Dr. E. A. Goranson, Dhief Geologist, Uttawa. Vancouver, B.C. May 12, 1967.

- STORIE - AIR PHOTO STUDY

An office study of the Storie property air photos has been made by J. Ariz, and he has prepared a brief report and the two accompanying sketch maps which are enclosed.

Apparently there are a large number of short lineaments north of the present grid and drilled area, and if these are related to fracturing in the underlying rocks we may be advised to extend our drill grid in that direction. However, I believe the overburden is deeper there than in the area already drilled.

We may determine a dominant mineralizing fracture system with the first four holes planned from one set-up this year, but in any event we are planning to accurately note and record the location and attitude of every fracture in all new drill holes in an attempt to learn the significance of these important features.

R. C. Macdonald

RCM/vs

cc: W. H. Callahan (with encl.)

GYORIE MOLY PROPERTY

MEMO ON TOPOGRAPHIC LINEAMENTS

INTRODUCTION:

This preliminary study attempts to determine visible topographic lineaments in and around the STORIE Mo Property on the 1/2 inch to 1 mile air photos, and also investigate if any relationship exists between lineaments and present surface and subsurface geologic data.

Observed lineaments were plotted directly on the accompanying overlay (PLATE I). Our 400 ft. grid lines corresponding to our 1 in. to 100 ft. E-W and N-S Vertical Sections were plotted. The access road was roughly plotted. Data in the overlay were transferred to a larger-scale sketch map (PLATE II, 1 in. to 300 ft.) to afford better detailed presentation in the grided area.

LINEAMENTS: Please refer to Plate 1.

- 1. Apparently, the most prominent topographic lineaments have a general trend of N8OE/45-60N. The most pronounced of these are marked in the Plates a-a, b-b, c-c, d-d, and e-e. a-a coincides with the fault referred to by P. Crone as the "hypothetical fault". This "hypothetical fault" seems to be the extension of the major fault mapped by the G.S.C. (also marked a-a in the overlay). The others may represent small faults.
- 2. The less prominent lineaments trend approximately N45E/very steep dip.
- 3. The least prominent lineaments trend approximately N5-10E/steep dip.
- 4. Lineament x-x north of the grid area, appears as a strong, thick, dashed line that terminates at the south where it abutts lineament c-c.
- 5.a-a appears to terminate about 400 feet WSW of DH No.22, not far from the ridgeline SW of the campsite. b-b and c-c appear to follow the ridgeline of the hill west of the camp and are cut at the other (west) side of this hill by a strong lineament marked y-y.
- 6. The area north of lineament a-a (northern half of the grid area) is marked by more abundant, closer spaced, rather short lineaments that are oriented more or less in agreement with the aforementioned trends of lineaments.

OBSERVATIONS / COMMENTS:

- 1. There are apparently three sets of Lineaments in the area studied:

