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| MINISTRY OF ENERGY, MINES<br>AND PETROLEUM RESOURCES |             |
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| SUBJECT  | _____       |
| FILE   | _____       |
| VANCOUVER, B.C.                                      |             |

ASSESSMENT REPORT  
 GEOPHYSICAL SURVEYS ON THE  
 BC 3, BC 4, BC 5, AND BC 6 MINERAL CLAIMS  
 KAMLOOPS MINING DIVISION

N.T.S. 82M/05W

51° ~~30.0~~ N    119° ~~00.0~~ W  
 20.7'            56.5'

FILMED

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

14-770

Owner/Operator: Noranda Exploration Company, Limited  
 (no personal liability)

Author : L. Bradish, Division Geophysicist  
 G. Shevchenko, Project Geologist

Date : April, 1986

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## 1.0 INTRODUCTION

This report encompasses the SE-88 E.M. and magnetometer surveys which were conducted on the BC 3, BC 4, BC 5 and BC 6 mineral claims from October 19 to October 22, 1985.

### 1.1 Location and Access (Drawing #1)

The property is centered at 51°20'50"N latitude by 119°56'25"W longitude. More specifically, it is located 22 kilometers northeast of Barriere, British Columbia on the north bank of Birk Creek.

### 1.2 Topography and Physiography

The property lies between 1220 and 1550 meters elevation and is predominantly gently sloping terrain. The topography gets very steep in the area of the BC 5 claim where it drops into the Birk Creek Valley.

The vegetation is mainly comprised of mature stands of fir with moderate to thick undergrowths of alder.

### 1.3 Previous Work

Historically this area has been prospected several times and one showing (reported in Minfile as Snowbird) occurs on the property.

