

329

REPORT COVERING  
GEOLOGICAL AND MAGNETOMETER SURVEYS  
ON  
THE WINDPASS LEASE, 7 MILES N.E. OF CHUA CHUA  
51 - 120 S.E.

By

A. D. WILMOT, P. ENG.

FOR

FORT RELIANCE MINERALS LIMITED

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Department of Mines and Petroleum Resources ASSESSMENT REPORT	
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. GEOLOGICAL REPORT ON  
WINDPASS LEASE (CHU CHUA, B.C.)  
KAMLOOPS MINING DIVISION

I. Introduction:

The following report covers the work carried out by Fort Reliance Minerals Limited on the Windpass Lease between October 2nd and October 27th, 1960. The report has been prepared to fulfill the requirements of the Mineral Act governing the acceptance of geological and geophysical surveys for assessment work on this property.

The following personnel were employed on the project:

A. D. Wilmot, P. Eng.  
W. J. MacKenzie, P. Eng.  
W. J. Christian, prospector  
D. K. Bragg, prospector

II. Conclusions and Recommendations:

Gold deposits on the Windpass are of two types: quartz veins, such as the Sweet Home, which are very sparsely mineralized and which are not magnetically anomalous, and highly magnetic replacement lenses containing abundant magnetite, that occur in the eastern part of the Windpass deposit.

The recent work was conducted in an effort to locate further ore bodies, of the second type, which could occur under the light mantle of overburden, which covers about 85% of the lease area.

High magnetic anomalies were obtained over the projected outcrop of the Windpass deposit and at points north of the outcrop for several hundred feet, which are thought to indicate down dip magnetic lenses. Anomalies which are

comparable, though of slightly lower intensity, occur in the north east corner of the Jupiter Mineral Claim. The position of these anomalies in relation to the Sweet Home vein is notably similar to that on the Windpass, and may indicate the presence of magnetic ore, lying on the eastern extension of the Sweet Home vein. As the overburden is not considered to be heavy, further prospecting with some stripping in this area is recommended.

In conclusion it may be stated that the results of the recent survey, while indicating a possible ore body mentioned above, are not indicative of the overall potential of the property, which includes two other possible sources of ore: namely undetected quartz veins similar to the Sweet Home deposit, and ore in the Sweet Home and Windpass structures below the present workings.

### III. Property.

The Windpass Lease consists of the following nine reverted Crown Grants: Elise, Gott, Jupiter, Maple Leaf, Premier, Sweet Home and Windpass #1, 2 and 3, which cover an area of 316.4 acres. The Lease was acquired by Fort Reliance Minerals Limited on February 23rd, 1960, and subject to the provisions of the Mineral Act, is in effect for a period of 21 years.

### IV. Location and Access.

The property is located 6 miles east of Little Fort, which is on the North Thompson Highway, 60 miles north of Kamloops, B. C.

Dunn Lake, located 2 miles west of the property, may be reached by road from Little Fort, or by turning off the main highway at Barriere and driving north through Chu Chua. Dunn Lake, at an elevation of 1,600 feet, is connected to the mine,

at an elevation of 5,500 feet, by 8.5 miles of road, which is passable for four-wheel drive vehicles from the first of June to the end of October. Accommodation is available at Little Fort, and during the summer months, at resort camps on Dunn Lake.

#### V. History.

The property was staked in 1916 and brought into production by Trites, Woods and Wilson in 1933. When the operation was suspended in 1939, the recorded production amounted to 34,246 ounces of gold and 1,568 ounces of silver, from 84,000 tons of ore mined. All equipment from the mine and mill has been removed, and the mine buildings are now in disrepair, with the exception of one which is in good condition, and which was used to accommodate the crew during the recent geophysical survey of the property.

Some production was obtained from the Sweet Home vein, situated half a mile south of the Windpass deposit. This quartz vein which strikes westward and dips to the north, is sparsely mineralized with pyrite, pyrrhotite, chalcopyrite, bismuth and free gold. Upon passing from the sill to the chert on the hanging-wall, the vein becomes narrower and lower in grade.

#### VI. Geology and Mineralization.

The Windpass ore occurs in a quartz-diorite which forms the upper part of a sill, which on the hanging-wall is in contact with thinly bedded chert, dipping steeply to the west. Pyroxenite, which forms the lower part of the sill, is intruded by granite and granodiorite off shoots from a large body of

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these rocks lying to the east. The western contact of the granite, where exposed, dips westward at 35 to 50 degrees. The quartz-diorite-pyroxenite sill has been mapped as a northerly-trending belt more than 4 miles long, and 1 to 1½ miles wide.

