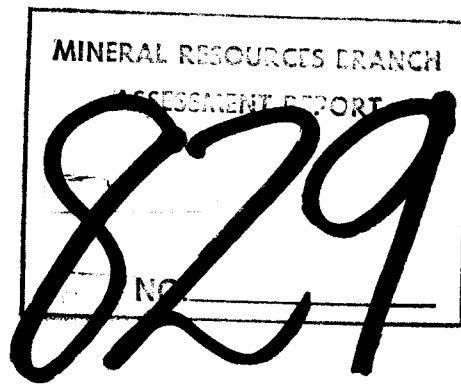


LIKE CLAIMS  
CARIBOO MINING DIVISION  
MAP 93A/11W  
52°37'N, 121°25'W

owned by  
ANGLO CANADIAN MINING CORPORATION

GEOLOGY & GEOCHEMISTRY  
REPORT

by  
JOHN G. PAYNE, PhD.  
Consulting Geologist



November 3, 1980

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LIKE CLAIMS  
CARIBOO MINING DIVISION  
MAP 93A/11W  
52°37'N, 121°25'W  
  
An Ag-Pb Prospect

INTRODUCTION

General

At the request of Mr. R.B. Stokes, President of Anglo Canadian Mining Corp., Ltd., a brief exploration program was carried out on the Like claims between August 26th and September 13th, 1980.

On August 26th, Brian Hatelt and two assistants, John Taylor and Michael Twyman, arrived at the property. They hand trenched old showings (previously described as the 5000 showings) and improved road access. Mr. Taylor left on August 29th and Mr. Twyman on September 1st. On September 6th, a back-hoe and operator were hired to deepen some of the old trenches, cut new ones, and improve road access to the upper workings. The back-hoe work was completed on September 12th at a cost of \$1155 for 33 hours of work. In all, eight trenches were dug, five by back-hoe (T-1, -2, -3, -4, -8) and three by hand (T-5, -6, -7). The back-hoe was unable to get below the zone of oxidation in the main trench (T-4) in which the highest grade material had been worked previously. Chip samples were taken by Mr. Hatelt in all trenches but T-8, with samples taken in a section across the trench; samples range in width from 1.5 to 3 m. They were assayed for Au, Ag, and Pb by Bondar-Clegg, North Vancouver, using standard assay techniques.

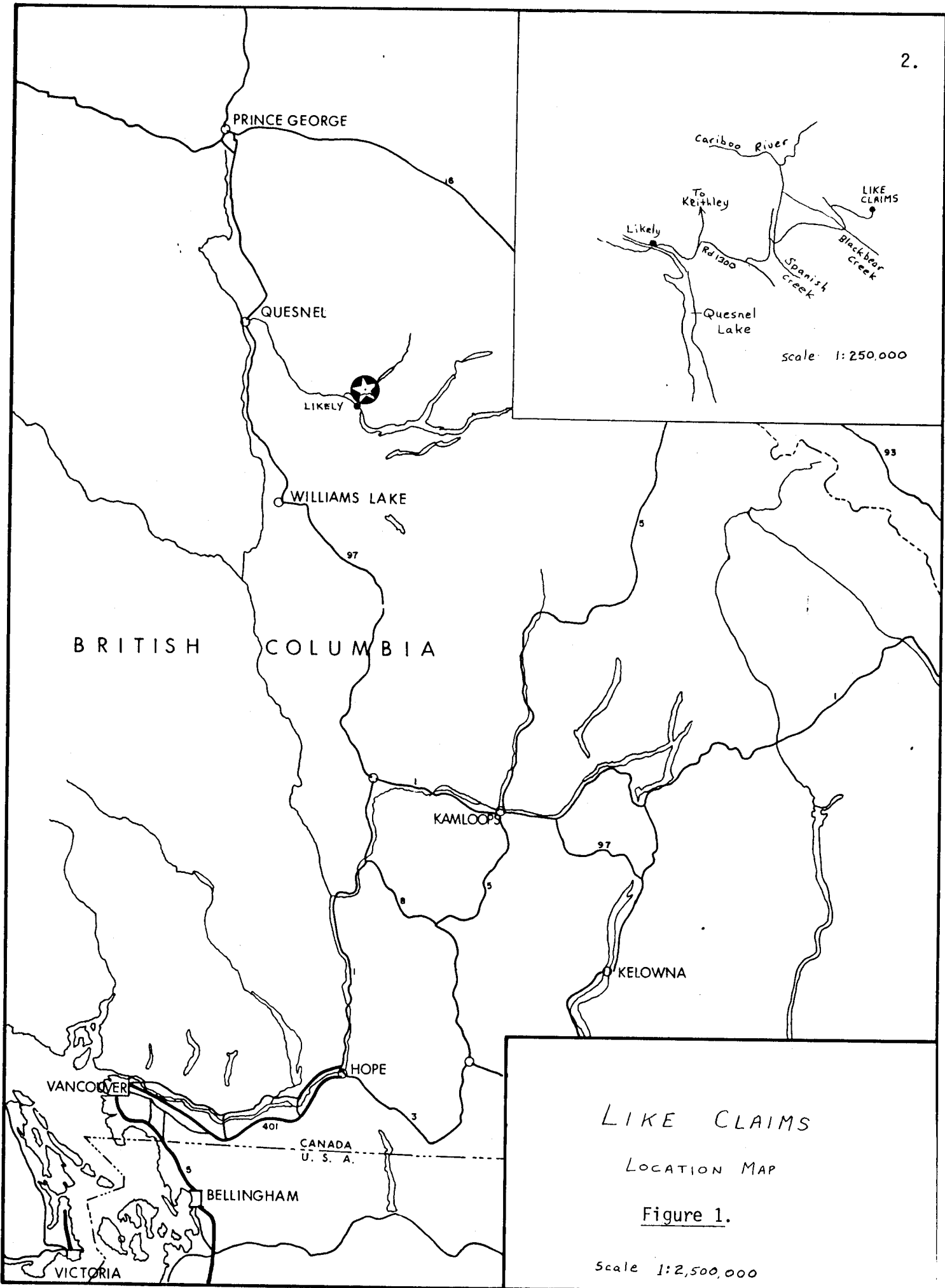
On September 12th, John Payne made a geological examination of the showings, and of two nearby showings (previously described as the 3500 showing and the Falls showing) which occur in the same geological environment. At the conclusion of this study, Dr. Payne and Mr. Hatelt returned to Vancouver.

