

2988

GEOCHEMICAL & GEOPHYSICAL REPORT

ON

THE 82 M/12 VH GROUP

OF

ROYAL CANADIAN VENTURES LTD.

at

51° 119° NW

82 M / 12 E

by

N.B. VOLLO, P.Eng.

March 25th, 1971

Department of Mines and Petroleum Resources ASSESSMENT REPORT	
NO. 2988	MAP.....

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Maps in Pocket:

Geochemical Plan	1" = 400'
Magnetic Survey	1" = 400'
EM-16 Survey	1" = 400'

SUMMARY

A reconnaissance geochemical survey was carried out along chained claim location lines. An anomalous area, associated with low grade copper mineralization, was located and checked by approximately two miles of grid, magnetic and VLF-EM surveys. Test hole drilling is recommended.

LOCATION & ACCESS

The group is located approximately six miles south of Vavenby, B.C. a village on the North Thompson River. It can be reached by logging roads from either Vavenby or Barriere.

TOPOGRAPHY & CLIMATE

Topography is that typical of the Adams Plateau, with moderately steep slopes and elevations ranging from 4,000 to 5,500 feet above sea level. Rainfall and snowfall are moderate to high and a heavy growth of alpine fir, spruce, cedar and hemlock is present.

CLAIMS

The group consists of 60 claims, all held by Royal Canadian Ventures Ltd., as follows:

VM 1 - 48	Record Nos. 88371 - 88418
VM 48 - 60	Record Nos. 89437 - 89448

All are in the Kamloops Mining Division.

HISTORY & PREVIOUS WORK

The group was formerly the Jo Group, but no work was apparently done on it. It was restaked in April, 1970 by Royal Canadian Ventures Ltd. It adjoins east of the Hail Group of claims, held by the Quebec Cartier Mining Co., on which considerable work has been done on zones of low grade copper mineralisation.

FIELD WORK

Four men chained claim location lines and collected approximately 400 soil samples from August 22nd, to August 28th, 1970. Additional soil sampling, two miles of grid, magnetic and VLF-EM surveys were done by two men from September 21st to 25th, 1970.

GEOCHEMICAL SURVEY

Soil samples were collected at 200' intervals along chained claim location lines, 3,000 feet apart, and along cross tie lines approximately 12,000 feet long. In addition, silt samples were taken from all streams crossing these lines. Soil augurs were used, the samples collected in kraft paper envelopes and sent to TSL Laboratories in Vancouver. Analysis were made for total Cu, Zn and Mo using hot aqua regia extraction and the atomic absorption method.

A fairly well developed podzol type soil profile is present and samples were taken from the "B" horizon. Silt samples were collected from active stream sediments.

Soil copper background is about 20 ppm. A fairly distinct anomaly,

with analysis ranging to 1470 ppm, was outlined on claims, VM-5, VM-6 and VM-8. A small stream crossing the anomaly exposes low grade chalcopyrite mineralization for about 200' in coarse grey quartz eye gneiss. Gneissosity is parallel to the anomaly and dips about 40° northwest.

Stream silt sample and background is about 30 ppm, rising to only 90 ppm in the stream cutting mineralized gneiss.

Zinc background is about 40 ppm, in both soils and streams, with very few scattered anomalous analysis up to 350 ppm.

Mo background is about 2 ppm in the soils and silts, with a maximum of 5 ppm and no anomalous analysis.

Copper and anomalous zinc values are shown on the accompanying map, (in pocket). Molybdenum was not plotted.

MAGNETIC SURVEY

Readings were taken at 100' intervals along lines 400' apart using a Sharpe MF-1 Fluxgate Magnetometer. Sub base stations were established along line 21 + 00 S, traverses were looped and tied back to base stations. Diurnal variation proved negligible, and no correction was required.

Magnetic reliefs is fairly low, but a northeasterly trend parallel to the geochemical anomaly is evident. The sharp linear low may be a dipole effect from the mineralized gneiss band.

