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EVALUATION OF THE CROWN MINERAL CLAIMS

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November 29, 1973

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by:

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SUMMARY

The 34 CROWN mineral claims were staked to cover the northwest strike extension of phyllites and schists in which the FARO orebodies occur, and which are located eight miles to the southeast.

Exploration on the CROWN claims includes soil geochemistry (1967), trenching (1972), Turam (1972) and gravity (1973) surveys.

Geologically the deposits are believed to be underlain by calc-silicate rocks which are extensions of the non-mineralized rocks on the FARO claims. Elsewhere in the district these rock units are known to contain minor amounts of base metal sulfides, but no massive sulfide deposits. These rocks have a thickness more than 1000 feet on the HILL-RUST and other claims held by Hecla Mining Company, adjacent and to the east of Anvil's CROWN claims.

A Turam survey conducted on the CROWN claims in 1972 detected five conductor zones. The conductors whose responses were thought to be most like those found with the sulfide deposits on the FARO claims were traversed with a gravity survey. Areas of strong correlation between good conductors and gravity highs were not found.

The soil geochemical data indicates no near surface sulfide deposits on the CROWN claims. The Turam and gravity surveys suggest that no massive sulfide deposits are present in at least the top 500 feet on the CROWN claims.

Because neither near surface deposits nor deep drill targets are indicated by the exploration work, the claims should be allowed to lapse.

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INTRODUCTION

Location and Access:

Thirty-four CROWN mineral claims were staked in 1967, by Anvil Mining Corporation Ltd., on the south slopes of the Rose Creek Valley, approximately eight miles northwest of the Anvil Mine site (Figure I).

These claims were staked to cover strike extensions of rock units which contain the FARO orebodies. The position and distribution of the claims is shown on the mineral claims map sheet 105 K-5 (Figure 2)

Access to the claims is by foot or track vehicle along a road starting from the northwest end of the Anvil airstrip. A helicopter can be used to expedite any camp moves.

History of Exploration of the CROWN Claims:

An airborne magnetic and electromagnetic survey was conducted in 1966 over ground which was subsequently staked as the CROWN claims.

Following the staking of the CROWN claims, a soil geochemical survey was completed in 1967. Two trenches were cut, but did not reach bedrock, on the claims for assessment work in 1972. A Turam survey over the entire claim group was completed in 1972. A gravity survey of four lines of anomalous Turam response was metered and gravimetric response (Bouguer) profiles were drawn in 1973 to check for mass associations with three of the Turam anomalies. A compilation map of all the exploration data on the CROWN claims is shown as Figure 3.