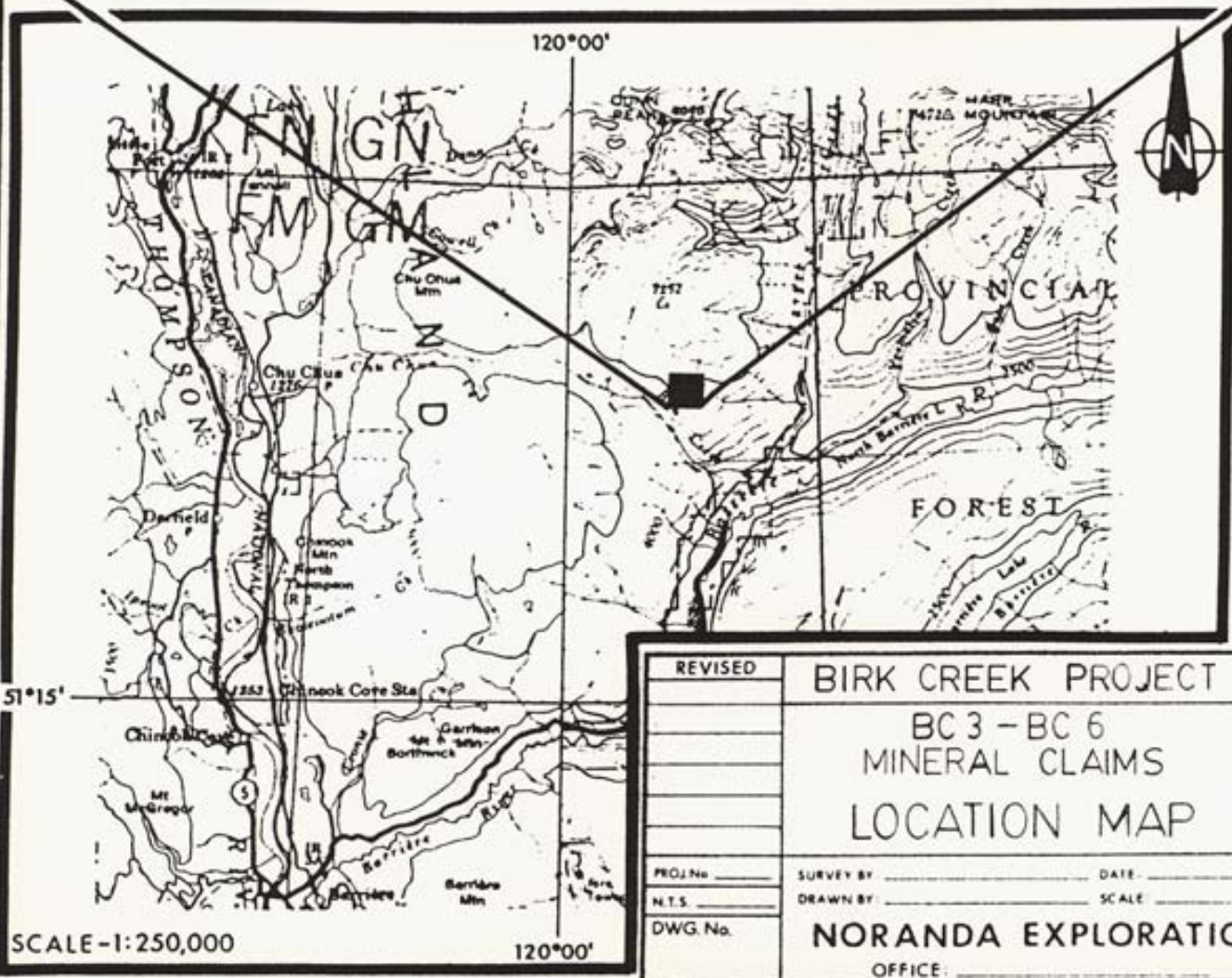
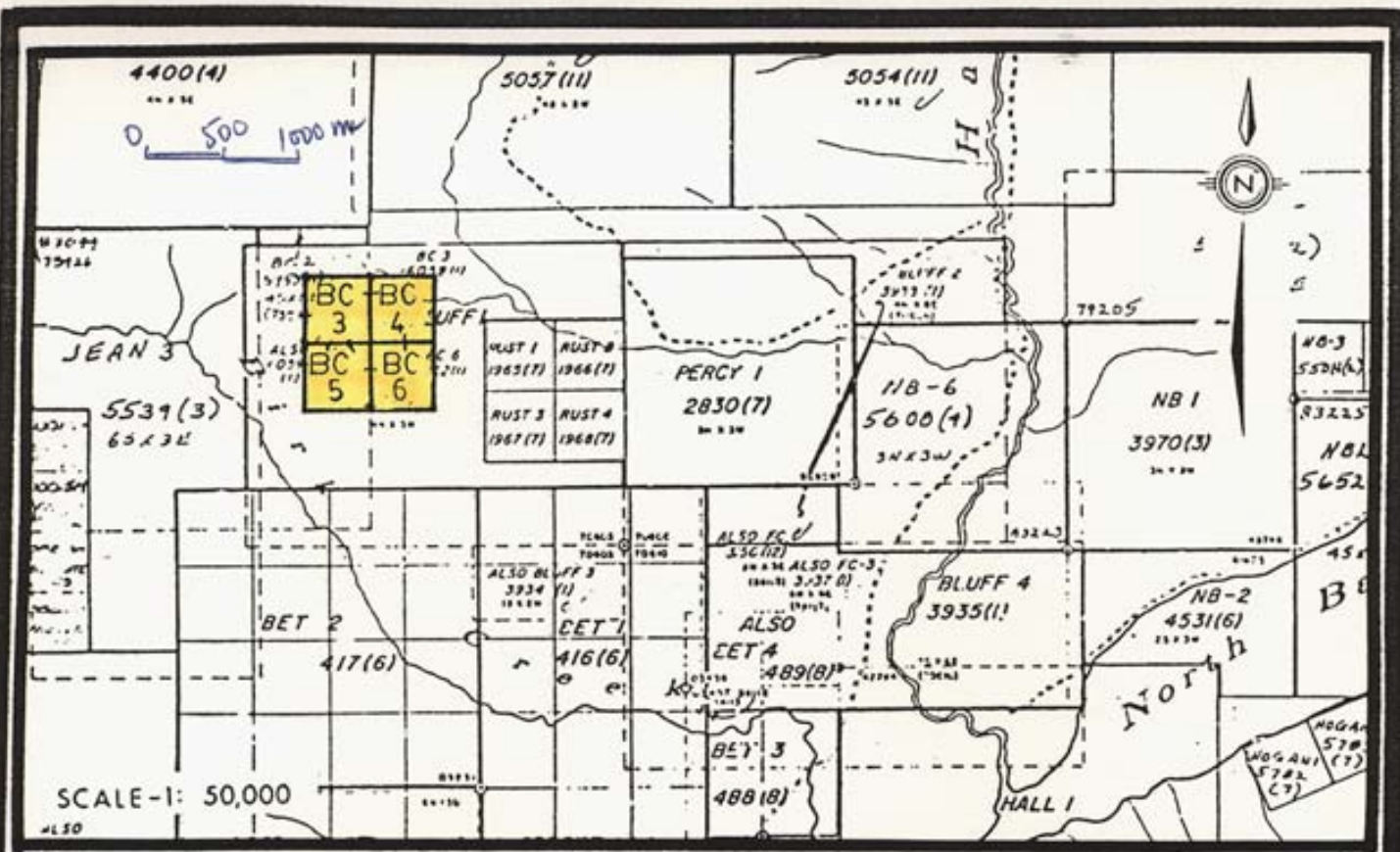
A number of assessment reports are available on properties in this area. The reader is referred to Assessment Report Index Map 82M (Seymour Arm), and the Minfile map and listing for "MI 82M/5W" for further historical information.

