

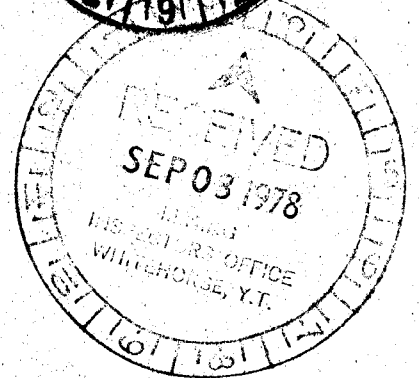
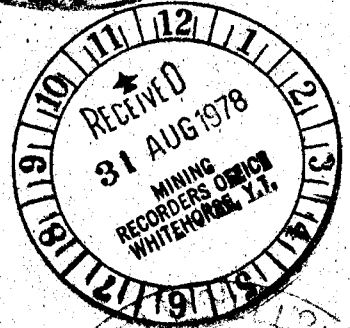
GEOLOGICAL AND GEOPHYSICAL REPORT

on

SEK 1-8 CLAIMS

115-H-12

61°32'N / 137°33'W



NORANDA EXPLORATION COMPANY LIMITED

(NO PERSONAL LIABILITY)

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 \$ 2500.00

*[Signature]*

Geologist or  
Engineer

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

*[Signature]*

B. R. BAXTER  
Supervising Mining Recorder

for Commissioner of Yukon Territory

090350  
G. Macdonald: June 25-28, 1978  
M. Vetterli: June 25-28, 1978

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## GEOLOGICAL AND GEOPHYSICAL REPORT ON SEK 1-8 CLAIMS

### INTRODUCTION

The claims referred to in this report are registered in the name of Noranda Exploration Company, Limited (No Personal Liability). The group comprises eight SEK claims, as follows:

<u>Claim Number</u>	<u>Claim Name</u>
YA 19288	SEK 1
YA 19289	SEK 2
YA 19290	SEK 3
YA 19291	SEK 4
YA 19292	SEK 5
YA 19293	SEK 6
YA 19294	SEK 7
YA 19295	SEK 8

