

CANAMCO RESOURCES LTD.
STE. 311, 543 GRANVILLE STREET
VANCOUVER, BRITISH COLUMBIA

ASSESSMENT REPORT
on an
AIRBORNE MAGNETIC AND
VLF ELECTROMAGNETIC SURVEY
on the
TOP 1 - 8 MINERAL CLAIM GROUP
MOUNT KNAUSS AREA
OMENICA MINING DIVISION

81-1246-10033
NTS 103 I / 16W

N. Lat. 54° 50'

W. Long. 128° 25'

by

R.J. ENGLUND, B.Sc.
STRATO GEOLOGICAL ENGINEERING LTD.
103 - 709 DUNSMUIR STREET
VANCOUVER, BRITISH COLUMBIA

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

10,033

NO.

February 20, 1982



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Airborne Magnetic and
VLF Electromagnetic Survey
Top 1 - 8 Claim Group, Omenica M.D., B.C.

SUMMARY

This report presents the results of an airborne magnetic and VLF electromagnetic survey over the Top 1 - 8 claims, Mount Knauss area, B.C. The purpose of the work was to outline any structure and / or faults which could relate to known gold - silver prospects within the claims group.

Ground follow-up work is recommended and will be required to determine the economic nature of the targets delineated by this airborne geophysical survey.

Respectfully submitted
Strato Geological Engineering Ltd.

Ralph J. Englund, B.Sc.,
Geophysicis.

February 20, 1982.

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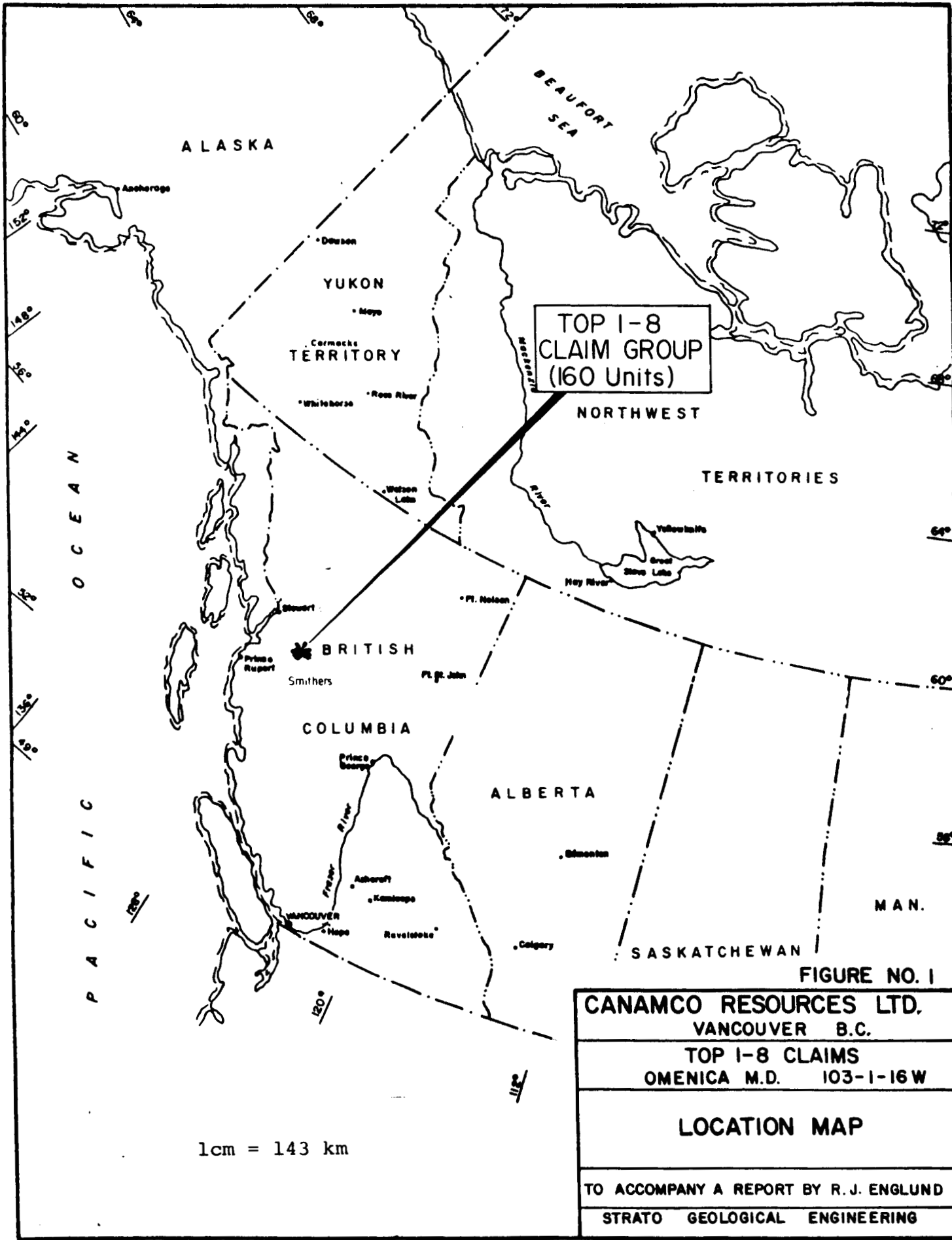
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INTRODUCTION

Pursuant to a request from Mr. Mike Boyle, President of Canamco Resources Ltd., an Airborne Magnetic / VLF - EM Survey was flown over the Top 1 - 8 Claim Group, some 27 kilometers northeast of Terrace, B.C. in December, 1981.