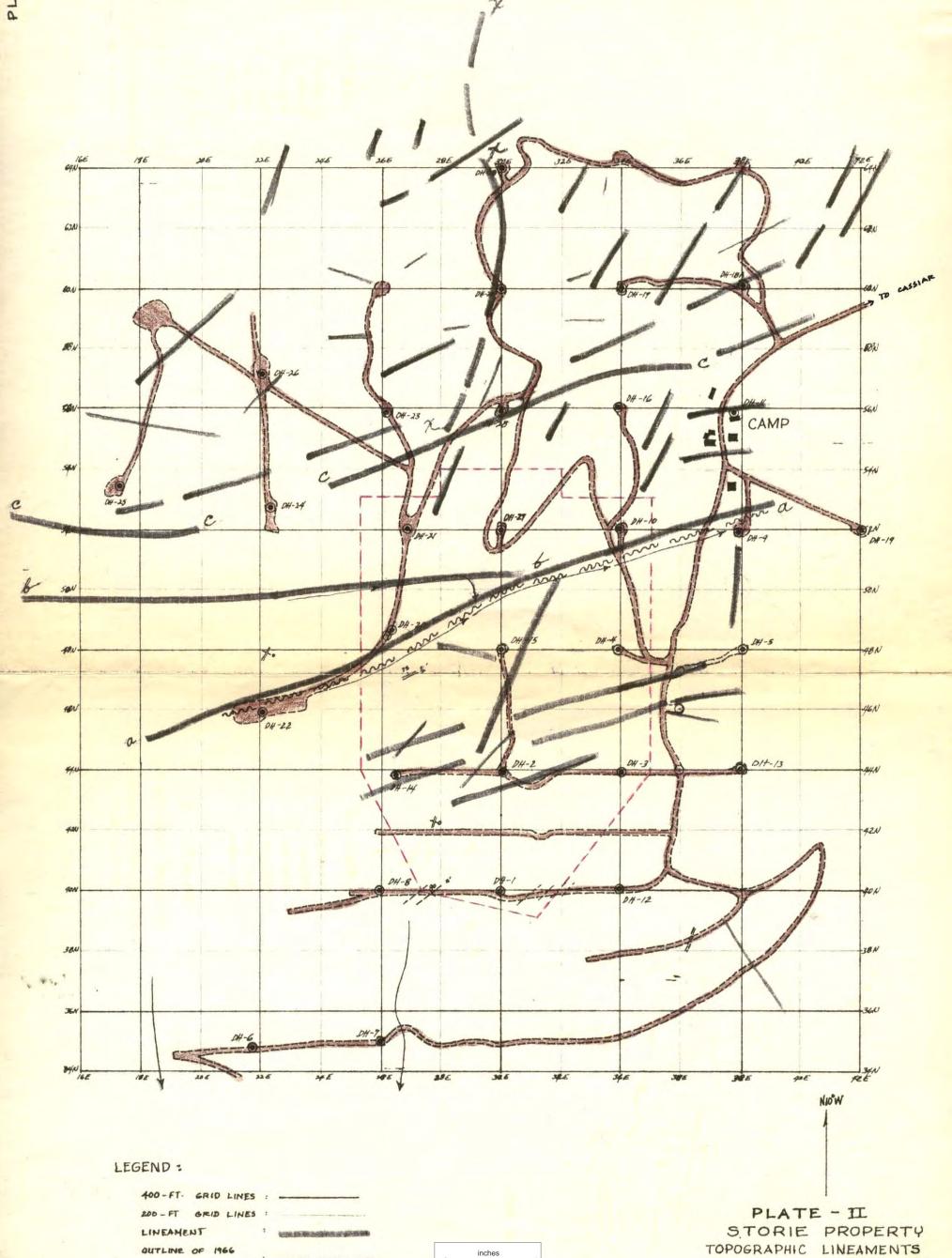
 - A) Most prominent N80E/45-60N.
 B) Less prominent N45E/very steep dip.
 C) Least prominent N5-10E/steep dip.
- 2. In the grid area, a-a coincides with the "hypothetical fault", and is apparently the western extension of the major fault east of the camp which has been mapped by the G.S.C.
- 3. Our 1" to 100' map (AXL-BC-30), shows some quartz veins south of DH No. 20, and Mo-mineralized joints and/or shear zones in trenches 40N and 42N which are sub-parallel to the trend of the "hypothetical fault" or lineament a-a.
- 4. P. Crone recognized three sets of rock fractures in the area in the 1964 Report: A) NNE/sub-vertical; B) E-W/45N; and C) N-S/sub vertical.

Although no statistical count was made regarding frequency of Mo-mineralized fractures / quartz veinlets in the drill cores, I have the impression the frequency of mineralized structures is as follows:

<u>Frequency</u>	DIP OF FRACTURE/CTZ VEINLET
Most Frequent	450 - 600
Less Frequent	70° - 80°
Least Frequent	100 - 300

Correlation with P. Crone's sets of fractures indicates that the "most frequent" mineralized structure is the EW/45N set. The trend of the major or most prominent lineament agrees to this set.

- 5. If lineaments are expressive of rock fracturing in the area, then the area north of the 58% Grid Line may be considered a relatively more fractured area compared to the rest.
- 6. Drilling results have thus far indicated that the ore zone extends in a NNW-SSE trend, which direction is more or less perpendicular to the strike of the major lineaments in the area.
- 7. Actual reconn foot survey during this coming fieldwork is suggested to check these topographic lineaments and assess their practical value in relation to our undertaking.



ORE ZONE

By: J. F. Ariz 30 March 1967

Scale 10 In = JOAIFT.

WITHIN THE GRIDED AREA

