

MAP NO. ASSESSMENT REPORT X DOCUMENT NO.: 092090  
PROSPECTUS MINING DISTRICT: MAYO  
106 D 16 CONFIDENTIAL X TYPE OF WORK: Hand Trenching  
106 E 1 OPEN FILE

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REPORT FILED UNDER: Wernecke Joint Venture

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DATE PERFORMED: July 10 - August 12, 1987 DATE FILED: February 16, 1988

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LOCATION: LAT.: 65<sup>00</sup>'N AREA: Slats Creek  
LONG.: 134<sup>026</sup>'W VALUE \$: 2800.00

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CLAIM NAME & NO.: PIKE 8-14 Y97523-Y97529

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WORK DONE BY: W.D. Eaton

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WORK DONE FOR: Wernecke Joint Venture

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DATE TO GOOD STANDING	REMARKS:
	#67 PIKE



APPLICATION FOR RENEWAL OF GRANT FOR PLACER MINING  
SCHEDULE "B" FORM 2  
YUKON PLACER MINING ACT



▶ This form to be submitted in duplicate to the Mining Recorder for the District in which the claim is recorded, with a sketch showing location of work.

Mining District

MAYO

I, (full name) ARCHER CATHRO & ASSOCIATES (1981) LIMITED occupation CONSULTING GEOLOGICAL ENGINEERS

of (postal address) BOX 4127 WHITEHORSE, YT, Y1A 3S9

Hereby apply under the Yukon Placer Mining Act for a renewal of a grant to a placer mining claim number(s) P15573 - P15576

I MAKE OATH AND SAY THAT: -

1. I am the owner of the said placer mining claim and hold a grant (or renewal) for the said claim(s) dated the 23 day of JULY 19 87, under grouping number MP 240

2. Work has been done on the said claim(s) to the value of at least \$1200.00 dollars in accordance with the schedule of representation work prepared by the Commissioner of the Yukon Territory, since the 23rd day of JULY 19 87.

The following is a detailed statement of such work (length, width and depth of each hole, pit, trench, stripped area; type of equipment used and operator)

Upper trench	4 yd x 2 1/2 yd x 20 yd =	200 x \$2.61 =	\$522.00
Lower trench	3.5 yd x 2 3/4 yd x 22 yd =	211.75 x \$2.61 =	\$552.67
Stripping between trenches	5 x 0.5 x 15 yd =	37.5 x \$2.61 =	\$97.88
Stripping below lower trench	5 x 0.5 x 21 yd =	67.5 x \$2.61 =	\$176.18
			<u>\$1348.73</u>

All trenching was done by a 2 or 3 man crew working with picks and shovels, ~~and~~ aided by a diamond drill supply pump which provided water to melt frost.

Years renewal requested 1.5

Sworn before me at Mayo, in the Yukon Territory,

this 10 day of August 19 87

000000

Gerald Graham  
Notary Public

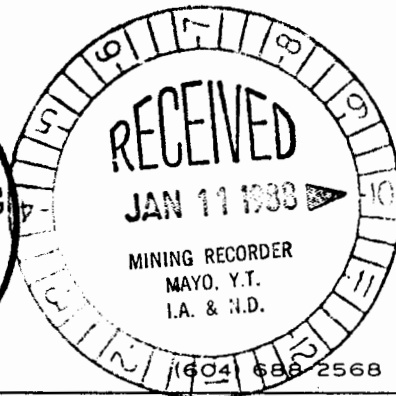
[Signature]  
Owner or Agent

# ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

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



Report On

HAND TRENCHING PROGRAM

PIKE 8-14 CLAIMS (Y97523-Y97529)

NTS 106D/16 and 106E/1

Latitude 65°00'N; Longitude 134°26'W

W.D. Eaton, B.A., B.Sc.

October, 1987

Work done between July 10 and August 12, 1987

**092090**

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- I Author's Statement of Qualifications
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INTRODUCTION

The Pike 8-14 claims were staked in 1975 by Wernecke Joint Venture (Chevron Canada Limited, Aquitaine Co. of Canada Ltd. and Messrs. Landon and Harris Clay) to cover brannerite occurrences found by prospecting. The claims were optioned to Eldorado Nuclear Ltd. in 1976 but were returned to Wernecke Joint Venture (WJV) in 1977 without receiving work. WJV explored the claims with reconnaissance prospecting and geochemistry in 1980 and 1981 and by grid soil sampling, geological mapping, geophysical surveys (IP, VLF, magnetic and radiometric) and minor hand trenching in 1982.

