

ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

1016-510 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1L8



REPORT ON UNDERGROUND

MAPPING AND SAMPLING



BARB 5 CLAIM, Y72106

WATSON LAKE MINING DISTRICT

A.M.P. EXPLORATIONS & MINING CO. LTD.

60°01'N; 136°36'W; NTS 105B/4

R.J. CATHRO, B.A.Sc., P.Eng.

September, 1982

091503

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 3200⁰⁰.

K. Grapes

for Regional Manager, Exp'ration and
Geological Services for Commissioner
of Yukon Territory.

09/503

ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

1016-510 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1L8

(604) 688-2568

December 14, 1983

Patti L. McLeod,
Mining Recorder,
Watson Lake Mining District,
P.O. Box 269,
Watson Lake, Y.T.
YOA 1C0

Dear Ms McLeod:

Re: Barb 5 Claim, Y72106
105B/4, File #340-13-2



In response to your letter of September 28, I am pleased to submit a revised report containing the map information you requested. In reply to your question (4), the Hosford Impey invoice covers the cost of the control survey that tied the 1945 drill hole locations to the 5150 Level adit portal and the claims. It was performed in conjunction with the claim survey and is a necessary underground mining expense.

We regret the delay and inconvenience in this matter, in which we were picking up the pieces from an incomplete project performed by previous operators and attempting to minimize the cost for our client.

Very best wishes for the New Year.

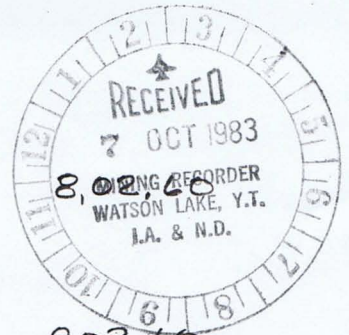
Yours truly,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

R.J. Cathro.

/mc
Encl.

EXPENDITURE BY CLAIM



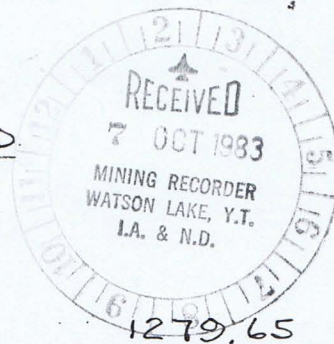
✓	BARB 1 (Y72102) HOSFORD IMPEY, WELTER	8026.05/10	
✓	BARB 2 (Y72103) HOSFORD, IMPEY, WELTER	8026.05/10	802.60
✓	BARB 3 (Y72104) HOSFORD, IMPEY, WELTER	8,026.05/10	802.60
✓	BARB 4 (Y72105) HOSFORD, IMPEY, WELTER	8026.05/10	802.60
✓	BARB 5 (Y72106) ARCHER, CATHRO BONDAR, CLEGG HOSFORD IMPEY WELTER HOSFORD, IMPEY, WELTER	8026.05/10	1279.65 969.00 2,186.00 802.60 <hr/> 5,237.25
	BARB 6 (Y72107) HOSFORD, IMPEY, WELTER	8026.05/10	802.60
	BARB 7 (Y72108) HOSFORD, IMPEY, WELTER	8026.05/10	802.60
	BARB 8 (Y72109) HOSFORD IMPEY, WELTER	8026.05/10	802.60
✓	FRACTION 100 FR HOSFORD IMPEY, WELTER	8026.05/10	802.60
	FRACTION 101 FR HOSFORD IMPEY, WELTER	8026.05/10	802.60
		TOTAL	<hr/> 12,460.65

SCHEDULE 'A'

TABLE SHOWING EXPENDITURES

AMP. EXPLORATIONS & MINING Co. LTD.

BARB, FRACTION AND LOG. CLAIMS
LOGJAM CREEK AREA NTS 105B/4.



1. ARCHER, CATRO & ASSOCIATES (1981) LIMITED GEOLOGICAL MAPPING AND SAMPLING NO 4 VEIN, 5150 LEVEL ADIT, AUGUST 1982	1279.65
2. BONDAR - CLEGG Co. LTD - WHITEHORSE ASSAYING. SAMPLES - SEPT, 1982	969.00
3. HOSFORD, IMPEY, WELTER AND ASSOCIATES LTD SURVEY ADIT AND DRILL HOLES SEPT, 1982	2,186.00
4. HOSFORD, IMPEY, WELTER AND ASSOCIATES LTD. LEGAL SURVEY BARB 1-8 & FRACTION 100F AND 101F SEPT, 1982	8,026.05
TOTAL	<u>12,460.70</u>

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Report ----- Page 1-2

Figure 1 - Claim Location Map, Barb-Log Group;
Scale 1:20,000

Figure 2 - Geology - Logjam Property;
Scale 1:50,000

Figure 3 - Underground Development - Logjam Property;
Scale 1 inch = 200 feet (1:2400)

Figure 4 - Geology Plan, No. 4 Vein - 5150 Level Adit;
Scale 1 inch = 10 feet (1:120)