The intent of the survey work was to delineate any structural and / or anomalous zones within the claim group which could relate to known gold - silver prospects on the property. A total of 206 line kilometers of airborne geophysical data was collected over the claim group.



**TOP 1-8
CLAIM GROUP
(160 Units)**

FIGURE NO. 1

CANAMCO RESOURCES LTD. VANCOUVER B.C.
TOP 1-8 CLAIMS OMENICA M.D. 103-1-16 W
LOCATION MAP
TO ACCOMPANY A REPORT BY R.J. ENGLUND
STRATO GEOLOGICAL ENGINEERING

1cm = 143 km

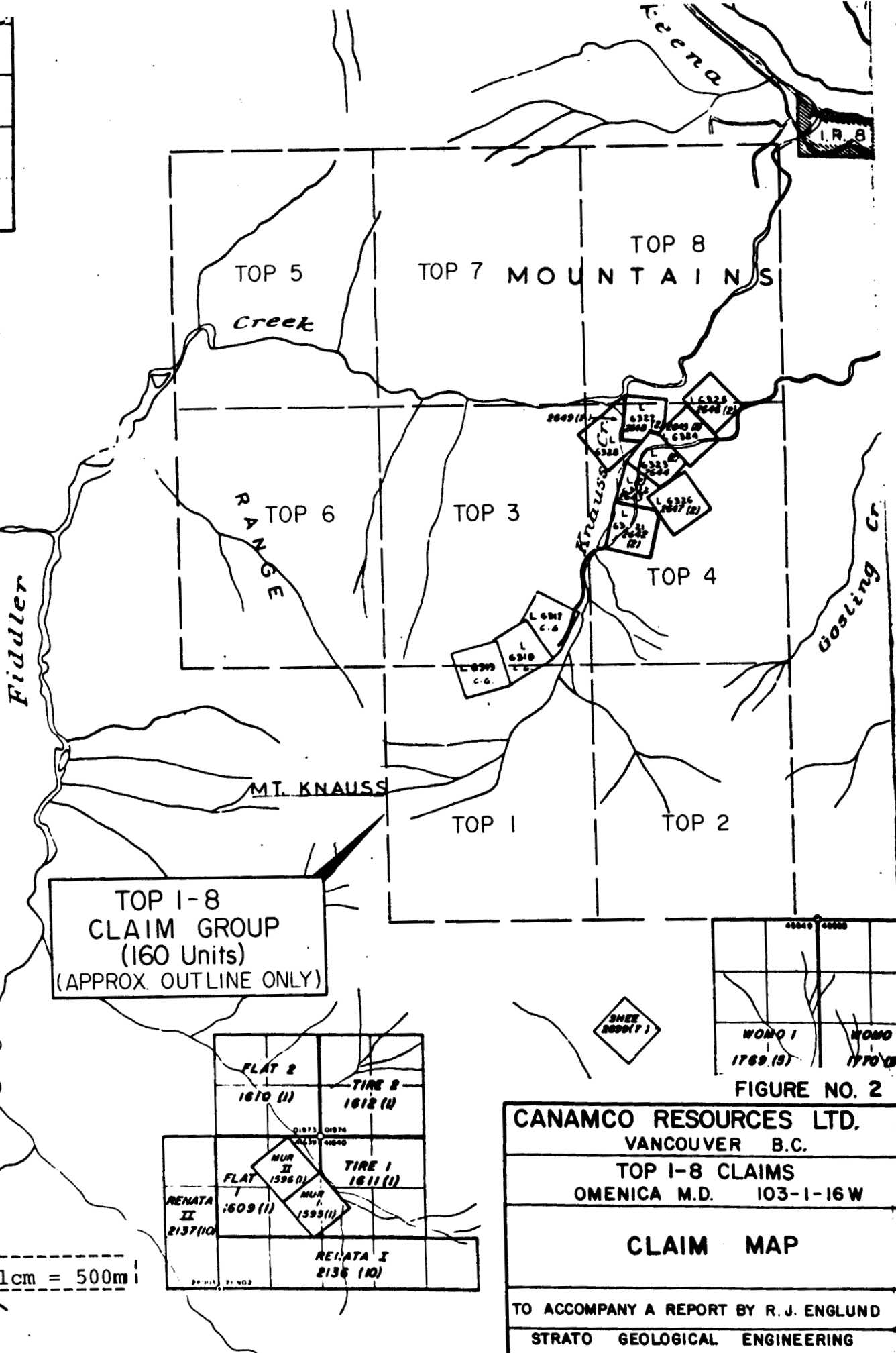
LOCATION, ACCESS, TOPOGRAPHY

The Top Claim Group consists of eight mineral claims comprising 160 units and eight reverted crown grants and are situated on the north and east flanks of Mount Knauss, some 27 kilometers northeast of Terrace, B.C.