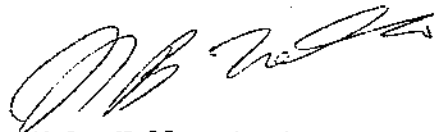
VLF-EM SURVEY

Readings were taken at 100' intervals along lines 400' apart using a Ponka EM-16 Unit. NPG, Seattle, Washington, was used as source, since WAA, Maine, was not transmitting. The field from NPG at this point is about north 60° West, very nearly perpendicular to the geochemical anomaly, but at a high angle to the traverse lines. In-phase readings were reduced to contourable data using the method devised by Fraser (Fraser, D.C., Geophysics, v. 34, pp. 958 - 967, 1969), and are shown on the accompanying map (in pocket).

Conductive zones are present on both flanks of the geochemical anomaly but not over it. The south zone is of moderate intensity, the north zone is fairly weak, but both continue northeast off the surveyed area.

CONCLUSIONS AND RECOMMENDATIONS

The soil copper anomaly appears to reflect the sub-outcrop of a zone of mineralization with sufficient extent to be of possible economic significance. Three short vertical holes should be drilled at 200' intervals along the stream crossing the anomaly, to determine the grade and thickness of mineralization. These can be drilled with a "Winkie" drill, as they can be collared in outcrop. Further work would depend on the results of these holes.



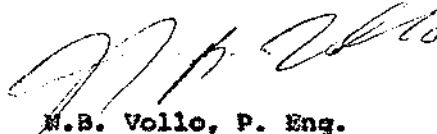
N.B. Vollo, P. Eng.

March 25th, 1971.

QUALIFICATIONS OF OPERATORS

Leo Loranger is 41 years of age, and completed grade 9 at Englehart, Ontario. He was employed for four years, from 1962 - 1966, by the Noranda Exploration Company at Mataqami, Quebec, as a geophysical assistant and instrument operator. He was employed for two years, by Scurry Rainbow Oils, Calgary, Alberta, as a geophysical assistant and instrument operator. He has been employed for three years by Royal Canadian Ventures and has been carefully instructed in the operation of the MF-1 Magnetometer by the undersigned, who knows his work to be carefully and reliably done.

Michael Fennell, is 21 years of age and completed Grade 12 at Barriere, B.C. and has been employed by Royal Canadian Ventures for one year. He has been carefully instructed in the operation of the Ronka EM-16 unit by the undersigned, who knows his work to be carefully and reliably done.



N.B. Vollo, P. Eng.

March 25th, 1971

AFFIDAVIT ON EXPENDITURES

Personnel:

N.B. Vollo, P. Eng., Supervision, interpretation and report (4 days @ \$75.00)	\$ 300.00
L. Leranger, Field Work - Aug. 24 - Sept. 25th, 10 days @ \$45.00	450.00
Plotting 2 days @ \$45.00	90.00
C. Mohn, Field Work, August 24 to Aug. 28th, 5 days @ \$35.00	175.00
D. Barlow, August 22nd, to August 28th 7 days @ \$30.00	210.00
G. Turcotte, August 22nd to August 28th 7 days @ \$25.00	175.00
H Fennell, Sept. 21st to Sept. 25th 5 days @ \$35.00	175.00
Plotting - 1 day @ \$35.00	35.00
H Hjelt, Drafting - 2 days @ \$45.00	90.00
Vehicle expense 2,050 miles @ .120 per mile	246.00
Camp Expense	143.20
Prints, flagging and miscellaneous	50.63
Analysis - TSL Laboratories - Invoice # 8973	668.50
Invoice # 9220	194.00
TOTAL	\$ 3,002.33

