

# CORPORATION FALCONBRIDGE COPPER

FILE COPY  
MEMORANDUM

DATE: April 15, 1983  
TO: D. H. Watkins  
COPIES TO: I. D. Pirie, M. J. Knuckey  
DE FROM: A. J. Davidson  
SUJET SUBJECT: NORTH FORKS PROPERTY, HARRISON LAKE NTS 92H/12

827466

The North Fork property (see AJD memo March 3, 1983) located on the east side of Harrison Lake, was visited on March 31. The topography is extremely rugged and the main showing is at an elevation of 930 metres. However the property is road accessible and less than 200 kilometres from Vancouver.

## Property

<u>Claim</u>	<u>Record #</u>	<u>Month</u>	<u>Year Staked</u>	<u>Expires</u>	<u>Units</u>
North Fork 1	1243	7	1981	1984	9
North Fork 2	1261	8	1981	1984	12

The claims, located in the New Westminister Mining Division, are owned by Dale McCallum, Hank Nickel and Don Crowhurst of Agassiz, B. C. However they are still registered in the name of Orbex Minerals, the previous optioners.

## Local Geology and Mineralization

The surface showing, visited March 31, consists of a 1-1.5 metre wide, vertical dipping, band of well bedded massive pyrite - pyrrhotite - sphalerite, with some chalcopryrite. These massive sulphides are enveloped by a zone up to 5 metres wide, of semi-massive and stringer pyrite, pyrrhotite and chalcopryrite. The entire sulphide zone is set in a sheared sericite-chlorite alteration envelope near the transition from a sequence of dominantly basic volcanics to one of

argillaceous and muddy sediments. The rocks in the area have been both thrust and block faulted and evidence of intense folding can be seen. Dioritic intrusives and ultramafic flows are also present in the immediate area. Initial impressions of the geology are consistent with that of a sea floor ridge environment. CFC sampling of the massive sulphides in outcrop and in blasted rock (from road building) are as follows:

Description	%Cu	%Zn	Ag(g/T)	Au(g/T)
Banded pyrite sphalerite ore	0.01	7.31	8.2	0.07
Massive pyrite, chalcopyrite matrix	4.90	0.99	36.3	<u>0.82</u>
Massive pyrrhotite, chalcopyrite blebs	0.46	0.56	10.3	0.07
Banded chalcopyrite-sphalerite	5.15	6.52	22.6	0.27
Massive pyrrhotite (weathered)	3.10	1.49	27.4	0.27
Stringer material	0.11	0.38	6.2	0.07

Although four drill holes have tested this showing (AJD memo March 3, 1983) it has excellent potential for developing into an economic deposit.

#### Option Agreement

On April 5, 1983 on the basis of the March 31 property visit I sent letters to the three owners offering the following option terms:

- 1) The option period shall be 5 years.
- 2) CFC shall have the option to be registered as 100% owner of the property provided that CFC
  - a) pays the owners a total of \$3,000 on signature
  - b) pays the owners an additional sum of \$27,000 on or before the end of Year 5
  - c) spends at least \$250,000 on the property during the option period.
- 3) The vendors shall retain a 5% net proceeds of production royalty calculated after CFC recoupement.
- 4) CFC would retain a right of first refusal on the owners' interest.

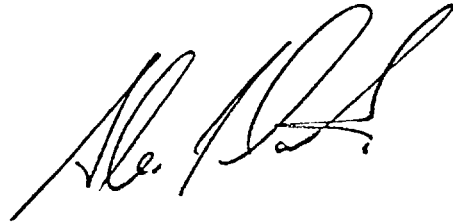
The owners agreed to the above terms and signed and returned the letters. I will now instruct our legal department to draft a more formal agreement as soon as possible.

