

4718

92I/14E

REPORT ON GEOPHYSICAL SURVEY

ON

E & D #1-8, LUCKY #1-2, P & L #1-10,

SERO FR. MINERAL CLAIMS,

ANGLESEY, B.C.,

KAMLOOPS MINING DIVISION,

50°47', 121°11'

FOR

NORHLAND MINES LTD. (N.P.L)

AND

J.R. ASHDOWN, T.A. WINTERS AND M. HURD

(Work performed: May 13-23, 1973)

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4718	MAP.....

M.P. Stadnyk, B.Sc.
Stadnyk Exploration Services Ltd.

November 12, 1973

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ILLUSTRATIONS

Scale

#1 Location Map	1 inch to 136 miles
#2 Mineral Claim Map	1 inch to 1000 feet
#3 Magnetometer Survey Map - contoured	1 inch to 400 feet
#4 Location map	1 : 50,000

INTRODUCTION

Between May 13 and 23, 1973, a grid comprising of 17.4 miles was laid out for the purposes of a magnetometer survey. This work was conducted by Stadnyk Exploration Services Ltd for Northland Mines Ltd and J.R. Ashdown, T.A. Winters and M. Hurd over the E & D, P & L, Lucky #1, #2, and Zero Fractional Mineral Claims.

Prior to the above work a chain and Brunton compass survey was completed over all the Northland Mines Ltd claims. As shown on the Mineral Claim Map, the Bozo Fr. does not exist as described by the staker. This survey also allowed the grid to be laid out correctly, but no monetary credit is sought for it in this report.

The magnetometer survey revealed a number of linear trends, but correlation of low magnetic readings with known copper sulphide mineralization suggest a large area worthy of careful investigation in the northern half of the property. Some linear anomalies occur close to known sulphide vein showings, especially up "Cabin Gulch".

No close correlation is possible between this survey and a limited reconnaissance induced polarization survey carried out in 1972.

LOCATION AND ACCESS

The E & D, P & L claim groups are situated 13 miles east of Cache Creek, B.C. and immediately north of the Trans Canada Highway.

Co-ordinates are -

50° 47' north latitude
121° 11' west longitude

Access to the property from the Trans Canada Highway is by secondary roads, some of which are suitable for cars. A 4X4 road branches off from the B.C. Hydro powerline road at 24N and leads to recent workings at 60N.

Access to the property is possible at all times of the year.



Department of
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 ASSESSMENT REPORT
 No. **4718** MAP # **1**

And Stadrup
 STADNYK EXPLORATION SERVICES LTD.
 NORTHLAND MINES LTD. (N.P.L.)
 ED - P & L CLAIM GROUP
 KAMLOOPS MINING DIVISION
LOCATION MAP
 SCALE: 1" = 136 MILES
 DECEMBER, 1973

