

78 #390 = 6974

PROTON MAGNETOMETER SURVEY

HANNA MINERAL GROUP
LIARD MINING DIVISION
BRITISH COLUMBIA

NTS 104P/5E

LAT. 59° 16'N
LONG. 129° 40'W

- OWNERS:
- TAURUS RESOURCES, LTD. - COPCO 1-6 #8213M - 8218M
 - ROY 1-4 #55511M - 55514M
 - THRUSH 1 #7329M
 - ROY FR. #8515H

 - EMIL KRYSKA - TOD 7 & 8 #57648N & 57649N

 - GORDON GUTRATH - DOR 1 #69692 (0)

 - VLADIMIR CUKOR - ATLAS 1-12 #69566(0) - 69577 (0)

OPERATOR: ASHLU GOLD MINES, LTD.

CONSULTANT: G.V. SEVERSON

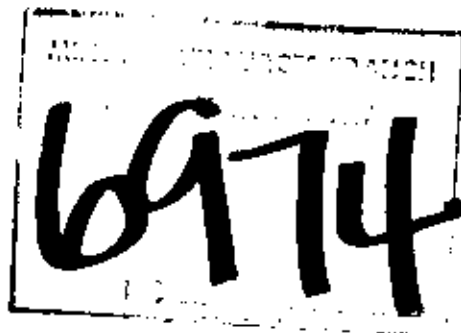
AUTHORS: M.J. COOPER - P. Eng. Geol.
G.V. SEVERSON - Geoph.

OCTOBER 22, 1978.

6974

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE</u>
INTRODUCTION.....	1
LOCATION AND ACCESS.....	1
HISTORY.....	2
ECONOMIC GEOLOGY.....	2
GEOPHYSICAL SURVEY.....	4
Survey Procedure.....	4
Data Correction.....	5
Observations and Results.....	6
ITEMIZED COST.....	8
QUALIFICATIONS.....	9 & 10
FIG. 1 - LOCATION MAP Scale 1cm - 80km	
FIG. 2 - CLAIM MAP Scale 1cm - 360m	
FIG. 3 - SURVEY MAP Scale 1cm - 20m	



INTRODUCTION

The proton magnetometer was chosen as an experimental tool with the hope that the quartz vein system exposed on the east ridge of Quartzrock Creek could be traced geophysically eastward to where similar veins are exposed along Snowy Creek.

The prospective interval is approximately 1000 metres in length and consists of a single ridge covered in heavy vegetation and overburden and exposing little in the way of rock outcrop.

The plan was to first map the known vein area at Quartzrock Creek and work eastward towards Snowy Creek anticipating that anomalous structures could be defined that could further be substantiated by other geophysical techniques (e.g. self potential) and later by follow up drilling.

The two-man team, consisting of a geophysicist and a geologist spent five days conducting the survey between August 29 and September 2, 1978. A total of 7.62 kilometres were surveyed covering areas around claims Copco 1 and 2, Tod 7 and 8 and the Roy Fr.

LOCATION AND ACCESS

The Hanna claim group is situated eight kilometres east of Cassiar in the Liard Mining Division of northern British Columbia (Figure 1). The property covers the lower rolling slopes of Mount Robertson between Quartzrock and Snowy Creeks (Figure 2).

The Stewart highway is the main road link to the area connecting from either Watson Lake to the north on the Alaska highway or from the coastal town of Stewart to the south. Watson Lake, 148 kilometres from Cassiar, is serviced daily by Canadian Pacific Airlines.

The claim group comprises 27 mineral claims and claim fractions, that are owned by Taurus Resources, Ltd., of Kamloops, British Columbia and optioned to Ashlu Gold Mines, Ltd., of Calgary, Alberta.

HISTORY

Gold-bearing quartz veins exposed along Quartzrock Creek were discovered by prospector J.C. Simpson in 1935. In 1945 Mr. Simpson sold the property to Benroy Gold Mines, Ltd., who completed several hundred metres of trenching and over 1500 metres of drilling.

In 1961, the property was obtained by Hanna Gold Mines, Ltd. During the next two years Hanna explored and developed the main quartz veins completing 1170 metres of underground drifting and cross cutting on the 1100-metre level and 1000 metres of underground drilling.

Hanna Gold Mines was reorganized to Dorchester Resources, Ltd., in 1972. Rehabilitation of the main portal and raise to surface was carried out in 1974 and some limited underground drilling done in 1975.