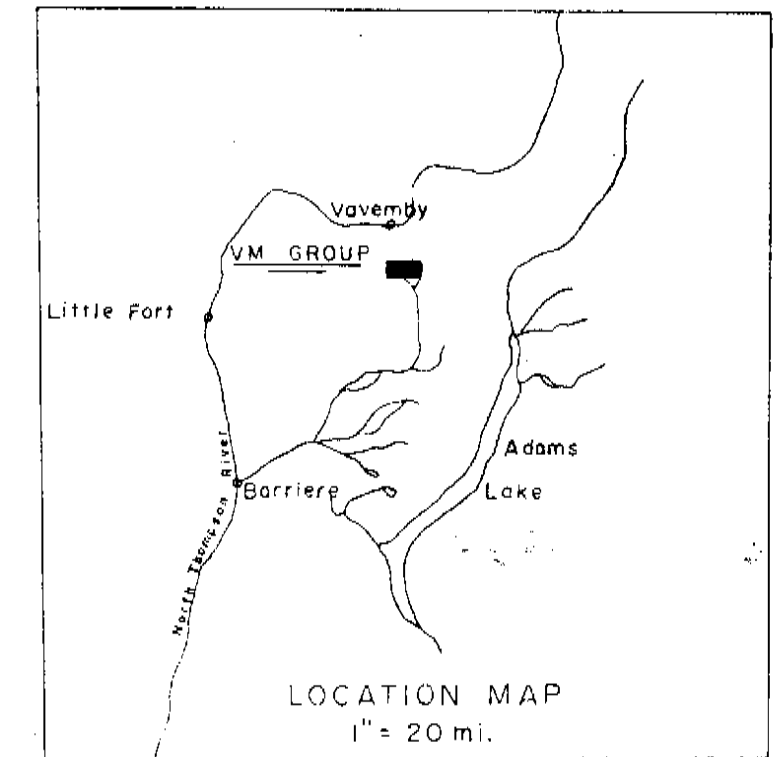
I, Nels B. Vollo of the City of Kamloops in the Province of British Columbia, make this declaration, conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath by virtue of the Canada Evidence Act.


N.B. Vollo, P. Eng.

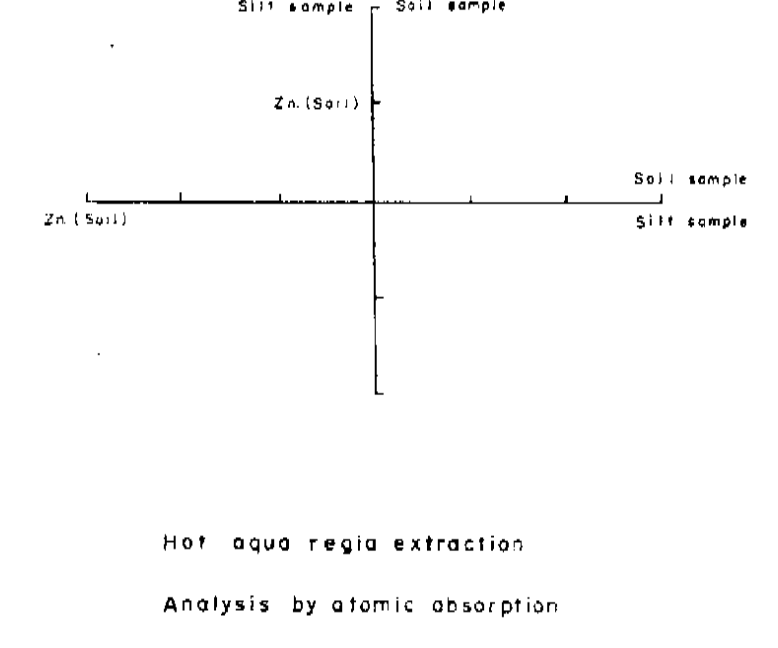
Declared before me at the City of Kamloops, in the Province of British Columbia this 26th day of April 1971, A.D.


Commissioner for taking affidavits in British Columbia.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2988
MAP #1



