

3115

GEOPHYSICAL

REPORT OF MAGNETOMETER SURVEY

On The

TAB 1 TO 5 MINERAL CLAIMS

AT ASPEN GROVE

NICOLA MINING DIVISION

British Columbia, Canada

Longitude 120° 35' W, Latitude 49° 58' N *92 M / 15E*

June 4 To June 8, 1971

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

Conducted By NO. *3115* MAP

N. ORR, P. ENG.

Interpreted By

R. B. GALESKI, P. GEOPH.

For
NORRANCO MINING & REFINING CO. LTD.
Calgary, Alberta

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MAGNETOMETER SURVEY

TAB 1 TO 5

MINERAL CLAIMS

NEAR ASPEN GROVE, BRITISH COLUMBIA

INTRODUCTION

A Magnetometer Survey was conducted over the Tab 1 to 5 Mineral Claims Record Number 30844 to 30848. The Survey was done during June, 1971. The field work was started on June 4, 1971 and was completed on June 7, 1971. A total of 7.9 line miles of survey was completed.

Two men were engaged on the initial part of the survey when a grid was laid out. One man completed the actual magnetometer readings, with the second man assisting in maintenance of the line and position during readings. An anomalous group of readings were recorded in the region of a visible fault. It is concluded that additional work should be undertaken over these regions either in the form of additional geophysics or extensive trenching across the faulted region.

GEOPHYSICAL INTERPRETATIONS

OF

MAGNETOMETER SURVEY

Tab 1 to 5 Claims

Conducted by N. Orr, P. Eng.

Between June 4 and June 8, 1971

Review of the data generated during the Magnetometer Survey of the Tab 1 to 5 mineral claims delineates two interesting situations. The first being an apparently magnetically depressed area near the north-south centre line of the four Claims Tab 1 to 2 and Tab 3 to 4.

The area generally follows this north-south line with the southerly region widening to cover most of the northern portion of the Tab 4 claim.

Mr. Orr reported no outstanding physical feature in this area except that the area was in a trough on the property. It is unfortunate that additional lines were not run in this region in an attempt to further delineate the extent of the area. Mr. Orr reports that he did not see the phenomenon developing during the survey, hence did not pursue the survey further south than Line 8, because of the heavy brush in the area making it difficult to keep lines straight.

The second anomalous situation is the rapid change in readings from side to side of the long fault running nearly parallel to the eastern edge of Claims 1 and 3. Mr. Orr reports that he noticed this for the first time while running Line 9. He back tracked at this time to ascertain that his readings were correct. He later increased the number of lines run over the faulted area in order to fully delineate the phenomena. Since the change in magnetic influence is so persistent along this fault it is highly probable that an intrusive carrying a material of magnetic or paramagnetic character is present and further investigations in the region should be undertaken.


R. B. Galeski, P. Geoph.

LOCATION AND ACCESS

The settlement of Aspen Grove is some 23 miles south of Merritt on Highway No. 5 and 35 miles north of Princeton. The Tab Claims lie approximately 2 miles north-east of Aspen Grove. Access is made by unsurfaced roads which proceed easterly from Highway 5. The claims lie very nearly at 49° 58' North Latitude and 120° 35' West Longitude.

Figure 1 is a photo copy of a portion of the Tulameen Map Sheet 92 H/NE published by the Department of Lands and Forests, British Columbia with the claims marked thereon.

CLAIMS AND OWNERSHIP

The property is held by Norranco Mining & Refining by virtue of a Bill of Sale from National Nickel Ltd. (Valnicla Copper Mine Ltd.) to Norranco Mining & Refining Co. Ltd.

Claim No.	Record No.
Tab #1	30844
Tab #2	30845
Tab #3	30846
Tab #4	30847
Tab #5	30848

GEOMORPHOLOGY

The Tab Claims are situated in the Thompson Plateau Subdivision of the British Columbian Interior Plateau Physiographic System. This is generally a gentle rolling upland of low to moderate relief. The local Aspen Grove Area lies within the Fair Weather Hills with elevations between 3,500 and 4,500 feet above sea level.