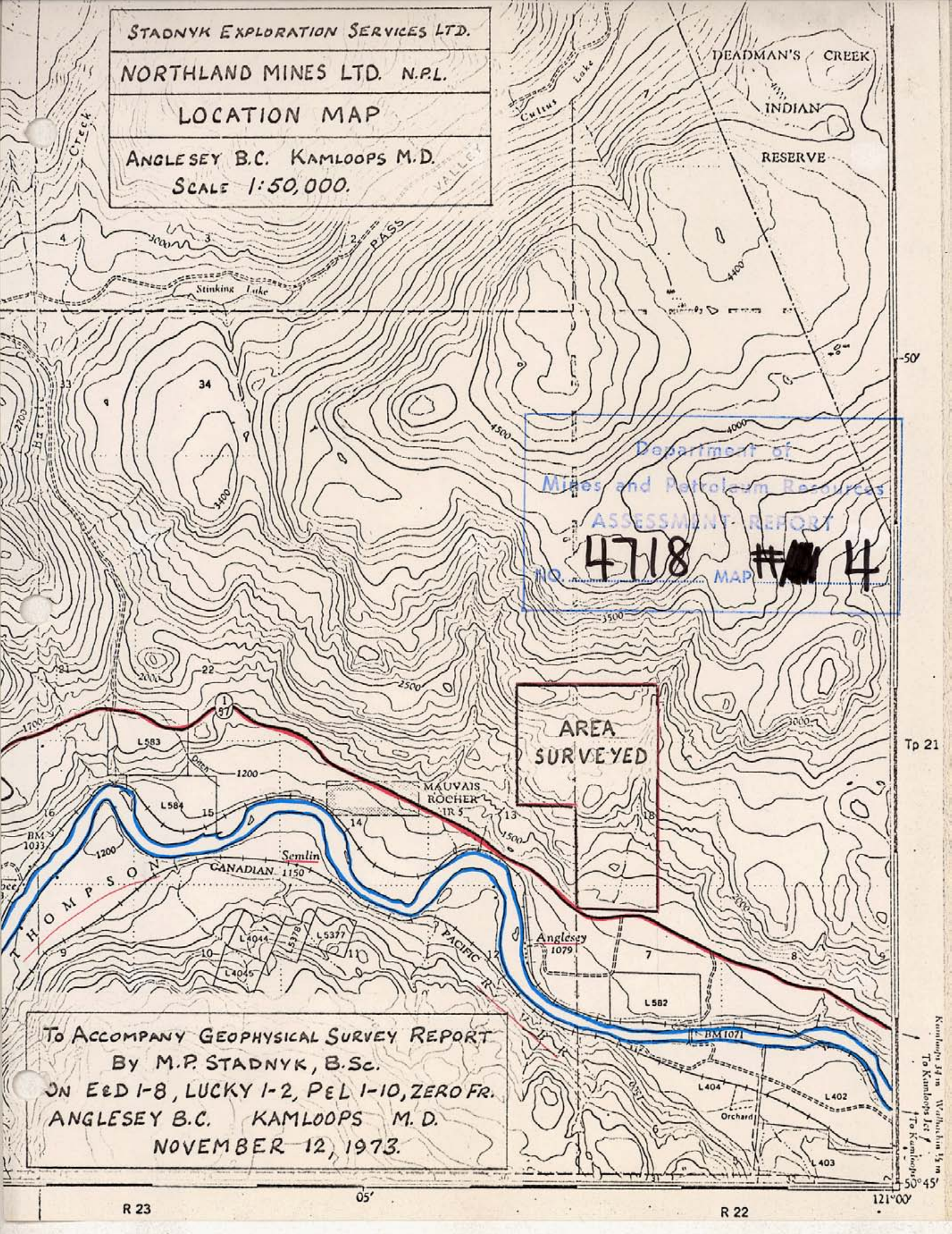
STADNYK EXPLORATION SERVICES LTD.

NORTHLAND MINES LTD. N.P.L.

LOCATION MAP

ANGLESEY B.C. KAMLOOPS M.D.

SCALE 1:50,000.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4718 MAP # 4

AREA
SURVEYED

TO ACCOMPANY GEOPHYSICAL SURVEY REPORT
By M.P. STADNYK, B.Sc.
ON E&D 1-8, LUCKY 1-2, PEL 1-10, ZERO FR.
ANGLESEY B.C. KAMLOOPS M.D.
NOVEMBER 12, 1973.

TOPOGRAPHY AND VEGETATION

The claim group is located on low rolling hills which gradually steepen to the north and east. A deep V shaped valley called Cabin Gulch commences at the powerline and trends north beyond the claim group. This valley is either a contact zone or fault separating Kamloops? group brick red-purple volcanicis on the east from a variety of intrusives to the west. A rough road traverses this valley for half its length, and an intermittent spring is also found here.

As precipitation in this area is less than ten inches per annum, the vegetation south of the powerline consists of low sagebrush bushes, while to the north widely spaced pines and stunted grasses make for a parkland appearance. Some stands of dense second growth are found near sub-surface water courses on the northern half of the property.

The only source of water for drilling purposes is in Cabin Gulch.