LEGEND



TO ACCOMPANY REPORT BY N. B. VOLLO,
P. ENG., DATED MARCH 25th, 1971

2988

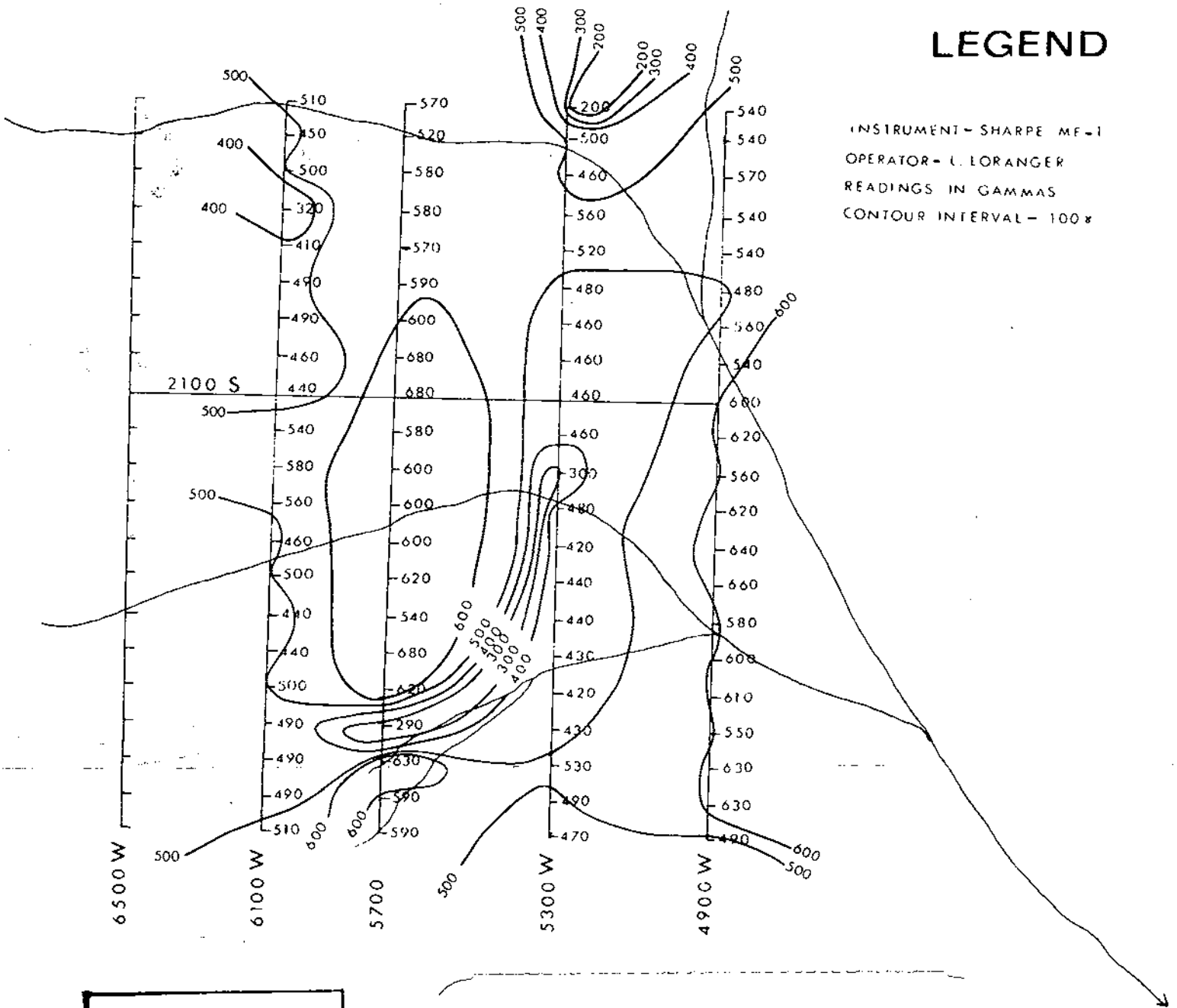
ROYAL CANADIAN VENTURES LTD.
KAMLOOPS, BC.

82M/12 VM GROUP
GEOCHEMICAL SURVEY
TOTAL Cu., Zn.

Drawn by: [Signature] Scale: 1" = 400' Date: 04.18.70 Approved: [Signature]

LEGEND

INSTRUMENT - SHARPE MF-1
 OPERATOR - L. LORANGER
 READINGS IN GAMMAS
 CONTOUR INTERVAL - 100*



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 2988 MAP A-2

TO ACCOMPANY REPORT BY
 N.B. VOLLO, P.ENG., DATED
 MARCH 25th, 1971

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 KAMLOOPS, B.C.