The general region is underlain dominantly by the Upper Triassic Nicola Group intermediate Volcanics, with minor amounts of sediments. It is intruded by stocks, plugs and dykes of Jurassic Coast Acidic intrusions. A series of north striking faults trend across the general area, one notable one being in the area of the survey. There is only a relatively thin mantle of glacial drift over much of the bedrock.

DISCUSSION

A magnetometer survey was conducted over a large portion of the Tab 1 to 5 Mineral Claims near Aspen Grove, British Columbia. Figure 1 is a photo copy of a British Columbia Government issued Map, "Tulameen Map Sheet 92H/NE" of the area showing the claims location. The purpose of the survey was to ascertain whether there was a relationship between known mineralized areas and magnetic anomalies; and to establish the location and aerial extent of any magnetic anomalies.

A Sharp Flux Gate Magnetometer Model M-F-1, Serial Number 410-112 was used for the survey. A grid of lines 400 feet apart was laid out over portions of the claims using a 300 foot nylon chain and a compass. Due to the relatively open nature of the area, line cutting was felt to be unnecessary as well as undesirable. Much of the area of interest was burnt over by a forest fire some 16 to 20 years ago resulting in nearly full visibility from end to end of almost all lines. Where necessary, seismic tape was used to mark line for both direction and distance.

Before starting the magnetic survey, a magnetometer base point was set up. To this point, an arbitrary magnetic value of 500 gammas was assigned. A second and third base point some 200 and 600 feet away from the first point were also set up. The observed readings taken at these points, immediately after the first setting of 500 feet at point one, become the assigned values of Point #2 and Point #3.

Readings of the base points were taken at regular time intervals during the survey period. The readings and time were recorded. A plot of variations with time was prepared. Corrections were then applied to each reading taken during the survey.

The survey was begun by traversing along the grid lines, taking readings at the start of each line and at 100 foot intervals. Initially the 300 foot chain was used to set the intervals; at the same time paces were counted. As the survey progressed, most of the 100 foot intervals were paced off; the chain being used occasionally to prove the accuracy of the pacing. During the survey, one man was constantly engaged in maintaining the accuracy of direction and distance along the grid lines.

Magnetic observations were read to the nearest 25 gammas where the zero to 1,000 scale was in use. As each reading was taken the position on the grid line and the time of day was recorded. Time was recorded

DISCUSSION (Continued)

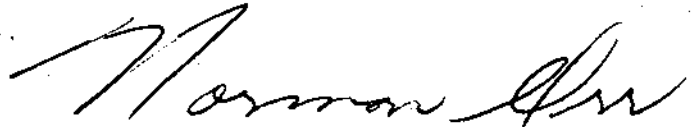
to the nearest minute.

It was noticed that a regular pattern of a change in reading was developing along the fault zone which nearly parallels the eastern side of Claims Tab 1 and 3. A series of additional lines were run so as to traverse the fault more frequently. Many of these extra lines were run for one half a claim length only.

All readings were corrected for daily magnetic variation before plotting with the exception of those readings plotted on Figure III which is a plot of a Field-Read Uncorrected Magnetic Observations.

Corrected readings have been plotted graphically along each traverse line on Figure IV to assist in the interpretation of the data.

Immediately following the survey an enquiry was directed to the United States Department of Commerce Environmental Science Service Administration "Space Disturbance Forecast Centre," Boulder, Colorado. Their reply, a copy of which is on file, assured the writer that the period over which the survey was conducted was a time of extreme quiet and that observations taken should be valid.

A handwritten signature in cursive script, appearing to read "Norman".

PERSONNEL

Name: Norman Orr

Education: B. Sc Chemical Engineering
University of Alberta - 1950

Professional Associations: Registered Professional Engineer of
Alberta

Member of C. I. M. M.

Experience: Engaged in Field Engineering since 1950,
including extensive work in field surveying
of lands, building site and data observation.
Experience in Canada, United States and
Italy.

Job: Conducted Magnetometer Survey.