In 1986 the claims were optioned to Archer, Cathro & Associates (1981) Limited which staked four placer claims to provide additional protection and explored with hand trenching. The work was directed toward an area on the Pike 9 claim where float containing visible gold associated with brannerite was found in 1975. Archer, Cathro transferred the option to Silverquest Resources Ltd. in the fall of 1986.

The 1987 exploration program was funded by Silverquest and consisted of continued hand trenching. The work was done between July 10 and August 12 by a two- to three-man crew working from a fly camp on the property and was supervised by the author. The Author's Statement of Qualifications is included as Appendix I, while a list of personnel who worked on the property appears in Appendix II.

PROPERTY, LOCATION AND ACCESS

The Pike property consists of seven contiguous mineral claims and four placer claims registered in the Mayo Mining District as follows:

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Pike 8-14	Y97523-Y97529	March 27, 1991
Tirehead No. 1	P15573	January 12, 1989
Firestone No. 1	P15574	January 12, 1989
Blowout No. 1	P15575	January 12, 1989
Rimmed No. 1	P15576	January 12, 1989

The property is located at latitude 65°00'N and longitude 134°26'W, straddling the boundary between NTS claim sheets 106D/16 and 106E/1 as shown on Figure 1 on the following page. The nearest lake suitable for float-equipped, fixed-wing aircraft is Kiwi Lake, 25 km to the northwest, while the closest bush airstrip is alongside the Bear River, 21 km to the southeast. Logistical support in 1987 was supplied primarily by a Bell 206B helicopter operating from a seasonal base at Mayo, 156 km to the southwest. A Beech 18 aircraft on wheels and a Beaver on floats were used to assist with mobilization and demobilization, respectively.