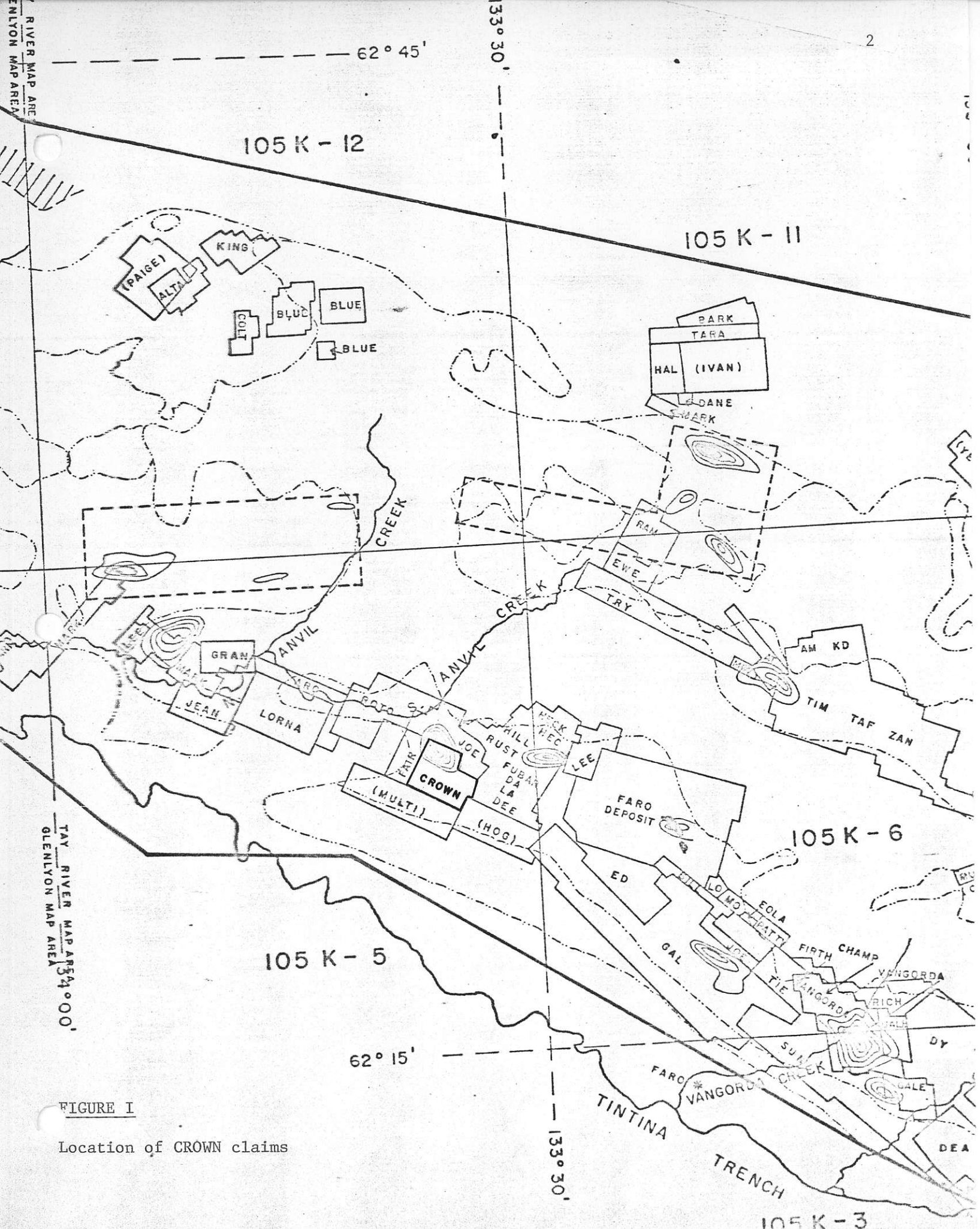


FIGURE I

Location of CROWN claims

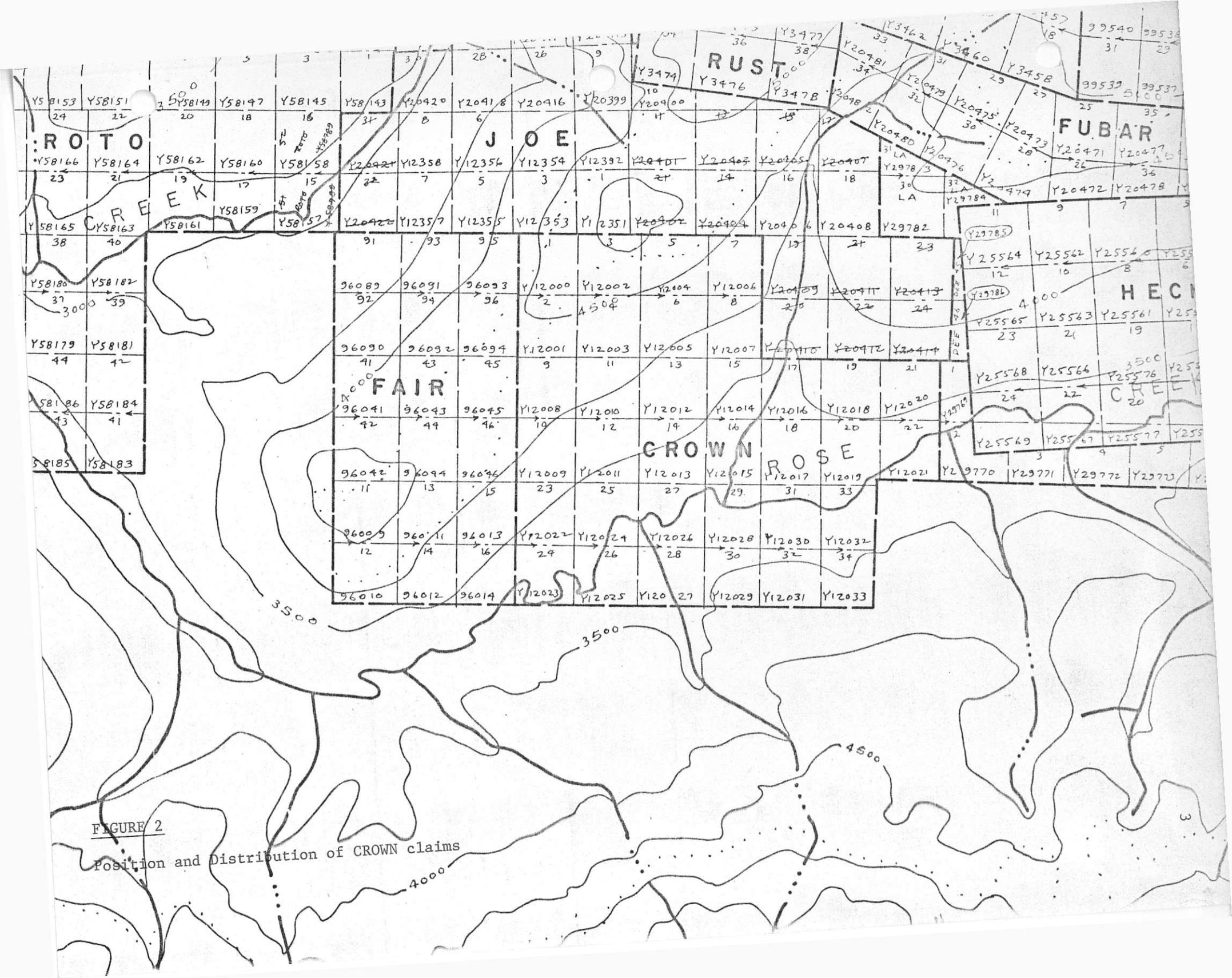


FIGURE 2

Position and Distribution of CROWN claims

GEOLOGY

Outcrop is not readily found on the CROWN claims and, therefore, the geology has not been mapped by Anvil Mining Corporation Ltd. A regional geologic setting is presented from published data (Templeman-Kluit, 1972).

The CROWN claims appear to be located on or near the contact of the Anvil Batholith with the Anvil Range schists and phyllites. Outcrop to the northwest of the CROWN claims is the Cretaceous Anvil Batholith. Outcrop to the northeast is the Anvil Batholith intruded by pyroxnite and hornblende diorite. Outcrop to the southwest is Hadrynian to Lower Paleozoic phyllites and schists. Outcrop was not found to the southeast side of the CROWN claim group along Rose Creek Valley. Rock outcrop is not indicated as being present on the CROWN claim group itself.

In general, the rocks in which the Faro orebodies occur can be projected into the area of the CROWN claims. From previous exploration work on the adjacent claims, one would predict that the CROWN claims are underlain by the calc-silicate and the overlying biotite-muscovite phyllite.

GEOCHEMICAL SURVEY

The copper, lead and zinc content in soil samples collected on a 400 foot grid spacing was determined, averaged, and then zones of the anomalous metal contents were grouped by contouring areas of equal metal content.

The average metal contents were about 25 ppm Cu, 5 ppm Pb, and 25 ppm Zn. Twice this average value was defined as anomalous. Contour interval for each element was 50 ppm Cu, 10 ppm Pb and 50 ppm Zn.

The copper content in the soil samples range from 0 to 120 ppm. The distribution of the anomalous copper values shows an apparent random distribution of one station highs, except along the northeast edge of the claim group where the highest copper contents and multiple station anomalies were defined.

The lead content in the soil ranged from 0 to 17 ppm. Lead was not detected in most of the samples and, therefore, the presence of any lead in the samples may be significant. Four samples contained 10 ppm or higher Pb. These zones of anomalous high Pb are located as separate individual values along the northeast edge of the claim group.