Location and Access (see Figure 1)

The claims are on the north slope of Blackbear Creek, 17.6 km by good gravel road from the town of Likely, at an elevation of about 1525 m (5000 ft.) It is reached as follows: From the bridge over the Quesnel River at Likely follow the main road towards Keithley. At 3.0 km a gravel road (Road 1300) forks to the right and climbs a steep grade. At 4.8 km along this road a narrower gravel road turns to the left. At 2.4 km along this road a similar gravel road forks sharply to the right. At 0.4 km this road crosses Spanish Creek, and at 4.0 km it crosses Blackbear Creek. At 4.9 km a narrow gravel road turns to the right, and the property is 2.4 km along this road.

Vegetation and Climate

The property is covered by moderate interior forest with thin underbrush. The climate is warm in summer and cold in winter, with moderate snow cover from mid-November to mid-April. Much of the property is covered by thick overburden.



LIKE CLAIMS

LOCATION MAP

Figure 1.

Scale 1:2,500,000

### Property Status

The property consists of four claims as shown in Figure 2. Details of the claims are shown below.

claim	record number	record date	owned by
Like 1	72233	November 5, 1974	Anglo Canadian Mining Corp.
Like 2	72234	"	"
Like 3	72235	"	"
Like 4	72236	"	"

The claims are in good standing until November 5, 1980.

### Previous Work

Between 1948 and 1953, Mr. H.G. Miller of Likely held the property and during that time drove a 70-foot crosscut on the main showing. The following shipments of ore are reported:

1949	4.5 tons	70.9 oz/t Ag, 36.6% Pb, 0.13% Zn
1951	7.0 tons	97.6 oz/t Ag, 45.7% Pb, 0.11% Zn, 0.143 oz/t Au

From 1967 to 1971 the ground was held by McMartin Explorations Co. Ltd., and exploration work was done by Plutus Mines Ltd. In the winter of 1967-68, 825 feet of underground tunnels were driven to explore the down-dip extensions of three main Ag-Pb-bearing quartz veins exposed in surface trenches and earlier underground work. This work was based on the assumption that the veins dipped northeast at about 60°. Because the actual dip of the veins is 10-15°, it is not surprising that the underground workings did not encounter significant quartz veins. In the summer of 1968, 2217 feet of underground diamond drilling was done from eleven underground sites. Three quartz veins bearing galena were encountered. In 1968 a raise was driven from the adit at +50° to attempt to open up a vein encountered in the drilling, but was terminated at 60 feet before reaching the target.

The claims were allowed to lapse, and those claims covering the main showing were staked by R.B. Stokes. He reported that the main adit was caved and water-filled, that galena-rich boulders which had been stockpiled near the entrance to the adit by Plutus Mines Ltd. had been removed, and that the drill core had been dumped from the core boxes and strewn around the camp. He supervised a soil geochemical survey for Ag and Pb, in which 410 samples were taken from three soil grids over the 5000, 3500, and Falls showings. Base lines for the grids paralleled the main showings, and crosslines were marked at 400-foot intervals, with samples at 100-foot intervals along all the lines, with 50-foot intervals in areas of special interest along the veins. The study showed significant soil anomalies over the veins and their strike-extensions for the 5000 and 3500 showings, and a few anomalies in covered areas away from known veins.

