# PROSPECTING

GEOLOGICAL REPORT

Oak No. 1, Oak No. 2, Oak Claims

Skeena Mining Division

NTS 103P/13

55 ° 58' N. 129 ° 46' W.

FOR

Nor-Con Exploration Ltd.

Owner & Operator: Nor-Con Exploration Ltd. Author: E. Lyngberg Geologist
Date: September 30, 1983

# GEOLOGICAL BRANCH ASSESSMENT REPORT

# 12,534

## TABLE OF CONTENTS

PART A	PAGE #
Summary	2 /
Introduction	3 /
Topography and Physiography	3 /
Property Ownership	5 ,
Previous Work	5 ,
Regional Geology	7 /
Property Geology	7-8 /
Mineralization	8 /
References	9 /
Certificate of Qualifications	10 /
Conclusions	11 /
Recommendations	11 /
PART B	
Itemized Cost Statement for the Oak Property of Nor-Con Exploration Ltd.	12 /
Introduction to Cost Statement	13 /
Detailed Itemized Cost Statement	14 /
FIGURES	
Figure 1: Location Map 1:50 000	4 /
Figure 2: Government Claim Map	. 6 /
Figure 3: Traverse Map	In Back / Focket

#### SUMMARY

The Oak claims of Nor-Con Exploration Ltd. were investigated during the summer of 1983 to locate any mineralization present. Argillite, with nearly conformable cross cutting granitic dykes form the bedrock over the claims. Prospecting indicated an old, apparently unmineralized adit, and a narrow, short lensoidal quartz vein mineralized with pyrite. Fotential for significant mineralization is marginal.

#### INTRODUCTION

On July 19, and 20, 1983, and between the period of August 17, 1983 to August 20, 1983, the mineral potential of Oak, Oak No. 1, Oak No. 2, Crown Granted 2 Post Claims were evaluated by one of Nor-Con Exploration's two prospecting crews. The crew consisted of a geologist and an assistant. A fly camp was established at an elevation of 805 m. on morainal material between Bromley Glacier and the cliff where the claims are situated. Supplies were delivered by helicopter, based in Stewart. The program was part of a larger program conducted in the Bitter Creek area.

