REPORT ON A
MAGNETOMETER SURVEY
ON THE
JOHN X CLAIMS,
SIMILKAMEEN MINING DIVISION,
BRITISH COLUMBIA
(MAP 92H/10 W)
49° 35' N, 120° 50' W

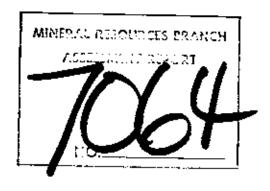
FOR
NORTHERN LIGHTS RESOURCES LTD.
(OPTIONOR OF CLAIMS FROM J. ABROSIMO, OWNER)

OPERATOR - NORTHERN LIGHTS RESOURCES LTD. CONSULTANT - R.W. PHENDLER, P.Eng.

BY R.W. PHENDLER, P.Eng.

DECEMBER 18, 1978

VANCOUVER, B.C.

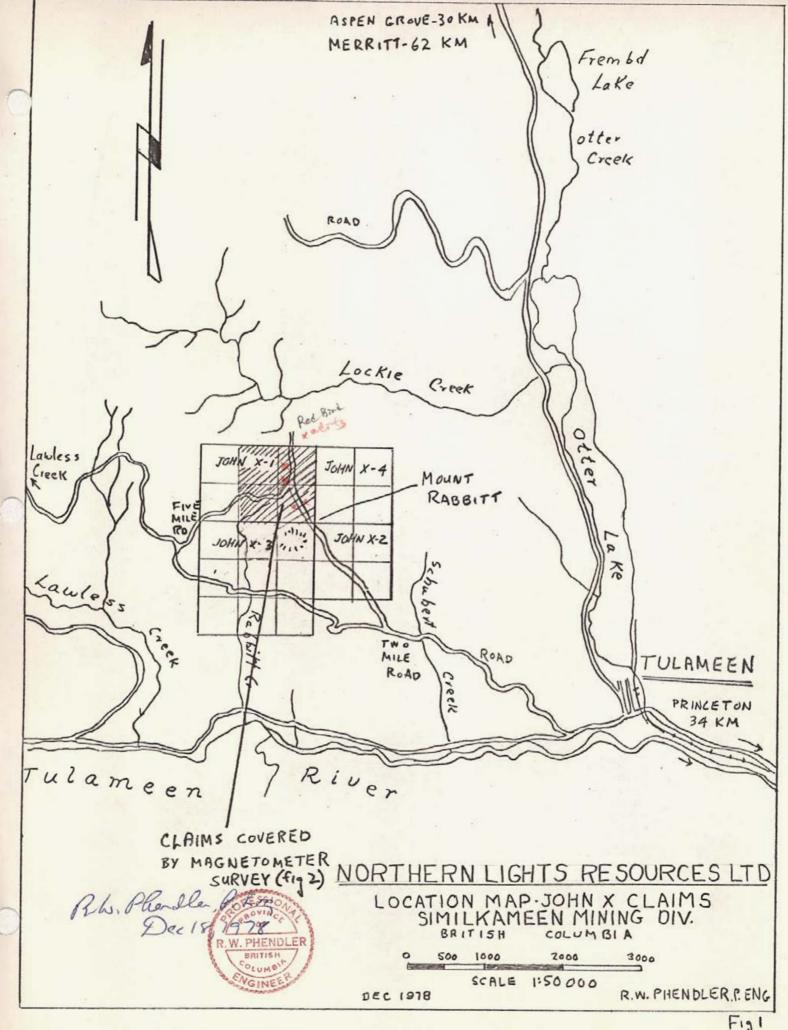


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# ILLUSTRATIONS

F16.	'	-	LUCATION MAP	- JOHN X	CLAIMS	-	1:50,000
FIG.	2	_	MAGNETOMETER	RESULTS -	JOHN X CLAIMS	_	1: 4,800



Figl

R. W. PHENDLER, P.Eng., GEOLOGICAL CONSULTANT. EXPLORATION AND MINING 6175 Granville Street, Vancouver, B.C. V6M, 3E2, Canada

#### INTRODUCTION

At the request of Mr. K. Newton of Northern Lights Resources Ltd., the writer proposed and supervised a magnetometer survey over part of the JOHN X claims, where sulphide minoralization is known to exist. The JOHN X claims are part of the 66 claim Mount Rabbitt property, which was the subject of a qualifying report by the writer dated October 2, 1978.

The JOHN X claims are located at an elevation of 1,200 - 1,500 meters about 40 kilometers northwest of Princeton in southwest British Columbia. The area is generally known as the Tulameen district, and is accessible by car from Princeton by following a paved road northwest through Coalmont and Tulameen. One kilometer west of the town of Tulameen on the Tulameen River road a good gravel road forks to the north, providing access to the Rabbitt Mountain and Lawless Creek area. Two roads depart from this road to the claims under discussion at the two mile and five mile point.

The JOHN X claim group (see fig. 1) is composed of 23 claims forming an irregular square covering Mount Rabbitt.