Access to the claim area is presently by helicopter from Terrace, B.C. Access could also be available by some 6.5 kilometers of old road from Doreen Station on the CNR railroad to the crown grant mineral claims area.

The claims area, on the flanks of Mount Knauss, is traversed by Fiddler and Knauss Creeks which flow easterly and northerly through the area. Elevations vary from about 150 meters in the northeast corner to over 1830 meters in the southwest claim areas.

Topographical relief is extreme in many areas within the southern half of the claims (Figure 3).



TOP 1-8
CLAIM GROUP
(160 Units)
(APPROX. OUTLINE ONLY)

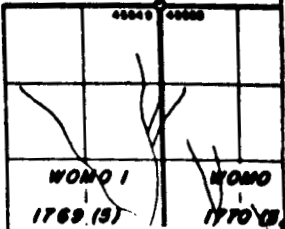


FIGURE NO. 2

CANAMCO RESOURCES LTD.
VANCOUVER B.C.
TOP 1-8 CLAIMS
OMENICA M.D. 103-1-16W

CLAIM MAP

TO ACCOMPANY A REPORT BY R. J. ENGLUND
STRATO GEOLOGICAL ENGINEERING

1cm = 500m

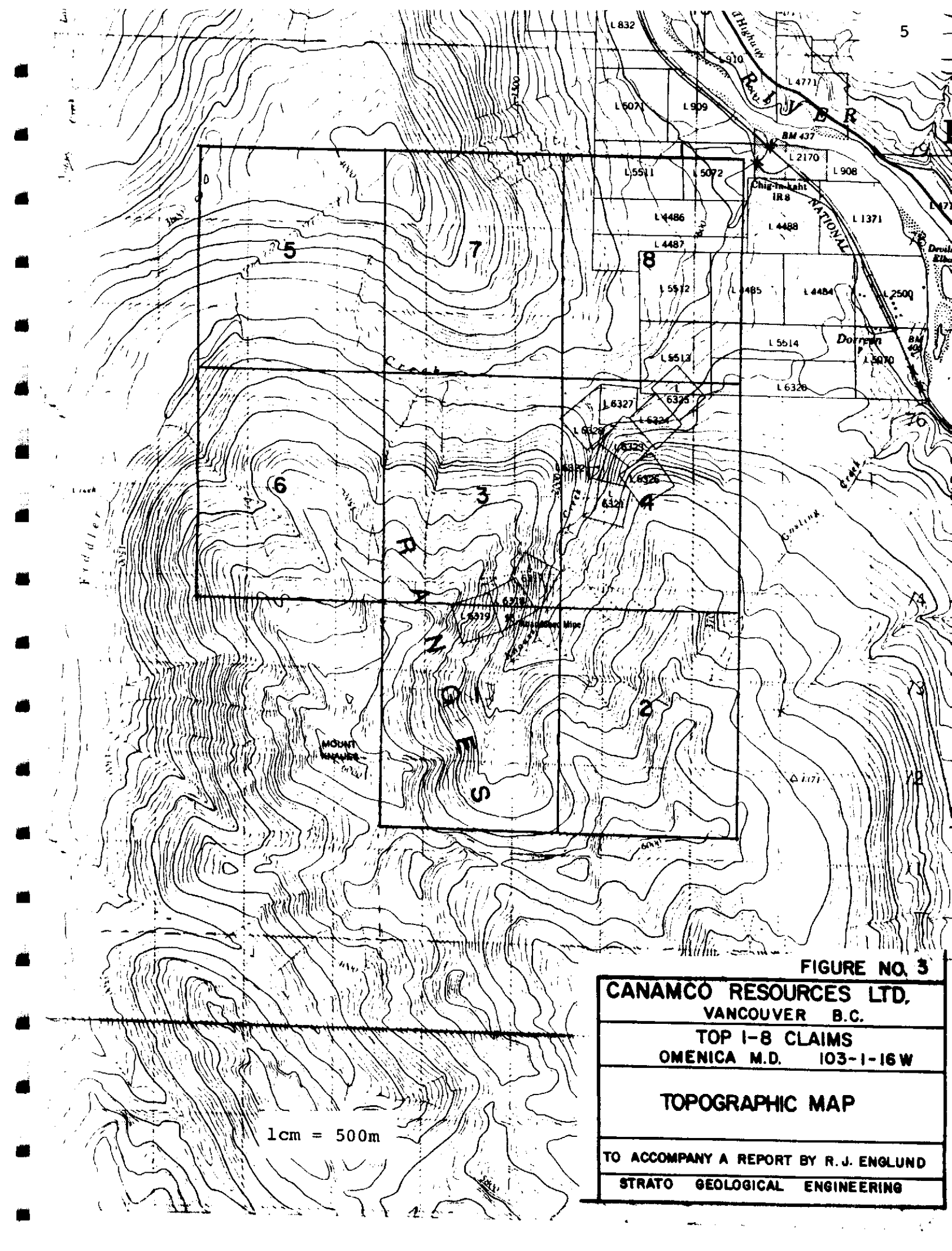


FIGURE NO. 3

CANAMCO RESOURCES LTD.
VANCOUVER B.C.