Dorchester Resources was reorganized to Taurus Resources, Ltd., and the property optioned to Ashlu Gold Mines, Ltd., late in 1977. Ashlu Gold Mines is the present operator.

ECONOMIC GEOLOGY

Numerous gold-bearing quartz veins are exposed on the ridges of both Quartzrock and Snowy Creeks. The veins invade medium coloured greenstones of the Sylvester group of rocks. Tan, carbonate alteration of the greenstones accompany the quartz veins.

3.

The closely spaced veins have been traced by trenches on surface. They strike near east-west and dip 65 - 70° south. The width of single veins vary from 0.5 - 3.0 metres. Vein swarms, containing numerous veinlets, have been encountered with width of up to eight metres.

The main mineralization is free gold associated with the sulphide pyrite which make up approximately 10 - 15 percent of the vein material. The veins are highly fractured and contain fragments of the host greenstones. The sulphide mineralization tends to increase along both the hangingwall and footwall sides of the vein. Wall rock is generally highly pyritized but carries only traces of gold.

The bulk of underground work was carried out on the strong, well mineralized 4E vein. This vein was drifted on from the portal for a distance of 65 metres before being faulted to the north. A series of crosscuts, drifts and drill holes have traced faulted segments of 4E vein for a further distance of 250 metres. Underground crosscutting also uncovered several other strong, well-mineralized veins that have yet to be developed.

Channel sampling, every 1.5 metre length of vein 4E, indicates the vein to have a grade of 25.0 grams Au per tonne, diluted to a one metre vein width. Tonnage blocked out above the main level to near surface has been calculated at 15,000 tonnes for the 4E vein.

Several underground drill holes indicate that the veins are present and mineralized to a depth of 30 metres below the main level. One drill hole No. 4 drilled by Hanna in 1962, encountered a 3 metre vein intersection at a depth of 81 metres below the main level. This intersection assayed 76.0 grams Au per tonne.

4.

GEOPHYSICAL SURVEY

The economic aspect of the Hanna property is the gold and silver metals associated with a quartz vein system. The quartz veins outcrop in areas without overburden cover. At present the extent of the quartz veins is not fully realized because of the overburden that covers most of the property.

For delineation of the extent of these veins a Geometrics Model G816 Proton Magnetometer instrument was selected for the survey. The instrument measures the earth's total ambient magnetic field to \pm one gamma accuracy.

The magnetic response indicative of the quartz veins is associated with the content of mineralization. The earth's magnetic field induces a magnetic response in the minerals of high magnetic susceptibility thereby producing a higher total ambient magnetic field.

Minerals such as pyrite, pyrrhotite and magnetite have high susceptibilities and are commonly associated with gold bearing quartz veins. This gold-mineral relationship in quartz veins is found on the Hanna property.

The exploration procedure was to match magnetic response over known geology to magnetic response in overburden areas. A delineation of the quartz vein system over the property can be accomplished in this manner.

Survey Procedure

On ground location was verified by establishing an east-west baseline through the common corners of claims COPCO 1 and 2, TOD 7 and 8, and the Roy Fraction. The baseline was pegged and flagged with 30 metre stations for a length of 600 metres. Magnetic readings were recorded every 16.5 metres along existing cut lines.

Base station #10 on the baseline had magnetic readings re-run at various time intervals on August 29, 1978 to check diurnal variations.

5.

Data Correction

Diurnal corrections to magnetic values could only be applied to those taken on August 29, 1978. These corrections were derived from readings at base station #10, and are as follows:

<u>TIME</u>	<u>READING (Gammas)</u>
10:00	58828
13:57	58861
14:12	58884
17:57	58888

The infrequency of readings at this station and the absence of base station readings on subsequent days is attributed to the difficulties in commuting back to the base station. However, because profiles across any single anomalous feature was rapid, less than five minutes, this magnetic representation would qualitatively describe anomalous trends without applying diurnal corrections. Also, most of the anomalies of interest have orders of magnitude much greater than the diurnal variation which are commonly experienced in a day.

During August 29 lines one through ten were completed and all values taken were adjusted for diurnal variation. All other lines were adjusted relative to tie stations common with the first days diurnal corrections. All stations were adjusted by the difference determined from tie stations. The following adjustments were made:

<u>LINE</u>	<u>ADJUSTMENT</u>
11	+120
12	+100
13	+ 60
14	+ 60
15-18,20	0
19	- 50

6.

