3220

Electromagnetic Survey

On

EX, EX1, C1, SPAR, F Claims

Lat. 51° 05' Long. 119° 30' 82M/14E

In

Kamloops Mining Division

For

GIANT METALLICS MINES LTD. (N.P.L.)

By

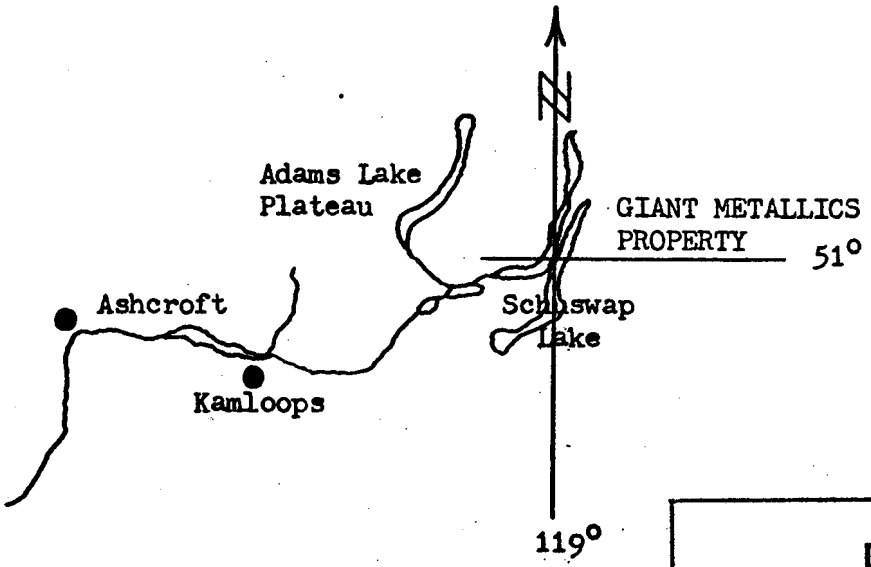
STRATO GEOLOGICAL LTD.

And

C. H. DONALDSON, P. ENG.

July 20, 1970

TABLE OF CONTENTS



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3220 MAP #3/1

B R I T I S H C O L U M B I A

U . S . A .

LOCATION MAP
GIANT METALLIC MINES
LTD (N.P.L.)
July 22,1970

To accompany a report
by
C.H. Donaldson P.Eng.

STRATO GEOLOGICAL

INTRODUCTION:

Giant Metallics Mines Ltd. (N.P.L.) requested Strato Geological Ltd., Mineral Exploration Contractors and C. H. Donaldson, Professional Engineer, to carry out an electromagnetic survey on the EX, EX1, C1, SPAR, F claims of their Adams Plateau property.

PROPERTY:

The property comprises 150 contiguous claims held by location:

Claim	Record Number
EX, EX1	10261 - 10262
EX2 FR	12577
C1	12569
C2, C3	12524 - 12525
PAT1 - 2	12575 - 12576
PAT5 - 6	13733 - 13734
PAT7	13830
PAT8 - 9	13862 - 13863
PAT10 - 11	13884 - 13885
PAT12	13965
E1 - 10	13370 - 13379
E1 - 3	13698 - 13700
E4	37829
E5 FR	38132
F1, F	14683 - 14684
F3 - 4	15360 - 15361
BEE1 - 2	51267 - 51268
S1 - 8, S9 FR	54164 - 54172
R, R1	55202 - 55203
B, B1 - 3	55204 - 55207
N1 - 4	55208 - 55211
G1 - G9	55212 - 55219
N5 - 10	55781 - 55786
F5 - 6	15362 - 15363

PROPERTY cont'd:

Claim	Record Number
GARNET1 - 8	30511 - 30518
D1 - D7	37831 - 37835
LUCKY1 - 12	44395 - 44406
LUCKY15 - 19	44408 - 44412
LUCKY22 - 25	44415 - 44418
SPAR	43916
BEE	51266
G10 - 11	55787 - 55788
R2 - R8	57694 - 57700
K, K1 - 10	60280 - 60290
L	60291
Z	60292
W FR	59411
A FR	59409
D FR	59410
PAT FR	60277
PAT1 FR	60278
PAT2 FR	60279
R9 - 11	57701 - 57703
ZARATITE2 - 1	64902 - 64903
ZAFFER FR	64901
ZARF1 - 6	64895 - 64900

All the above claims are held by Giant Metallics Mines Ltd. (N.P.L.).