Proposed Work - 1983

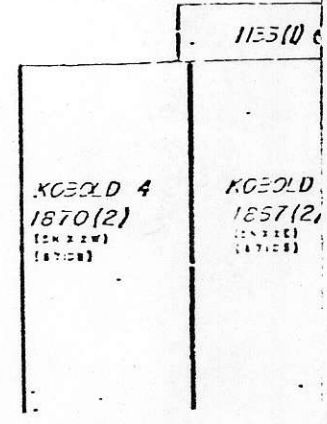
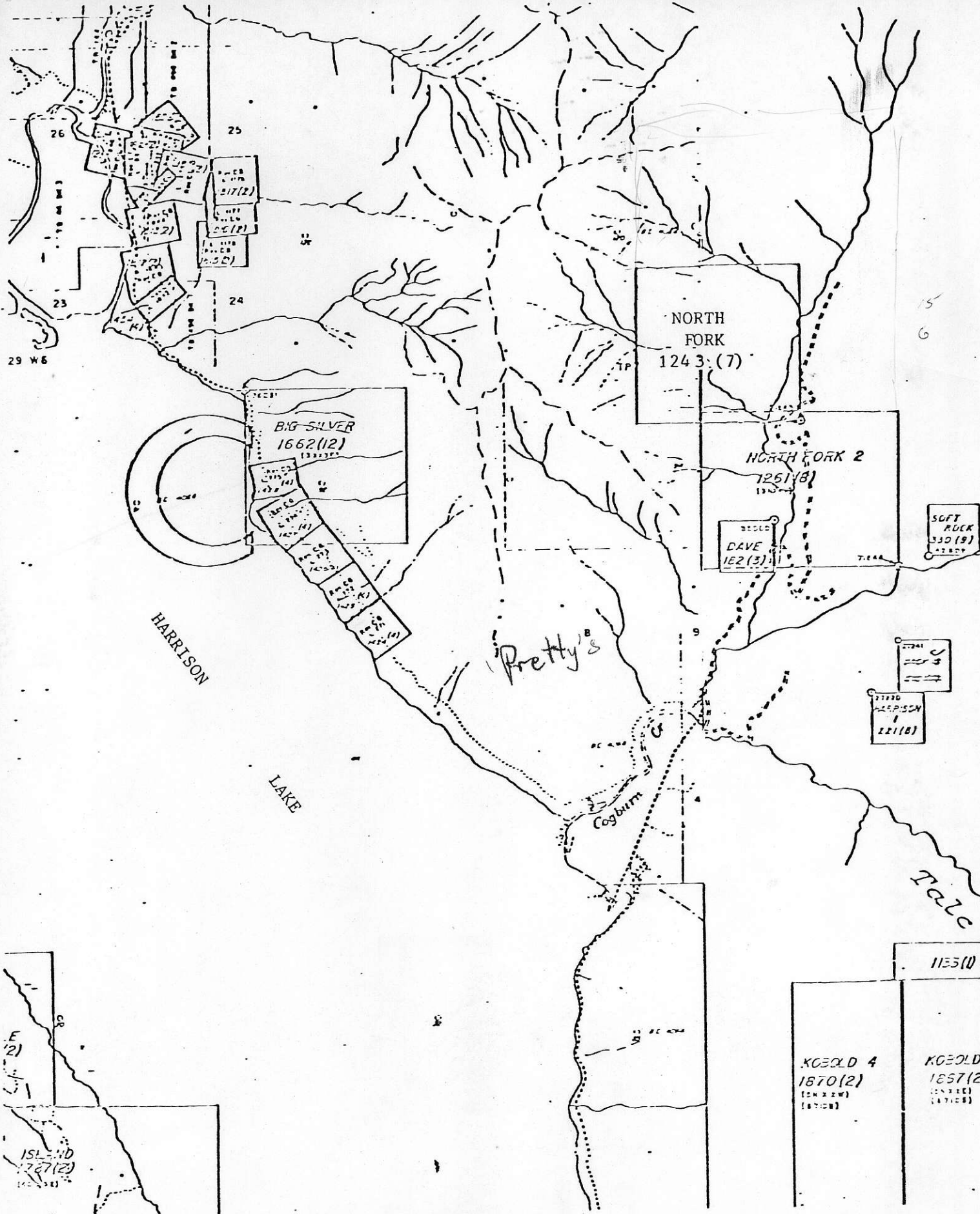
The property as it stands now is made up of 21 units covering 5.25 square kilometres. Due to the complex geology etc and other commitments of our Harrison-Hope field crew only reconnaissance style mapping and sampling will be carried out this summer on the property as a whole. However detail work will be done in the immediate area of the showing. Due to active logging this summer grid lines will probably not be cut until the late summer - early fall. Protection staking will be done after the final agreement is signed. Surface Pulse EM would be carried out later this year. A proposed 1983 budget is attached.