The zinc content in the soil samples ranges from 0 to 195 ppm, but only one sample contains more than 100 ppm Zn. Several small groupings of samples with anomalous Zn content can be made, but their distribution as well as the one station high values appear to have a random distribution.

The compilation of anomalous geochemical values shows a zone of anomalous, more or less coincident Cu, Pb, Zn values along the northeast edge of the claim group. Here the highest individual values as well as largest groupings of copper and zinc values are present.

GEOPHYSICAL SURVEYS

Airborne Magnetic Survey:

Two airborne magnetometer surveys have been conducted over the area covered by the CROWN mineral claims. One was for the Federal Government by Aero Photo, Inc., Quebec, during the period 1966-1968, and one in 1964 by Hunting Survey Corp. Ltd. (Figures 4 and 5) was for Dynasty Explorations Ltd.

The Federal Government survey which was flown at approximately one mile flight line spacings and a nominal flight altitude of 1000 feet above ground level, shows a strong isolated 180γ magnetic anomaly to the north or possibly along the northern margin of the claim group. The main area of the claim block is a magnetic low.

The survey by Hunting Survey Corporation Ltd. which was flown on 1000 foot line spacings at a mean terrain clearance of 400 feet, shows a strong magnetic anomaly of about 500γ along the northeastern edge of the claim group. This anomaly is approximately 4000 feet long and 2000 feet wide on the claims and extends for 1500 feet north and 6000 feet west of the CROWN claims. A second weak magnetic anomaly of about 30γ intensity is located near the southern corner of the CROWN claims. It also extends past the CROWN claim boundary. The central and main area of the CROWN claims is characterized by a zone of broad, uniform, weak magnetic response.

Airborne Electromagnetic Survey:

A regional electromagnetic survey was carried out in 1965 using a Lockwood in-phase/out-of-phase system, operating with a primary field signal of 4000 Hz (Figure 6). The area subsequently staked as the CROWN claims was included in that survey.