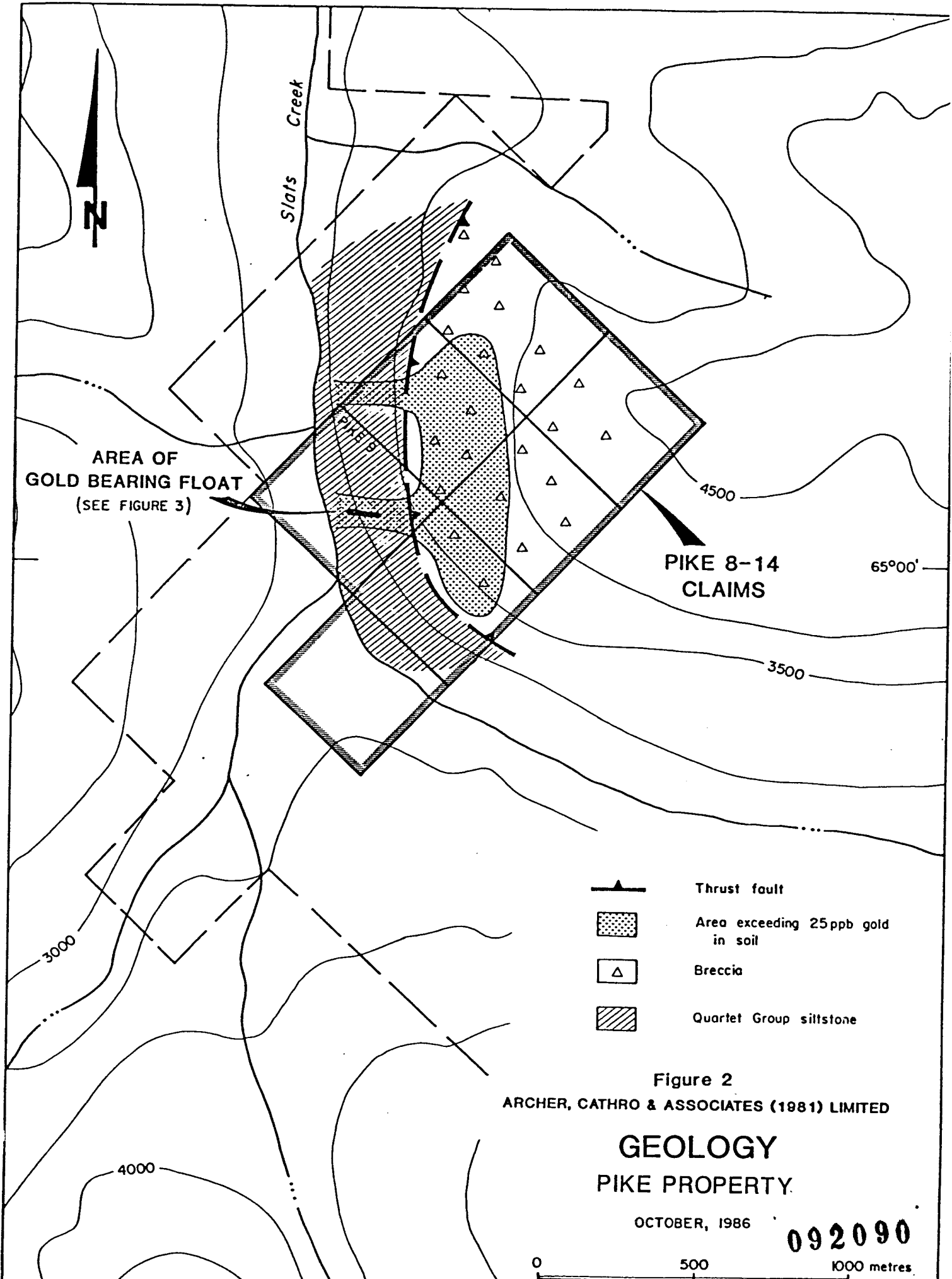
GEOLOGY

The claims lie on the east side of Slats Creek, a north-flowing tributary of the Bonnet Plume River. Slats Creek occupies an unglaciated V-shaped valley and at its lowest summer level is approximately 5 m wide and 0.5 m deep. The surrounding slopes are steep (about 38°) and are 85% obscured by talus up to several metres in depth. Vegetation is restricted to scrub alder and willow (buckbrush) on the lower slopes with scattered black spruce up to 25 cm in diameter near the valley floor.

At creek level, the claims are underlain by Helikian or older Quartet Group fine- to medium-grained sandstones with interbedded siltstone and mudstone as shown on Figure 2 on the following page. Steep-dipping quartz veins ranging from 1 to 30 cm wide cut the Quartet Group rocks at 10 to 15 m intervals and strike directly into the hillside. These veins contain traces of hematite and exhibit several centimetres of chlorite alteration along their boundaries.

A low angle thrust fault about 200 m vertically above the creek brings the Quartet Group sedimentary rocks into contact with a large body of heteroclast breccia, also considered to be Helikian or older. Breccia fragments are mainly Quartet Group sandstones and exhibit patchy to pervasive carbonate and red hematite alteration with 1 to 3 cm wide, pale green to pink, bleached and albitized halos around 1 to 30 cm wide veins containing quartz, dolomite, specular hematite and occasionally red barite. Breccia fragments range up to 30 cm across, but average less than fist size, and are cemented with a mixture of carbonate, hematite, chlorite and feldspar (albite?).





AREA OF  
GOLD BEARING FLOAT  
(SEE FIGURE 3)

PIKE 8-14  
CLAIMS





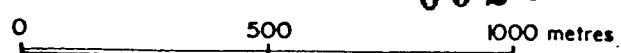
-  Thrust fault
-  Area exceeding 25ppb gold in soil
-  Breccia
-  Quartet Group siltstone

Figure 2  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**GEOLOGY**  
**PIKE PROPERTY.**

OCTOBER, 1986

092090



### MINERALIZATION AND GEOCHEMISTRY

The mineralogy and geochemical signatures of the rocks above and below the thrust fault are quite different.

In general the sedimentary rocks below the fault are unmineralized and returned near background soil values. The only significant mineralization is found in two float trains, about 350 m apart, in which white quartz vein fragments up to 30 cm across contain native gold with brannerite, hematite, white to pink feldspar and a purple micaceous mineral, which may be lepidolite. Copper geochemistry over the float trains returned only background values while gold and uranium geochemistry returned weakly anomalous values. The southernmost of the two float trains is the more significant of the two and is 100 m long and 5 m wide. It was explored by hand trenches in 1982 and 1986 and yielded specimens containing abundant gold (up to 30% gold by volume). None of the hand trenches reached bedrock.