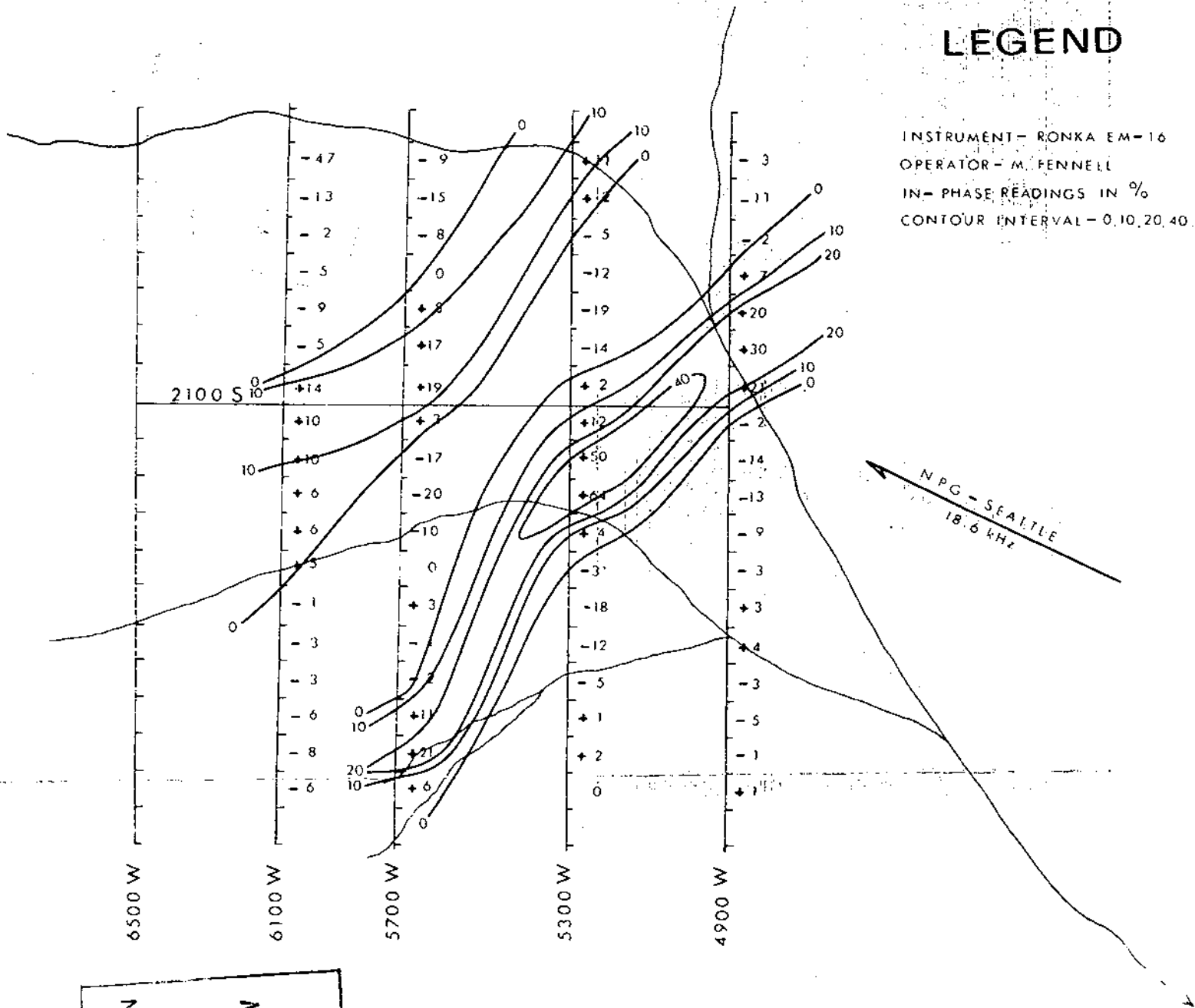
82M/12 VM GROUP

MAGNETIC SURVEY

Drawn by: *M.H.* Scale: 1" = 400' Date: 30/3/71 Approved by: *[Signature]*

LEGEND

INSTRUMENT - RONKA EM-16
 OPERATOR - M. FENNEL
 IN-PHASE READINGS IN %
 CONTOUR INTERVAL - 0, 10, 20, 40



Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 2988 M.P.
 #3

TO ACCOMPANY REPORT BY
 N.B. VOLLO., P.ENG., DATED
 MARCH 25th, 1971

ROYAL CANADIAN VENTURES LTD.
 KAMLOOPS, B.C.

82M/12 VM GROUP

EM-16 SURVEY

Drawn by: *mf* Scale: 1 = 400' Date: 30/3/71 Approved by: *MB*