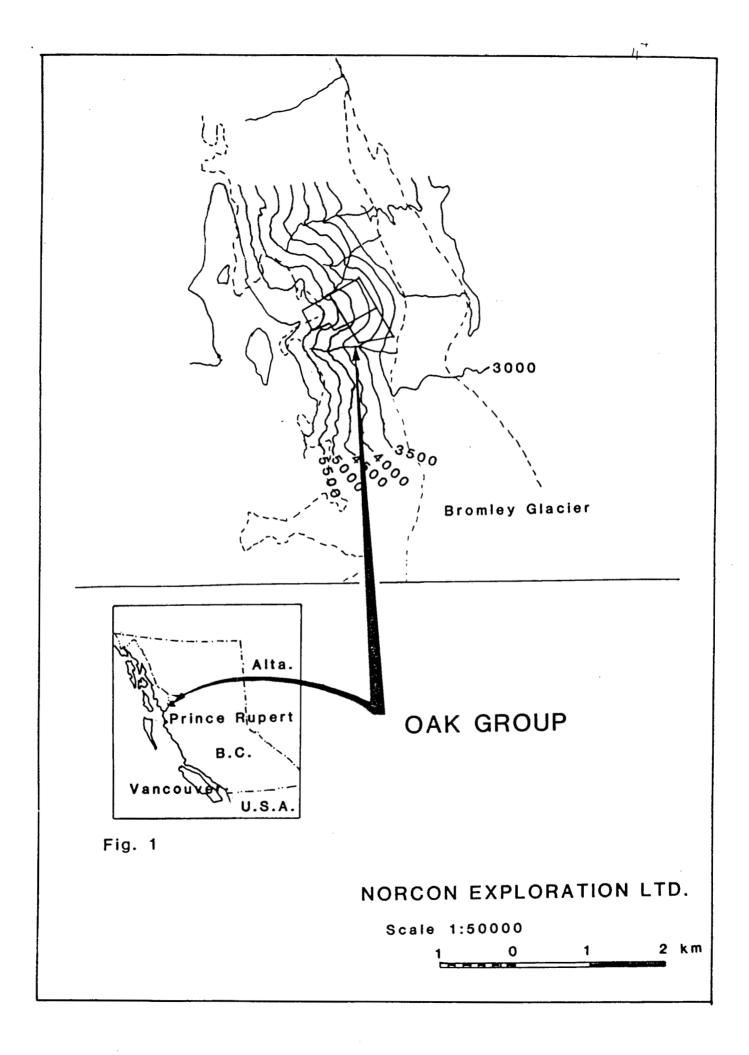
#### LOCATION AND ACCESS

The claims are located at Lat. 55 58' W., Long 129 46' W., approximately 14 km. east of Stewart, B.C., on an east facing steep cliff/slope, overlooking the lower part of the Bromley Glacier at the head of the Bitter Creek Valley. Fig. 1.

Access is by Vancouver Island Helicopters Ltd., Bell 206 Long Ranger Helicopter, based in Stewart, B.C. TOPOGRAPHY AND PHYSIOGRAPHY

The claims cover the slope of an unnamed 2042 m. peak between the elevations 900 m. to 1800 m. The lower part of the claim Oak, and Oak No. 1, between 900 m. elevation to about 1075 m. elevation, are a near vertical cliff face.

Above 1075 m. elevation, alpine fir and thickets of alder dominate the steep slope. The subalpine forest eventually becomes open slope alpine meadows around 1300 m. elevation. Creeks drain into the Bromley Glacier on either side of the claims in deeply incised, steep gulleys, with unstable slopes.



#### PROPERTY OWNERSHIP Fig. 2

The property consists of three (3) reverted Crown Granted 2 Post Claims, all 100% owned by Nor-Con Exploration Ltd.

The claim are:

Oak L6082 Oak No. 1 L6083 Oak No. 2 L6084

Recorded on June 4, 1983.

#### PREVIOUS WORK

No record of work for the Oak claims was found, however, on the adjacent, Wndsor and Black Bear groups some exploration work was recorded. A summary of the work done in the vicinity of the Oak claims is below:

- 1911 Mineral Mountain Mining and Milling Co. owned Black Bear Group.
- 1913 G. SC. Memoir 32 R.G. McConnell mapped the argillites and dykes present in the Bitter Creek drainage as the Bitter Creek formation. Mineralization on the claims consisted of galena, sphalerite, minor chalcopyrite and pyrite in crushed and silicified zones in the argillites.
- 1924 B.C. Minister of Mines Annual Report Two mineralized zones present, one zone 20 cm. wide with galena, sphalerite and some silver. The other zone, 1.5 m. wide with pyrite in quartz carrying gold values, one tunnel and several open cuts were completed.
- 1930 B.C. Minister of Mines Annual Report: Two tunnels were driven, on the 1.5 m. quartz vein.
- 1974 Tournigan Mining Exploration Ltd. Geological mapping completed on the Windsor Group.