The breccia body immediately above the unconformity exhibits weak but widespread copper, uranium and gold mineralization. The copper occurs as randomly disseminated chalcopyrite in breccia fragments and matrix and as small blebs in narrow discontinuous quartz-carbonate veins. Concentrations exceeding 0.5% copper are rare. Grid soil sampling in 1982 returned greater than 200 ppm copper (over a background of 50 ppm) with peak values to 7800 ppm copper over an area of 700 m long and 300 m wide. The uranium occurs as brannerite blebs or crystals up to 1 cm across in quartz veins and open fractures within the breccia. Most brannerite blebs are surrounded by a hematized and bleached alteration halo. Although the 1982 soils were not analyzed for uranium,

prospecting indicates that it is most abundant in areas of copper enrichment. Gold occasionally occurs with the brannerite and selected specimens returned up to 1.2 oz/ton. Other than the brannerite-gold association, no specific area of gold enrichment has been located in the breccia. However, gold geochemistry outlined an area 960 m long and 300 m wide that returned 25 ppb to 950 ppb gold. This area generally coincides with the copper anomaly.

### 1987 TRENCHING

The 1987 work continued to explore for the source of the mineralization in the southerly gold float train. Figure 3 on the following page shows the location of the 1987 trenches and stripped areas relative to those done in 1982 and 1986. Table 1 on the following page summarizes assay results.

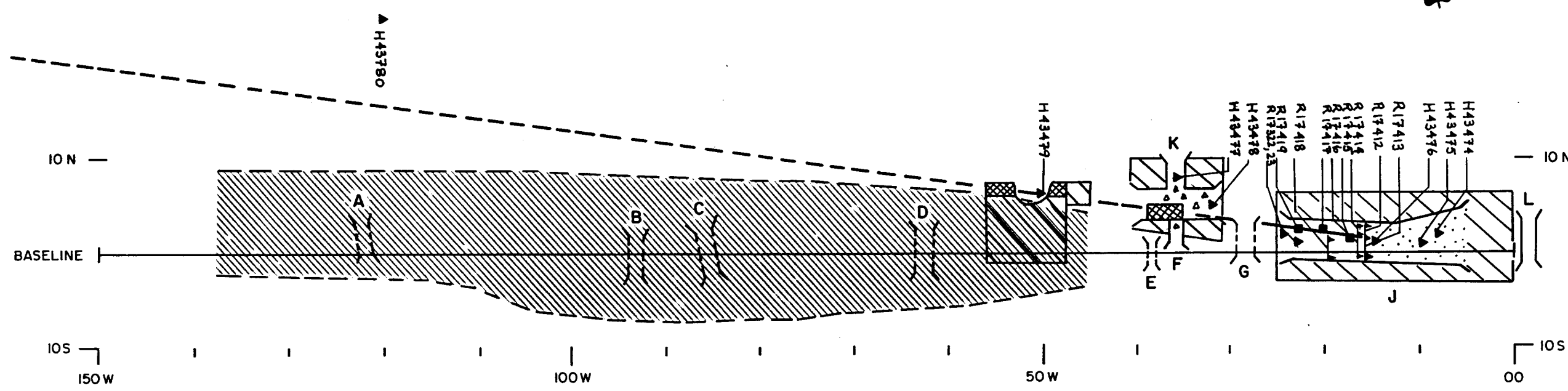
As expected, stripping along the float train yielded additional high grade specimens. However, results from the trenches which exposed small areas of bedrock near the head of the float train were disappointing. The geology is more complex than anticipated and although some of the trenches cut down through brannerite- and gold-bearing soil horizons, no significant bedrock mineralization was discovered. The most promising feature was a 5 to 15 cm wide quartz vein exposed in the uppermost trench (Trench J). This vein dips  $68^{\circ}$  south and strikes  $100^{\circ}$ , nearly parallel to the slope of the hillside and to the strike of quartz veins exposed on the creek bank 170 m to the west. The quartz in the vein contains hematite and feldspar and generally resembles the mineralized float but does not contain any brannerite or visible gold. A 50 cm wide halo of chloritized siltstone surrounding the vein exhibits two to ten times background radioactivity. Samples of the quartz vein and chloritized siltstone both returned background values for gold as did panning concentrates and soil samples taken from near bedrock in the trench. Trenches F, G and K, which were cut directly downhill from Trench J, all contained gold-bearing float or soil horizons. Thus, it is possible that the source of the float was a small, totally eroded mineralized pod or lens associated with the quartz vein in Trench J.