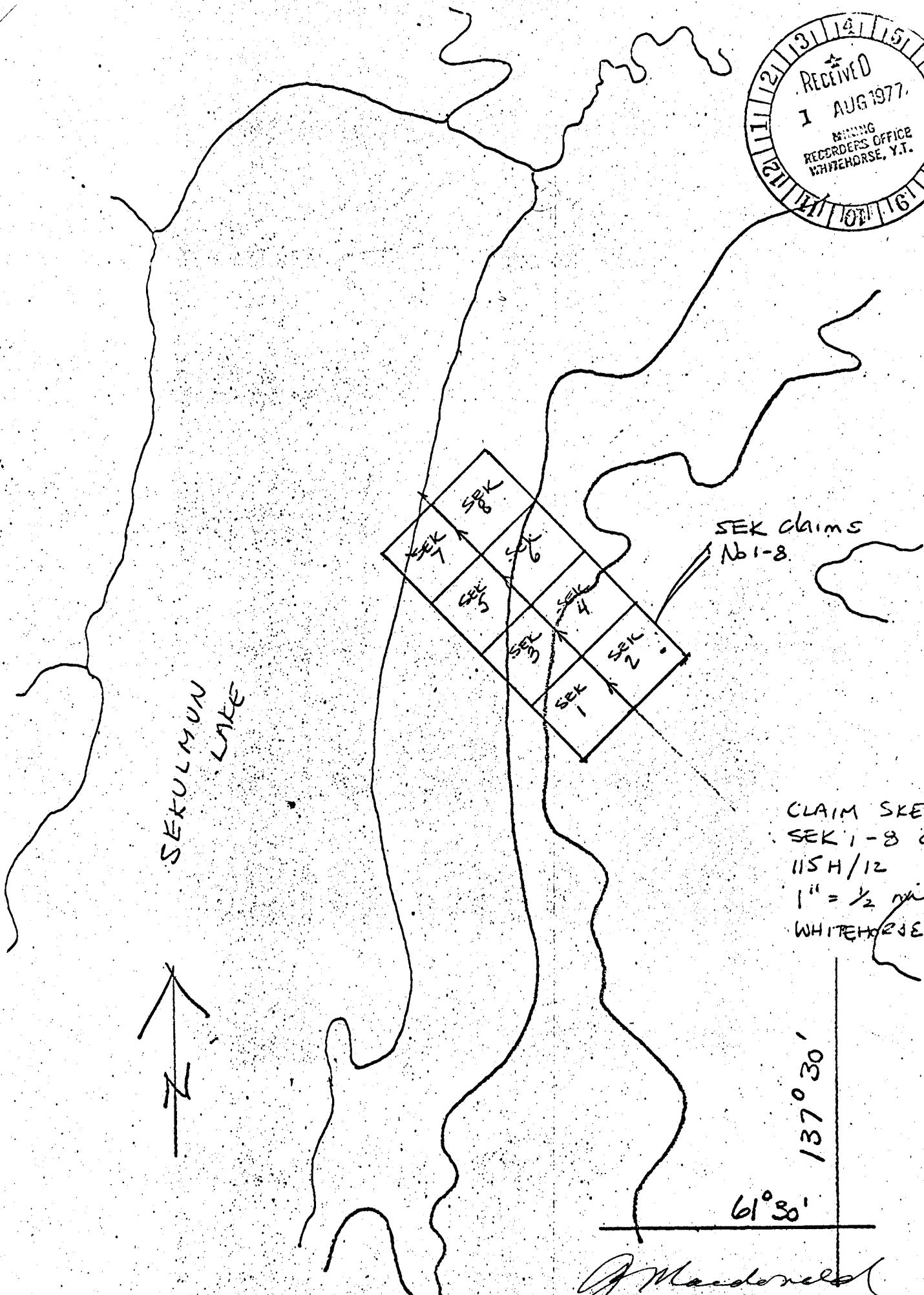
The SEK claims are located near the north end and on the east side of Sekelmun Lake, 54 miles north of Haines Junction, Yukon Territory, on Map Sheet 115-H-12. Access is by float-equipped aircraft from Whitehorse.

A magnetometer survey and prospecting/mapping were carried out during the period June 25-28, 1978 by Noranda Exploration Company, Limited. Mapping and survey control was provided by chained compass grid lines 400 and 800 feet apart along a cut-out base line (see Drawing No. 3).

Geological information obtained prior to July 1977 by B. Fairbank, Geologist for Noranda Exploration Company, Limited, has been included for the sake of completeness. The costs applied for assessment credit are those incurred in the period June 25-28, 1978 only.



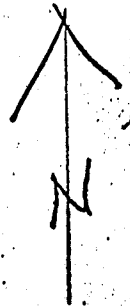
Fig.1: LOCATION MAP  
 SEK 1-8 Claims  
 115-H-12  
 1" = 4 miles



SEKULMUN  
LAKE

SEK claims  
No 1-8.

CLAIM SKETCH  
SEK 1-8 claims  
115H/12  
1" = 1/2 mile  
WHITEHORSE M.D.



61°30'  
137°30'

*J. Macdonald*

## GEOLOGICAL SURVEY

Preliminary geological mapping in 1978 was done by G. Macdonald, Geologist for Noranda Exploration Company, Limited. Geology of the property is presented on Drawing No. 2.

## GEOLOGY

The SEK 1-8 claims are underlain by Yukon Group quartz-chlorite-biotite schist and quartzite. Hornfels and minor skarn occur in this unit. Tertiary intrusive rocks intrude the Yukon Group. Table No. 1 summarizes the units mapped. Results are presented on a grid plan (Drawing No. 2), at a scale of 1" = 400'.

Foliation and banding in the schists trend predominantly north-easterly and dip northwest at low angles ( $0^{\circ}$  -  $30^{\circ}$ ). Locally, the rocks are highly contorted and faulted. Minor disseminated pyrrhotite occurs in hornfelsed Yukon Group rocks and occasionally small galena-quartz filled fractures occur in sheared Yukon Group float.

