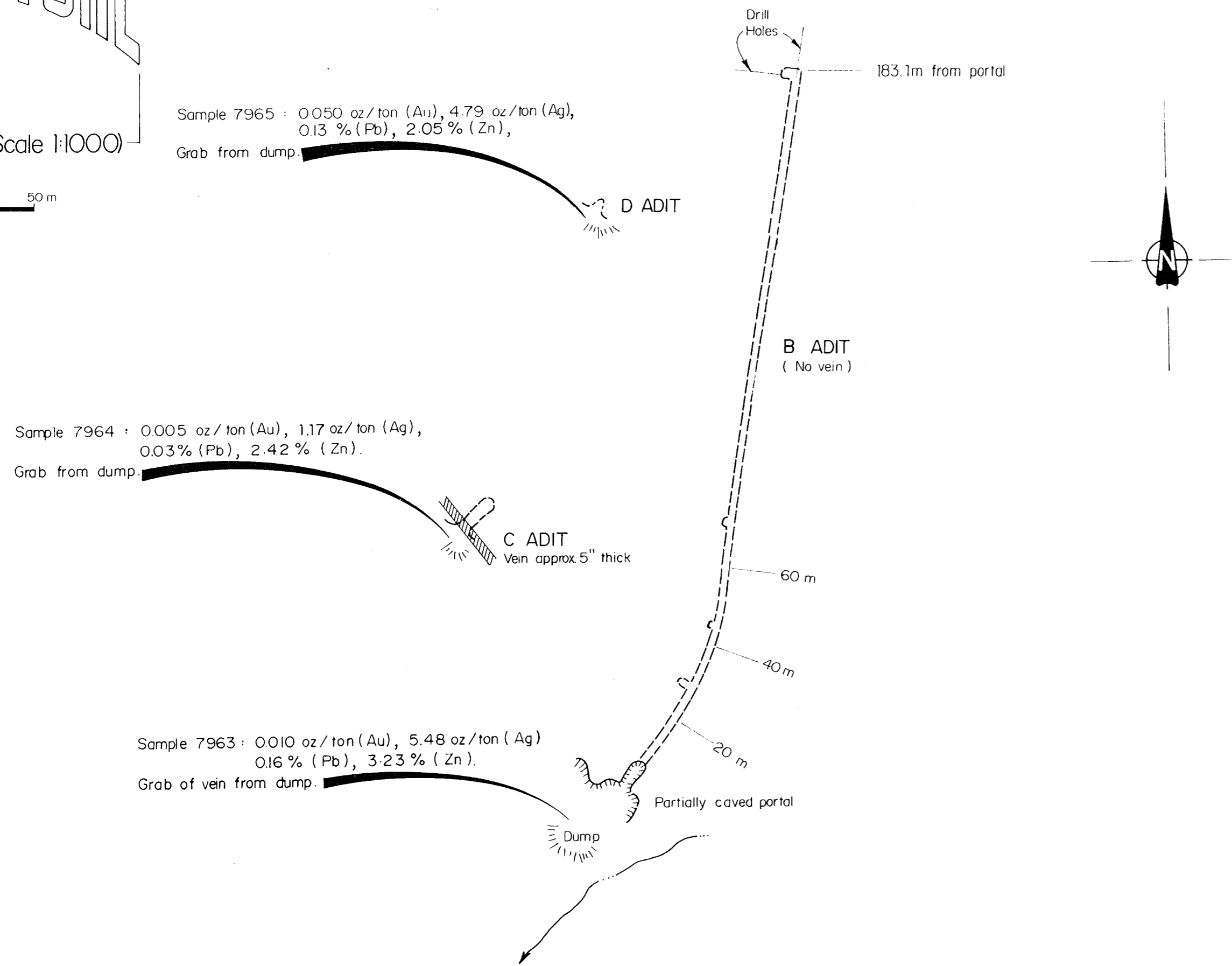
NOTE:
Rejects retained three weeks
Pulps retained three months
unless otherwise arranged.