GEOLOGY (GENERAL):

The property lies within the area commonly known as the Adams Plateau.

The preliminary map of the Geological Survey No.48 - 1963 shows the geology of the Adams Plateau on a scale of 4 miles per inch. No detailed map is available of the property, but the geology may be

GEOLOGY (GENERAL) cont'd:

summarized as follows:

The area is underlain by a thick series of sedimentary and volcanic rocks which have been intruded by granite, granodiorite and porphyry dykes. The sedimentary and volcanic rocks have been folded and metamorphosed. The general strike is northeasterly with a northwesterly dip.

The most abundant rocks comprise limestone, argillaceous limestone, greenstone schist, quartz sericite schist, quartzite and phyllite.

Throughout the sedimentary and metamorphic rocks there are replacement zones of silver-lead-zinc and iron mineralization with some copper in certain areas. Also, a mineralized quartz vein structure was noted.

The principal minerals are sphalerite (marmatite), galena, pyrrhotite, arsenopyrite, chalcopyrite, tetrahedrite, and argentite along with minor quartz epidote, chlorite, calcite and mica.

METHOD OF SURVEY:

The Electromagnetic Survey was conducted by Strato Geological Ltd., 37 - 615 West Hastings Street, Vancouver 2, B. C. using a Sharpe

METHOD OF SURVEY cont'd:

S.E. 200 E.M. instrument. The period of the survey was May 16 - 29, 1970.

A base line was run East for a distance of 670 feet.

To the North three lines were run a distance of 2,850 feet each. The lines are designated as AL, AK and AJ at 0, 330 and 670 feet East.

The the South seven lines were run a distance of 1,850 feet each. The lines are designated as A B C D E F and G at 0, 100, 200, 300, 400, 500 and 600 feet East.

Readings were taken at 100 foot intervals with 300 foot coil separation from 0 to 2,800 feet North and 150 to 1,850 feet South by Method A. In addition Method B was used on the whole of lines E, F, G, AJ and portion of AK.

PERSONNEL:

The field work was under the supervision of Mr. H. Leis who has been the Manager of Strato Geological Ltd. for the past four years and as such has supervised numerous exploration projects throughout B. C. and Western Canada.

PERSONNEL cont'd:

The geophysical programme was carried out by Mr. Uno Leis, a graduate of Carleton University, who has completed geochemical and geophysical surveys throughout B. C.

Mr. Uno Leis was assisted by Messrs. Ed Thorburn and Howard Hong, both of whom have had previous experience in mining exploration in B. C.

CONCLUSIONS:

The three lines in the North section showed negative results.

In the South area, Method B showed a small differential, but cannot be considered as anomalous.

COSTS:

Line Cutters and Supervision	
1 man x 3 days x $35.00	$ 105.00
2 men x 14 days x $35.00	980.00
Technician and Instrument	
7 days x $90.00 per day	630.00
Report by Professional Engineer	300.00
Subtotal Carried Forward	$ 2,015.00

COSTS cont'd:

Subtotal Forwarded		$ 2,015.00
Mobilization	285.46	
Room & Board	199.74	
Field Supplies	45.68	
Misc. Expenses	5.85	536.73
TOTAL		$ 2,551.73

Declared before me at the City of Vancouver, in the Province of British Columbia, this 20 day of April 1971, A.D.

C. H. Donaldson

C. H. DONALDSON, P. ENG.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA C. H. DONALDSON

Jill Juran

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

SUB-MINING RECORDER

CERTIFICATION:

I, Clarence H. Donaldson of the City of Vancouver in the Province of British Columbia, hereby certify as follows:

1. That I am a Registered Professional Engineer of the Province of British Columbia and reside at Suite 101 Brentwood Apts., 2050 Barclay Street, Vancouver 5, British Columbia.

2. That my mining experience embraces all phases of the mining industry and I have worked throughout Canada, Australia, South Seas and parts of U. S. A. and Mexico.