The final data reduction was complete when 58,000 gammas were subtracted from all values. This removed the approximate earth's magnetic field for that latitude and reduced the values to that of the induced magnetization.

Observation and Results

The survey map with this report is contoured in 100 gamma intervals below 500 gammas, and 500 gamma intervals above 500 gammas. The general appearance of the magnetic anomalies is one of small amplitude, low frequency at the northwest part of the survey to large, high frequency anomalies at the southeast part of the survey. The increase response to the southeast could possibly be due to increased sulphide content of the quartz veins.

In the northwest part of the survey a quartz vein with low silver values is exposed at surface. The magnetic response decreases by 50-60 gammas across the vein. This general profile becomes the response match for delineating other silver bearing veins in this area. It is believed that one other vein is found at designation "A" on the survey map. This anomaly has magnetic response characteristics from station 20 on L-8N and from station 7 on L-18N similar to that at the vein outcrop at station 19 on L-18N. As well, the general strike is similar to that of the known vein.

To the southeast the frequency of the anomalies increases. They strike in a general east-west direction over the exposed gold-bearing veins to a more northeast direction further eastward. The amplitude certainly increases to the east and may be the result of increased sulphides.

A good relationship exist between known geology at vein 6E and the magnetics. The vein contains high sulphides and gold values. The magnetic response is above 1000 gammas immediately south of the vein. This is anomaly "B" on the survey map. The veins on the survey map all project to surface and dip 65-70° to the south.

7.

Generally the quartz veins have a lower magnetic value immediately above the outcrop and an increase in value to the south. This response pattern can be attributed to highly leached veins at outcrop.

One of the concerns is the magnetic response over greenstone schist areas. The greenstones exhibit a magnetic response that of the regional ambient magnetic field, between 58200-58700 gammas, or that of the reduced map values of 200-700 gammas. Magnetic values above this level are suspect as to being related to either sulphides or high magnetic bearing serpentines that are known to occur within the host greenstones. Anomalies designated "C", "D", "E" and "F" have magnetic response of 1500-2000 gammas above that of the greenstone level and may indicate higher sulphide zones.

With this method of exploration using a magnetic technique numerous prospective areas can be defined. Additional follow-up exploration will be necessary to verify the cause of the magnetic anomalies. It is recommended that continued magnetometer work be done on other areas of the property in conjunction with a self-potential survey and later drilling of anomalous areas.

8.

ITEMIZED COST

Geophysist:

Airfare.....	\$ 269.90	
Ground Fare.....	8.70	
Field, 6 days @ \$240.00/day.....	1,440.00	
Magnetometer Rental.....	360.00	
	<u>\$2,078.60</u>	\$2,078.60

Geologist: (Assistant)

Field, 11 days @ \$150.00/day.....	\$1,650.00	\$1,650.00
------------------------------------	------------	------------

Transportation: (Field and Camp Supplies to Cassiar
& Return)

Gasoline.....	\$ 237.00	
Travel accomodation and food.....	<u>90.80</u>	
	\$ 327.80	\$ 327.80

Camp:

Food and Supplies for 6 days.....	\$ 173.20	\$ 173.20
-----------------------------------	-----------	-----------

Report:

Geophysist, 4 days @ \$150.00/day.....	\$ 600.00	
Reproduction.....	64.80	
Drafting.....	153.00	
Typing.....	30.00	
	<u>\$ 847.80</u>	\$ 847.80
		<u>\$5,077.40</u>

QUALIFICATION

I, MICHAEL J. COOPER OF THE CITY OF CALGARY, ALBERTA,
HEREBY CERTIFY THAT:

I am a graduate of McGill University, Montreal, Province
of Quebec, in 1957, with a B.Sc. degree in Geology and
Mathematics.

I have practiced my profession in exploration for the past
21 years and am presently a Director of Ashlu Gold Mine,
Ltd.

I am a member in good standing of the Association of Professional
Engineers of Alberta.

I personally supervised the Proton Magnetometer survey on the
Hanna Gold property during the period August 29 to September 2,
1978 with geophysicists G.V. Severson.

This report is to be used only for assessment work application
and for continued exploration assistance.

MJ Cooper

Calgary, Alberta.
October 22, 1978.

10.

QUALIFICATION

I, GARY V. SEVERSON OF THE CITY OF CALGARY, ALBERTA
HEREBY CERTIFY THAT:

I am a graduate in Geophysical Engineering of the faculty
of Engineering, Saskatchewan University, Saskatoon in 1971.