Name: Albert Harmon, Labourer

Education: Grade IX at Kamloops, British Columbia

Experience: 4 years work in bush with sundry logging
companies as cutter and truck driver.

Job: Assisted in laying out grid and check
measuring during survey.

Worked as contractor.

DAILY DIARY

June 4, 1971

Orr

Left Calgary at 6:30 A.M. and drove to Merritt arriving at 4:00 P.M. Drove to Aspen Grove, rechecked position of Entrance Road to #5 Claim. Walked to #5, #3 and #4 Claim posts. Returned to Merritt and engaged Harmon.

June 5, 1971

Orr and Harmon

Left Merritt at 8:00 A.M. and drove to abandoned road north of claims. Began laying out grid along fence line on north and west side of property. Located Claim post for #1 and #2 Claims. Paced and measured open areas. Large area of Claim #4 ignored because of dense brush and relatively open areas on other claims.

Set up and flagged base stations for magnetometer check. Returned to Merritt.

June 6, 1971

Orr and Harmon

Left Merritt at 7:30 A.M. and proceeded to property area. Began Magnetometer Survey. Ran 12 lines; approximately 3-1/2 miles of line. Returned to Merritt, arriving at 6:45 P.M.

June 7, 1971

Orr and Harmon

Left Merritt at 7:00 A.M. and proceeded to property. Checked instrument and proceeded on Line 13 east from Tab #5 Claim post. Ran lines #13 to #30. Returned to Merritt at 9:30 P.M.

DAILY DIARY (Continued)

June 8, 1971

Orr

Visited Mining Recorder's Office. Filed Affidavit of work. Returned to field area. Ran checks on base station and few points around old adit. Returned to Calgary. Arrived at 1:30 A.M., June 9th.

COST SUMMARY

1.	Rental of Magnetometer from Kenting Exploration Services 3 days at \$10.00/day.	\$ 30.00
2.	Travel Expenses - Orr	
	(a) Meals on road to and from Merritt-Calgary. At Merritt and lunches for 2 men on job.	50.00
	(b) Mileage from Calgary to Merritt and Merritt to Calgary. 920 miles at 15¢/mile	138.00 Not Charged
	(c) Mileage to and from Merritt to claims and return. 4 days at 50 miles/day - 200 x 15	30.00
	(d) Hotel (Orr) 4 days at \$8.50/day	34.00
3.	Wages - Orr and Harmon	
	(a) Orr - June 4 to 8 inclusive 5 days at \$120/day	600.00
	(b) Harmon - June 5, 6 and 7 3 days (30 hrs.) at \$1.80/hr.	54.00
4.	Supplies	
	1. Sample logs	2.25
	2. 2 rolls flagging 2 at \$1.00 each	2.00
5.	Geophysical Interpretation	150.00
		<hr/>
		\$1,090.25
		<hr/> <hr/>



DEPARTMENT OF LANDS AND FORESTS
BRITISH COLUMBIA

HONOURABLE R. G. WILLISTON, MINISTER
E. W. BASSETT, DEPUTY MINISTER OF LANDS G. S. ANDREWS, DIRECTOR OF SURVEYS AND MAPPING

SE

To Merritt—14 miles

30'