Figure 5 - Assay Plan, No. 4 Vein - 5150 Level Adit;
Scale 1 inch = 10 feet (1:120)

Figure 6 - Legal Claim Survey Showing Location of 1945 Drill Holes
and 5150 Level Adit;
Scale 1:5000

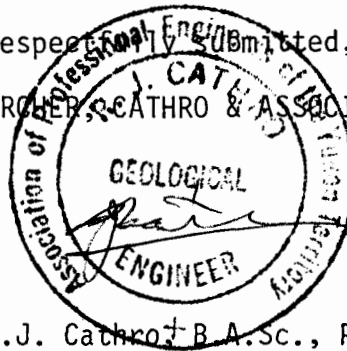
In August, 1982. this firm was requested by Armand Arsenault, President of A.M.P. Explorations & Mining Co. Ltd., to map and chip sample new underground workings on A.M.P.'s Barb-Log claims, referred to herein as the Logjam Property. The new work consisted of 47 feet of drifting driven in 1981 by Pure Silver Mines Ltd. under an option agreement. Pure Silver Mines had neglected to prepare a report on that work.

This drift is situated on the No. 4 Vein in the 5150 Level adit, as shown on the attached location maps (Figures 1-3). The mapping was performed between August 24 and 28 by geologist M.P. Phillips and assaying was conducted during September in the Bondar Clegg assay labs in Whitehorse and Ottawa.

Results are plotted on the attached mapping and assay plans (Figures 4 and 5). They show that the drift has advanced southwesterly along the 4 Vein, which is cutting hornfelsed Devono-Mississippian sediments. This heading has not reached the target area where the vein is projected to cut Jura-Cretaceous diorite dykes that form the wallrock for the best mineralized veins on the property. The diorite contact is estimated to be at least 200 feet ahead of the drift face. However, as shown by Mr. Phillips mapping and sampling, both the quantity of sulphide mineralization and gold-silver content is gradually increasing towards the southwest, in the direction of advance. The present face averages 0.04 oz/ton Au, 6.5 oz/ton Ag, 2.0% Pb and 1.2% Zn across 3.7 feet. This is unusually high, on this property, for a vein situated outside the diorite dyke. The face also returned an assay of 0.13% W from a 0.3 foot chip sample of sulphide-rich vein material, which is the first tungsten recognized on this property. Although no tungsten mineral has been recognized, it is probably wolframite since no scheelite was present under an ultraviolet lamp.

In addition, control surveys were conducted on surface, in conjunction with a legal claim survey, to tie in the location of holes drilled by Hudson Bay Mining in 1945 to the underground workings and the surveyed claims. This was a necessary step before resuming underground development. The survey was performed by Hosford Impey Welter and Associates Ltd. A copy of the claim survey plan showing the location of the 1945 drill hole locations and the 5150 Level adit portal is included as Figure 6.

Respectfully submitted,
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



R.J. Cathro B.A.Sc., P.Eng.

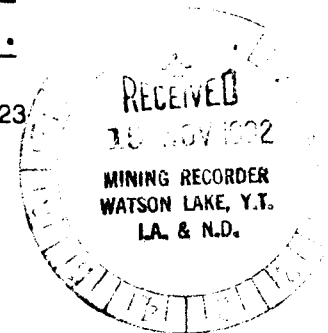
/mc
Encl.



BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460



Certificate of Analysis

Archer Cathro & Assoc. Ltd.

P.O. Box 4127

3125-3rd Ave. Whitehorse, Y.T.

REPORT NO. ... A42-130

DATE .. September 27, 1982

hereby certify that the following are the results of analyses made by us upon the herein described rock..... samples

MARKED	oz/ton	oz/ton	%	%						
	Au	Ag	Pb	Zn						
3127	L0.002	0.09	0.01	0.02	} Δ20+65FT					
3128	0.002	3.93	1.23	0.59						
3129	L0.002	0.09	0.01	0.03						
3130	L0.002	1.36	0.18	0.19						
3131	0.002	4.72	0.98	0.63	} Δ20+70N					
3132	0.002	2.34	0.52	1.09						
3133	0.005	0.82	0.09	0.20						
3134	0.005	3.78	0.77	0.73						
3135	0.002	3.74	0.71	0.47	} Δ20+75N					
3136	L0.002	0.66	0.01	0.03						
3137	0.002	4.37	0.29	0.37	} Δ20+83N					
3138	0.030	2.38	0.41	0.52						
3139	L0.002	0.50	0.04	0.06						
3140	L0.002	1.31	0.18	0.32						
3141	0.010	2.47	0.40	0.60	} Δ20+90N					

BONDAR-CLEGG & COMPANY LTD.