Tertiary intrusive rocks comprising granite and quartz monzonite and quartz-feldspar porphyry dykes intrude the Yukon Group schists. Minor disseminated pyrite is common in the intrusive rocks.

A suspected major northwest-trending fault traces for the length of the property.

Table No. 1 : Table of Units

Tertiary	Tgal/Tfp	Fine to medium-grained quartz monzonite and quartz-feldspar porphyry dykes.
Proterozoic/Paleozoic	PPsbq	Biotite-chlorite-quartz schist with minor garnet porphyroblasts; minor quartzite, amphibolite and skarn.

## GEOPHYSICAL SURVEY

The magnetometer survey was conducted by M. Vetterli under the supervision of J. T. Walker; both are employees of Noranda Exploration Company, Limited. Equipment was a McPhar M700 magnetometer manufactured by McPhar Geophysics of Don Mills, Ontario.

The relative vertical component of the magnetic field (in "gammas") was recorded at 100 foot intervals over the grid (5.7 miles).

The magnetometer was adjusted on the property so that the "background" values would fall in the lowest positive range. This adjustment is only made at the start of the survey. Diurnal corrections were made to the raw data by checks throughout the survey to a base station.

Results are plotted on a grid plan (Drawing No. 1) at a scale of 1" = 400', with a contour interval of 25 gammas.

## DISCUSSION OF RESULTS

The property exhibits very little magnetic relief with values ranging from a low of 150 to a high of 385 gammas. A weak magnetic low partially conforms to the assumed major fault zone.

## CONCLUSIONS

Magnetic response on the SEK claims is weakly linear and may reflect some structural feature.

Submitted by:



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G. Macdonald,  
Geologist.