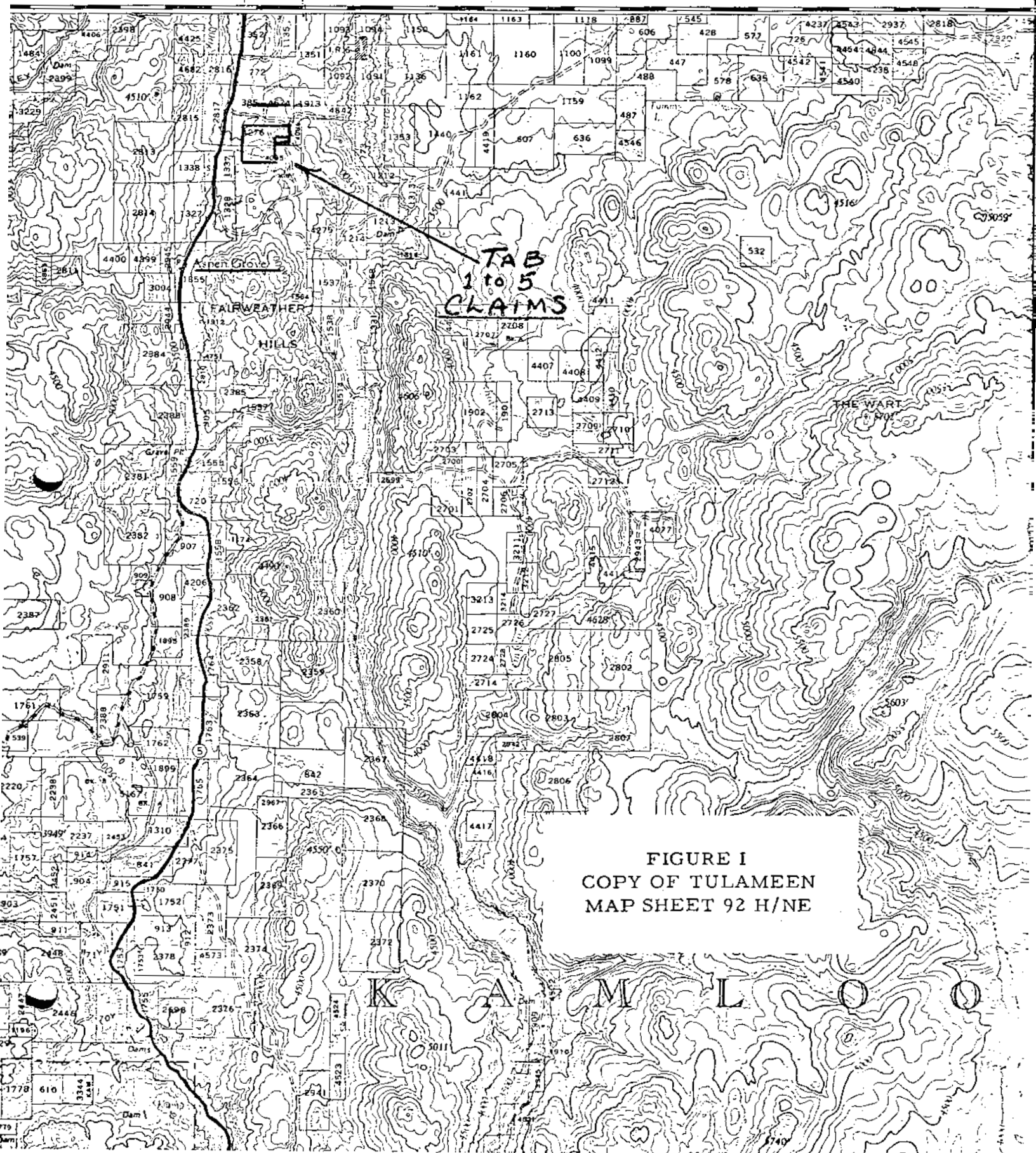