Mineralization at the Windpass occurs in a northerly dipping shear-zone which cuts quartz-diorite. Near the surface the western part of the deposit is a quartz-fissure filling, and the eastern part is a series of replacement lenses containing abundant magnetite. At the western end, where the vein passes into thinly bedded chert on the hanging-wall of the sill, it splits into narrow, low-grade stringers. The deposit contains magnetite, chalcopyrite, pyrite, pyrrhotite, native gold and bismuth. Some of the massive magnetite contains high values in gold, and in many cases bismuth minerals indicate high grade ore.



A.D. WILMOT  
P. Eng.

Kelowna, B. C.  
December 29, 1960.

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GEOPHYSICAL REPORT

ON

THE WINDPASS LEASE, 7 MILES NE OF CHU CHUA

51 DEGREES - 120 DEGREES SE

BY

A.D. WILMOT, P. ENG.

FOR

FORT RELIANCE MINERALS LIMITED

## MAGNETOMETER SURVEY

I. General

Between October 21st, and October 28th, 1960, a magnetometer survey was conducted on the nine claims covered by the Windpass lease, by the writer and his assistant Mr. W. J. MacKenzie. On a previously prepared grid, consisting of NS picket lines 200 feet apart, readings were taken with a "Radar" magnetometer, at 100 foot intervals - except in the vicinity of anomalies where the interval was reduced to 50 feet.

The instrument has a range of 37,000 gammas and measures the vertical component of the earth's magnetic field. Magnetic ties were made every hour, thus ensuring a station value accuracy of plus or minus 10 gammas.

II. Results

High magnetic anomalies were obtained over the projected outcrop of the Windpass vein and at points lying to the north of this for several hundred feet, probably indicating the structure down dip.

The Sweet Home deposit, which is a<sup>2</sup> quartz fissure vein, is not magnetically anomalous along the known outcrop. However, an area of high magnetic intensity is located on the eastern projection of the outcrop, which may indicate the presence of magnetic ore similar to that occurring in the eastern portion of the Windpass deposit. This anomaly is located near the NE corner of the Jupiter Mineral Claim. A second anomalous area is located some 1,200 feet to the South and straddles the boundary between the Jupiter and Sweet Home Mineral Claims. It is not associated



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with any known mineral occurrence.

As the overburden in the vicinity of these anomalies does not appear to be heavy, some further prospecting and stripping is recommended.

*A.D. Wilmot*

A.D. WILMOT  
P. Eng.

Kelowna, B. C.  
December 29, 1960.

APPENDIX I

The following is a record of salaries, wages and expenses in connection with the Geological and Magnetometer surveys on the Windpass Lease.

1. Line Cutting and Chaining.

Work performed by D.K. Bragg of P.O. Box 31, Enderby, B.C. and W. H. Christian of Fort St. James, B.C., from October 2nd to October 21st, 1960.

15.0 miles of line @ \$75.00 per mile - \$1,125.00

2. Geological and Magnetometer Surveys.

Conducted by A. D. Wilmot and W. J. MacKenzie, of Kelowna, B.C., between October 21st and October 28th, 1960.

A. D. Wilmot - 8 days @ \$25.00 per day - 200.00

W. J. MacKenzie - 8 days @ \$25.00 per day - 200.00

3. Report Preparation

A.D. Wilmot - 11 days @ \$25.00 per day 275.00

Total costs applicable for assessment work \$1,800.00

4. Distribution

\$200.00 to be applied on each of the following nine claims in the lease: Elise, Gott, Jupiter, Maple Leaf, Premier, Sweet Home, Windpass #1, Windpass #2, and Windpass #3.

AFFIDAVIT

I declare the above statement to be true and correct.