TABLE 1: 1987 TRENCH ASSAYS

<u>Sample No.</u>	<u>Trench No.</u>	<u>Grid Coordinates</u>	<u>Au oz/ton</u>
<u>CHIP SAMPLES</u>			
H43486	TR-86-H	---	.001
H43487	TR-86-H	---	.003
R17412	TR-87-J	---	.001
R17413	TR-87-J	---	.001
R17414	TR-87-J	---	<.001
R17416	TR-87-J	---	<.001
R17418	TR-87-J	---	<.001
<u>GRAB SAMPLES</u>			
R17415	TR-87-J	---	<.001
R17417	TR-87-J	---	<.001
R17419	TR-87-J	---	<.001
H43471	Valley Bottom (Quartz Vein on Creek Bank)		<.001
<u>SOIL SAMPLES</u>			
R17322	TR-87-J	---	<.002
R17323	TR-87-J	---	<.002
<u>PANNING CONCENTRATES</u>			
H43474	TR-87-J	---	.007
H43475	TR-87-J	---	<.003
H43476	TR-87-J	---	.017
H43477	TR-87-I	---	.315
H43478	TR-87-I	---	1.334
H43479	---	50W, 6N	.062
H43480	---	120W, 25N	.010

EASTERN SIDE OF SLATS CREEK VALLEY BOTTOM

HILL SLOPE APPROXIMATELY 38°



- |  |                     |  |  |
|--|---------------------|--|--|
|  | 1987 trench         |  | Float train at surface                               |
|  | 1982, 1986 trench   |  | Gold float at bottom of 1987 trench and/or stripping |
|  | 1987 stripping      |  | Quartz vein in bedrock and projection                |
|  | 1987 chip sample    |  | Sandstone  |
|  | 1987 rock sample    |  | Breccia  |
|  | 1987 panning sample |  |  |

Figure 3  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**TRENCH LOCATION MAP**

PIKE PROPERTY

SILVERQUEST RESOURCES LTD



Trench K, located 10 m west of the last exposure of the vein in Trench J, failed to pick up its strike extension but did expose brecciated bedrock. It was uncertain whether the breccia is associated with the veining or is part of a small satellite body related to the larger breccia body above the fault.

CONCLUSIONS AND RECOMMENDATIONS

The 1987 work has shown that the probable source of the gold-bearing float is lenses or pods developed from one or more narrow quartz veins striking subparallel to the trend of the float train and the slope of the hillside. Although these pods are expected to be extremely high grade, they are also likely to be small and erratically distributed. The veins appear to be barren away from the pods. The 1987 program showed that hand trenching can penetrate to bedrock and is more cost effective than positioning heavy equipment in this remote location.

The next stage of exploration should consist of additional trenches along the float trains to determine the size and grade of the mineralized pods, their density and what factors control their distribution. The work should be done by a three-man crew from a fly camp on the property using a casual Bell 206B helicopter for logistical support. The cost of the program would be \$97,000 as calculated below.

<u>Labour</u> - Senior supervision for 200 hrs, party chief and two field men 80 days each .....	\$38,500
<u>Helicopter</u> - 55 hrs @ \$600/hr .....	33,000
<u>Room and Board</u> - 270 mandays @ \$60/day .....	16,000
<u>Transportation and Shipping</u> .....	3,000
<u>Office, Drafting and Printing</u> .....	1,500
<u>Assays</u> .....	2,000
<u>Management</u> .....	<u>3,000</u>
TOTAL -	<u>\$97,000</u>

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



W.D. Eaton, B.A., B.Sc.

/mc

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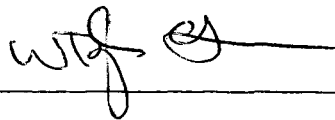
APPENDIX I  
AUTHOR'S STATEMENT OF QUALIFICATIONS

092090

STATEMENT OF QUALIFICATIONS

I, W. Douglas Eaton, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia, and residential address in Burnaby, British Columbia, do hereby declare:

1. I graduated from the University of British Columbia in 1980 with a B.Sc.
2. From 1971 to the present, I have been actively engaged in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981, became a partner in Archer, Cathro & Associates (1981) Limited.
3. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.



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W. Douglas Eaton, B.A., B.Sc.

APPENDIX II

PERSONNEL

<u>NAME</u>	<u>POSITION</u>	<u>DATES ON PROPERTY</u>
W. Douglas Eaton	Geologist	July 10-11, 24, 28
B. Wengzynowski	Party Chief	July 10 - August 12
K. Stewart	Fieldman	July 10-28
G. Cockell	Fieldman	July 10-24
L. Vano	Fieldman	July 10-11
J. Sebben	Fieldman	July 24 - August 12