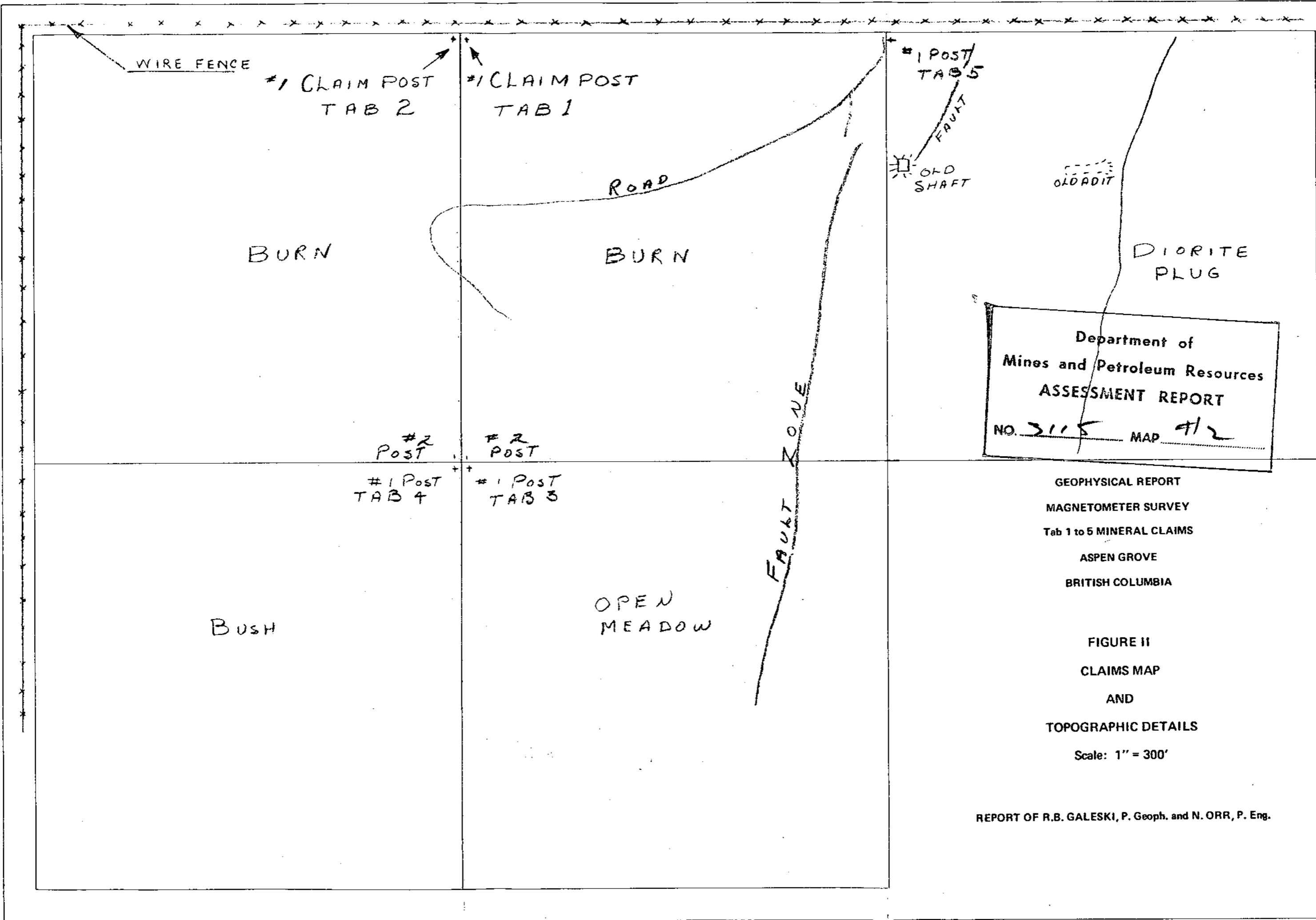