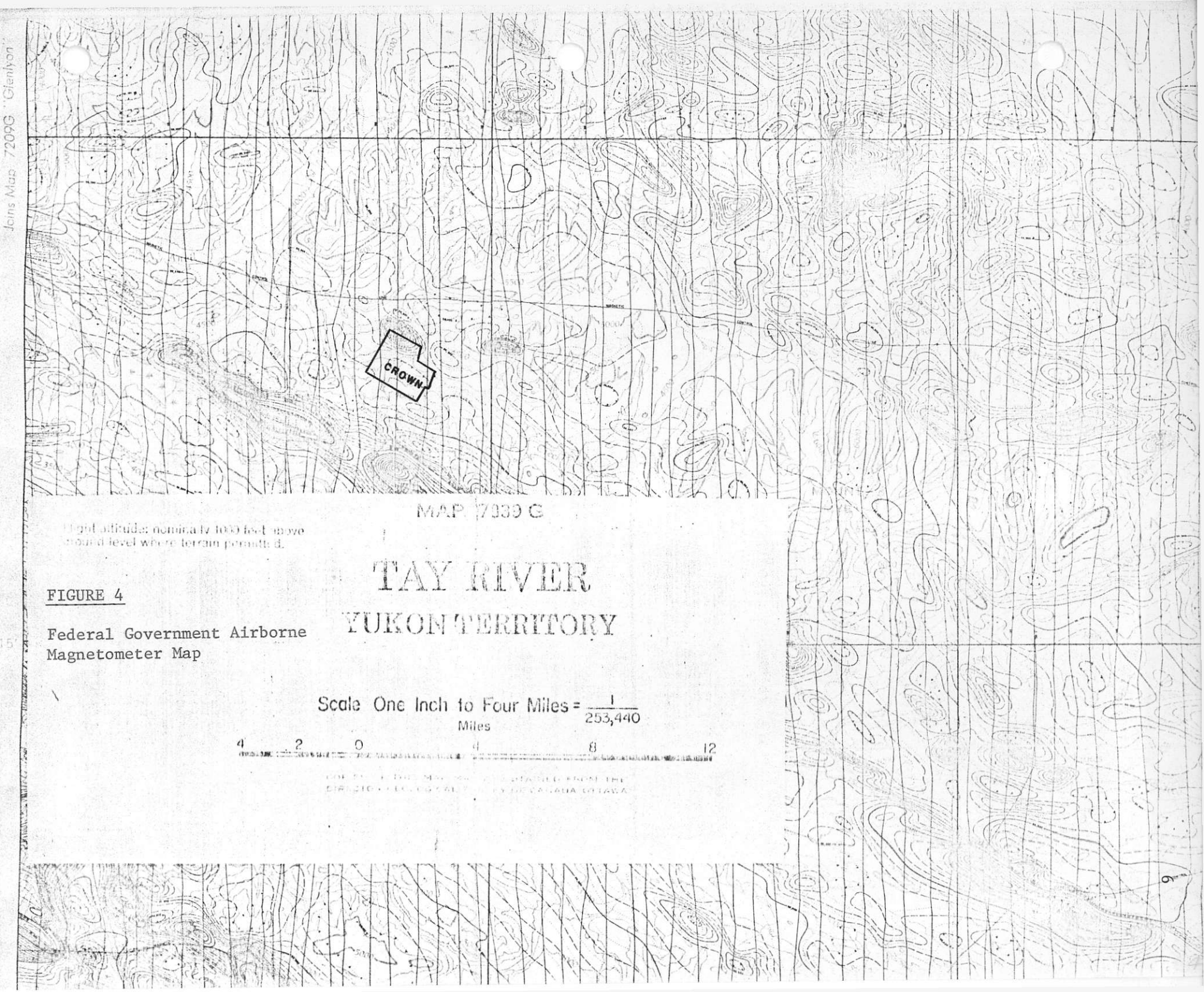


FIGURE 4

Federal Government Airborne Magnetometer Map