In 1976 the property was optioned by Dekalb Mining Corporation. They trenched on anomalous geochemical zones in the 1972 survey and on exposures of galena-bearing quartz veins. They drilled five vertical holes totalling 1165 feet in a row parallel to and upslope from the veins exposed in Trench 1. Scattered, narrow quartz veins, some with minor galena, were encountered in the holes.

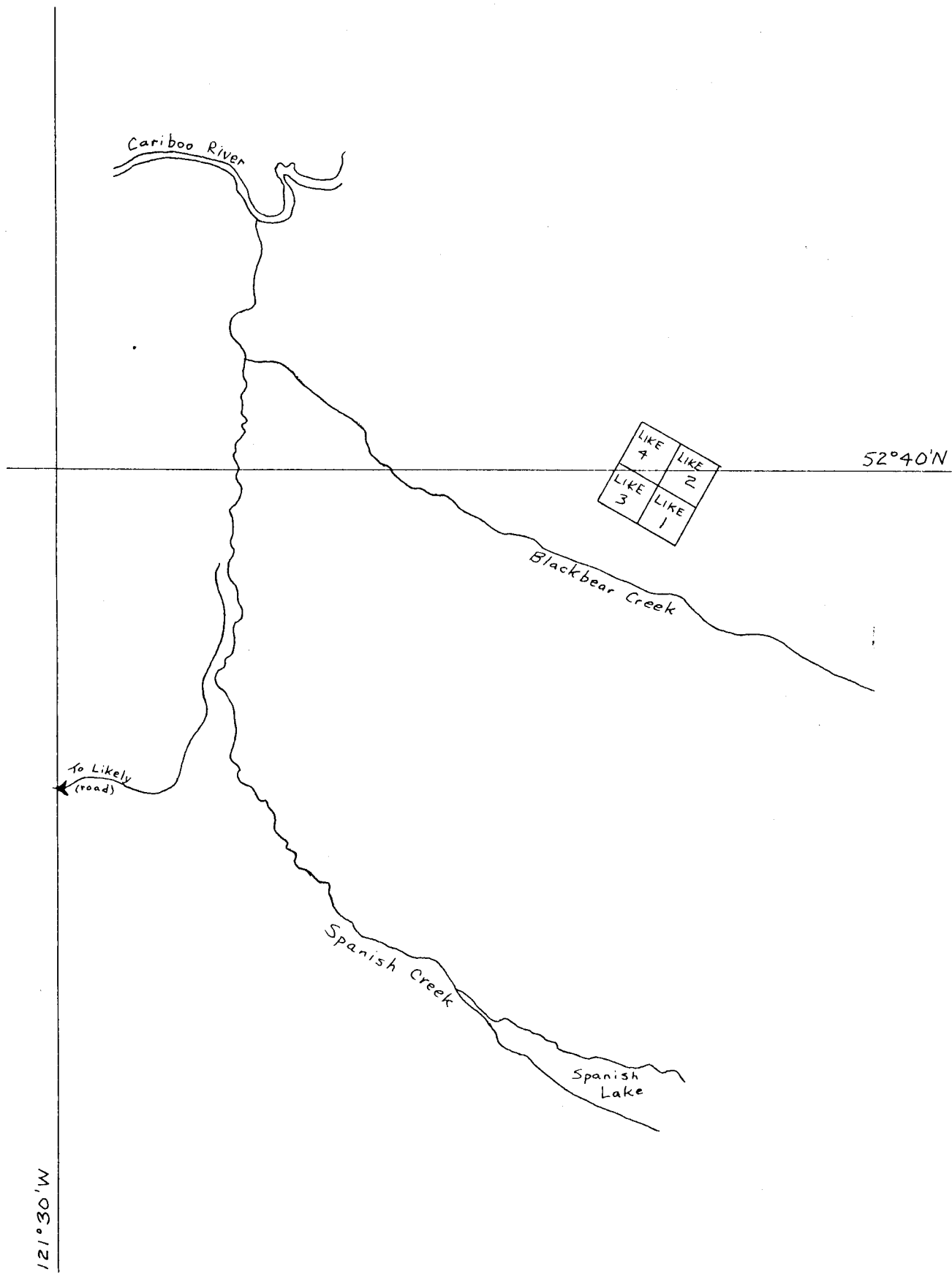


Figure 2. Claim Location Map (Like Claims)

## GEOLOGY

### Regional Geology

The regional geology is taken from Campbell, 1961 (see Figure 3). Bedrock consists of dark grey phyllite and light brown quartz-sericite schist of the Midas formation of Cambrian(?) age. These units are thinly interbedded on the property on the scale of a few meters to a few tens of meters. Away from the showings, the grey phyllite greatly predominates. The rocks have a prominent metamorphic foliation which strikes northwest and dips gently northeast. A prominent lineation strikes subparallel to foliation and plunges gently southeast or northwest; this lineation parallels major kinks and warps in foliation. Both units contain moderately abundant disseminated pyrite cubes averaging 2-3 mm in size.