TOP 1-8 CLAIMS
OMENICA M.D. 103-1-16W

TOPOGRAPHIC MAP

TO ACCOMPANY A REPORT BY R. J. ENGLUND
STRATO GEOLOGICAL ENGINEERING

1cm = 500m

CLAIMS

The Top 1 - 8 mineral claim group comprises 160 units and 8 reverted crown grants located some 27 kilometers north-east of Terrace, B.C. in the Omenica Mining Division.

The claims are recorded as follows:

Claim	Units	Record No.	Record Date
Top 1	20	3444 (12)	December 10, 1981.
Top 2	20	3445 (12)	December 10, 1981.
Top 3	20	3446 (12)	December 10, 1981.
Top 4	20	3447 (12)	December 10, 1981.
Top 5	20	3448 (12)	December 10, 1981.
Top 6	20	3449 (12)	December 10, 1981.
Top 7	20	3450 (12)	December 10, 1981.
Top 8	20	3451 (12)	December 10, 1981.

Included in the Top 1 - 8 claim area are eight reverted crown grant mineral claims and three crown grant mineral claims as follows:

L6321	2642 (2)	February 28, 1982.
L6322	2643 (2)	February 28, 1982.
L6323	2644 (2)	February 28, 1982.
L6324	2645 (2)	February 28, 1982.
L6326	2647 (2)	February 28, 1982.

Claims continued

L6327	2648 (2)	February 28, 1982.
L6328	2649 (2)	February 28, 1982.
L6317	Crown Grant	
L6318	Crown Grant	
L6319	Crown Grant	

The mineral claims are shown on B.C. Mineral Claim Map M 103 - I - 16W (Figure 2).

General Geology

The claims area is underlain by three lithological units. The Lower Jurassic volcanics (Hazelton Group) and Upper Jurassic sediments (Bowser Group) are intruded by the late Cretaceous Coast Intrusive Complex of granite - granodiorite. The claims cover the northeast flank of an overturned northwest trending fold structure located along the south sector of the claim group.

A wide quartz diorite dike, striking about N 30° W, is associated with the main gold - silver vein of the Doreen Gold Mine (Crown Grants L6317 - 18 - 19) which lies in

General Geology continued

Bowser Group rocks on the steep wall of the glacial valley on the east flank of Mount Knauss.

Instrumentation & Survey Procedure

The airborne survey lines were flown east - west at 200 meter line spacing. Tie-lines were run north - south on the east and west claim boundaries and approximately northeast along Knauss and Fiddler Creeks. Flight navigation and ground ties were visual using 1:20,000 Government Aerial Photographs. Air speed was approximately 65 kilometers per hour and average terrain clearance of the instrument was about 60 meters. A total of 206 line kilometers were flown within the survey area.

Instrumentation consisted of the Sabre Electronics Proton Precession Magnetometer and a two channel, omnidirectional, VLF Electromagnetic Receiver tuned to both the Seattle and Annapolis transmitter stations. Data output is through an analog meter and onto a three channel analog strip chart recorder. Instrument specifications are provided as Appendix A.

Instrumentation & Survey Procedure continued

The aerial platform was an Areo Spatale 350 D helicopter owned by Northern Mountain Helicopters Inc., based out of Terrace, B.C. and piloted by Mr. I. Swan. Visual ground reference was excellent in the southern three-quarters of the survey area but more difficult in the north. The topography underlying the southern two-thirds of the survey area is extremely rugged. This means that it was virtually impossible to maintain a fixed terrain clearance and constant air speed. The net result is that due to terrain clearance problems there is a certain amount of terrain noise inherent in the data which must be considered in the interpretation.

Flight line locations, directions, and fiducials are shown on each of the accompanying maps. Data was picked from the analog strip charts, pro rated between fiducial marks, and plotted on a 1:7500 base map for each flight line. Plotted values were adjusted for crossline closure and drift. Final values were contoured to yield the Aeromagnetic map and the VLF - EM map, Figures 5 and 6 respectively.

The Magnetic Map

The Sabre Electronics magnetometer measures the absolute value of the total field strength with an accuracy of ± 1 gamma. However, due to very rugged topography in many areas it was impossible to maintain constant terrain clearance. This implies that there are some terrain induced anomalies in the data. The magnetic data is considered accurate to about ± 20 gammas; accuracies well within requirements considering the reconnaissance nature of the work.

The magnetic values are plotted on Figure 4 with magnetic contours presented on Figure 5. Magnetic datum is 58000 gammas.

The VLF Electromagnetic Map

The Sabre VLF electromagnetic receiver is designed to measure the horizontal field strength of the very low frequency electromagnetic fields transmitted from radio stations in the 15 - 25 K Hz range. Signals are propagated with the magnetic field being horizontal in undisturbed areas.

The VLF Electromagnetic Map continued

Conductivity contrasts in the earth create secondary fields, producing a vertical component and resultant changes in field strength or amplitude. It is these field strength variations which are mapped by the airborne VLF system.

The VLF receivers, tuned to both 24.8 K Hz., Jim Creek, Wash. and 21.4 K Hz., Annapolis, Md., provide an omnidirectional system which allows for flight line direction to be independent of geological directions.