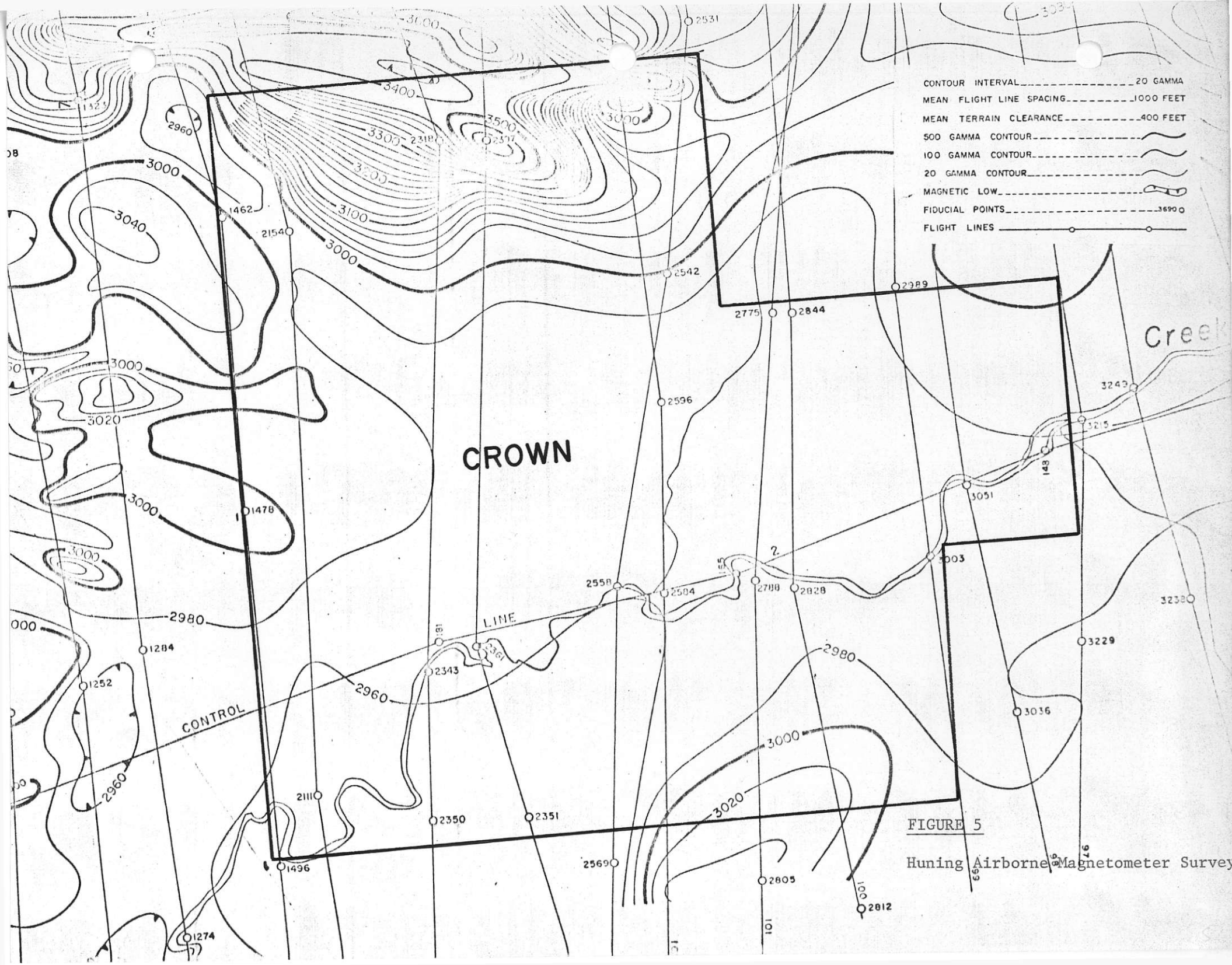
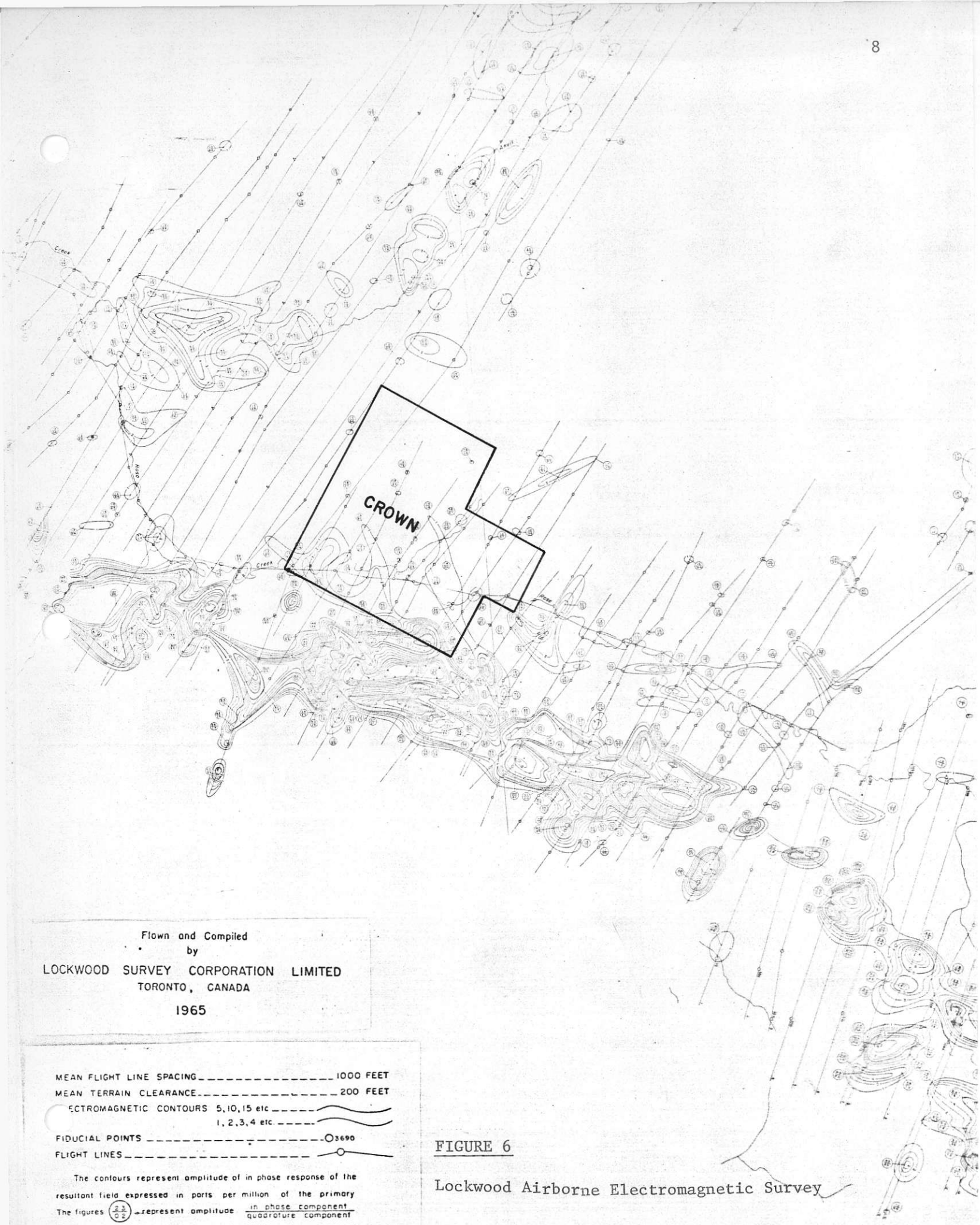