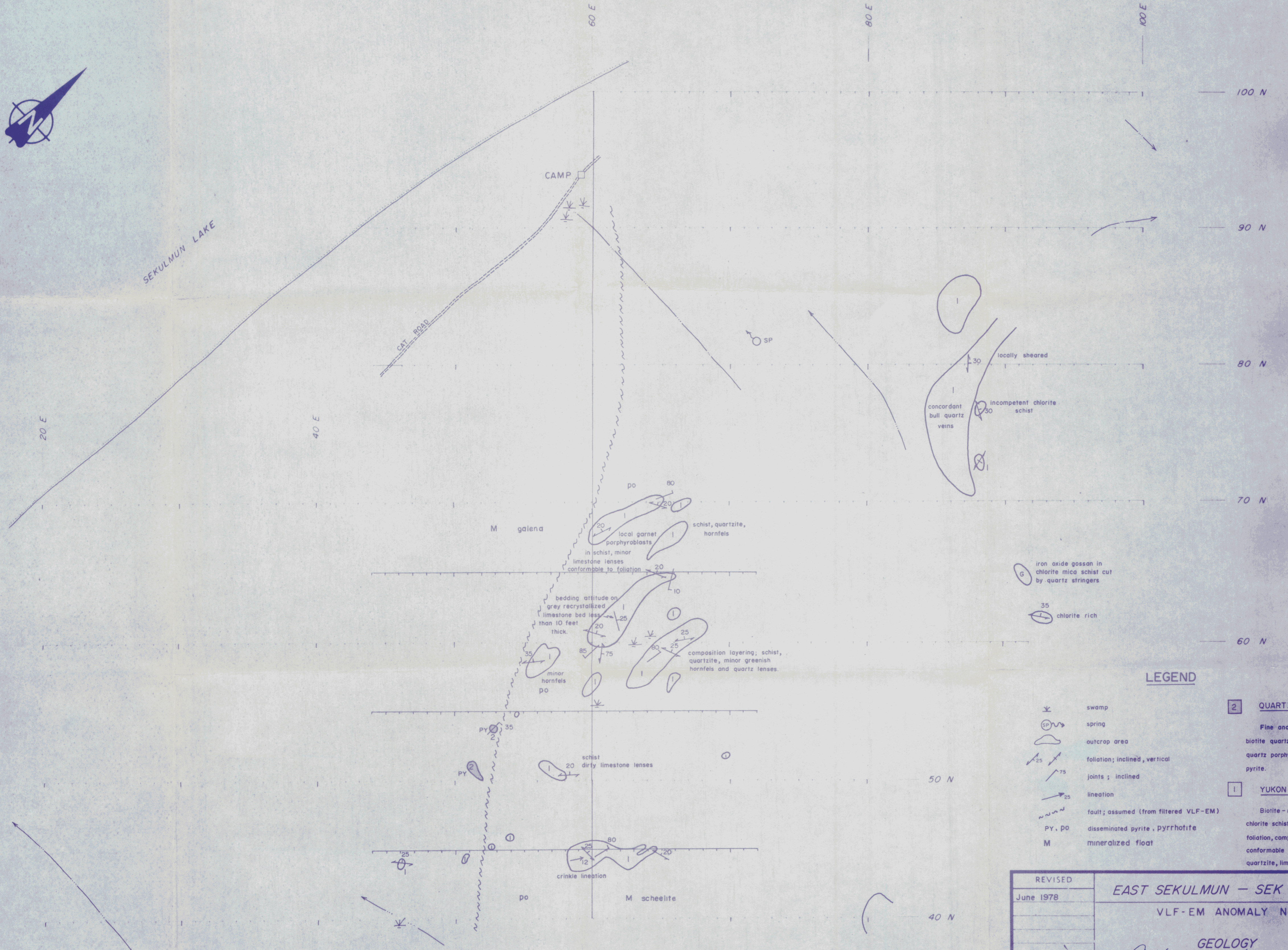
SEKUMUN LAKE



NOTE  
 TO ACCOMPANY MAGNETOMETER ASSESSMENT REPORT BY  
 GLEN MACDONALD, ON THE SEK 1-B MINERAL CLAIMS  
 DATED: JULY 1978

*G Macdonald*

REVISED	DAWSON RANGE RECCEE	
	VLF-EM ANOMALY No. 86	
	EAST SEKUMUN	
	MAGNETOMETER SURVEY	
PROJ. No. 911	SURVEY BY: B FAIRBANK	DATE: NOV, 1977
INT. 115 H/10W	DRAWN BY: JAN VAN VOORST / BDF	SCALE: 1" = 400'
DWG. No.	NORANDA EXPLORATION	
1	OFFICE VANCOUVER	