Due to extreme elevation variations, about 200 meters to over 1900 meters, changes in background VLF - EM field strength was considerable and consistent with elevation changes due to topographical features. "Anomalous" VLF features were therefore not as clearly defined as would be expected over flatter terrain. Only significant "anomalous" features stand out on the variable background and many smaller anomalies may well be concealed within the flanks of larger "elevation anomalies".

The VLF Electromagnetic Map, Figure 6, presents the results of the VLF survey work. The general distribution of conductivity is not presented and only anomalies not

The VLF Electromagnetic Map continued

directly reflecting topography are presented as valid results which reflect changes in ground conductivity. Values are given in percent (%) with arbitrary datum and the distribution of conductivity of 5% or higher is contoured. As well, a number of lower values are plotted as individual percents indicating possible trends of above background conductivity.

Interpretation of Results

In general the entire claim area is underlain by rocks of little magnetic relief. An area of slightly higher and variable magnetic response trends northerly from the southwest claim area before arcing easterly to the northeast claim area. The higher "line anomaly", lines 3 through 6, can be partially attributed to terrain clearance problems but does lie within the generally higher magnetic arc.

This northwest higher trend may represent a slightly more magnetic character of the same rocks underlying the claim area. No rock units and / or contacts between rock units are defined by the airborne magnetics.

Interpretation of Results continued

The VLF map, Figure 6, pinpoints a number of conductive zones of interest within the survey area.

Two northerly trending anomalous zones in the southeast claim area are interpreted to represent a rock unit contact and / or faults. The eastern anomaly here is also associated with minor magnetic lows. Three isolated anomalies of small lateral extent, southwest of the old Doreen Mine workings in very steep topography, may represent faults and warrant further investigation. These anomalous zones are considered prime targets for ground follow - up.

A weak, relatively broad anomaly along the east claim boundary, due west of Doreen Station, appears to be associated with lower, swampy ground and is therefore considered to be a target of secondary importance but warrants investigation as a possible extension of anomalous results to the south.

Interpretation of Results continued

A number of very weak, intermittent conductive zones are indicated in the west and northwest claim areas. These zones are again considered secondary targets for ground follow - up.

The VLF anomalies represent targets of potential importance and these areas should be investigated on the ground before further comments regarding their economic significance are made.

Conclusions and Recommendations

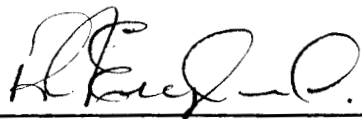
The aeromagnetic and airborne VLF - EM data provide a good overview showing a number of targets which will provide a good basis for future ground survey work. Ground follow - up will be required before comments regarding the economic nature of the targets can be determined.

Conclusions and Recommendations continued

Considering the steep topography in the indicated areas of interest a CEM Shootback electromagnetic survey is recommended to locate and outline conductive zones on the ground. Since there is considerable outcrop, geological mapping of the areas is also recommended as necessary to any future work program.

Respectively submitted,

Strato Geological Engineering Ltd.



Ralph J. England, B.Sc.,
Geophysicist.

February 20, 1982.

Time - Cost Distribution

The Airborne Magnetic and VLF Electromagnetic survey over the TOP 1 - 8 claim group was conducted by Strato Geological Engineering Ltd. Field work was based out of Terrace, B. C. during December 6 - 8, 1981. A listing of personnel and distribution of costs is as follows:

Personnel

R.J. Englund, B.Sc.	Geophysicist
H. Penner	Navigator/Geophysical operator
I. Swan	Pilot, Northern Mountain Helicopters Inc., Terrace, B.C.

Cost Distribution

Airborne Survey @ \$63/Km x 206 Km	\$ 12,978.00
Data assimilation and drafting	1,300.00
Engineering and Report	2,000.00
	<hr/>
	\$ 16,278.00
	<hr/> <hr/>



Strato Geological Engineering Ltd.

CERTIFICATE OF QUALIFICATIONS

I, Ralph J. Englund, do hereby certify that:

- (1) I am a practising geophysicist with offices at 103 - 709 Dunsmuir Street, Vancouver, B.C., Canada, V6C 1M9.
- (2) I am a graduate of the University of British Columbia where I obtained my B.Sc. (Physics) in 1971.
- (3) I am a member in good standing of the following professional organizations:
 - (a) B.C. Geophysical Society.
- (4) I have been engaged in the study, teaching, and practice of exploration geophysics continuously for a period of 9 years. I have worked as a geophysical consultant on numerous projects in Western North America since 1972.
- (5) The geophysical field work and the interpretation of results in this report were done under my direct supervision.
- (6) I have no direct, indirect, or contingent interest in the TOP 1 - 8 claims, or in the shares of Canamco Resources Ltd., nor do I expect to receive any such interest.

Dated in Vancouver, B.C. this 20th day of February, 1982.



Ralph J. Englund, B.Sc.

Geophysicist.