NOTE: L denotes less than
Rejects retained two weeks
Pulp retained three months



BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460

Certificate of Analysis

Archer - Cathro

REPORT NO. ... A42-130

DATE ... September 27, 1982

Page 2

hereby certify that the following are the results of analyses made by us upon the herein described rock samples

MARKED	oz/ton	oz/ton	%	%	%	%	%	%		
	Au	Ag	Pb	Zn	Cu	As	Sb	W		
3142	L0.002	0.19	0.03	0.05	} Δ20+90N					
3143	0.002	1.86	0.19	0.60						
3144	0.015	4.51	2.59	1.51✓	} Δ20+95N					
3145	0.020	4.27	2.50	1.47✓						
3146	0.005	2.18	0.67	0.45✓						
3147	L0.002	0.72	0.28	0.27	} Δ20+100N					
3148	0.035	19.42✓	4.38✓	2.16✓						
3149	0.030✓	9.72✓	2.93✓	1.01✓						
3150	0.010✓	1.61✓	0.08✓	0.09✓						
3876	0.005✓	1.11✓	0.10✓	0.11✓						
3877	L0.002	0.66	0.09	0.35✓	} Δ20+106					
3878	0.040✓	4.57✓	0.94✓	1.14✓						
3879	0.040✓	3.40✓	0.79	0.91✓						
3880	0.010✓	7.93✓	3.13✓	1.59✓		0.04✓	4.59✓	0.046	0.132	
3881	0.030✓	2.09✓	0.66✓	0.51✓						

BONDAR-CLEGG & COMPANY LTD.

NOTE:
Rejects retained two weeks
Reprints retained three months

Steven Seung



BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 4X1

PHONE: (403) 667-6523
TELEX: 036-8-460

Certificate of Analysis

REPORT NO. A42-130.....

DATE .. September 27, 1982.....

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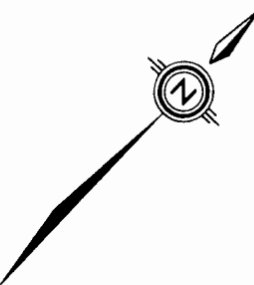
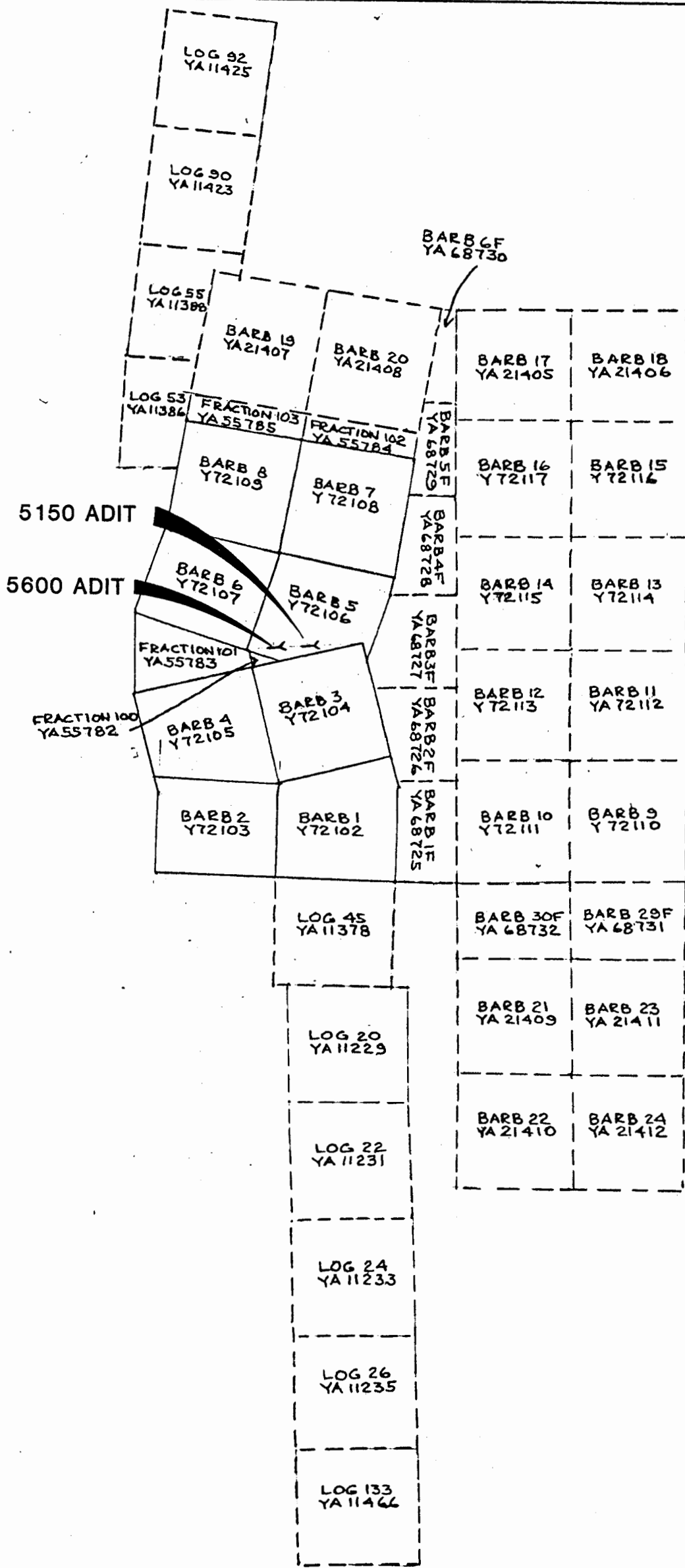
hereby certify that the following are the results of analyses made by us upon the herein described rock samples