Conclusions

This property offers an excellent chance for economic discovery in a highly accessible and geologically favourable belt of volcanics. The option terms agreed to allow for an intense and thorough exploration program on both this property and the Chilliwack Group belt.

A handwritten signature in black ink, appearing to be 'A. B. S.', located at the bottom right of the page.



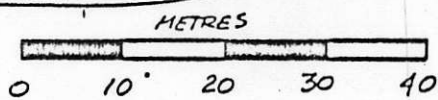


LEGEND

- Chlorite schist, biotite chlorite schist
- Horblende biotite schist
- Felsic chlorite schist, biotite chlorite schist
- Amphibole biotite chlorite schist, foliated quartzite
- Sulphide zone; massive sulphide, stringer sulphide, chlorite schist
- Epithermal chlorite schist, biotite chlorite schist, minor quartzite, includes unit 6
- Foliated quartzite, biotite chlorite schist
- Epithermal chlorite schist, biotite chlorite schist, foliated quartzite
- Talc serpentinite or talc schist
- Horblende biotite schist, horblende chlorite schist, chlorite schist

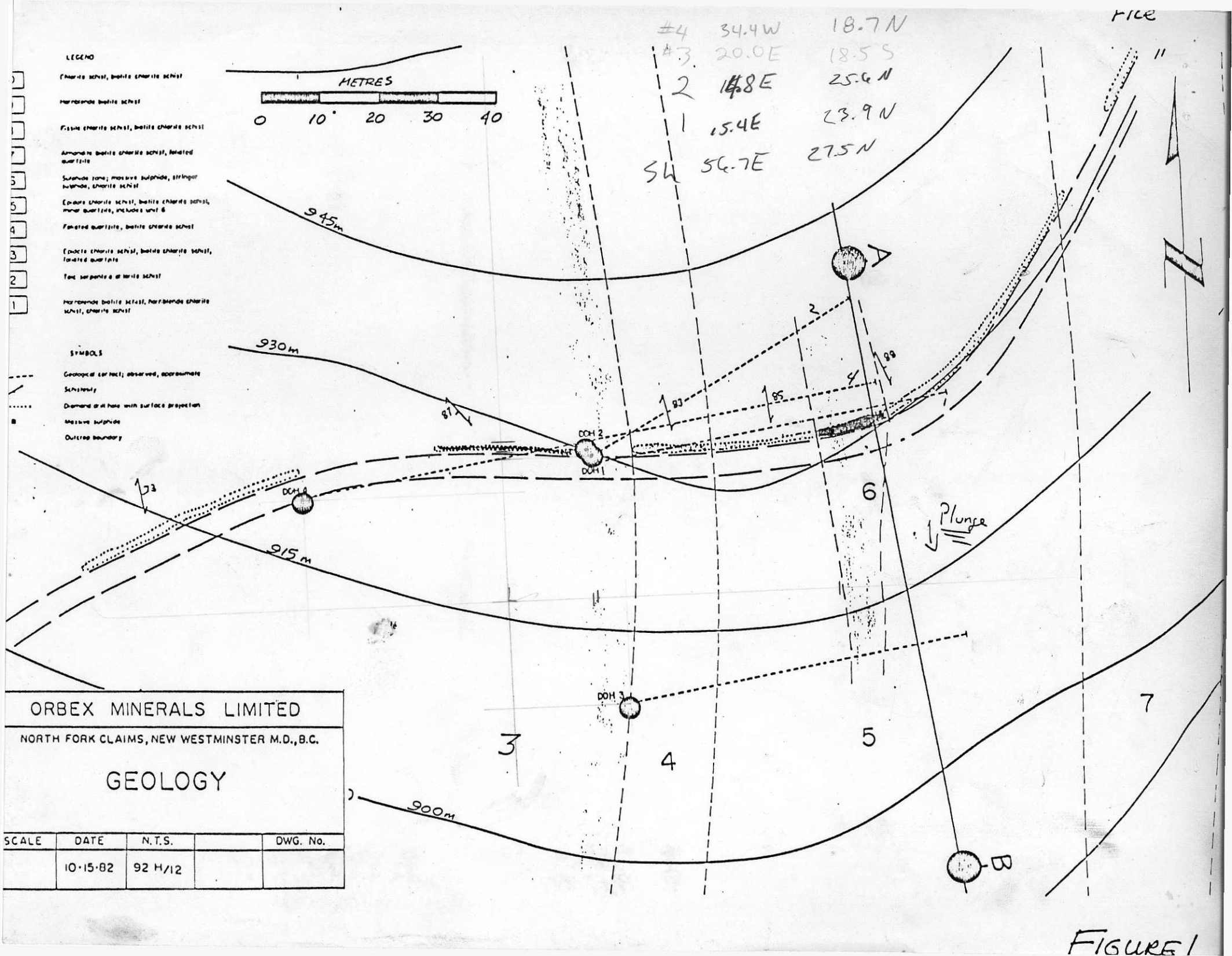
SYMBOLS

- Geological contact; observed, approximate
- Schistosity
- Diamond drill hole with surface projection
- Massive sulphide
- Outcrop boundary



#4	34.4W	18.7N
#3	20.0E	18.5S
2	14.8E	25.6N
1	15.4E	23.9N
