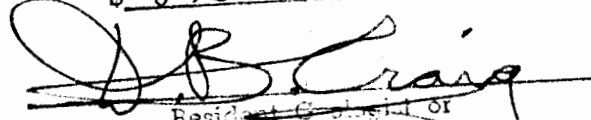
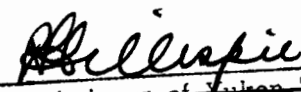


This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 8436.00

  
~~Resident Geologist or  
Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

  
~~Commissioner of Yukon Territory~~  
ADMINISTRATOR OF THE YUKON TERRITORY

A

GEOLOGICAL REPORT

ON

GIRLY 17, 75 - 89 (inclusive) MINERAL CLAIMS

Sheet 116-J-5

16 miles south-west of Bear Cave Mountain

N66°20', W139°45'

DAWSON MINING DIVISION, Y.T.

by

H.R. BULLIS

May 15 - August 31, 1974



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### Appendix:

- I Work done on the claim group

### List of Illustrations:

- Fig. 1 Claims Location Map
- Fig. 2 Claim Group (Dept. of Mines Sheet 116-J-5)
- Fig. 3 Claim Survey
- Fig. 4 Geology

Introduction and Summary

The Girly 17, 75 - 89 mineral claims were staked in September, 1973 under the supervision of L.W. Saleken of Brascan Resources Limited. The decision to stake was made after the discovery by Mr. Saleken and others of strata-bound zinc mineralization in the area.

During the following winter plans were made to further explore the claims and the setting-up of a geological reconnaissance programme was begun. Brascan personnel carried out prospecting, geological mapping and a claim survey of the above claims during May, June, July and August of 1974.

Through prospecting and geological mapping it was discovered that the rock formations hosting zinc mineralization further to the south and east carry on through the above claim group. Therefore, it is recommended that Brascan retain title to the mineral claims and that application for assessment credits be made accordingly.

An application to group the above claim block will be filed in September with the Mining Recorder in Dawson City, Y.T.

Ownership

The Girly 17, 75 - 89 (inclusive) mineral claims were staked in September, 1973 as full-size mineral claims as described by the Yukon Quartz Mining Act and were recorded in Dawson City, Yukon Territory on September 18, 1973 and October 2, 1973 with the following record numbers:

<u>Claim</u>	<u>Record Number</u>	<u>Date Recorded</u>
Girly 17	Y 82032	September 18/73
Girly 75	Y 82243	October 2/73
Girly 76	Y 82244	October 2/73
Girly 77	Y 82245	October 2/73
Girly 78	Y 82246	October 2/73
Girly 79	Y 82247	October 2/73
Girly 80	Y 82248	October 2/73
Girly 81	Y 82249	October 2/73
Girly 82	Y 82250	October 2/73
Girly 83	Y 82251	October 2/73
Girly 84	Y 82252	October 2/73
Girly 85	Y 82253	October 2/73
Girly 86	Y 82254	October 2/73
Girly 87	Y 82255	October 2/73
Girly 88	Y 82256	October 2/73
Girly 89	Y 82257	October 2/73

Brascan Resources Limited has one-hundred per cent ownership in the above mineral claims.

Application to group the above mineral claims will be filed in September with the Mining Recorder in Dawson City, Y.T.

Location and Access

Girly 17, 75 - 89 inclusive lie approximately sixteen miles southwest of Bear Cave Mountain and are located on the N.T.S. sheet 116-J-5.

Approximately 170 air-miles north of Dawson, the claims are accessible during the summer months only by helicopter. Winter roads provide access when rivers are frozen and the ground becomes solid enough to support wheeled or tracked vehicles. The Dempster Highway, an all-weather gravel road, provides year-round access for vehicles to within seventy miles of the claims. A number of airstrips are located along the Dempster and provide staging points for material being air-lifted into the property.

An all-weather airstrip, the Mallard, lies about 50 miles to the south of the claims and provides access for light aircraft. From there it is necessary to use a helicopter to reach the claim group.

Geography

Relief in the claims area is moderate. Valley floors are generally 1,500 feet A.S.L. and the mountain ridges seldom are higher than 4,000 feet A.S.L. The mountains have low, gentle profiles and are seldom peaked. Absence of glaciation and severe frost-heaving resulting from active perma-frost have combined to produce mountains resembling piles of rubble.