3. That I have no interest either directly or indirectly in the claims or securities of Giant Metallics Mines Ltd. (N.P.L.), nor do I expect to receive any.

4. That the information contained herein was obtained through an examination of the geophysical results, plans and reports of Strato Geological Ltd., as well as a personal examination of the property prior to the geophysical survey.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA C. H. DONALDSON

C. H. DONALDSON, P. ENG.

THE SE-200 PORTABLE ELECTROMAGNETIC UNIT

INTRODUCTION

The use of electromagnetic induction methods for the detection of subsurface conductors, including base metal sulphide ore bodies, is well established and accepted. The fundamental principal on which all these methods are based is as follows: when a conductor is placed in an audio frequency alternating magnetic field eddy currents are caused to flow within it. These eddy currents set up a secondary field which distorts the original magnetic field. All electromagnetic induction methods detect the presence of a subsurface conductor by measuring the distortion of the transmitted field.

Chief among subsurface geologic conductors are metallic sulphide bodies and graphite zones. The former include the majority of copper, lead, zinc and nickel ore bodies. Other conductors, generally of lesser strength, include electrolyte filled shears and faults, massive magnetite, serpentine and certain types of overburden.

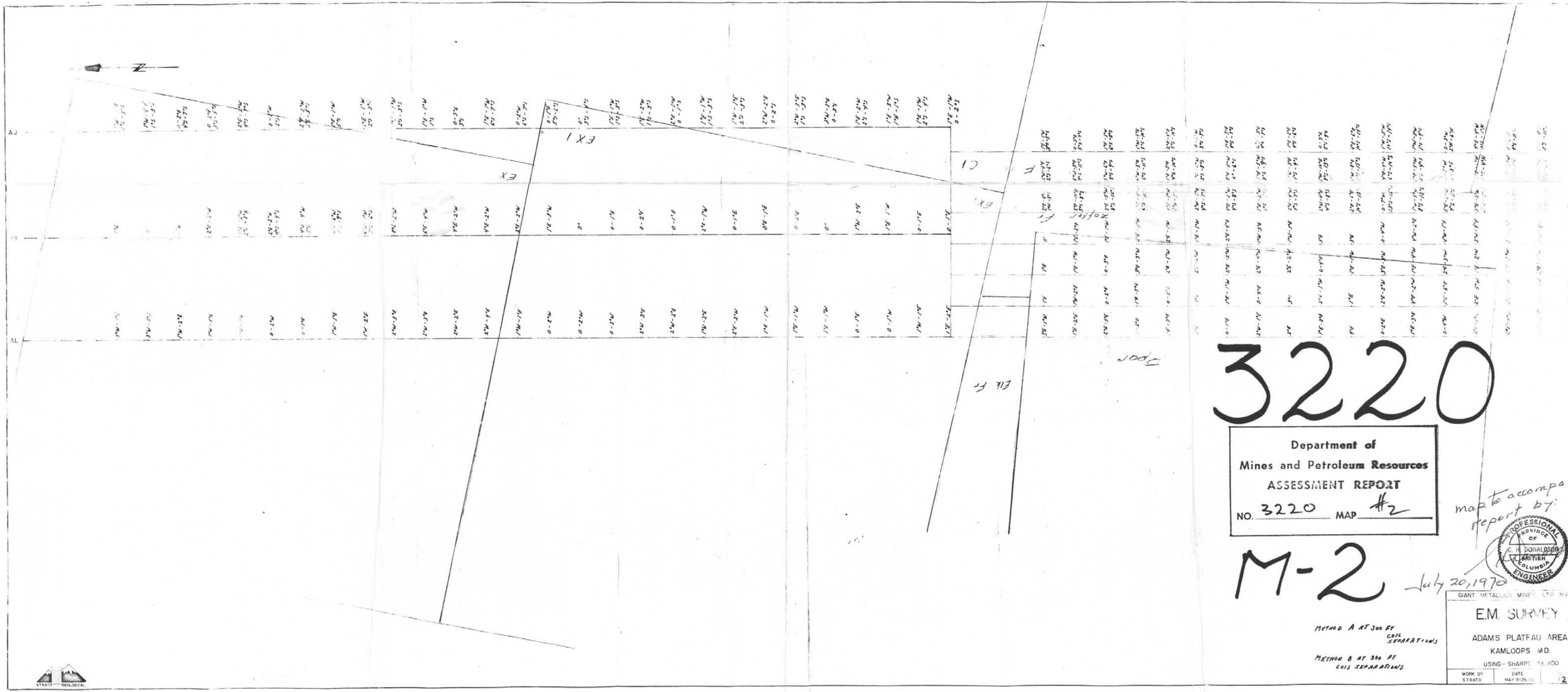
The SE-200 consists of two portions, the transmitting unit and the receiving unit. The transmitting unit includes a transmitter coil, a transmitter oscillator to produce a 1250 c.p.s. sine wave alternating current in the transmitter coil, and a battery pack for power source. Two spirit levels at right angles permit the plane of the transmitting coil to be held vertical or horizontal, as desired.