About 10 km northeast of the property, the Midas formation is overlain by quartzite and pebble conglomerate and lesser phyllite of the Snowshoe formation, also of Cambrian(?) age. Some of the rocks on the Like property are reported to be similar to these rocks, and it is probable that some interlayering of these rocks occurs in the Midas formation and vice versa.

The property is 6 km northeast of a major fault, part of the Pinchi fault system, which juxtaposes the Cambrian rocks with Jurassic rocks to the southwest.

About 10 km north and northwest of the property are bodies of gneissic diorite and granodiorite. No indication is suggested by previous workers that these bodies have any genetic relationship to the mineralization on the Like claims or elsewhere on China Mountain.

### Property Geology

The geology in and near the trenches is shown in Figure 4 (inside back cover). Two major rock types are present as follows:

- 1) dark grey phyllite, in part with minor graphite, after mudstone or tuffaceous mudstone.
- 2) quartz-sericite-(plagioclase) schist, probably after rhyolite tuff. Characteristically this unit contains moderately abundant to very abundant (up to 10%) pyrite cubes averaging 2-3 mm in size. Near surface pyrite commonly is weathered out, leaving a pitted, rusty orange-brown weathered rock, with a papery parting.

The two rock units are thinly interlayered in outcrops and drill core, with layers averaging a few meters thick. Outcrop patterns suggests that the rhyolite forms lensoid units up to several tens of meters long enclosed in the mudstone. It is unknown whether this represents original stratigraphic variation or whether it is the result of complex, possibly isoclinal folding in an early stage of deformation which produced the regional foliation.

All rocks are strongly foliated, with foliation defined by parallel orientation of phyllosilicates. Generally the foliation is conformable with the regional trend, but in detail prominent warps and steep dips or southwesterly dips are present. The metamorphic foliation is deformed about axes trending about  $135^{\circ}$ , and plunging gently either northwest or southeast. There appears to be a significant correlation between the presence of local deformation of the foliation and major quartz veins.

LEGEND

<u>West of major fault</u>	<u>East of major fault</u>
5 M.Jur? to Cret? andesitic tuff, agglomerate, flows	6 Jur? or Paleozoic foliated diorite, granodiorite
4 M.Jur-U.Jur andesite flow breccia, flows	2 Cambrian? Snowshoe Formation quartzite, pebble conglomerate
3 U.Triass-L.Jur. andesite flows, agglomerate, breccia	1 Cambrian? Midas Formation phyllite, slate, argillite