FIGURE I
COPY OF TULAMEEN
MAP SHEET 92 H/NE

K A M L O O

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NO. 3115 MAP #1



#1 CLAIM POST
TAB 2

#1 CLAIM POST
TAB 1

#1 POST
TAB 5

BURN

BURN

OLD
SHAFT

OLD ADIT

DIORITE
PLUG

Department of
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#2
POST

#2
POST

#1 POST
TAB 4

#1 POST
TAB 3

BUSH

OPEN
MEADOW

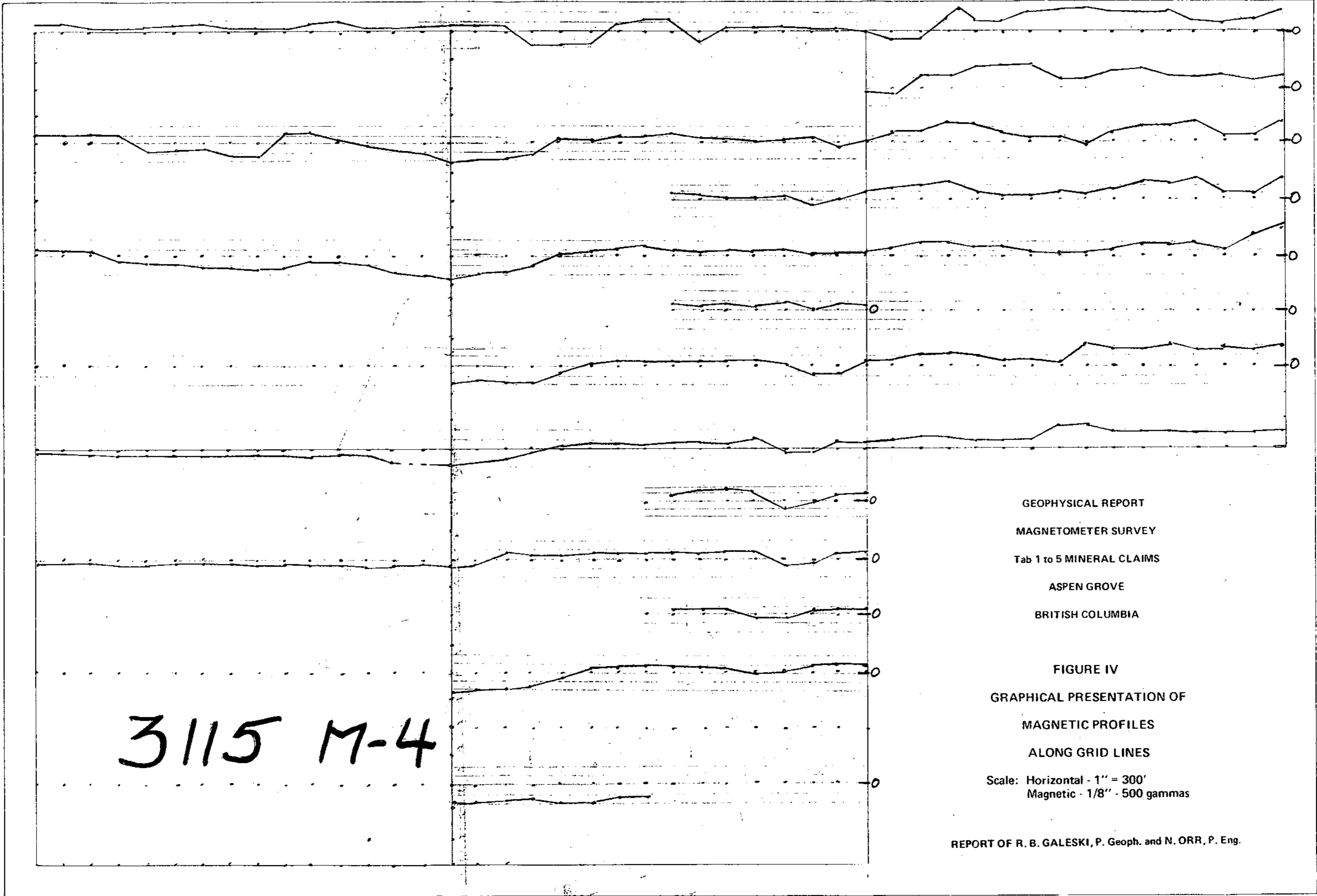
FAULT ZONE

GEOPHYSICAL REPORT
MAGNETOMETER SURVEY
Tab 1 to 5 MINERAL CLAIMS
ASPEN GROVE
BRITISH COLUMBIA

FIGURE II
CLAIMS MAP
AND
TOPOGRAPHIC DETAILS

Scale: 1" = 300'

REPORT OF R.B. GALESKI, P. Geoph. and N. ORR, P. Eng.



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 ASPEN GROVE
 BRITISH COLUMBIA

FIGURE IV
 GRAPHICAL PRESENTATION OF
 MAGNETIC PROFILES
 ALONG GRID LINES

Scale: Horizontal - 1" = 300'
 Magnetic - 1/8" = 500 gammas

REPORT OF R. B. GALESKI, P. Geoph. and N. ORR, P. Eng.

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