**LEGEND**

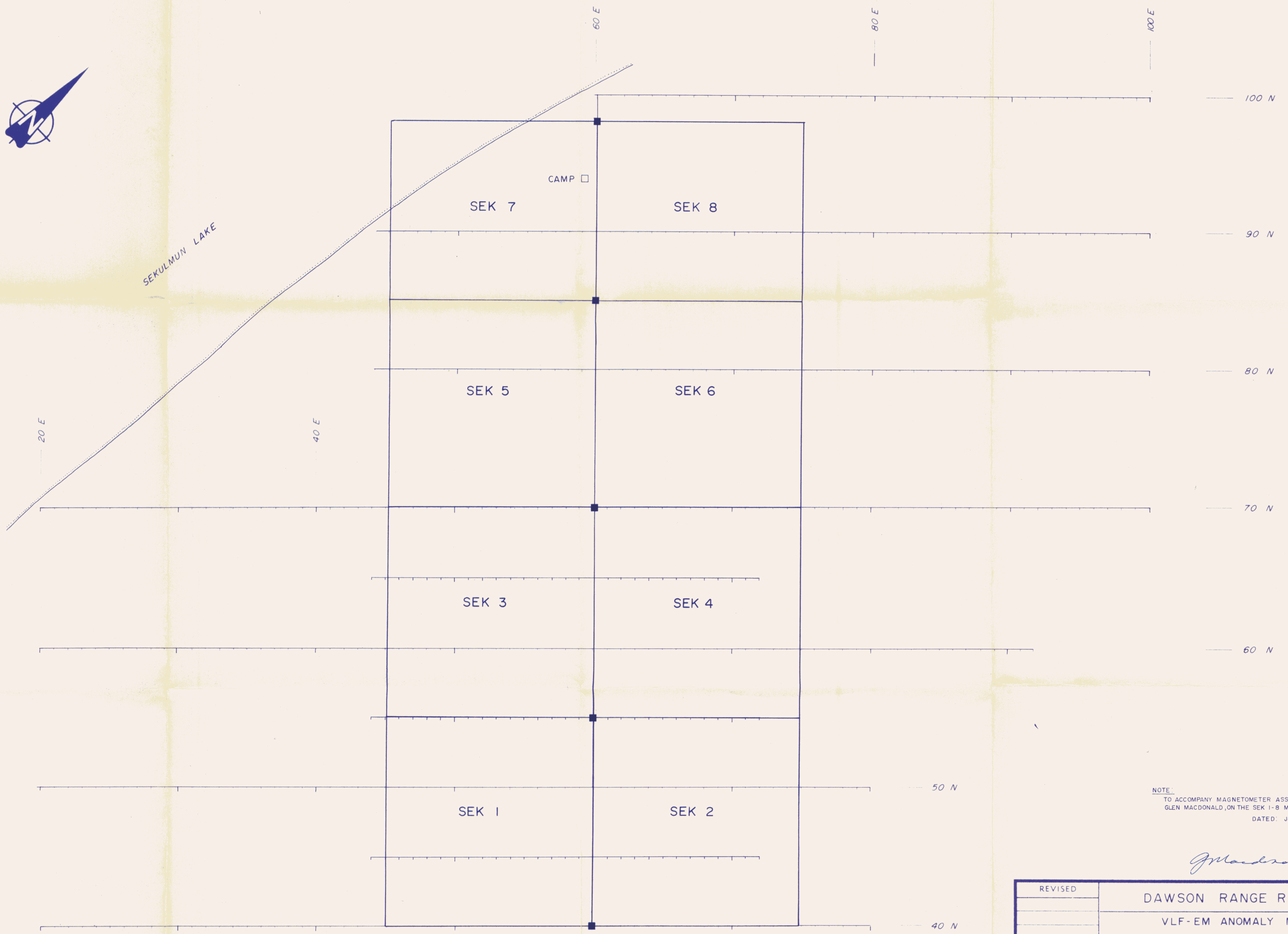
- swamp
- spring
- outcrop area
- foliation; inclined, vertical
- joints; inclined
- lineation
- fault; assumed (from filtered VLF-EM)
- disseminated pyrite, pyrrhotite
- mineralized float
- 2** QUARTZ MONZONITE  
Fine and medium grained biotite quartz monzonite and quartz porphyry. Disseminated pyrite.
- 1** YUKON GROUP  
Biotite - muscovite - quartz - chlorite schist. Well developed foliation, composition layering conformable to foliation. Minor quartzite, limestone and hornfels.

NOTE: to accompany assessment report by G. Macdonald June 1978

REVISED	EAST SEKULMUN - SEK CLAIMS	
June 1978	VLF-EM ANOMALY No. 86	
	<i>G. Macdonald</i> GEOLOGY	
PROJ. No 911	SURVEY BY B FAIRBANK	DATE NOV, 1977
N.T.S. 1:15 H/10 W	DRAWN BY JAN van VOORST / BDF	SCALE 1" = 400'
DWG No	<b>NORANDA EXPLORATION</b>	
<b>2</b>	OFFICE VANCOUVER	



SEKULMUN LAKE



NOTE:  
 TO ACCOMPANY MAGNETOMETER ASSESSMENT REPORT BY  
 GLEN MACDONALD, ON THE SEK 1-8 MINERAL CLAIMS.  
 DATED: JULY 1978

*G. Macdonald*

REVISED	DAWSON RANGE RECCEE	
	VLF-EM ANOMALY No. 86	
	EAST SEKULMUN	
	GRID & CLAIM MAP	
PROJ No. 911	SURVEY BY B FAIRBANK	DATE NOV , 1977
N.T.S. 115 H / 10 W	DRAWN BY JAN van VOORST / BDF	SCALE 1" = 400'
DWG No.	<b>NORANDA EXPLORATION</b>	
3	OFFICE VANCOUVER	