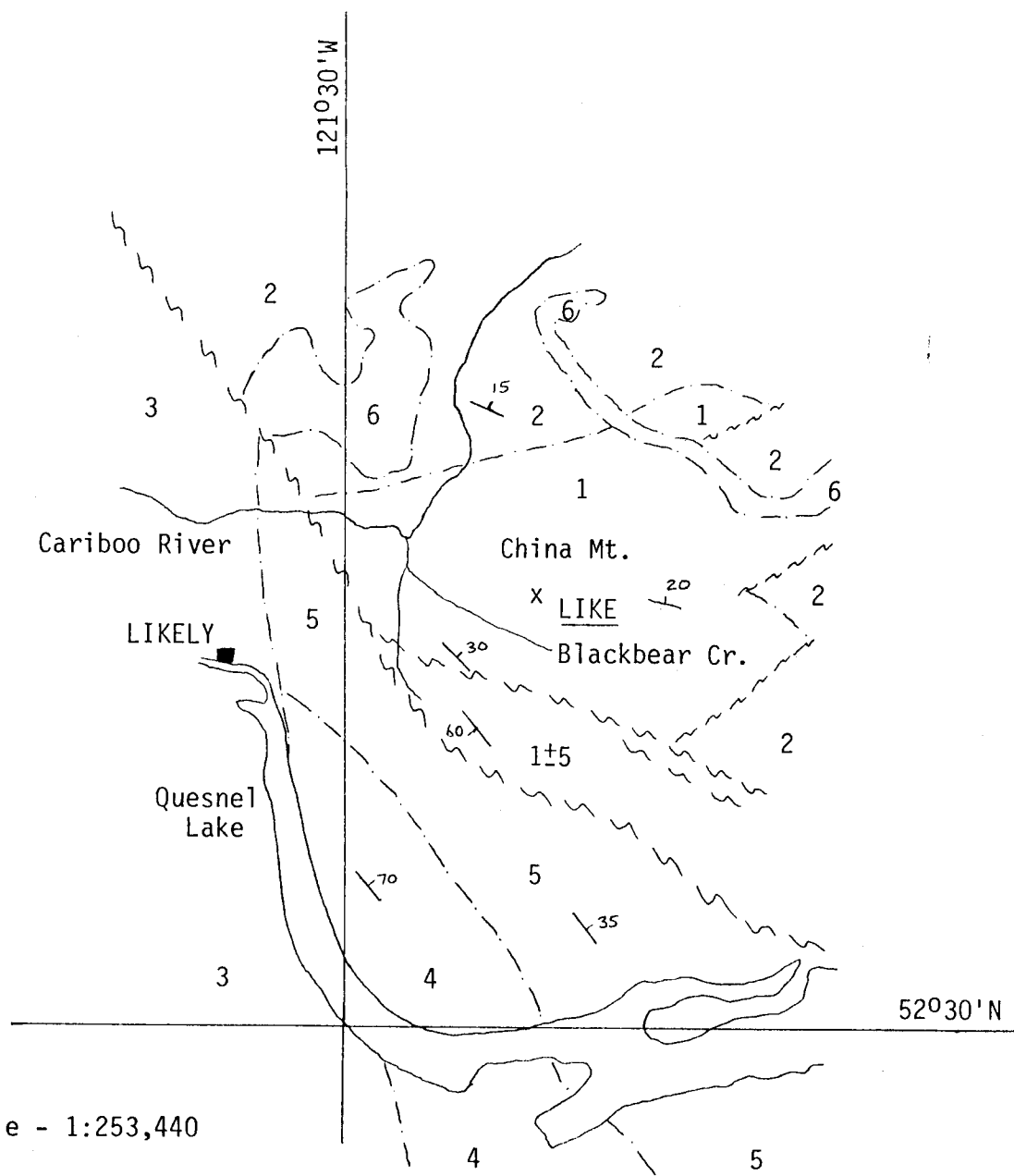


Figure 3. Regional Geology (after Campbell, 1961)



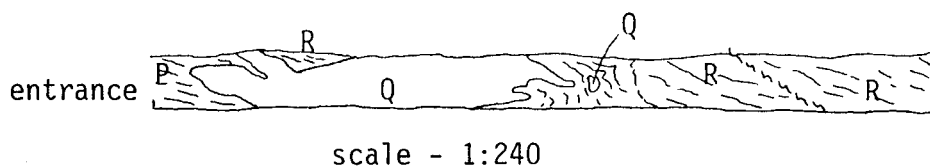
## Quartz-Sulfide Mineralization

Significant mineralization on the property consists of three large, subparallel, coarse grained quartz veins containing scattered patches of argentiferous galena. These veins are almost entirely enclosed in rhyolite, although along their ends they may thin out in mudstone. As well, most of the veins are associated with strong local contortions in foliation. Some veins appear to be fracture-fillings in the contorted rhyolite, whereas others, generally narrower veins, are conformable with the foliation in the rhyolite and appear to have been deformed with the host. In places quartz veins are boudinaged with elongate boudins up to 50 cm in length.

The main vein, previously called the No. 2 vein, is exposed intermittently over a strike length of 200 meters. In Trench 2 it averages 1 to 1.5 m wide, and is nearly conformable to foliation in the enclosing rhyolite. It contains scattered patches up to a centimeter across of coarse grained galena and of pyrite; each of these minerals comprises less than 1% of the vein.

To the northeast, the vein is exposed in the Powder Room Adit where it was mapped (see Figure 5).

Figure 5. Section along Northwest Wall of Powder Room Adit



P phyllite-mudstone  
R rhyolite tuff  
Q quartz vein

foliation

The vein is enclosed in rhyolite, which on the irregular northeast side of the vein shows strong local contortion of foliation. The abrupt termination of the vein in the adit is significant, and suggests that the veins are elongate lenses rather than tabular bodies. No sulfides were seen in the exposures in the adit.

Just northeast of the Powder Room Adit the vein zone cuts rhyolite, and consists of a few quartz-rich veins up to 1 meter thick and one coarse calcite-rich vein or lens up to 30 cm thick. The latter is at the base of the vein zone, and contains scattered patches up to a few cm across of coarse grained galena. Surface weathering of the calcite-rich vein gives an irregular pitted surface, and the sulfides are oxidized to a crumbly, orange-brown powder.

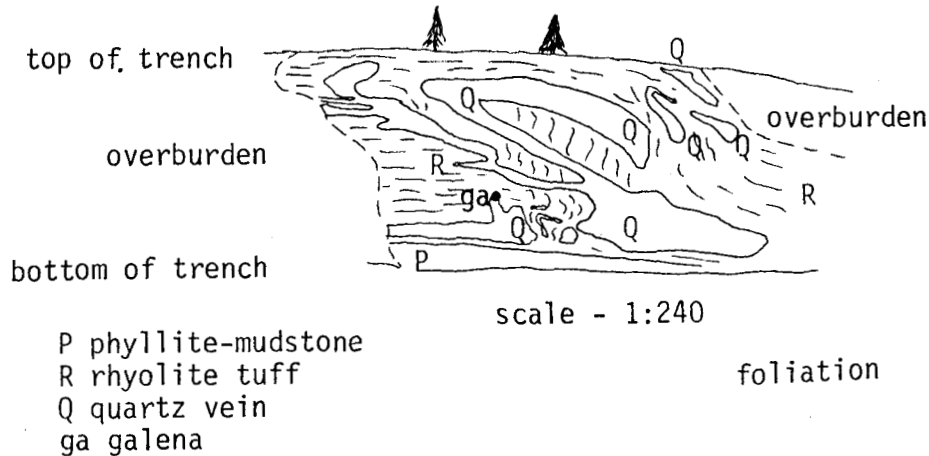
Further northwest in T-5, T-6, and T-7 the vein is 1 to 1.5 m wide. Coarse grained clots of galena up to a few cm across occur at the top of the vein in T-7, throughout the vein in T-6, and are rare in T-5. Just above the vein is a 10-30 cm wide zone of rhyolite which is overlain by a thick mudstone unit.