FIGURE 5

Huning Airborne Magnetometer Survey



Flown and Compiled
by
LOCKWOOD SURVEY CORPORATION LIMITED
TORONTO, CANADA
1965

MEAN FLIGHT LINE SPACING ---------- 1000 FEET
MEAN TERRAIN CLEARANCE ---------- 200 FEET
ELECTROMAGNETIC CONTOURS 5, 10, 15 etc ----------
1, 2, 3, 4 etc ----------
FIDUCIAL POINTS ---------- 3690
FLIGHT LINES ----------

The contours represent amplitude of in phase response of the resultant field expressed in parts per million of the primary
The figures $\left(\frac{23}{02}\right)$ represent amplitude $\frac{\text{in phase component}}{\text{quadrature component}}$
The frequency of the primary current is 4000 cycles per second.

FIGURE 6

Lockwood Airborne Electromagnetic Survey

In the area of the CROWN claims, generally very weak responses were recorded with most of the anomalous zones in the southwestern half of the claim area. The maximum response, localized in the western corner, is 3 parts per million amplitude of the in-phase response of the resultant field. The highest in-phase to out-of-phase ratio determined on the CROWN claims is 15. Several values of greater than 3 were detected along one northwest trending zone, but the maximum in-phase response for this area is 1 ppm. This is the same area in which conductors were indicated by the Turam survey.

In general, the southwestern area of the claims contains the zone of conductors, even though they are poor conductors. The northeastern part of the claim area is virtually devoid of conductors.

Turam Electromagnetic Survey:

A Turam electromagnetic survey was conducted over the entire CROWN claim group for Anvil Mining Corporation by P. E. Walcott & Associates Ltd. of Coquitlam, B.C. A grid with 800 foot line spacings was used with sample stations at 100 foot spacings along these lines. One hundred foot coil separations and a primary signal of 400 Hz were used.

The following is a summary in the report by P. E. Walcott:

> Five conductors were identified, the axes of which are either not completely delineated, or poorly defined.
>
> Conductor A is located in the south corner of the claim group, exhibits moderate conductivity, and is open to the southeast.
>
> Conductor B is located in the middle of the grid, is open to the southeast, and exhibits poor to moderate conductivity. Its response is not unlike that obtained on Lines 52 and 56 W over the Faro #3 orebody.
>
> Conductor C is poorly defined due to the creek, and it is open to the northwest.
>
> Conductor D is poorly defined, as it was located at the ends of traverses from one loop, and under the source of the other. It is also open to the northwest.
>
> Conductor E is located at the western edge of the property and grid, is poorly defined, and exhibits poor to moderate conductivity.

GRAVITY SURVEY

Four lines of gravity were metered to check for possible mass concentrations which might be coincident with three Turam identified electromagnetic conductors. None of the profiles showed coincident conductor-gravity anomalies.