MINERAL CLAIMS

According to records at the Mining Recorder's Office at Kamloops, B.C., the E & D, Lucky and Zero Fr. mineral claims were staked by J.R. Ashdown and T.A. Winters, but through subsequent bills of sale they are equally owned by J.R. and J.E. Ashdown, T.A. Winters, and L.C. Humphreys. The P & L claims were staked by L. Ovington and sold to M. Hurd.

Subsequently all claims were optioned by Northland Mines Ltd. (N.P.L).

Details of the claims are:-

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
E & D #1-6	50083-088	May 19, 1975
Lucky #1-2	68724-725	April 11, 1975
Zero Fr.	69113	May 22, 1974
P & L #1-4	96982-985	May 25, 1974
P & L #5-10	96986-991	May 25, 1975

All claims are located in the Kamloops Mining Division and have been regrouped as the "Rattler" Group.

HISTORY

Earliest records of exploration on this ground are found in G.S.C. Memoir 262, page 107 - Fairview prospect. Open cuts and limited diamond drilling were performed at various locations of the property in search for sphalerite, chalcopyrite and pyrite.

Ashdown and Winters staked the ground in 1955, but due to an unknown reason Cache Creek Mines Ltd allowed the "key" claims to lapse in 1971 and these were restaked by L. Ovington in 1971.

In 1958 a reconnaissance geiger counter survey was performed by personnel from the B.C. Department of Mines but no report was issued.

In 1961 a geochemical survey of questionable value was performed.

In 1967 Caterpillar trenching was carried out in the vicinity of old workings near line 60N. This trenching was under the direction of the author, and did expose a larger area of sulphides with copper values ranging from 0.20 to 0.40%; silver 0.10 to 0.40 ounces per ton; zinc to 1.00% and traces of gold.

Cache Creek Copper Mines Ltd optioned the property in 1970 and drilled seven or eight drill holes for a total footage in excess of 2,000 feet. This work was poorly organized, the core was not logged, carelessly split for assay, and assay results were of dubious value. A resume of four drill holes is as follows:-

<u>Hole</u>	<u>Footage</u>	<u>Cu %</u>	<u>Zn %</u>	<u>Ag oz/t</u>
#2	40-240(?)	0.25	-	0.40
#3	100-115	0.41	4.2	0.10
#3	0-200	0.23	-	0.30
#4	0-140	0.81	-	0.006
#7	0-63	0.25	-	-

All drill holes were on the former A & H claims which the Company failed to file work upon. They were restaked as the P & L claims.

In 1972 a reconnaissance induced polarization survey comprising of two lines was conducted by Kenting Exploration Services Ltd of Calgary, Alberta.

The claim group was optioned to Northland Mines Ltd (N.P.L) in 1972.

REGIONAL GEOLOGY

The Geological Survey of Canada map 1010A - "Ashcroft" reveals rocks of this area to be Upper Triassic Nicola Group comprising of basalts, andesites, tuffs, agglomerates, limestones, quartzites, argillite, greywacke, and arkose, which are intruded by Lower Jurassic Guichon Creek Batholiths comprising of granite, granodiorite, quartz diorite and diorite. Both of these in turn are overlain by Tertiary Kamloop Group of basalt, andesite, rhyolite and associated tuffs and breccias.

Plutonic rocks of the Guichon Creek Batholith are important host rocks for copper mineralization as shown by past and present producers in the Highland Valley - Bethlehem Copper Corporation, Lornex Mining Corporation, O.K. Mines, Highmont Mining Corporation and Valley Copper Mines Ltd.

Copper, silver, gold and mercury are also found in the Nicola Group rocks.

LOCAL GEOLOGY

The property has not been geologically mapped but rocks of all three lithological units have been observed on the property while conducting the magnetometer survey.

Mineralization, principally pyrite, chalcopyrite and malachite, is fairly widespread, and occurs as veins, veinlets, a fine grain stockwork and as disseminations.