MARKED	Oz/ton	Oz/ton	%	%	%	%	%	%	
	Au	Ag	Pb	Zn	Cu	As	Sb	W	
3882	0.020 ^v	0.83 ^v	0.18 ^v	0.12 ^v	Δ 20+106N				
3883	0.68	5.84	3.66	2.11	0.01	33.2	0.041	10.005	CRAB NO 6 VEIN - ORES HOOT

BONDAR-CLEGG & COMPANY LTD.

NOTE:

Rejects retained two weeks
Pulps retained three months



LEGEND

———— surveyed claim

----- approximate location

Figure 1
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION MAP

BABB LOG GROUP
 A.M.P. Expl. & Mining Co Ltd.

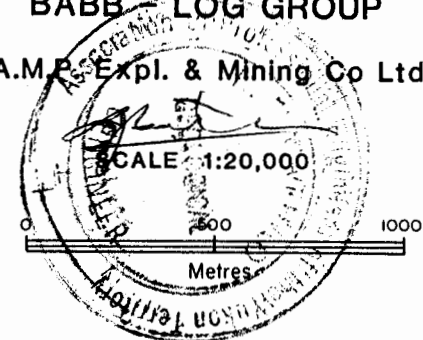
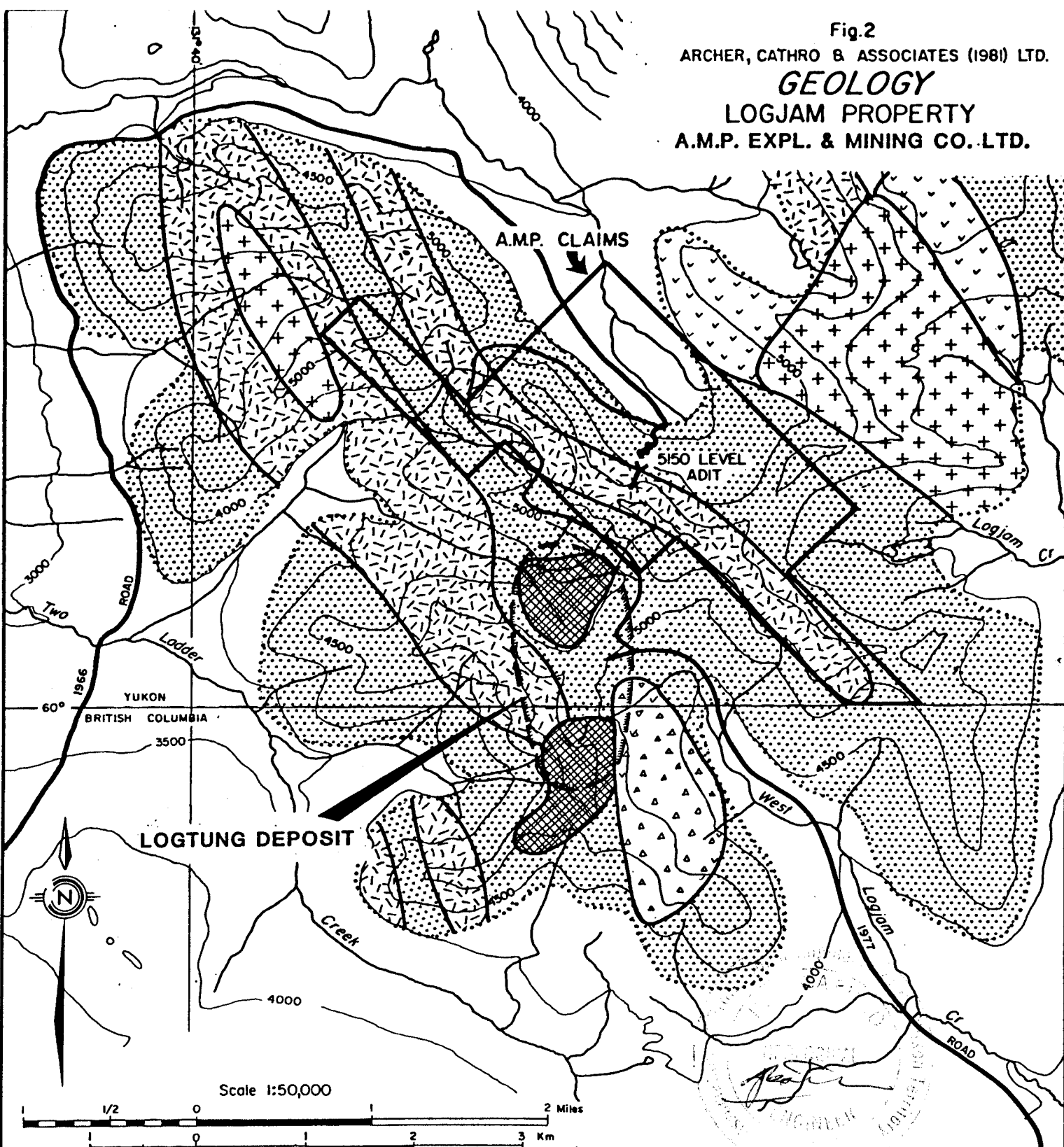