The claims under discussion cover the old Red Bird group, which was originally staked in 1913 and was taken over by the Federation Copper " Kentre Mines Ltd. in 1929. The principal mineral zone was explored by two crosscuts (Portais #1 and 2 - fig. 2) and a short winze sunk from #2. The upper crosscut was extended for 130 meters into the hill, but was still short by 30 meters of the downward projection of a second chalcopyrite zone scen on surface. The average copper content of the mineral

- 4 - 44 30

zones, which are as much as seven meters wide but average 0.7 meters wide, is about 2%, with gold and silver values generally low (Geology and Mineral Deposits of the Princeton Map Area, British Columbia - H.M.A. Rice, Memoir 243, Geological Survey of Canada - 1960).

There is evidence of diamond drilling on the property, but no records are available.

In 1968 Copper Mountain Consolidated Ltd. held claims presently covered by the JOHN X-3 claim block. An induced polarization survey was carried out by Hunter Ltd., which detected an anomalous zone which strikes N-S for about 200 meters. Drilling was recommended but not done.

in 1973 a magnetometer, VLF-EM and geochemical survey was carried out over an area that coincides with the JOHN X-4 and JOHN X-2 claims. This work was done by Geotronics Ltd. and outlined the volcanic-granediorite contact, but failed to outline any zones of magnetite concentrations, which are often associated with copper mineralization, i.e. Craigmont, Mattagami and Thompson, Manitoba.

The property is presently under option to Northern Lights Resources Ltd. from John Abrosimo of Princeton, 8.C. Northern Lights carried out prospecting, road rehabilitation and some diamond drilling during 1978.

The Mount Rabbitt property (of which the JOHN X claims are a part) contains chalcopyrite mineralization within fracture zones and as rich pods and disseminations. The possibility exists that economic copper mineralization exists on the property and warrants further exploration. The geological setting is similar to the Similkameen copper deposit of Newmont Ltd. - i.e. fractured andesite with nearby granodiorite plugs.

About 14 kilometers of line were run by compass, chained and flagged and magnetometer readings recorded every 30 meters between September 16 and 20, 1978.

### MAGNETOMETER SURVEY

Fourteen kilometers of flagged grid were established in sixteen north-south lines spaced sixty meters apart. Stations were established at 30 meter intervals on the cross lines (N-S) which were set off the eastwest base line.

Magnetometer readings were first taken on the base line stations to establish them as base stations relative to a magnetometer base station located at base line 6+60E near the access road. Readings were then taken at the 30 meter stations on the north-south cross lines. The operator checked back to the base station every two or three hours to minimize the effect of diarnal variations. Adjustments were made (corrections) to readings according to the differences when crossing the base line stations each time.

Magnetometer readings were taken by R.B. Newton using a Sabre Vertical Intensity Magnetometer - Mark V. Mr. Newton calculated all corrected readings and plotted the results (fig. 2).

#### RESULTS

Magnetic values range from 367 to 474 gammas over the area covered with a weak area of higher values in the southwest quadrant (in excess of 450 gammas). This area is the scene of bulldozer trenching where disseminated pyrite and chalcopyrite were seen by the writer across a 5 meter width (assayed 1.64% Cu). The VLF survey carried out in 1973 outlined a weak anomaly in this area, and the Induced Polarization survey conducted in 1968 disclosed the presence of an area of high chargeability with readings 3 to 4 times background of 3.0 to 4.0 milliseconds. Diamond drilling is recommended in this area.

The general narrow range of values indicates that the host rock Nicola andesite volcanics are relatively homogeneous with no iron-rich intrusive dykes of any size present. If magnetite is associated with the known

chalcopyrite bearing veins or zones in the area of previous underground development, they are of insufficient width to be detected by the magnetometer. The values recorded represent the vertical component of the magnetic field and the readings in gammas are relative.

## RECOMMENDATIONS

It is recommended that a combination detailed geochemical-magnetometer survey be conducted over the more favourable areas and that follow-up magnetometer work be done where reconnaissance geochemical work discloses the presence of copper soil anomalies.

Respectfully submitted,

W Refrends on FR Eng.

Dec 18 1978

## QUALIFICATIONS

- 1, Roy William Phendler of the City of Vancouver in the Province of British Columbia, hereby certify as follows:
- That I am a registered Professional Engineer in the Province of British Columbia, #4421.
- That I am a graduate of McGill University, Montreal, Quebec, with a Bachelor of Science in Geology.
- That I have practiced my profession as mine, exploration and consultant geologist continuously for the past twenty-six years throughout Canada, the U.S.A., Mexico, Peru, Colombia and Chile.
- 4. I have not received nor do I expect to receive any interest directly or indirectly in the JOHN X claims, nor do I own directly or indirectly any securities in Northern Lights Resources Ltd. or any affiliated companies.
- That the information contained in this report was compiled as a result of my examination of the said property on September 16, 1978 during the time the magnetometer survey was conducted.

December 18, 1978

Holladle V. Erg

September 2

6017 Larch Street, Vancouver, B.C., December 21, 1978

#### TO WHOM IT MAY CONCERN:

This is confirmation that I, Robert B. Newton, have, for the past six years, conducted field and exploration work for Northern Lights Resources Ltd. (N.P.L.) and Exel Explorations Ltd. (N.P.L.). Such work has consisted of scintillometer surveys, magnetometer surveys, geo-chemical surveys, sampling, trenching, claim-staking and diamond drilling. With a Bachelor of Arts in Geography to my credit, I meet many of the basic prerequisites associated with the mining industry, with studies in geology, geomorphology, mineralogy and cartography.