Seven meters northwest of T-5 the vein is offset by a prominent fault trending  $038^{\circ}, 50^{\circ}\text{NW}$ , which has an apparent normal offset of 2 to 3 meters. To the northwest of the fault the vein is locally up to 3 meters thick. The lower 1-meter contains locally very abundant galena in coarse patches and irregular fractures. The vein is underlain by very pyritic rhyolite, and overlain by mudstone. The rhyolite dips northeast at  $56^{\circ}$ , in what is probably a local contortion of foliation along the vein.

Twenty meters northwest of the fault, the vein thins abruptly to 20-30 cm thickness. The rhyolite piches out as well at this point, and further northwest the vein is entirely in mudstone. It continues for another 30 meters and pinches out in the mudstone.

The next most important vein, previously called the No. 3 vein, is exposed in Trench 1. The vein is very irregular in outline, and as in the main vein appears not to be continuous perpendicular to strike (see Figure 6).

Figure 6. Sketch of No. 3 vein in west end of Trench 1



The vein is enclosed in rhyolite, which around the main mass of quartz shows strong local contortion. Some of the quartz vein appears to be fracture-filling, and some appears to have been deformed with the deformation of the rhyolite. Minor galena is present as shown. More galena is present in rubble below the face, suggesting that galena probably was hi-graded from the face by local rock hounds. The main vein zone is exposed over a width of 12 meters. Further east in the trench, only minor quartz veins are present.

To the west, thin quartz veins locally containing patches of galena up to several mm across, are exposed along a road cut. These veins may be continuations of the No. 3 vein. They occur in rhyolite near the contact with mudstone.

The No. 1 vein was intersected in the main adit at 260 feet, where its dip is  $17^{\circ}$  northeast. A quartz vein, which may be this vein is exposed on surface southeast of the main zone of Vein #2. This may be the No. 1 vein; it is enclosed in a thin rhyolite unit surrounded by mudstone. Minor galena was noted.

GEOCHEMISTRY

In most previous studies, a remarkable correlation has been documented between values of Ag and Pb, with most samples showing a ratio of Ag (oz/t)/Pb% of between 1.8 and 2.2. This correlation suggests that silver occurs in the galena lattice and not as a separate silver-rich phase.

In the study by Dekalb Mining Corp. in 1976, a higher Ag/Pb ratio of between 5 and 7 is common for a series of channel and grab samples from Trenches 1, 2, and 3.

Results from this study are shown in Table 1. Samples are channel samples across the vein zones from newly exposed trenches. The samples were taken as to be representative of the overall vein zone, and were not aimed at sections of high-grade galena. In the main zone of the No. 2 vein, the new cuts did not penetrate below the zone of surface leaching, and thus the vein is probably depleted in metal values below the original content of the fresh vein. To check if the limonitic weathered product contains a concentration of metals, two samples of it were included; these are indicated in the table by an asterisk.

Sample No.	Width (m.)	Vein No.	Trench No. (this study)	Au (oz/t)	Ag(oz/t)	Pb%	Ag/Pb
1	2	3	T-1	0.002	0.12	0.06	2.0
2	2	3	T-2	0.002	0.75	0.42	1.8
3	1.5	3	T-3	0.002	0.17	0.12	1.4
4	3	2	T-4	0.004	3.00	1.63	1.9
5	*	2	T-4	0.002	0.29	0.57	0.5
6	1.5	2	T-5	0.002	0.10	0.04	2.5
7	*	2	T-6	0.002	0.77	0.43	1.8
8	1.5	2	T-6	0.002	2.05	1.05	2.0
9	1.5	2	T-7	0.010	5.25	2.80	1.9

\* denotes samples from limonitic weathered product of vein

These results are considered to be representative for the veins. Because of the erratic distribution of argentiferous galena, the targets for exploration should be high-grade pockets within these vein zones. Thus average values of veins are not considered to be a significant factor, whereas the presence of the veins and the fact that they contain some galena is considered significant.