INSTRUMENT SPECIFICATIONSSabre Electronics Airborne VLF Electromagnetic System

The bird, towed 15 meters below the aircraft, contains two, simultaneously operating omni-directional VLF receivers and amplifiers tuned to separate very low frequency submarine / long range radio transmitting stations. This unit is currently tuned to the following two stations:

Seattle, Washington	24.8 KHz
Annapolis, Maryland	21.4 KHz

The instrument measures horizontal field strength of the very low frequency electromagnetic fields initiated from designated radio stations. The primary electromagnetic field propagated in undisturbed areas is horizontal. Conductivity contrasts within the earth create secondary fields resulting in variations in net field strength. These field strength variations yield the VLF anomalies which are recorded by this instrument.

Sensors: Ferrite antennae coils, one for each frequency, mounted in bird.

Instrument specification continued

Output: 0-100 percent field strength analog meters,
one for each frequency;

- : terminals for data output to any desired data recording system;
- : analog strip chart recorder with variable scale deflection (standard setting is 100% for full scale) and separate pens for each frequency.

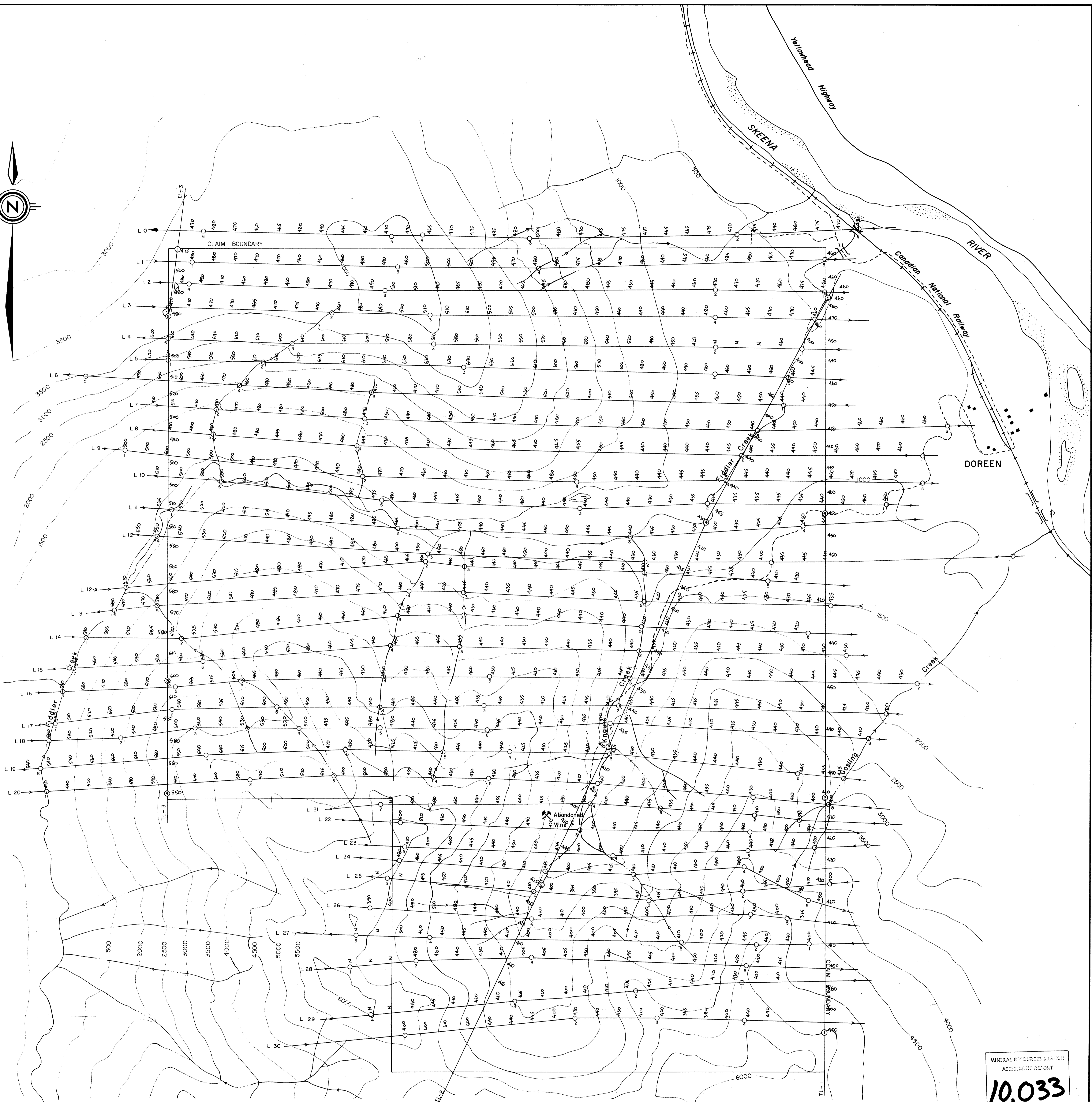
Sabre Electronics Airborne Magnetometer

The Proton Precession Magnetometer sensor is towed in a bird some 15 meters below the aircraft.

Sensitivity: ± 1 gamma.

Output: Total field, 20,000 - 100,000 gammas, Potentiometer control and analog meter (4 position selector switch from 100 - 10,000 F.S.D.)

- : Terminals for data output to any desired data recording system.
- : Analog strip chart recorder with variable scale deflection (standard setting is 100 full scale).