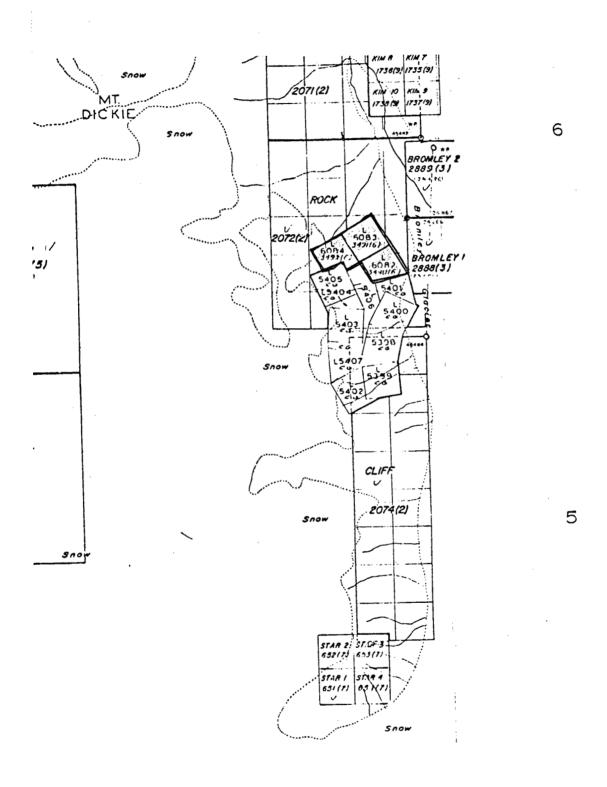


Fig. 2 GOVERNMENT CLAIM MAP
( 1:50000 )

#### REGIONAL GEOLOGY

Thin bedded black argillites of the Jurassic Hazelton Group form the bedrock over much of the Bitter Creek drainage. The regional strike is to the northwest with a westerly dip. Rhyolites and dacites, also part of the Hazelton Group dominate the Cambria Range, east of Bitter Creek. Cutting across the lower part of Bitter Creek is the Bitter Creek pluton, a coarse grained pinkish-grey granite. Cross-cutting and intruded into the argillites are granitic dykes of the Portland Canal dyke swarm. Structurally, the argillites in the Bitter Creek area appear to be part of a broad anticline that extends from the Alice Arm district to beyond American Creek.

#### PROPERTY GEOLOGY Fig. 3

Prospecting traverses were completed on the ridge between 1760 m. to 1370 m. elevation, along the base of the cliff, and to the 1280 m. level on the north side of the creek that drains the southern part of the property. The bedrock geology was found to be the same on all of the traverses and is summarized below.

The claims are underlain by a black argillite: thin bedded; individual beds 2 cm. to 30 cm. thick; occasionally with graded bedding from siltsize to medium grained greywackes; individual beds traceable over a distance of 200 m., probably further. Soft sediment deformation features are common in some beds. Minor open folds, on a 1 m. scale are observable in some locations. Several dip slip faults in the argillites were observed. The most obvious fault was seen in the gully

that drains the southern part of the property, where visible offset of the bedding occurs. Regional strike is N 5 W, with a 60 westerly dip. Intruded into the argillite, crosscutting and nearly conformable to bedding are light coloured medium grained granitic dykes, with compositions ranging from quartz monzonite to diorite. Thickness varies from less than one metre to over 5 metres.

#### MINERALIZATION

A small adit, collared in argillite at the 1060 m. level of the cliff, was the only evidence of previous work on the claims. The target, presumably a mineralized quartz vein was not seen, and is now probably covered by talus. The tailings were not present, having sluffed down the cliff.

The argillite contained spotty 1-2% pyrite mineralization, while the dykes were generally unmineralized except for the occasional pinhead pyrite. A 75 m. wide iron stained zone in argillite was examined along the base of the cliff at the 850 m. level. The pyrite content of the argillites increased to approximately 5%, with some 2-5 cm. thick, discontinuous, sinewy quartz veining present. Mineralization within a lensoidal quartz vein consisted of pyrite and some minor chalcopyrite.

#### REFERENCES

B.C. Minister of Mines Annual Reports for the years:

1911 p. 74 1924 p. 68 1930 p. 107

B.C. Department of Mines and Petroleum Resources - Geology, Exploration and Mining in B.C., 1974.

Grove, E.W., 1971, Geology and Mineral Resources of the Stewart Area.

B.C. Department of Mines and Petroleum Resources Bull. No. 6

Hansen, G. 1935, Portland Canal Area, B.C. G.S.C. Memoir 175, p. 109.

McConnell, R.G. 1931, Portions of Portland Canal, and Skeena Mining Divisions, Skeena District, B.C. G.S.C. Memoir 32, p. 55.