### 1.4 Owner - Operator

The Birk Creek claim group consists of the following list of claims which are owned and operated by:

Noranda Exploration Company, Limited  
(no personal liability)  
P.O. Box 2380,  
Vancouver, B.C.  
V6B 3T5

| Claim Name | Record No. | Units | Expiry Date      | N.T.S. # |
|------------|------------|-------|------------------|----------|
| BC-3       | 6059       | 1     | January 25, 1988 | 82M/05W  |
| BC-4       | 6060       | 1     | January 25, 1988 | 82M/05W  |
| BC-5       | 6061       | 1     | January 25, 1988 | 82M/05W  |
| BC-6       | 6062       | 1     | January 25, 1988 | 82M/5W   |



|                 |                            |             |
|-----------------|----------------------------|-------------|
| REVISED         | BIRK CREEK PROJECT         |             |
|                 | BC 3 - BC 6                |             |
|                 | MINERAL CLAIMS             |             |
|                 | LOCATION MAP               |             |
| PROJ. No. _____ | SURVEY BY _____            | DATE _____  |
| N.T.S. _____    | DRAWN BY _____             | SCALE _____ |
| DWG. No. _____  | <b>NORANDA EXPLORATION</b> |             |
|                 | OFFICE _____               |             |

## 1.5 Economic Potential

The economic potential of this property is considered good due to the argentiferous galena hosted by quartz carbonate veins.

## 1.6 Summary of Work Done

A total of 5.6 kilometers of magnetometer (MP-3) and 3.7 kilometers of SE-88 E.M. survey were conducted on the property.

## 2.0 DETAILED TECHNICAL DATA AND INTERPRETATION

### 2.1 Instrumentation

#### SE-88 E.M. System

The SE-88 unit differs from the normal HLEM systems such as the MaxMin 11 in that it measures without regard to phase, the ratio of signal amplitude between two frequencies which are transmitted and received simultaneously. A low frequency of 112 Hz is used as a reference frequency. The signal difference is integrated or averaged over a period of time in order to improve the signal to noise ratio.