Known locations of interesting copper showings occur west of Cabin Culch road between 36N and 40N; at approximately 8E, 60N; and fairly widespread around baseline 60N. It was in this area that a diamond drill core assay of "0.81% over 140 feet" was reported by Cache Creek Mines Ltd. Other holes and trenches had lower values but traces of silver were detected.

As noted earlier assays must be treated with care.

SURVEY GRID

A grid comprised of 17.42 miles (92,000 feet) of line was cut out by Stadnyk Exploration Services Ltd of Vancouver, B.C.

The base line commenced at Lucky #1, 2 claim posts and extended northwards for 8,600 feet at 008°. Cross lines were placed at right angles every 400 feet along the base line.

Pickets were used for all stations and axe work was restricted to minor areas of dense second growth. Stations were marked at 100 foot intervals and the pickets flagged.

GEOPHYSICAL (MAGNETOMETER) SURVEY

The magnetometer survey was conducted using a Sharpe Model MF 1-100 fluxgate, No.30110, and a Sharpe Model MF 1 fluxgate, No.30544, coupled to an Esterline Angus continuous recorder model MR 100, serial no.71101. The fluxgates are self orienting and require only coarse levelling. Temperature compensations have been built into the instruments. Values on the lowest scale can be read to two gammas and estimated to one gamma on the MF 1-100. Values on the lowest scale on the MF 1 can be read to twenty gammas and estimated to five. Normally this scale is used for taking readings during a survey.

Scales for both instruments range from plus 100,000 to minus 100,000.

A high latitude adjustment permits zeroing of the instruments at any location. A battery check is also built into the metering circuit.

The Esterline Angus recorder has a battery operated drive motor which moves the tape at a constant speed of three inches per hour. The instrument can be set to read full scale deflections of $\pm 150,300$ or 500 gammas. Values per minor division can be read to 6, 12 or 20 gammas respectively.

Field Procedure

Both instruments were zeroed for the property at a master station at Base line 52N. Base readings were established at 400 foot intervals along the base line.

Corrections

Compensations are built into the fluxgates to eliminate any need for temperature corrections being applied to field readings. Diurnal corrections were applied to field readings using variations plotted by the continuous chart recorder.

GEOPHYSICAL INTERPRETATION

Calibration for the fluxgates at the master station for the survey was set at +500 gammas. Recorder was set at zero.

Highest and lowest corrected readings were plus 2300 and minus 700 gammas. Background for the survey area is 600-800 gammas.

The most striking feature of the contoured data is the strong linear north-south magnetic trends. Values of 800 and greater gammas east of Cabin Gulch fit well with the outcrops of brick red - purple volcanics of the Kamloops Group? A broad low anomaly of under 400 gammas at the north-east corner of the property appears to be due to varied metasediments (argillites and quartzites).

Known sulphides in the northern half of the property fall between 400 to 600 gammas and this area (56N to 80N, 14E to 12W) should be carefully examined for other indications of mineralization.

Isolated point highs and lows do not represent any significant importance but the 2300 gamma reading is in the vicinity of high basaltic cliffs.

No close correlation was possible between this survey and the I.P. survey carried out in 1972.

It is strongly recommended that this survey be followed up by geological mapping to localize the area of greatest possible mineralization potential.

PERSONNEL

Line cutting and magnetometer survey was carried out by Stadnyk Exploration Services Ltd of Vancouver, B.C. The author carried out the survey and assisted in linecutting. Field assistants were obtained from Walachin, B.C.

This work was conducted between May 13 and 23, 1973.

EQUIPMENT AND ACCOMMODATION

Stadnyk Exploration Services Ltd supplied a large camper for accommodation; a Ford 3/4 ton 4X4 pick-up truck for transportation; two Sharpe MF1 fluxgates, an Angus Esterline recorder, food, and other miscellaneous field supplies.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey performed on the E & D, P & L and Lucky mineral claims at Anglesey, B.C. for Northland Mines Ltd (N.P.L) revealed strong north trending magnetic anomalies which conform well with known rock types. Other magnetic

readings conform well with known areas of copper sulphide mineralization in the northern half of the survey area. This "anomalous zone" is worthy of further investigation.