The claims lie within ten miles of the Arctic Circle and the vegetation varies from sub-Arctic to cold-temperate. The ridges above 3,000 feet have very little growth other than moss, lichen and alpine flowers. The valleys, on the other hand, are filled with spruce, tamarack, alder and a wide variety of small broad-leaf plants. The growing season is short - from the first of June through to mid-August - and the growth-rate is very slow.

Geology

Regional

A series of sedimentary rocks ranging in age from Silurian to Devonian are exposed in sections on three over-thrust plates the major and western-most of which is the North Dewdney Thrust. The thrust-faults strike approximately north-west. The strike of the bedding planes of the sediments corresponds to that of the thrusts and the dip of the beds is generally to the east.

The local thrust-faults appear to terminate in a broad anticline to the south of the claim block. Further to the east the sediments form a shallow syncline the eastern edge of which is terminated by the Fishing Branch River Valley. This valley seems to be controlled by older faulting and thrusting striking toward the south-east.

The rocks from the Silurian to Devonian are a series of limestones, cherty limestones, shaley limestones and dolomites. The boundary between the Silurian and Devonian is difficult to determine because dolomitization has taken place in most rocks and has destroyed minor distinguishing characteristics. However, it is felt that a series of dolomites containing masses of black, nodular chert belong in the Silurian age and, for the purposes of this report, shall be considered the boundary between Silurian and Devonian.

The upper-most rocks that are seen in the Devonian are massive limestones composed of up to sixty per cent crinoidal debris. These rocks are resistant, dark-gray cliff-formers. Below the crinoidal limestones

are a recessive series of bedded shaley to sandy limestones with the occasional bed containing reefal debris and ostracode fossils. Next in the sequence come massive light-to dark-gray aphanitic limestones containing gastropod and coral fossils. These limestones are also cliff-formers. Below these cliffs are a series of undifferentiated light-to dark-gray, fine-to coarsely-crystalline dolomites that carry on down-section to the Silurian cherty dolomites.

Local

A north-westerly trending thrust is located across the northern half of the claim block. To the south of the thrust are found outcrops of light-gray limestone and dolomite rubble while on the north side of the thrust cherty limestones in talus can be seen. Neither the crinoidal limestone nor the shaley limestones are seen although both rock types can be seen on strike outside the claim block.

Outcrop on the claims is minimal - less than five percent - and geological mapping is correspondingly difficult. It appears, however, that the underlying Devonian sediments form the western limb of a northerly striking anticline and that the westerly-dipping beds are being squeezed and fractured between the North Dewdney Thrust and the associated thrust running across the northern portion of the property.

Mineralization

No mineralization is seen on the property but the underlying sediments are on-strike and in the same sequence as those hosting lead and zinc mineralization to the south, north and east.

Conclusions and Recommendations

It is felt that, although no mineralization was seen on the property, the geology is similar to the mineralized area lying to the north, east and south and that the claim group should be retained by Brascan Resources Limited. Geological evaluation of the group is made difficult by the lack of outcrop and by the fact that the mineralization in the area is very often inconspicuous in that there are no gossans associated with the mineralization and the host rocks are recessive. Mineralization in the area tends also to be "poddy" and discontinuous.

It is recommended that assessment applications be filed in Dawson City and that the claim group be retained by Brascan Resources Limited.

Respectfully submitted,

A handwritten signature in cursive script, reading "H.R. Bullis", with a horizontal line underneath the name.

H.R. BULLIS

CERTIFICATION OF REPORT

I hereby certify that the work described in  
this report was carried out under my supervision.



F.B. WHITING

Member: Assoc. of Prof. Engineers  
(Yukon)

Member: Assoc. of Prof. Engineers  
(B.C.)

APPENDIX I

Work done on the claim group

A survey of the claims using the chain and compass method was carried out and the map produced from this survey was used as a base map for the geological mapping.

During the time work was being done on the claim group a camp established on a seismic road near Fishing Branch Creek served as a work base. From this camp, a Bell 47GB2 helicopter was used to place personnel on traverse.