*A. D. Wilmot*  
A. D. Wilmot

APPENDIX II

Statement of Qualifications

The following is an outline of qualifications as required by Order-in-Council #1491:

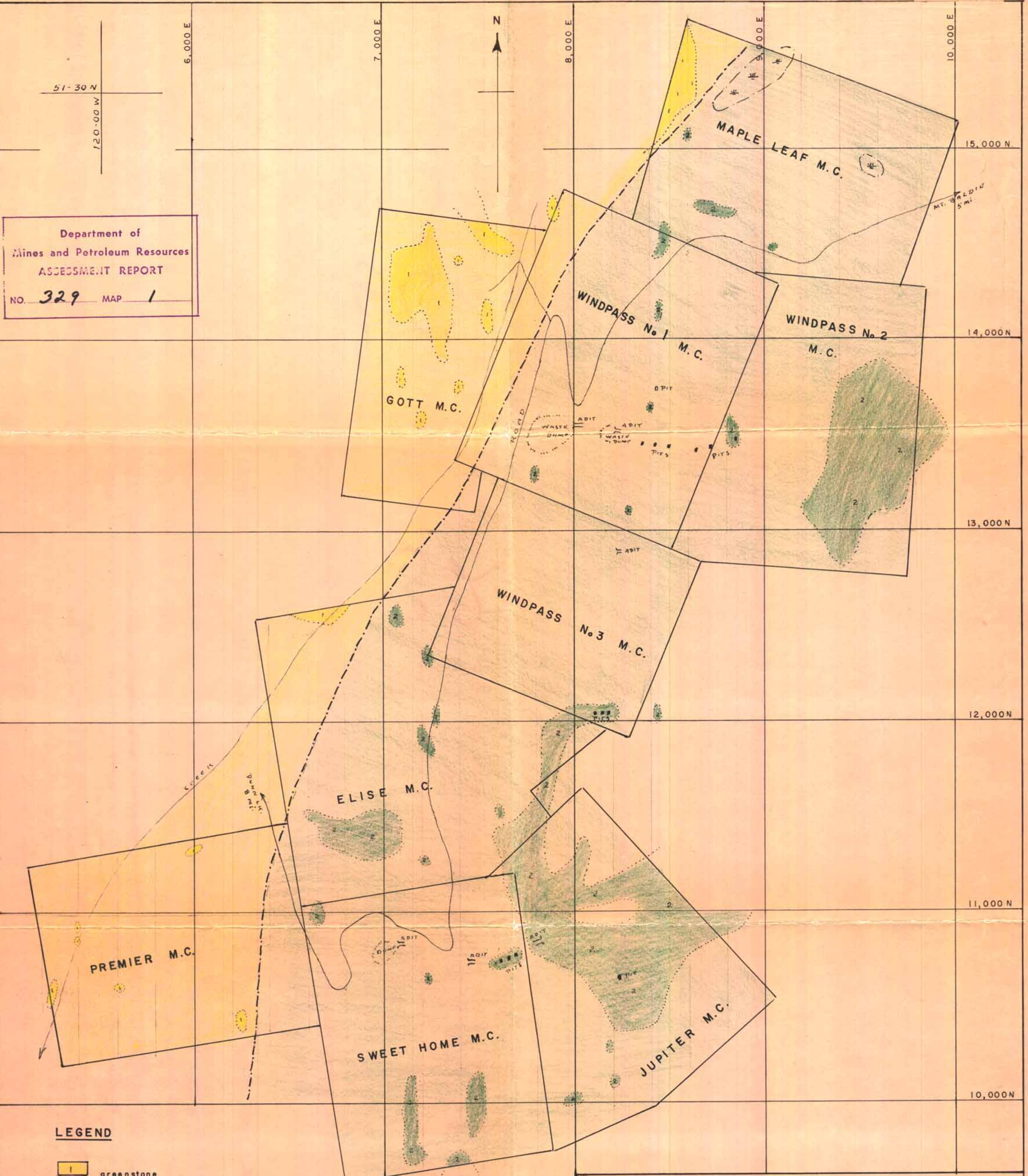
A. D. Wilmot - Member of B. C. Professional Engineers (Mining),  
Member - C.I.M.M.

W.J. MacKenzie - Member of B.C. Professional Engineers (Mining),  
Member - C.I.M.M.