#### CERTIFICATE OF QUALIFICATIONS

- I, Erik Lyngberg, of the Municipality of West Vancouver, in the Province of British Columbia, do hereby certify that:
- 1. I am currently completing a Masters of Science degree in Geology at the University of British Columbia, Vancouver, B.C.
- 2. I have been practising my profession as a geologist since 1979.
- 3. I was employed by NOR-CON EXPLORATION LTD., P.O. Box 808, Prince Rupert, B.C. at the time the work was completed.
- 4. The information for this report was obtained from pertinent material as cited under references, and from a prospecting program carried out under my direct supervision on July 19,20, 1983, and between August 17, 1983 to August 20, 1983.

Erik Lyngberg, B.SC. ) Geologist

September 30, 1983 West Vancouver, B.C.

#### CONCLUSIONS

- 1. The Oak claims are underlain by black argillite of the Hazelton group that have been intruded by granitic dykes.
- 2. Strike of the argillites is approximately N 5 W, with a westerly 60 dip.
- 3. Mineralization was found to be:
  - 1. Spotty in the argillite, 1-2% disseminated pyrite.
  - In sulfide streaks in quartz, in a 75 m. iron stained zone at the base of the cliff, mainly pyrite with some chalcopyrite.
- 4. One small adit was found with no sign of mineralization in the immediate area.

#### RECOMMENDATIONS:

A prospecting and geochemical sampling program, including soil samples on the ridge and chip sampling should be initiated to locate and test mineralized zones.

#### PART B

Itemized Cost Statement for The Oak Property of Nor-Con Exploration Ltd.

#### Summary

Total 10 Field Days
Duration of Exploration Program, July 19,20, 1983 and
August 17 - August 20, 1983.

a)	Total Salary	\$1101.00
b)	Total Food and Accommodation	862.50
c)	Total Transportation	2024.30
ď)		405.50
e)	Office Expenses and Miscellaneous	750.00
f)	Total Preparation of Report	750.00
g)	Total Cost of Exploration Program	\$5893.30

#### INTRODUCTION TO COST STATEMENT

On July 19, 20, 1983 and between August 17, 1983 to August 20, 1983, Nor-Con Exploration Ltd. conducted an exploration program on the company's Oak prospect. The personnel present were:

E. Lyngberg Geologist July 19, 20, August 17-20, 1983
P. Guyan Assistant August 17-20, 1983
S. Fegen Prospector July 19, 20, 1983

Personnel and equipment were transported to the claim group from another property by Vancouver Island Helicopters, based in Stewart, B.C.

# DETAILED ITEMIZED COST STATEMENT

## a) <u>Salary</u>

	# of Days July 19, 20, Aug. 17-20'83	<u>Rates/Day</u>	<u>Total</u>		
Geologist Geological Assistant Prospector	5 3 2	\$100.00 67.00 200.00 TOTAL	\$ 500.00 201.00 400.00 \$1101.00		
b) Food and Accomodation					
3 persons	10 Man Days	\$ 28.75 TOTAL	\$ 862.50 \$ 862.50		
a) <u>Transportation</u>					
<u>Date</u>	Total Hrs.	Rate/Hour			
July 19 Stewart-Oak-Stewart July 20 Stewart-Oak-Stewart Aug. 17 Other Camp-Oak 50% of	1.0 0.9 1.0	\$653.00	\$ 653.00 587.70 326.50		
Aug. 20 Oak-Other Camp 50% of	1.4	TOTAL	\$2024.30		
d) Equipment Costs: Rate per day based upon 33% of total equipment cost for field program averaged between two crews.					
averaged between two grews.	Man Days	Rate/Day			
	10	\$ 40.55 TOTAL	\$ 405.50 \$ 405.50		
e) Office Expenses and Miscellane	ous		\$ 750.00		
f) Cost of Report Preparation			\$ 750.00		
Total Cost of Exploration Program			\$5893.30		