Personnel involved in work on the claim group are as follows:

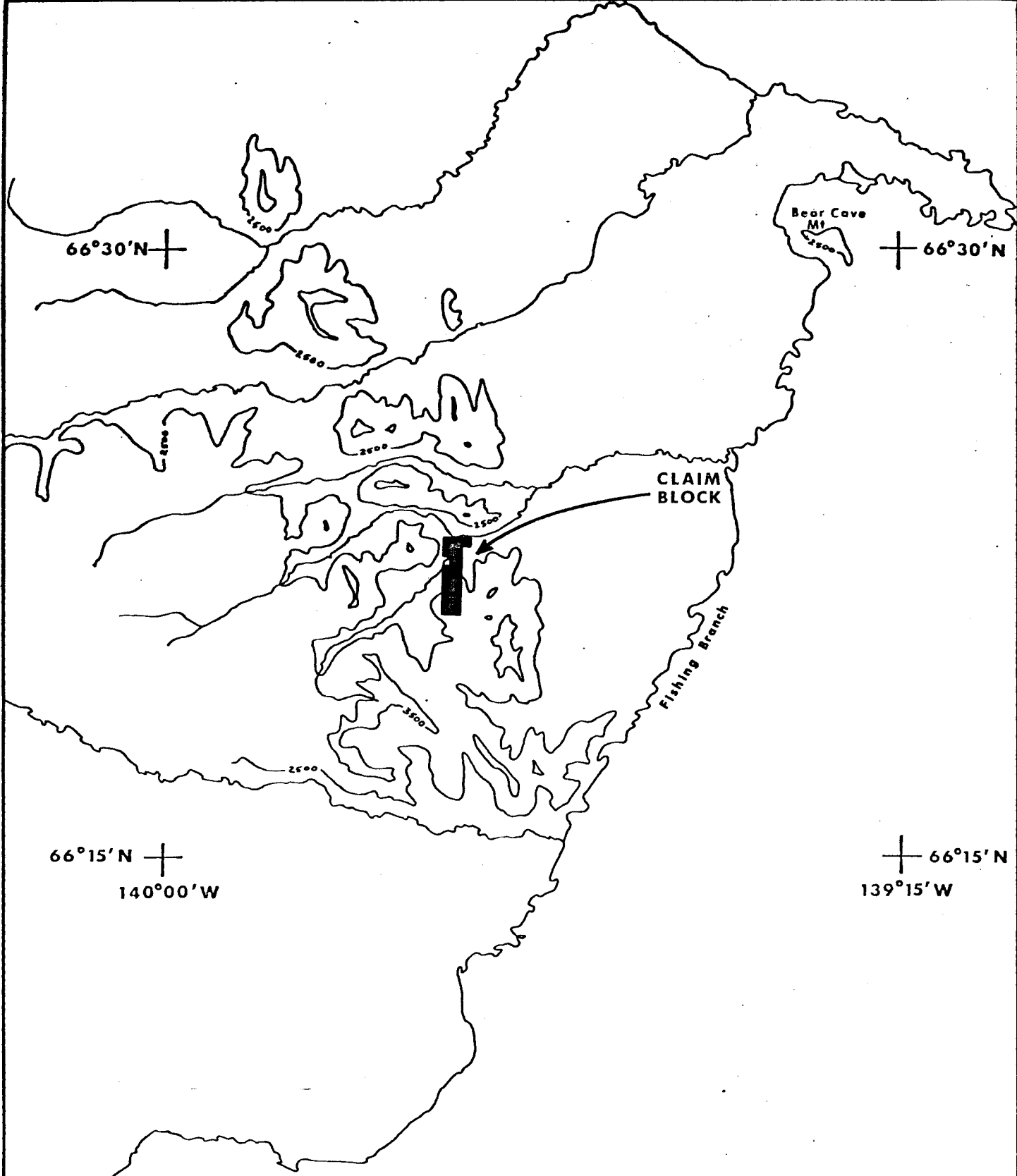
R. Bullis	)	
G. McArthur	)	C/O Brascan Resources Limited
M. McArthur	)	502 - 1155 West Pender Street
A. Cook	)	Vancouver, B.C. V6E 2P4
T. Hubl	)	

The helicopter was chartered from Trans North Turbo Air out of Whitehorse, Y.T.

The expenses on assessment of the claim group are as follows:

Consulting fees	\$ 368.00
Charter flying	4,722.00
Salaries	1,824.00
Fuel	592.00
Truck rental and gasoline	160.00
Incidental expenses	320.00
Report and drafting	<u>400.00</u>
Total expended	\$8,436.00

Cont/d.