D.K. Bragg - Prospector

W.H. Christian - Prospector

A. D. Wilmot and W. J. MacKenzie have both been previously employed on geophysical surveys.



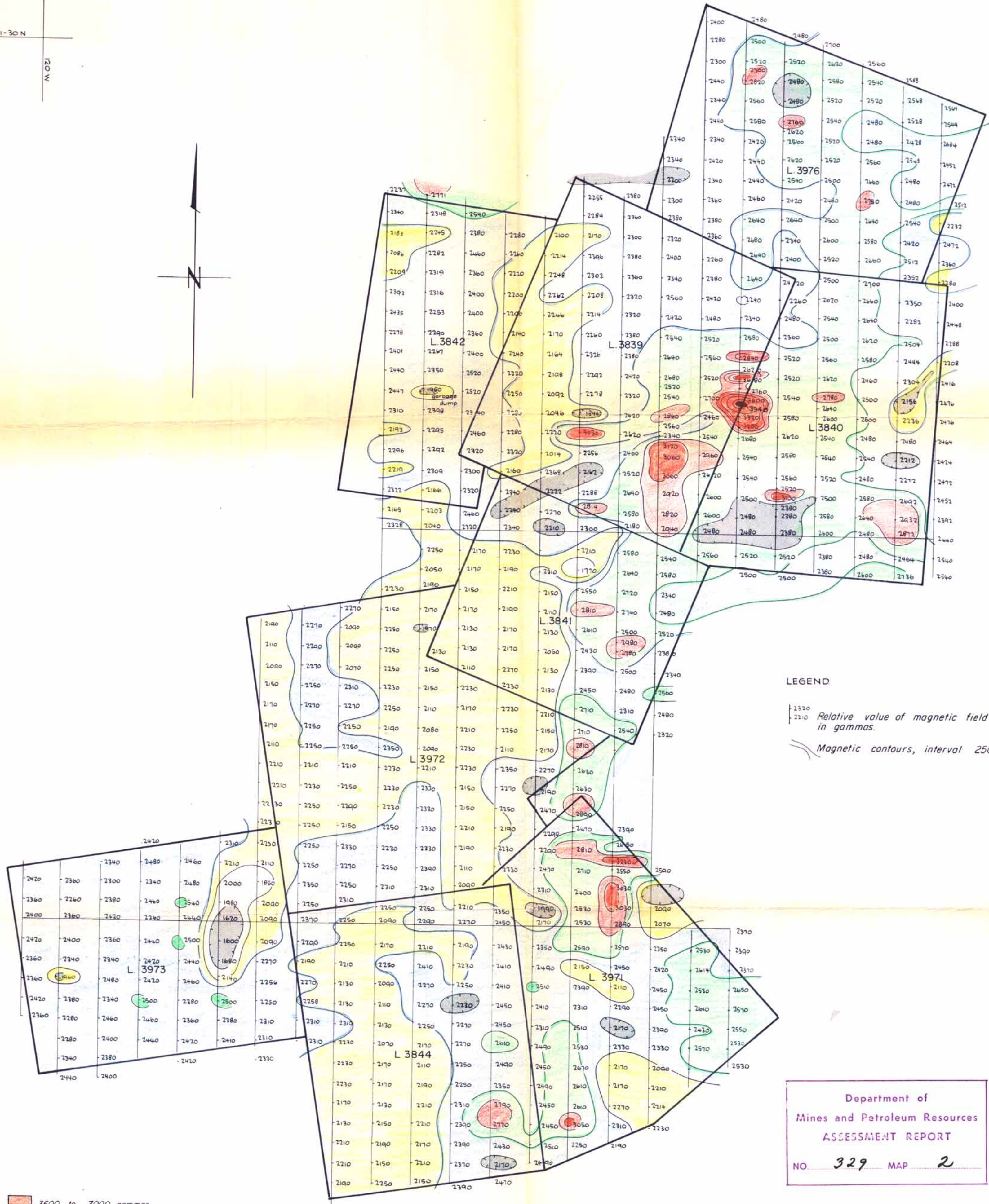
Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 329 MAP 1

**LEGEND**

- greenstone
- granitized greenstone and diorite
- overburden and trees
- rock outcrop
- swamp
- geological contact

**FORT RELIANCE MINERALS LIMITED**  
 25 KING ST. W. TORONTO  
**GEOLOGICAL PLAN OF WINDPASS LEASE**  
 CHU CHUA, B. C.  
 SCALE — 1" = 300'  
 A. D. WILMOT P. ENG. NOV. 1960

51-30 N  
120 W



LEGEND  
 2320 Relative value of magnetic field in gammas.  
 2110  
 Magnetic contours, interval 250 gammas.

- 3600 to 3000 gammas
- 3000 to 2750 gammas
- 2750 to 2500 gammas
- 2500 to 2250 gammas
- 2250 to 2000 gammas
- Under 2000

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 329 MAP 2

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FORT RELIANCE MINERALS LIMITED  
 25 KING ST. W. TORONTO

MAGNETOMETER SURVEY  
 WINDPASS PROSPECT - BRITISH COLUMBIA



A. D. WILMOT P. Eng.

OCT. 1960