Fig.2
 ARCHER, CATHRO & ASSOCIATES (1981) LTD.
GEOLOGY
 LOGJAM PROPERTY
 A.M.P. EXPL. & MINING CO. LTD.



LEGEND

- | | | | |
|---|--|--|--|
|  | ALTERATION ZONE—skarnified metasediments, pervasive quartz stockwork with tungsten/molybdenum mineralization |  | JURA-CRETACEOUS — Plate Creek Stock, diorite |
|  | CRETACEOUS (?) — biotite granite porphyry |  | JURA-CRETACEOUS — ultramafic rocks |
|  | JURA-CRETACEOUS — Logjam Stock, biotite hornblende quartz monzonite |  | DEVONO-MISSISSIPPIAN — cherts, argillites, quartzites and minor limestones; in part hornfelzed |

(Modified from GSC Maps IO-1960 and IB-1968)

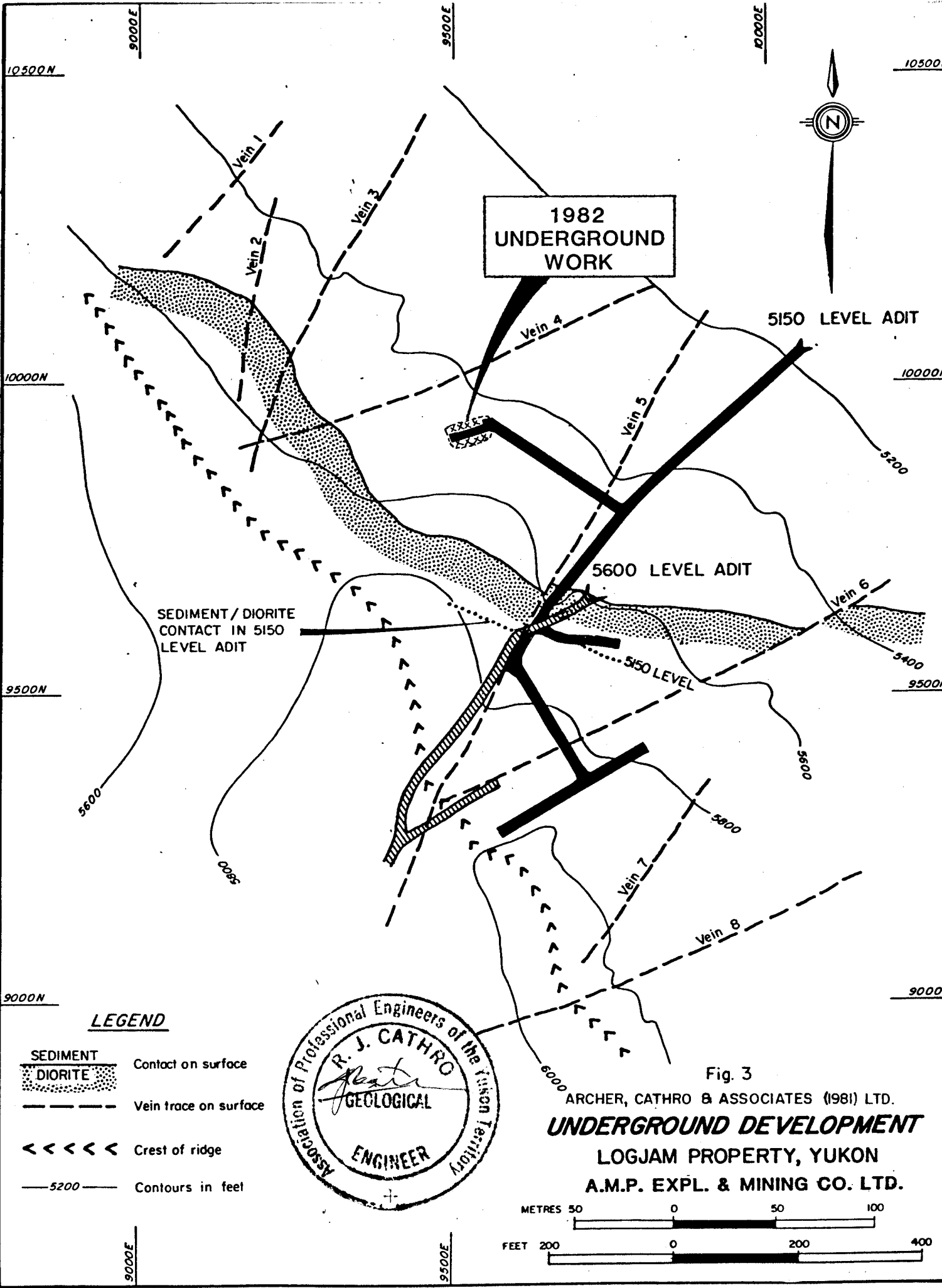
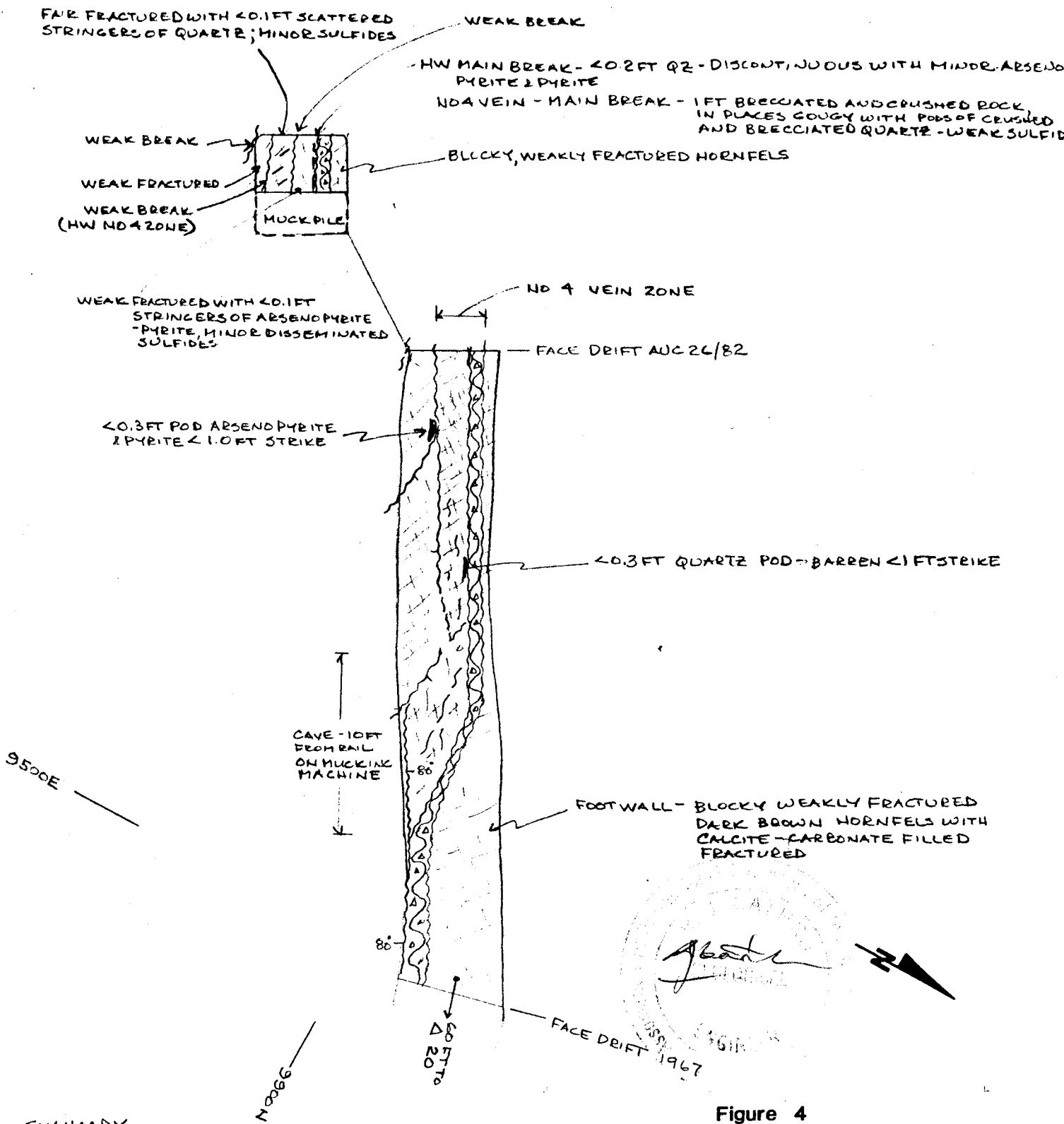


Fig. 3
 ARCHER, CATHRO & ASSOCIATES (1981) LTD.
UNDERGROUND DEVELOPMENT
 LOGJAM PROPERTY, YUKON
 A.M.P. EXPL. & MINING CO. LTD.