No correlation was possible between the magnetic and induced polarization surveys.

It is recommended that:-

1. The property be geologically mapped.
2. A geochemical survey be performed.
3. A geophoto study be made of various linaments.
4. All the above surveys be correlated with the geological mapping.
5. An induced polarization survey be carried out over the most promising parts of the property.
6. Trenching and drilling be dependent upon information gained from above surveys.

Report respectfully submitted



M.P. Stadnyk, B.Sc.

Stadnyk Exploration Services Ltd.


November 12, 1973

CERTIFICATION

I, Mike Peter Stadnyk, of North Delta, B.C., do hereby certify that:

1. I am a mining exploration geologist residing at 11625 Cory Drive, North Delta, B.C.
2. I am a graduate of the University of New Zealand and have practised my profession in Canada since 1961.
3. I am an Associate Member of the Geological Association of Canada, a Member of the Australasian Institute of Mining and Metallurgy, and a Member of the Australian Society of Exploration Geophysicists.
4. Information contained in the report is based upon work carried out by me, or at my direction, between the period of May 13 and 23, 1973.

November 12, 1973
North Delta, B.C.


M.P. Stadnyk, B.Sc.
Geologist.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of Magnetometer Survey on the E & D
#1-6, P & L #1-10, Lucky #1-2, Zero Fr. Mineral
Claims, Anglesey, B.C., Kamloops Mining Division.

I, M.P. Stadnyk,
11625 Cory Drive,
North Delta
of

F.M.C. #116266
Issued May 17, 1972
at Vancouver, B.C.

in the Province of British Columbia, do solemnly declare that the following personnel were employed and costs incurred in conducting this survey.

Personnel:

F. Froste	May 16-23, 1973	8 days @ \$60.00 per day	\$480.00
G. MacLean	May 14-23, 1973	10 days @ \$60.00 " "	600.00
M.P. Stadnyk	May 13-23, 1973	11 days @ \$100.00 " "	<u>1,100.00</u>
			\$2,180.00

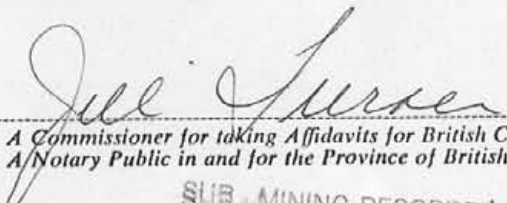
Disbursements:

Magnetometer rentals (2 fluxgates, 1 recorder)	\$225.00	
Truck - 11 days @ \$25.00 per day	275.00	
Camper and food - 10 days @ \$15.00 p.d.	150.00	
Miscellaneous field supplies (pickets, flagging)	65.00	
Report - 3 days @ \$100.00 per day	300.00	
Drafting charges	225.00	
Typing and copies	<u>70.00</u>	<u>1,310.00</u>
Total		<u>\$3,490.00</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 14
day of November, 1973, A.D.