SH	56.7E	27.5N

FILE



ORBEX MINERALS LIMITED

NORTH FORK CLAIMS, NEW WESTMINSTER M.D., B.C.

GEOLOGY

SCALE	DATE	N.T.S.	DWG. No.
	10-15-82	92 H/12	

FIGURE 1

EXPLORATION FORECAST 1983

NAME - McCallum Option PROJECT NO. 203

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GEOLOGY	Salaries	12000	
	Travel Expenses	3000	
	Contract Payments (Dozer)	3000	
	Field Expenses	4000	
	Analyses	1000	23000
GEOPHYSICS	Salaries	0	
	Travel Expenses	0	
	Contract Payments (PEM)	20000	
	Field Expenses	0	
	Analyses	0	20000
GEOCHEMISTRY	Salaries	10000	
	Travel Expenses	2000	
	Contract Payments	0	
	Field Expenses	4000	
	Analyses	5000	21000
DRILLING	Salaries	0	
	Travel Expenses	0	
	Contract Payments	0	
	Field Expenses	0	
	Analyses	0	0
	Linecutting (35 km @ \$400.)		15000
	Property Acquisition (50 units @ \$75.)		4000
	Hotels and Meals		2000
	Computer Usage		
	Option Payments (on signing)		3000
	Property Maintenance		
Share of Regional Office		10000	
Other (H.O. charges)		2000	
Participants Share			
	TOTAL		100000

NOTES: Six weeks total field work on a recce basis, includes some bulldozer time as well as mapping and lithogeochem sampling. Linecutting and surface Pulse EM to be done in late summer-fall in prep for 1984 detail work and possible drilling.