SUMMARY

THE NO. 4 VEIN IS A ZONE FROM 1.0 TO 4 FT WIDE. IT CONSISTS OF A FOOTWALL MAIN BREAK COMPOSED OF CRUSHED & BRECCIATED, USUALLY GOUGY ROCK WITH 10-15% CRUSHED PODS OF WHITE QUARTZ. ON THE HANGING WALL OF THE MAIN BREAK PODS OF WHITE QUARTZ UP TO 0.3 FT WIDE AND $\le 1\text{ FT}$ IN STRIKE. IN THE HW OF THE MAIN BREAK IS A ZONE UP TO 3 FT WIDE OF WEAK-STRONGLY FRACTURED ROCK WITH STRINGERS OF CASH QUARTZ VEINING AND STRINGERS OF ARSENOPYRITE & PYRITE. THE HW OF THE ZONE IS A WEAK BREAK. A FEW PODS OF SULFIDES ARE ON THE WEAK HW BREAK.

Figure 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY PLAN
No. 4 VEIN - 5150 LEVEL ADIT
LOGJAM PROPERTY
 SCALE 1" = 10' (1:120)

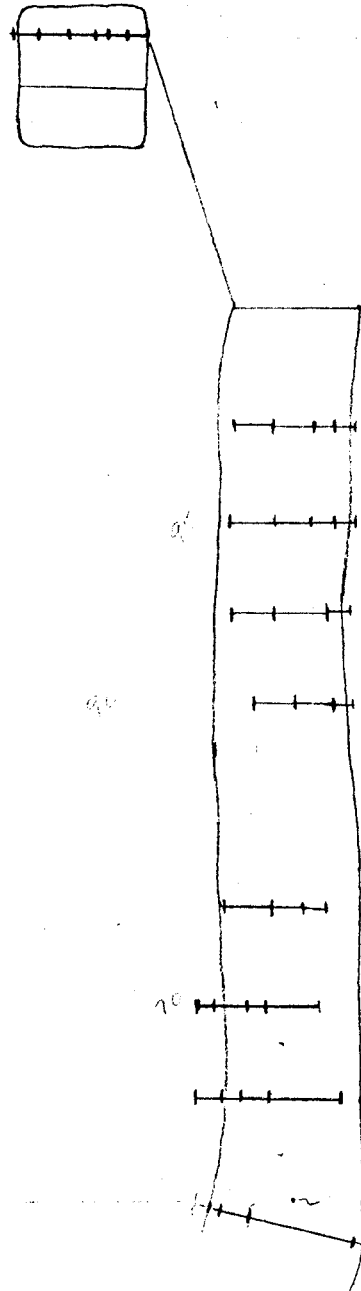
MPP AUG 26/82

NOTE - DEVELOPMENT DONE BY PURE SILVER 1981

SURVEYED BY BRUNTON COMPASS & CHAIN USING $\Delta 20$ FOR CONTROL

0.132%W
0.046%SB
4.59%AS
0.04%CU

0.35	1.14	0.91	1.59	0.51	0.12
0.09	0.94	0.79	3.13	0.66	0.18
0.62	4.57	3.40	7.83	2.09	0.83
0.002	0.04	0.04	0.01	0.03	0.02
3877	3878	3879	3880	3881	3182
1.5	1.2	1.2	0.3	1.0	1.0
HW	VEIN	VEIN	3x	VEIN	FW



1.51	1.47	0.45	0.27
2.59	2.50	0.67	0.28
4.51	4.27	2.18	0.72
0.015	0.02	0.005	0.002
3144	3145	3146	3147
2.0	1.5	1.0	1.0
HW	VEIN	VEIN	FW
0.52	0.06	0.32	
0.41	0.04	0.18	
2.38	0.50	1.31	
0.03	0.002	0.002	
3138	3139	3140	
2.0	2.0	2.0	
VEIN?	VEIN	FW	

2.16	1.01	0.09	0.11
4.38	2.93	0.08	0.10
19.42	9.72	1.61	1.11
0.035	0.30	0.010	0.005
3148	3149	3150	3876
2.0	2.0	1.0	1.0
HW	VEIN	VEIN	FW
0.60	0.05	0.60	
0.40	0.03	0.19	
2.47	0.19	1.86	
0.01	0.002	0.002	
3141	3142	3143	
2.0	2.5	1.0	
HW	VEIN	FW	

GRAB

0.63	1.09	0.20	0.73
0.98	0.54	0.09	0.77
4.72	2.34	0.82	3.78
0.002	0.002	0.005	0.005
3131	3132	3133	3134
1.0	1.5	1.0	2.5
HW	VEIN	VEIN	FW

0.47	0.03	0.37
0.71	0.01	0.29
3.74	0.66	4.57
0.002	0.002	0.002
3135	3136	3137
2.5	1.5	1.0
VEIN	VEIN	FW

0.02	0.59	0.03	0.19
0.01	1.23	0.01	0.18
0.09	3.93	0.09	1.36
0.002	0.002	0.002	0.002
3127	3128	3129	3130
1.5	1.0	1.5	3.5
HW	VEIN	VEIN	FW