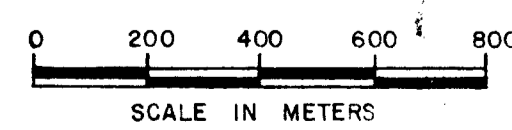


MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,033

LEGEND

- ELEVATION CONTOURS (Feet)
- CREEK
- BRIDGE
- RAILWAY LINE
- MAIN HWY
- SECONDARY ROAD
- SAND BAR
- DWELLINGS
- FLIGHT LINE & FIDUCIAL PTS.

NOTES: 1. SABRE ELECTRONICS TOTAL FIELD, PROTON PRESSION MAGNETOMETER
2. MAGNETIC DATUM - 58,000 gammas



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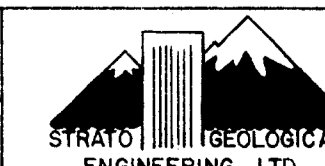
TOP I-8 CLAIM GROUP
OMENICA M.D. M103/1/16W

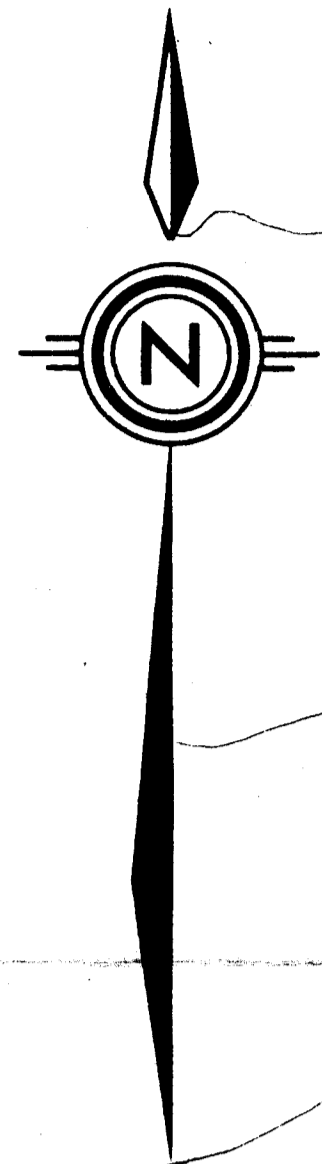
AEROMAGNETIC SURVEY
DATA MAP

TO ACCOMPANY A REPORT BY R.J. ENGLUND

FIGURE NO. 4

DATED: FEB. 1982



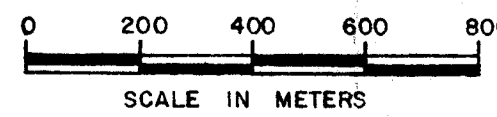


MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,033
NO.

LEGEND

- | | | | |
|--|---------------------------|--|-----------------------------|
| | ELEVATION CONTOURS (Feet) | | SECONDARY ROAD |
| | CREEK | | SAND BAR |
| | BRIDGE | | DWELLINGS |
| | RAILWAY LINE | | FLIGHT LINE & FIDUCIAL PTS. |
| | MAIN HWY. | | |

- NOTES: 1. SABRE ELECTRONICS TOTAL FIELD, PROTON PRECESSION MAGNETOMETER
2. MAGNETIC DATUM - 58,000 gammas



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VANCOUVER B.C.