DISCUSSION

1. Quartz veins containing scattered concentrations of argentiferous galena are controlled in their emplacement by original lithology and structure.
2. Veins occur mainly in quartz-sericite-pyrite schist lenses enclosed in dark grey phyllite. The schist is probably a metamorphic equivalent of a rhyolite tuff, while the phyllite is a metamorphosed mudstone.
3. The rocks are strongly metamorphosed, with development of a prominent metamorphic foliation. This foliation is locally strongly warped in the noses of secondary folds, whose axes trend northwest and plunge gently either southeast or northwest. The quartz veins are concentrated in these zones of secondary structural warping, in part as fracture filling zones in crests? of folds, and in part as narrower planar zones along foliation.
4. Where the third dimension of veins can be seen, it appears that the veins are elongate lenses rather than tabular bodies.
5. The above factors indicate that the veins are controlled along northwest trending zones which plunge gently northwest or southeast. Exploration should be along these zones, rather than attempts to follow veins down-dip.
6. It is probable that the rhyolite acted as a slightly more competent unit than did the mudstone-phyllite during the later deformation, and that during deformation tension fractures were developed in tight warps in the units. These would probably be particularly well developed where the two units are relatively thinly interbedded as they are on the Like claims. At a later time, hydrothermal fluids, from an unknown source, would have deposited quartz and argentiferous galena in the tension fractures. Possibly the introduction of hydrothermal fluids accompanied the late stages of this deformation.

RECOMMENDATIONS

1. Further exploration should be directed towards small, high-grade targets within the larger quartz veins. Because these appear to be elongate lenses rather than tabular bodies, exploration should be directed in a northwest and southeast direction from known vein zones and geochemical anomalies.
2. Because the vein zones are lithologically controlled in the rhyolite, further exploration away from known vein zones is warranted to try to locate concentrations of rhyolite elsewhere in the Midas formation. As well, close attention should be paid to local structural data to try to locate zones of deformation of the major metamorphic foliation, in which quartz veins tend to form.
3. The main target at present is the No. 2 vein, from which the earlier shipments of high-grade ore have been made. It would be useful to open up the old adits in order to remap the underground workings, and possibly to use them as a starting place for further underground development of the vein.
4. Further exploration work away from the property should test the ground along strike from the other known showings (3500 and Falls).
5. If lithological and structural data suggest other zones of interest away from the property, geochemical surveys should be run for Ag and Pb in soils in such regions.

John Payne, PhD.  
October 1980

REFERENCES

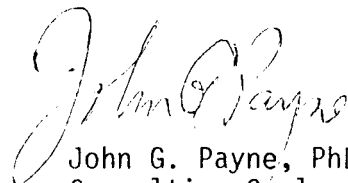
1. Campbell, R.B., Geology, Quesnel Lake, West Half, British Columbia., Geol. Survey of Canada Map 3-1961.
2. Morris, A.J., 1977. Geological Report, China Mountain, Likely, B.C., company report for Dekalb Mining Corporation, unpublished.
3. Phendler, R.W., 1980. Geological Report on Like Silver Property, company report for Anglo Canadian Mining Corporation
4. Stokes, R.B., 1976., 1972. Reports on the Like Claims, company reports for Stokes Exploration Management Co. Ltd., unpublished.

CERTIFICATE OF ENGINEER

I, John G. Payne, PhD, of North Vancouver, B.C. do hereby state:

1. I am a consulting Geological Engineer. I graduated from Queen's University in Kingston Ontario in 1961 with a BSc degree in Geological Engineering. I received a PhD in Geochemistry from McMaster University, Hamilton Ontario in 1966.
2. My address is 877 Lillooet Road, North Vancouver, B.C., V7J 2H6.
3. I am under contract for this report to Stokes Exploration Management Co. Ltd., No. 713- 744 West Hastings Street, Vancouver, B.C., V6C 1A5.
4. I have practiced geology since graduation for 14 years, mainly in the North American Cordillera.
5. I have no financial interest, either direct or indirect, in the subject property, and I do not expect to obtain any such interest.
6. The information in this report is based on my personal knowledge of the property, reference to the works cited in this report, and personal communication with Mr. R.B.Stokes.
7. The report may be used by Anglo Canadian Corp. Ltd., in a statement of material facts or prospectus for public financing.

Dated at Vancouver, the 29th day of October, 1980.