1.8 3.4 0.6
TR 0.1 TR
0.4 1.6 5.5
SAMPLING BY
PURE SILVER
1967

0.02 ZINC } %
0.01 LEAD }
0.09 SILVER } oz/TON
0.002 GOLD }
3138 3139 SAMPLE WIDTH
2.0 2.0

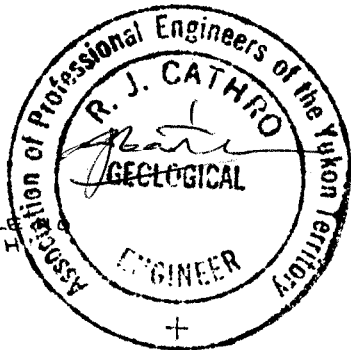


Figure 5
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
ASSAY PLAN
No.4 VEIN - 5150 LEVEL ADIT
LOGJAM PROPERTY
SCALE 1"=10' (1:120)
MPP AUG 24/82
SAMPLING ON DRIFT BACKS
AND AT DRIFT FACE

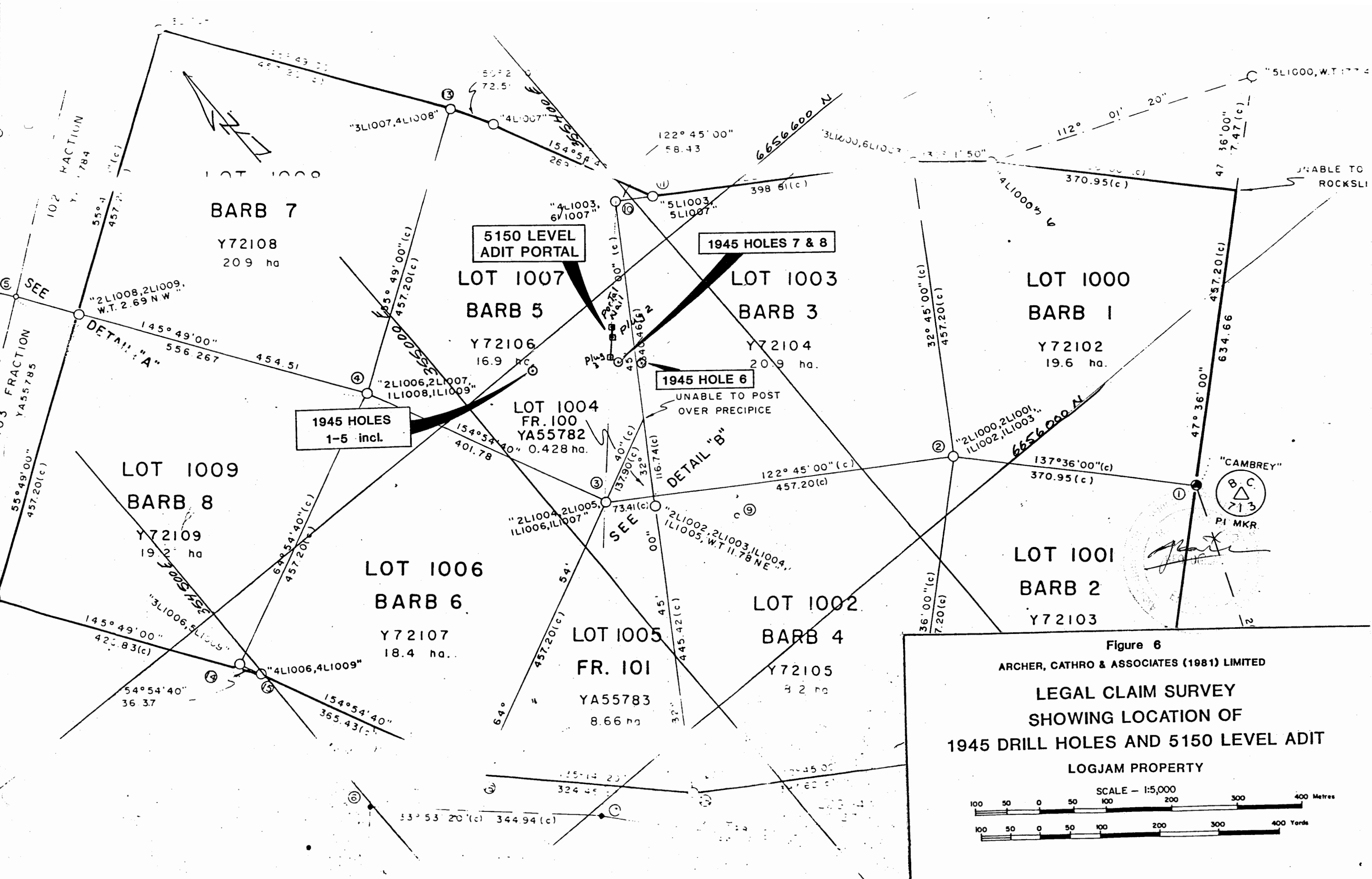


Figure 6
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
LEGAL CLAIM SURVEY
SHOWING LOCATION OF
1945 DRILL HOLES AND 5150 LEVEL ADIT
LOGJAM PROPERTY