INTERPRETATION OF RESULTS

The airborne magnetometer survey located the magnetite bearing pyroxenite along the north edge of the CROWN claims. Soil geochemical anomalies are present along the northeastern edge of the claim group and they probably reflect minor mineralization from the pyroxenite intursion. The Turam survey did not indicate any electromagnetic conductors associated with the magnetic and geochemical anomalies. This survey did indicate several conductors which were then covered with a gravity survey. The Bouguer gravity profiles did not suggest any mass associations with the anomalous conductors.

The exploration data have been evaluated, zones of near surface massive base metal mineralization are indicated, and no drilling follow-up is warranted.

The claims should lapse.

PROPERTY STATUS

All but one of the CROWN claims are in good standing up to February 17, 1974, with one claim, CROWN 22, in good standing up to February 17, 1975. A list of the CROWN claims, their grant numbers, and their expirey dates is presented in Appendix A.

APPENDIX "A"

C R O W N

May 2, 1973

CLAIMS	GRANT NUMBER	1974	1975	1976	1977
CROWN 1	Y 12000	Feb. 17			
2	Y 12001	Feb. 17			
3	Y 12002	Feb. 17			
4	Y 12003	Feb. 17			
5	Y 12004	Feb. 17			
6	Y 12005	Feb. 17			
7	Y 12006	Feb. 17			
8	Y 12007	Feb. 17			
9	Y 12008	Feb. 17			
10	Y 12009	Feb. 17			
11	Y 12010	Feb. 17			
12	Y 12011	Feb. 17			
13	Y 12012	Feb. 17			
14	Y 12013	Feb. 17			
15	Y 12014	Feb. 17			
16	Y 12015	Feb. 17			
17	Y 12016	Feb. 17			
18	Y 12017	Feb. 17			
19	Y 12018	Feb. 17			
20	Y 12019	Feb. 17			
21	Y 12020	Feb. 17			
22	Y 12021		Feb. 17		
23	Y 12022	Feb. 17			
24	Y 12023	Feb. 17			
25	Y 12024	Feb. 17			
26	Y 12025	Feb. 17			
27	Y 12026	Feb. 17			
28	Y 12027	Feb. 17			
29	Y 12028	Feb. 17			
30	Y 12029	Feb. 17			
31	Y 12030	Feb. 17			
32	Y 12031	Feb. 17			
33	Y 12032	Feb. 17			
34	Y 12033	Feb. 17			

L-0 L-8E L-16E L-24E L-32E L-40E L-48E L-56E

CROWN 1 CROWN 3 CROWN 5 CROWN 7

CROWN 2 CROWN 4 CROWN 6 CROWN 8

CROWN 9 CROWN 11 CROWN 13 CROWN 15 CROWN 17 CROWN 19 CROWN 21

L-64E L-72E L-80E L-88E L-96E

B

BASE LINE

CROWN 10 CROWN 12 CROWN 14 CROWN 16 CROWN 18 CROWN 20 CROWN 22

1972 CROWN GRID

BASE LINE

CROWN 23 CROWN 25 CROWN 27 CROWN 29 CROWN 31 CROWN 33

D A

CROWN 24 CROWN 26 CROWN 28 CROWN 30 CROWN 32 CROWN 34

C E

LEGEND

SYMBOLS

GEOCHEMICAL / GEOPHYSICAL

- Zn soil anomaly and threshold value in p.p.m.
- Cu soil anomaly and threshold value in p.p.m.
- Pb soil anomaly and threshold value in p.p.m.
- Lockwood AMAG anomaly
- Turam anomaly

inches / centimetres

This reference scale bar is valid only when the original image is not scale at the same rate as the original and can be used as a reference for the original size.

YUKON GEOLOGICAL SURVEY

ANVIL MINING CORP.	
FARO , Y.T.	
COMPILATION MAP OF CROWN CLAIM GROUP	
DATE : NOV 23 th, 1973	DRAWING Nº 7315
SCALE : 1" = 400 '	
DRAWN BY :	FILE : 14

Figure 3