Registered Assayer, Province of British Columbia



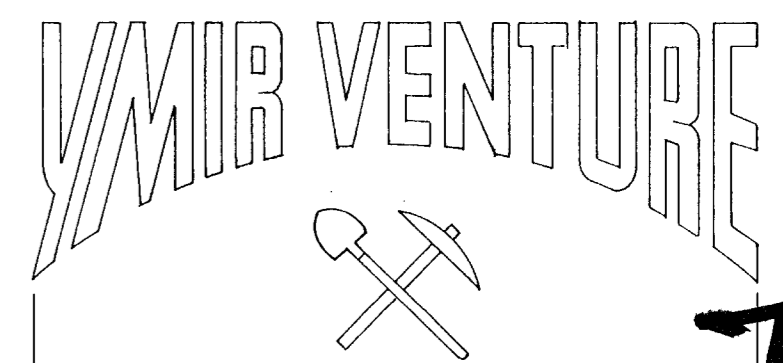
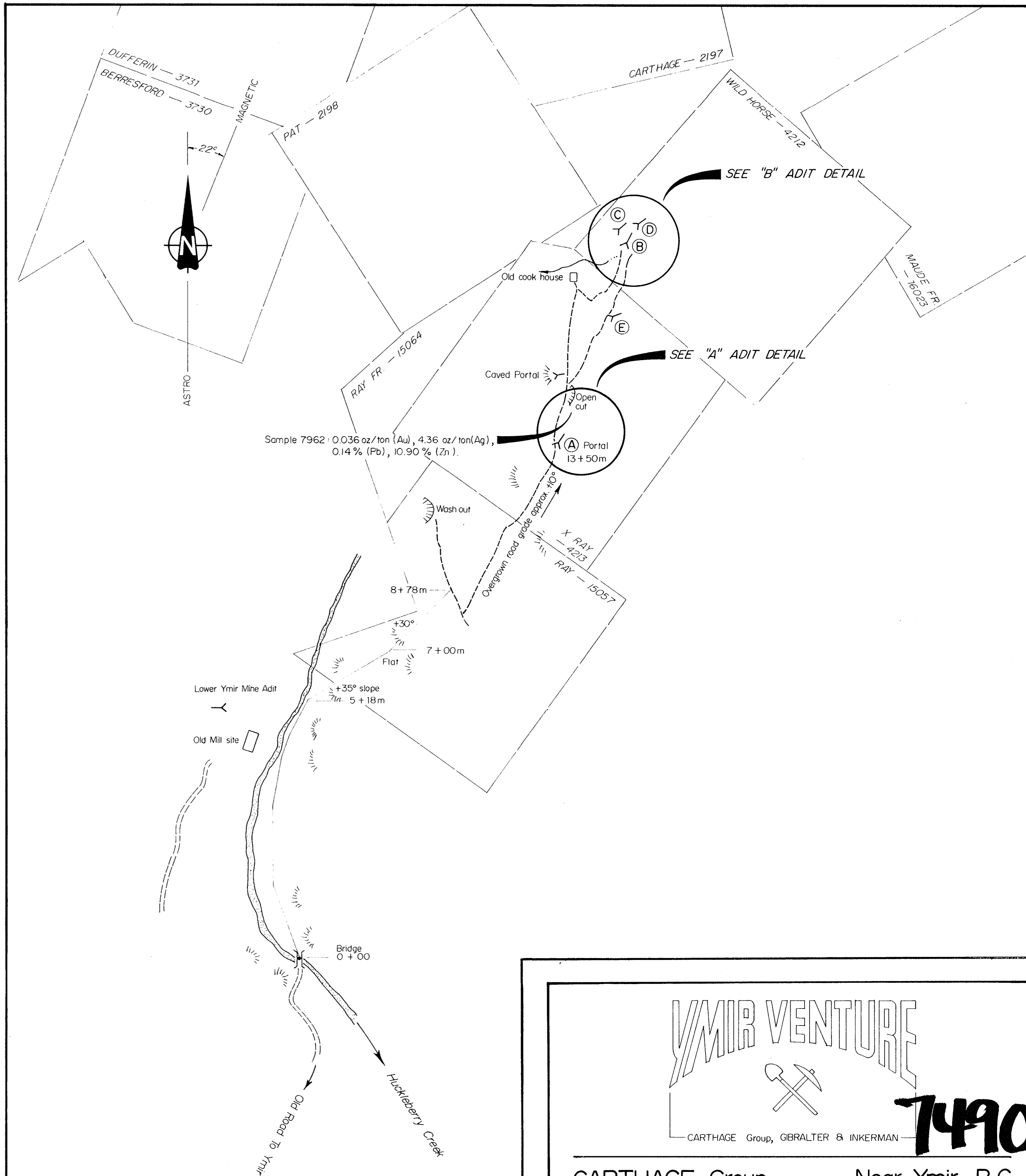
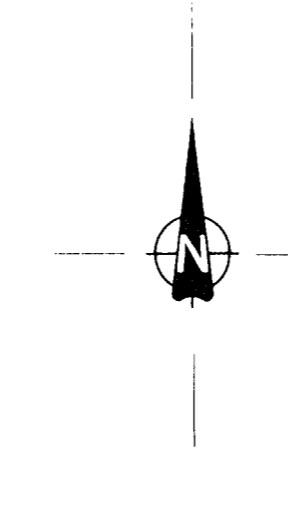
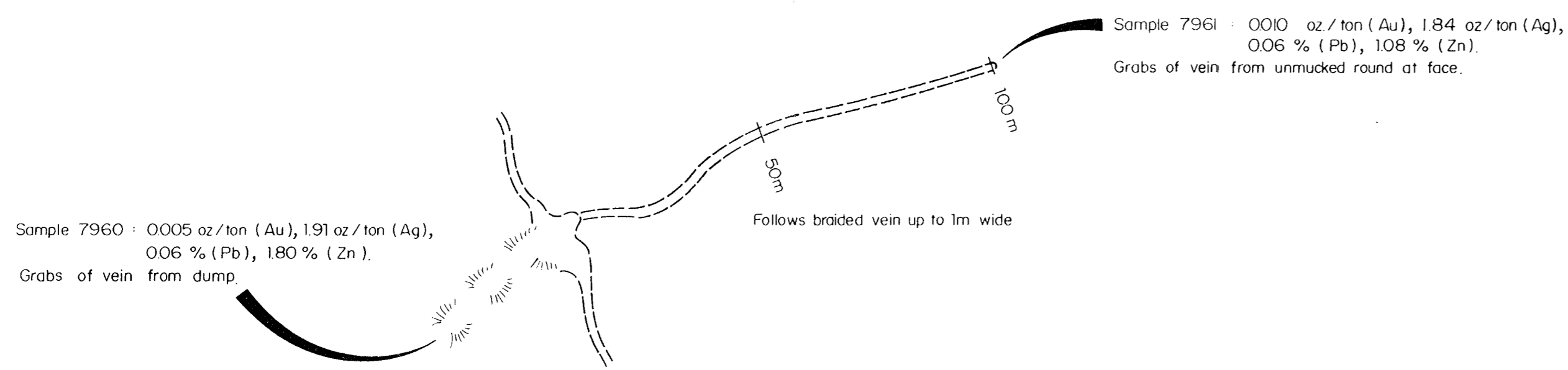
"B" ADIT DETAIL (Scale 1:1000)

0 10 50 m



"A" ADIT DETAIL (Scale 1:1000)

0 10 50 m



CARTHAGE Group, GIBALTER & INKERMANN

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CARTHAGE Group Near Ymir, B.C.
Nelson Mining Division N.T.S. 82F/6E

SCALE 1:5,000 0 50 100 200 300 400 500 metres

Maps from Sketch Maps by D.R.C. September '79
To accompany a report by D.R. COCHRANE, P. Eng., on the CARTHAGE GROUP dated September 10, 1979.

PROSPECTING MAP FIG. 4

P.K.C. SEPTEMBER 1979 PROJECT NR 8080C