**Brascan Resources Ltd.**

**CLAIMS LOCATION MAP**

Scale 1:250,000	Contour Interval 1000'
Date Sept 1974	By MLM <sup>CA</sup> Fig. 1



87	89	17
Y82255	Y82257	Y82032
85	88	
Y82253	Y82256	
	86	
	Y82259	
83	84	
<b>GIRLY</b>		
Y82251	Y82252	
81	82	
Y82249	Y82250	
79	80	
Y82247	Y82248	
77	78	
Y82245	Y82246	
75	76	
Y82243	Y82244	

Brascan Resources Ltd.

CLAIM GROUP  
(from Dept. of Mines Sheet 116J-5)

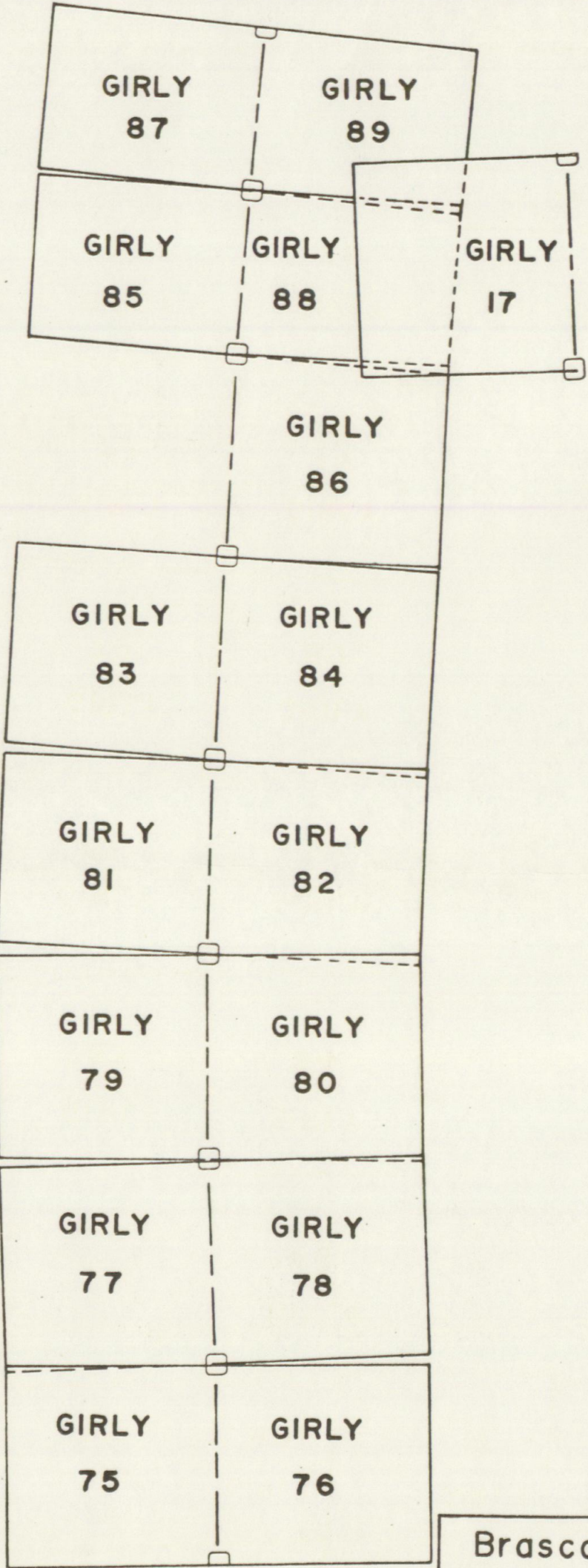
Scale 1 inch: 1/2 mile

By MCA

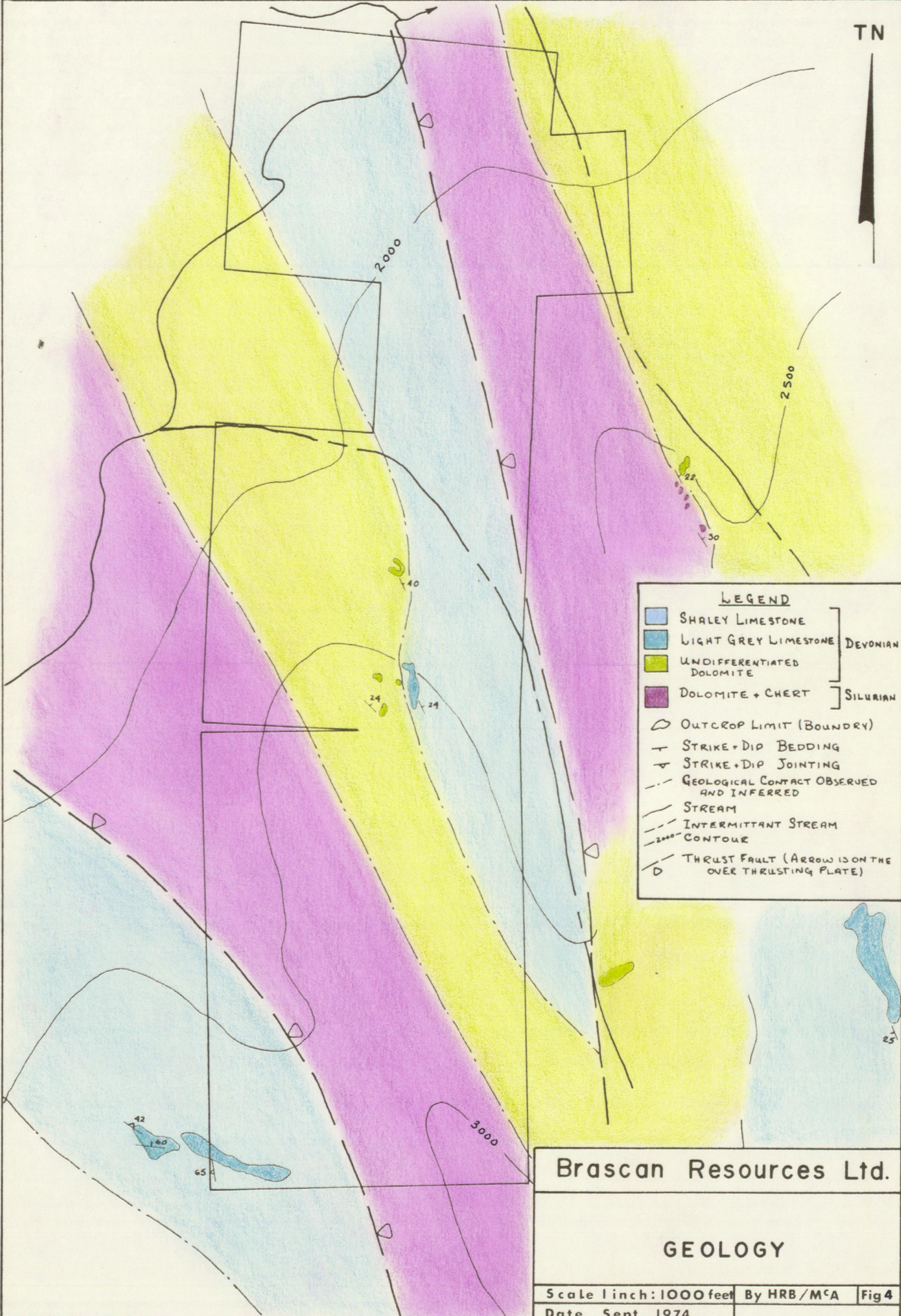
Date Sept 1974

Fig. 2

TN



Brascan Resources Ltd.		
CLAIM SURVEY		
Scale 1 inch: 1000 feet	By AGC	Fig 3
Date Sept 1974		



**LEGEND**

- SHALEY LIMESTONE
  - LIGHT GREY LIMESTONE
  - UNDIFFERENTIATED DOLOMITE
  - DOLOMITE + CHERT
- } DEVONIAN
- } SILURIAN
- OUTCROP LIMIT (BOUNDARY)
  - STRIKE + DIP BEDDING
  - STRIKE + DIP JOINTING
  - GEOLOGICAL CONTACT OBSERVED AND INFERRED
  - STREAM
  - INTERMITTENT STREAM
  - CONTOUR
  - THRUST FAULT (ARROW IS ON THE OVER THRUSTING PLATE)

Brascan Resources Ltd.

**GEOLOGY**

Scale 1 inch: 1000 feet By HRB/MCA Fig 4  
 Date Sept 1974