At all times, any work that I have done in the past has been under the supervision of a qualified mining engineer.

Dated this 21st day of December, 1978.

Robert B. Newton

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# STATEMENT OF EXPLORATION AND DEVELOPMENT EXPENSES

# Physical

Supplies		
l box dynamite	\$	42.00
3 packages of fuses		22.50
Power chain saw - 3 days @ \$10.50/day		31.50
2 wheel drive truck - \$33/day, less 20%		79.00
Wages		
Slashing - 2 days - 10 hrs./day @ \$8/hr.		160.00
Repair washout - 2 days - 8 hrs./day @ \$8/hr.		128.00
Road clearing - 2 days - 8 hrs./day € \$8/hr.		128.00
Fuel - truck, chainsaw -		10.00
General wages - 5 days @ \$100/day		500.00
	1\$	,111.00
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# Geological Magnetic Survey

Wages - 10 days @ \$100/day	\$1,000.00
Truck rental	1,100.00
Room and board - 10 days @ \$70/day	700.00
Gasoline	95.00
Assaying and engineering	300.00
	\$3,195.00
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Province of British Columbia Ministry of Mines and Petroleum Resources

MINERAL ACT

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M.R. AS	•

# Statement of Exploration and Development

I, FORERT B NEWTON Agent for	NORTHERN LIGHTS RESO	
boit LARCH ST.	6017 LARCH ST.	
VANCOUVER B.L.	VANCOUVER B.C.	
	Valid subsisting F.M.C. No. 167319	
TE THAT		
1. I have done, or caused to be done, work on the KEY.	CLAIM GROUP:	
JOHN-X 1-84 JOHNX-5-8	3 Mineral Cl	aim(s)
Record No.(s) 116-119 (9) 164-	166(1)178 (12)	
Situate at RABBUT MOUNTAIN in the SIA	AILKAMEEN Mining Di	ivisio <b>n</b> ,
to the value of at least \$\frac{\P}{30.15.00}\$ dollar	rs. Work was done from the 14.	day
of SEPTEMBER 1975, to the 21	day of SEPTEMBER1	_2[.e
2. The following work was done in the 12 months in which suc	th work is required to be done:	
(COMPLETE APPROPRIATE SECTION(S) A	, B, C, D, FOLLOWING)	
PHYSICAL (Trenches, open cuts, adits, pits, shafts, reclamation	on, and construction of roads and trails)	
(Give details as required by section 13 of regulations.)	COST	
SUPPLIES: 1 BOX DYNAMITE	. 42.00	
3 PACKAGES OF FUSES		· •
POWER CHAIN SAW - 5		
· · · · · · · · · · · · · · · · · · ·	31.50	
2 - WHEEL DRIVE TRIC		
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WAGES: SLASHING - 2 DAYS - 1	, ,	)
@ \$8.00 /HR.		
REPAIR WASHOUT 2 DAYS	. 1	
@ KB.00/HR.	128.00	
ROAD CLEARING - 2 DA	YS & HES/DAY	
\$ € € · CC / HR ·	128.00	
•	IN SAW 10.00	
- FUEL - TRUCK, CHA	TOTAL PHYSICAL \$111.00	
	·	
ROSPECTING (Details in report submitted as per section 9 of regul (The itemized cost statement must be part of the rep		
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TOTAL PHYSICAL	AND PROSPECTING 1116.60	
I wish to apply \$	listed below.	٠.
(State number of years to be applied to each claim		
	CAIMS :	<b>-</b>
	UNIT, RECORD NO. 16	6(11)
JOHN X - 8, K	DHNITS , RECORD NO 178	(12)
		- /

D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMIC (Details in report submitted as per section (The itemized cost statement must be par (State type of work in space below.)	5, 6, or 7 of regulations.)	
GEOLOGICAL_MAGNETIC	Survey	3195.00
(REPORT TO FOLLOW)		
	TOTAL OF C AND D	3195.00
Who paid for the above-described work? Name, Address	NORTHERN LIGHTS  6017 LARCH ST  VANCOUVER B	<u> </u>
	V6M 4E5	
Portable Assessment Credits (PAC) Withdrawal Re	nesi	AMOUNT
Amount to be withdrawn from owner(s) account(s)		
	Name of Owner	
(May be no more than 30 per cent 1		
4		
	TOTAL WITHDRAWAL	<del></del>
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(State number of years to be app	ied to each claim and its month of reco	ord.)
1 YEAR APPHED TO		
REL		
	JOHN X-5, JO	HN X-6, 244113
RE	LORD NO. 164, 165	F.(11)
	<del></del>	
Value of work to be credited to portable assessment	credit (PAC) account(s).	
(May only be credited from the appro-	ed value of C and (or) D not applied to	o claims.)
-	ame	AMOUNT
In owner(s) name. ?	·	
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Signotine of Applicant)

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