The receiving unit consists of a receiving coil which can be tuned to resonate at the frequency of the transmitted signal, a high gain amplifier which boosts the signal output from the coil, a pair of earphones by which one may judge how the received signal is varying, and a clinometer by which the tilt of the plane of the coil may be measured.

All the field techniques which will be discussed below employ the SE-200 as a "null" measuring device. That is, the transmitter coil is held stationary with a selected orientation while the receiver coil is rotated about a selected axis until a minimum of signal is heard. The tilt of the receiver coil out of the plane it normally occupies at the null is recorded in terms of amplitude and direction, and is used to interpret the presence, location and other characteristics of subsurface conductors. Essentially, then, the unit measures the tilt or distortion in the direction of the electromagnetic field transmitted.

Field procedures employing three types of null configurations will be described below. These are designated A, B and C, and are shown on the accompanying sketches. In configuration A the transmitter coil is held with its plane vertical and pointing toward the receiver coil. The receiver coil is held with its plane horizontal and then tilted about the axis joining the two coils until the "null" or minimum signal tilt is observed. This is the configuration which is most recommended for reconnaissance and detail surveys, particularly in the Precambrian Shield, or elsewhere where the geologic conductors are expected to dip at angles of greater than about 30°. This configuration gives a minimum of response from truly flat lying conductors, such as overburden. It is also not effected by elevation differences between the coils, providing that the transmitter coil is properly aligned.

Configuration B has the plane of the transmitter coil vertical but perpendicular to the line joining the two coils. The plane of the receiver coil is rotated out of the horizontal about a horizontal axis perpendicular to the line joining the two coils. This configuration couples better with truly flat lying conductors than does configuration A. It also provides a greater effective range since it gives rise to twice the primary field at the same coil separation that A provides. However, it is susceptible to overburden effects and to differences in elevation between the two coils.