The survey parameters employed on the follow-up programme are as follows:

|                     |  |
|---------------------|--|
| Coil Separation     | : 100 meters   |
| Frequencies         | : 3037, 1012, 337 Hz   |
| Reference Frequency | : 112 Hz.  |
| Integration Period  | : 16 seconds   |
| Reading Interval    | : 25 meters  |
| Measurement         | : ratio of amplitude<br>between reference and<br>signal frequencies (%). |

#### MP-3 Magnetometer System

The MP-3 Total Field Magnetometer System is manufactured by Scintrex Ltd. of Concord, Ontario. The MP-3 system consists of one or more field units and a base station. Diurnal and day to day variations are automatically corrected at the end of the survey by the units built-in microprocessor giving the data a usable accuracy of 1 gamma.

### 2.2 Results

The E.M. survey failed to detect any zones of bedrock conductivity. The profiled results indicate the gridded area to be underlain by electrically resistive ground. North and east of the claim boundary the resistivity of the overburden and/or geology decreases significantly.

The magnetometer survey recorded readings having an overall amplitude of approximately 800 nT. Two partially defined magnetic anomalies are recorded at the grid west and grid south boundaries of the surveyed grid. Elsewhere the magnetic field is relatively undisturbed indicating a uniform magnetic susceptibility.

### 2.3 Conclusion

The geophysical surveys failed to delineate any metallogenic trends.

**APPENDIX I**  
**STATEMENT OF COSTS**

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT: Birk Creek Claim Group

DATE April 1986

TYPE OF REPORT: Geophysics

a) Wages:

No. of Days

Rate per Day \$

Dates From:

Total Wages                    x \$

b) Food and Accommodation:

No of days            3

Rate per day \$ 70.00

Dates From:        October 19 - October 22, 1985

Total Cost                    3 x \$ 70.00    \$ 210.00

c) Transportation:

No of days            3

Rate per day \$ 50.00

Dates From:        October 19 - October 22, 1985

Total Cost                    3 x \$ 50.00    \$ 150.00

d) Instrument Rental:

Type of Instrument

No of days

Rate per day \$

Dates From:

Total Cost                    x \$

Type of Instrument

No of days

Rate per day \$

Dates From:

Total Cost                    x \$



f) Analysis  
(See attached schedule)

g) Cost of preparation of Report

|          |           |
|----------|-----------|
| Author   | \$ 100.00 |
| Drafting | \$ 50.00  |
| Typing   | \$ 50.00  |

h) Other:

|                              |             |
|------------------------------|-------------|
| Contractor                   |             |
| Peter Walcott and Associates |             |
| 3 days X \$ 650.00 / day     | \$ 1,950.00 |

Total Cost \$ 2,510.00

e) Unit costs for GEOPHYSICS

No of days

No of units 9.3 km

Unit costs \$ 269.89 / km

Total Cost 9.3 x \$ 269.89 \$ 2,510.00

**APPENDIX II**  
**STATEMENT OF QUALIFICATIONS**

STATEMENT OF QUALIFICATIONS


I, Glenn Shevchenko of the City of Vancouver, Province of British Columbia do hereby certify that:

I am a geologist residing at 1090 Parker Street, White Rock, B.C.

I graduated from Concordia University, Montreal, Quebec in 1982 with a Bachelor of Science Degree in Geology.

I have worked in mineral exploration since 1977 and have practised my profession since 1982.

I am presently employed with Noranda Exploration Company, Limited, and have been since May, 1984.

  
Glenn Shevchenko

STATEMENT OF QUALIFICATIONS  
\*\*\*\*\*

I, Lyndon Bradish of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a Geophysicist residing at 1826 Trutch Street, Vancouver British Columbia.
2. I am a graduate of the University of British Columbia with a B.Sc. (geophysics).
3. I am a member in good standing of the Society of Exploration Geophysicists, Canadian Institute of Mining and the Prospector's and Developer's Association.
4. I presently hold the position of Division Geophysicist with Noranda Exploration Company, Limited and have been in their employ since 1973.



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L. Bradish.