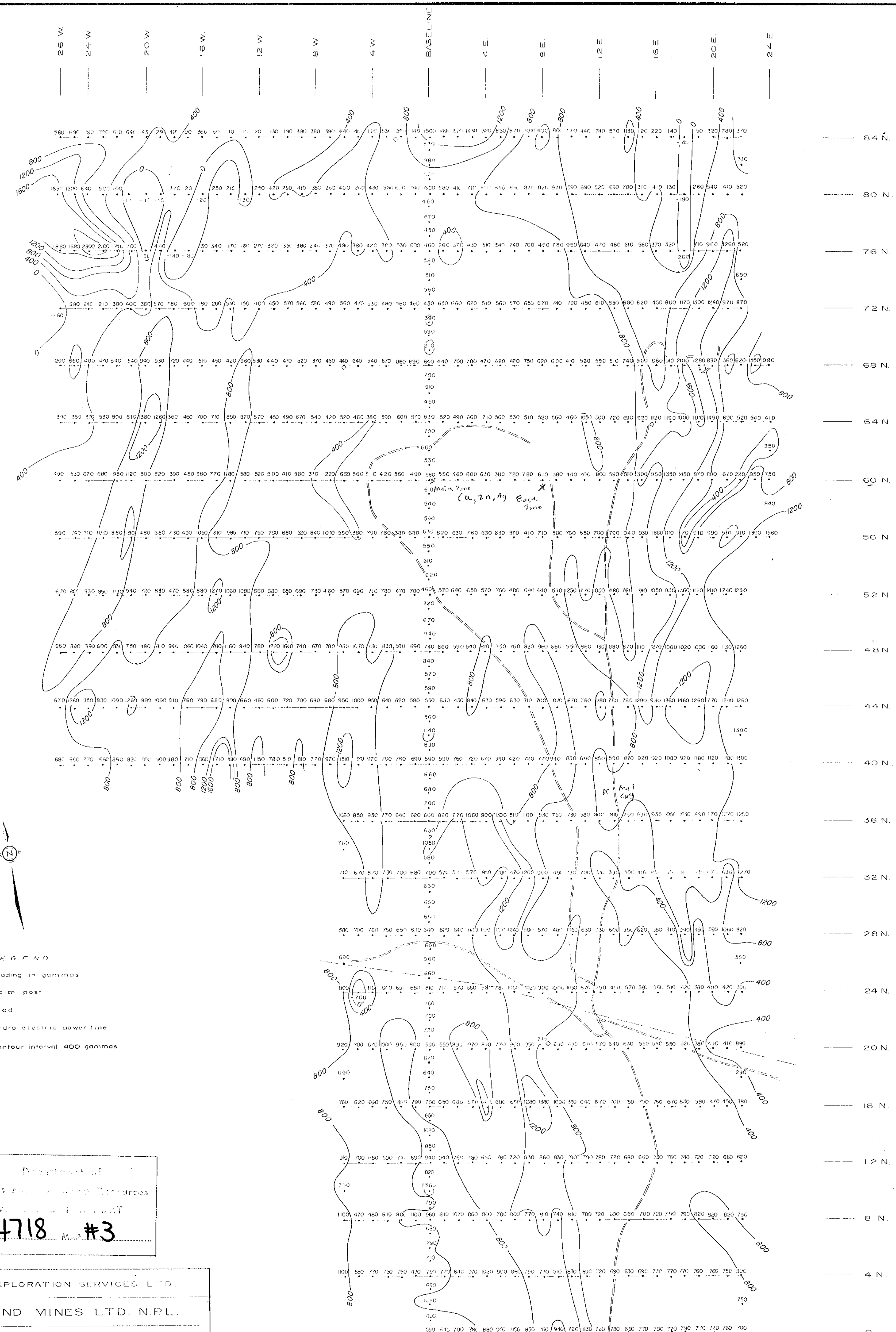

A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.
SUB-MINING RECORDER



AREA OF SURVEY

STADNICK EXPLORATION SERVICES LTD
NORTHLAND MINES LTD. N.P.L.
MINERAL CLAIM MAP
ANGLESEY BC KAMLOOPS MD
SCALE IN FEET
0 250 500 750 1000 1500
SURVEY BY CHAIN & BRUNTON COMPASS APRIL 1973 M.P.S
NOVEMBER, 1973

4718-M2



LEGEND

- 750 Reading in gammas
- Claim post
- == Road
- Hydro electric power line
- 800 Contour interval 400 gammas

Department of
 Mines and Technical Surveys
 Geological Survey of Canada
 NO. 4718 MAP #3

STADNYK EXPLORATION SERVICES LTD.
 NORTHLAND MINES LTD. N.P.L.
 ED.-P & L CLAIM GROUP
 KAMLOOPS MINING DIVISION
MAGNETOMETER SURVEY
 SCALE IN FEET
 400 200 0 400 800 1600
 NOVEMBER, 1973

A718-M3