TOP I-8 CLAIM GROUP
OMENICA M.D. M103/1/16W

AEROMAGNETIC SURVEY
CONTOUR MAP

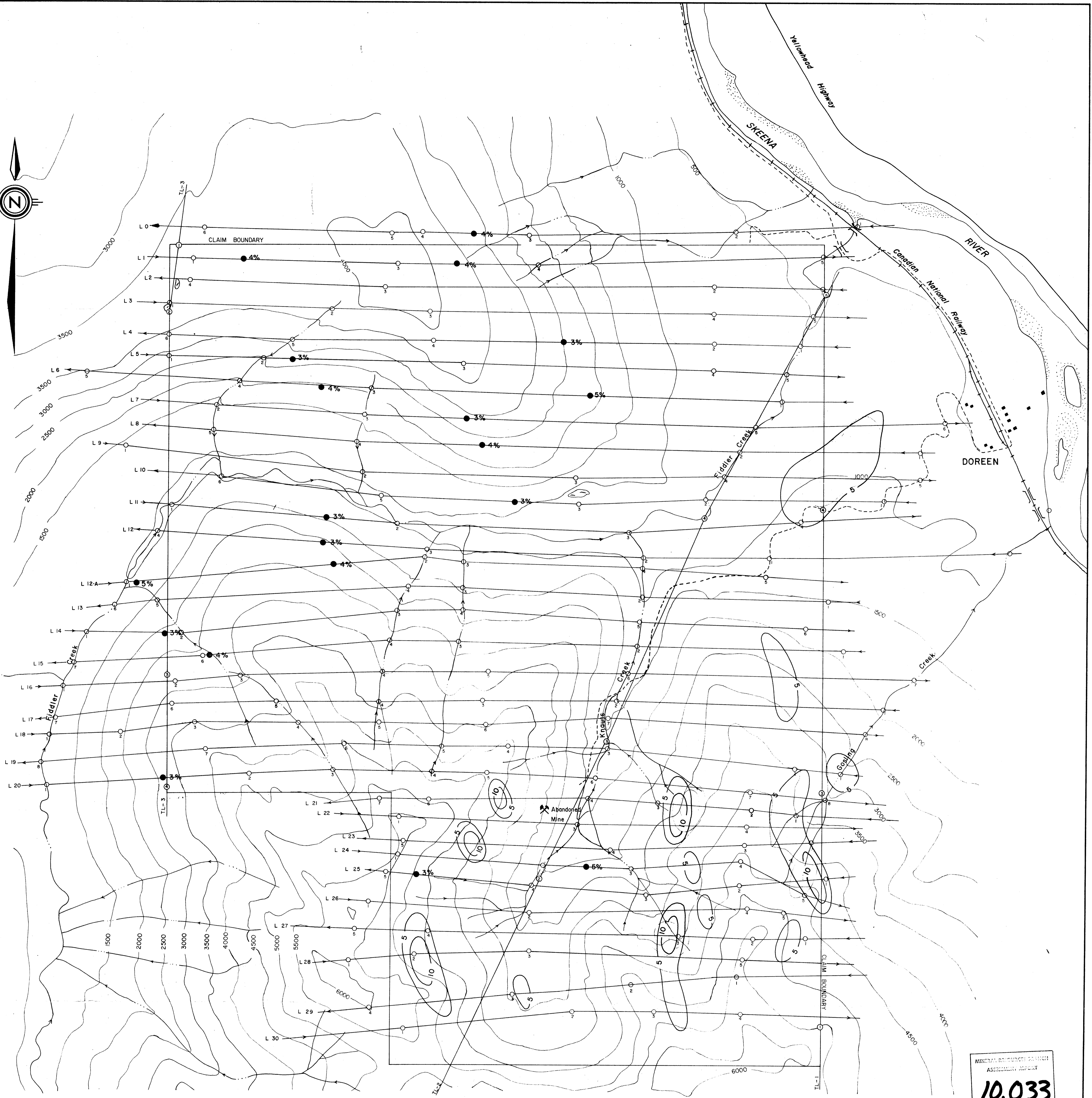
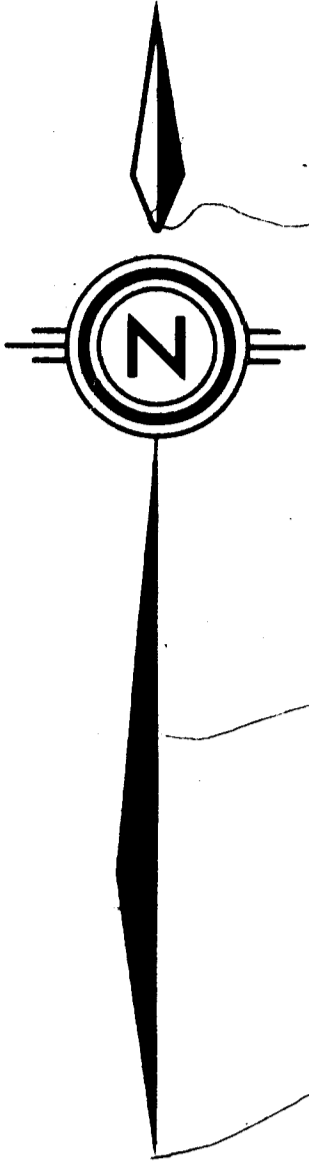
CONTOUR INTERVAL : 50 gammas

TO ACCOMPANY A REPORT BY R.J. ENGLUND

FIGURE NO. 5

DATED: FEB. 1982



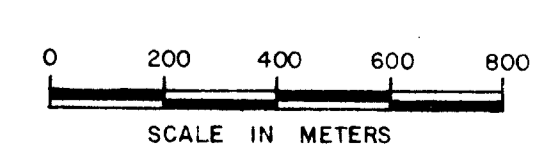


MINERAL RESOURCES DIVISION
ASSEMBLY REPORT
10,033
No.

LEGEND

- | | | | |
|--|---------------------------|--|-----------------------------|
| | ELEVATION CONTOURS (Feet) | | SECONDARY ROAD |
| | CREEK | | SAND BAR |
| | BRIDGE | | DWELLINGS |
| | RAILWAY LINE | | FLIGHT LINE & FIDUCIAL PTS. |
| | MAIN HWY. | | |

NOTE: 1. SABRE ELECTRONICS OMNI-DIRECTIONAL VERTICAL COIL RECEIVER
 2. TRANSMITTER: SEATTLE, 24.8 KHz; ANNAPOLIS, 21.4 KHz
 3. HORIZONTAL FIELD STRENGTH IN PERCENT (%), ARBITRARY DATUM



CANAMCO RESOURCES LTD. VANCOUVER B.C.	
TOP 1-8 CLAIM GROUP OMENICA M.D. MI03/1/16W	
AIRBORNE VLF ELECTROMAGNETIC SURVEY	
CONTOUR INTERVAL: 10 %	
TO ACCOMPANY A REPORT BY R.J. ENGLUND	
FIGURE NO. 6	DATED: FEB. 1982