John G. Payne, PhD.  
Consulting Geological Engineer

STOKES EXPLORATION MANAGEMENT CO., LTD.,  
713 - 744 W. Hastings,  
VANCOUVER, B.C., V6C 1A5

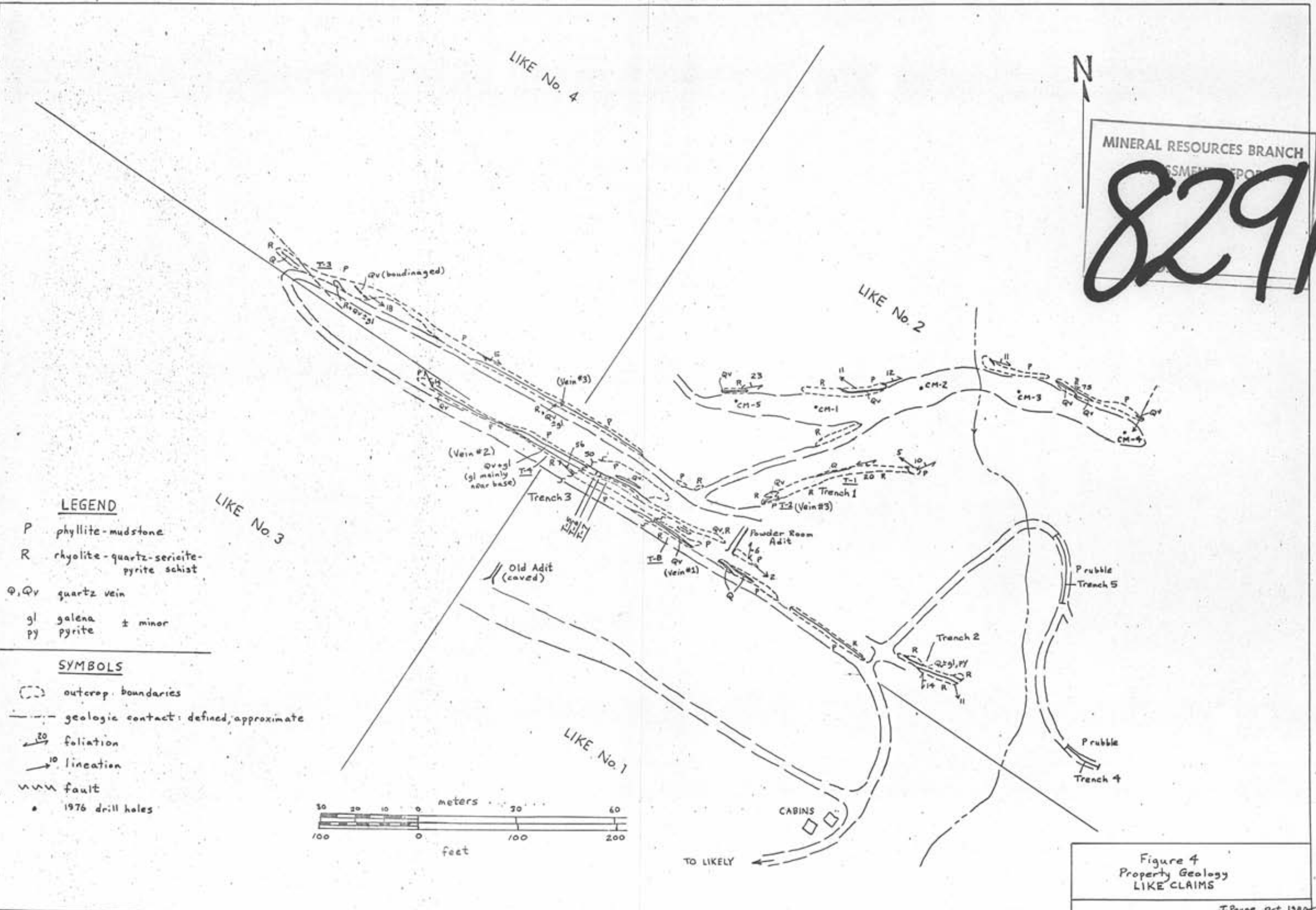
Cost Statement re LIKE CLAIMS - October 30th, 1980

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Long Distance Calls	\$ 42.83
Photocopies	1.00
Travel Expenses	446.35
Backhoe Rental	1,155.00
Field Expenses	1,279.17
Assays	173.00
Brian Hatelt:	
Aug. 15 - 31: 7 days @ \$84.00	588.00
Sept. 1 - 30: 14½ " @ \$84.00	1,218.00
M. Twyman:	
Aug. 15 - 30: 11 days @ \$75.60	831.60
J. Payne, PhD:	
Sept. 10 - 23: 2.1 days @ \$350.00	<u>735.00</u>
Total	\$6,469.95
	=====



MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**8291**



**LEGEND**

- P phyllite-mudstone
- R rhyolite-quartz-sericite-pyrite schist
- Q, Qv quartz vein
- gl galena ± minor
- py pyrite

**SYMBOLS**

- (---) outcrop boundaries
- - - geologic contact: defined, approximate
- <sup>30</sup> foliation
- <sup>10</sup> lineation
- ||||| fault
- 1976 drill holes

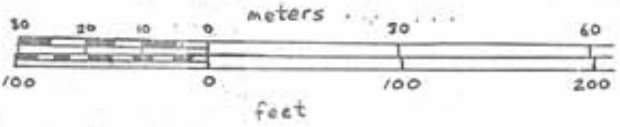


Figure 4  
 Property Geology  
 LIKE CLAIMS

J. Payne, Oct. 1980

*[Handwritten signature]*