3220

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3220 MAP #2

map to accompany report by

M-2

July 20, 1970

METHOD A AT 300 FT COIL SEPARATIONS

METHOD B AT 300 FT COIL SEPARATIONS

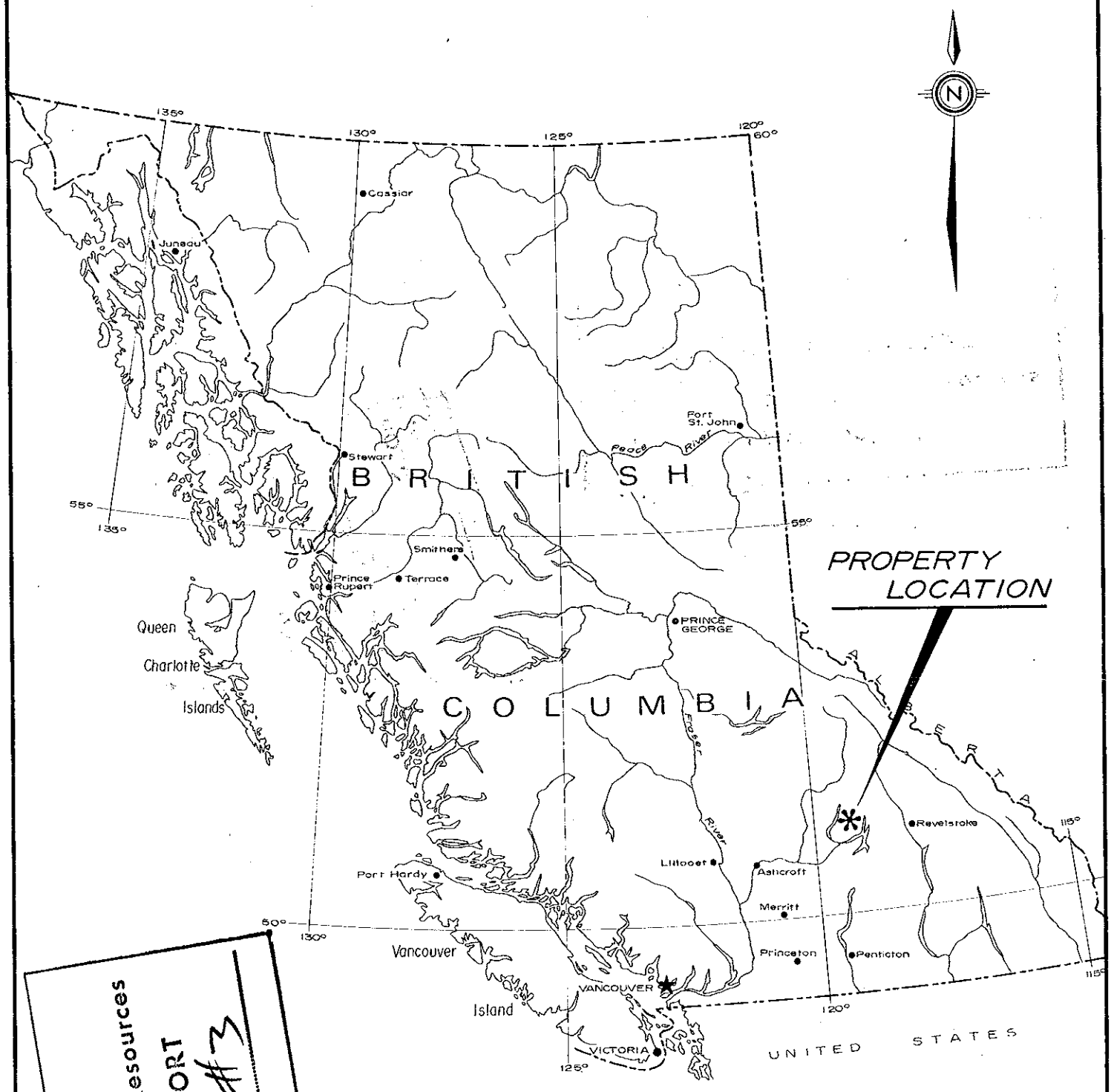
GIANT METALLICS MINES LTD (N.P.L.)

E.M. SURVEY

ADAMS PLATEAU AREA
KAMLOOPS M.D.
USING - SHARPE SE-200

WORK BY	DATE	
STRATO	MAY 15-29, 70	2

STRATO GEOLOGICAL



GIANT METALLICS MINES LTD.

LOCATION MAP

ADAMS PLATEAU AREA

BRITISH COLUMBIA

SCALE

1 in. = 137 Miles

ALTAIR drafting services ltd.

Location E.M. Survey

N

R 2
R 3
R 6
R 7
R 10
R
R 1
R 4
R 5
R 8
R 9
R 11
ELK
ELK 5 Fr.
ZARATITE 2
SPAN
A
B
C
D
E
F
G
EX
AL AL.
AK AK.
AJ AJ.
ZARATITE
ZARATITE FR.
EX
B
B 1
B 3
F
C 1
C 2
EX 2 Fr.
PAT 1
PAT
PAT Fr.
C 3
B 2
PAT 1 Fr.
L
PAT 2 Fr.
PAT 5
K 1
K 3
K 5
K 7
K 9
W Fr.
K
K 2
K 4
K 6
K 8
LUCKY 6
LUCKY 5
PAT 10
LUCKY 4
K 10
REE
LUCKY 3
LUCKY 10
LUCKY 11
REE 1
LUCKY 1
LUCKY 9
LUCKY 23
LUCKY 25
LUCKY 8
LUCKY 12
LUCKY 2
22
LUCKY 24
LUCKY 7
C R

2

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3220 MAP #4

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
H. WOBER

GIANT METALLICS MINES LTD.