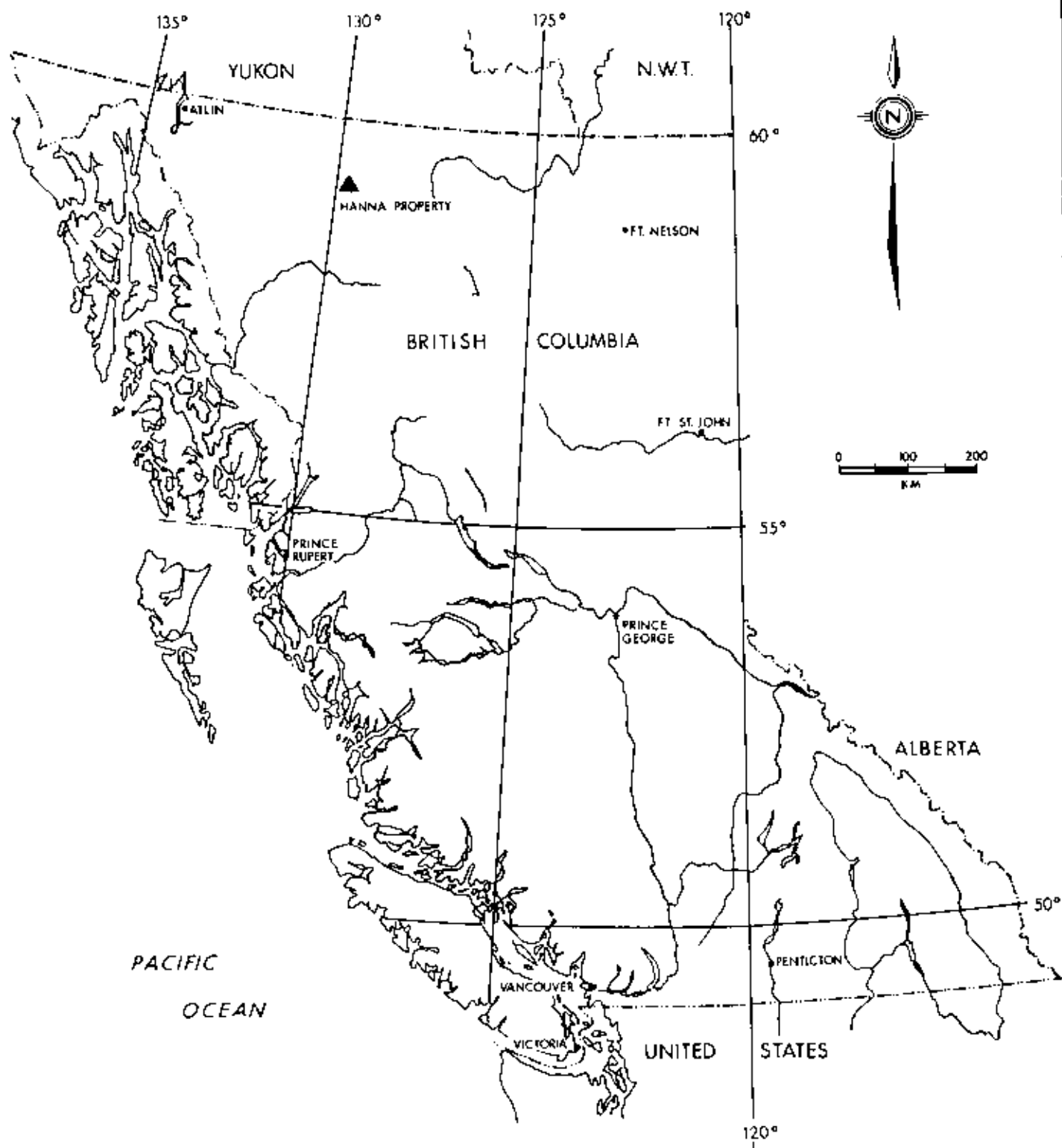
I, as of October 12, 1978 have applied for registration to
the Association of Professional Engineers, Geologists and
Geophysists of Alberta.

I, carried out the field work and subsequent report preparation
of the Proton Magnetometer survey as herein stated under the
supervision of M.J. Cooper, P. Geog.

I have no interest in the Hanna Gold property, the securities of
Ashlu Gold Mines, Ltd., or the securities of Taurus Resources Ltd.

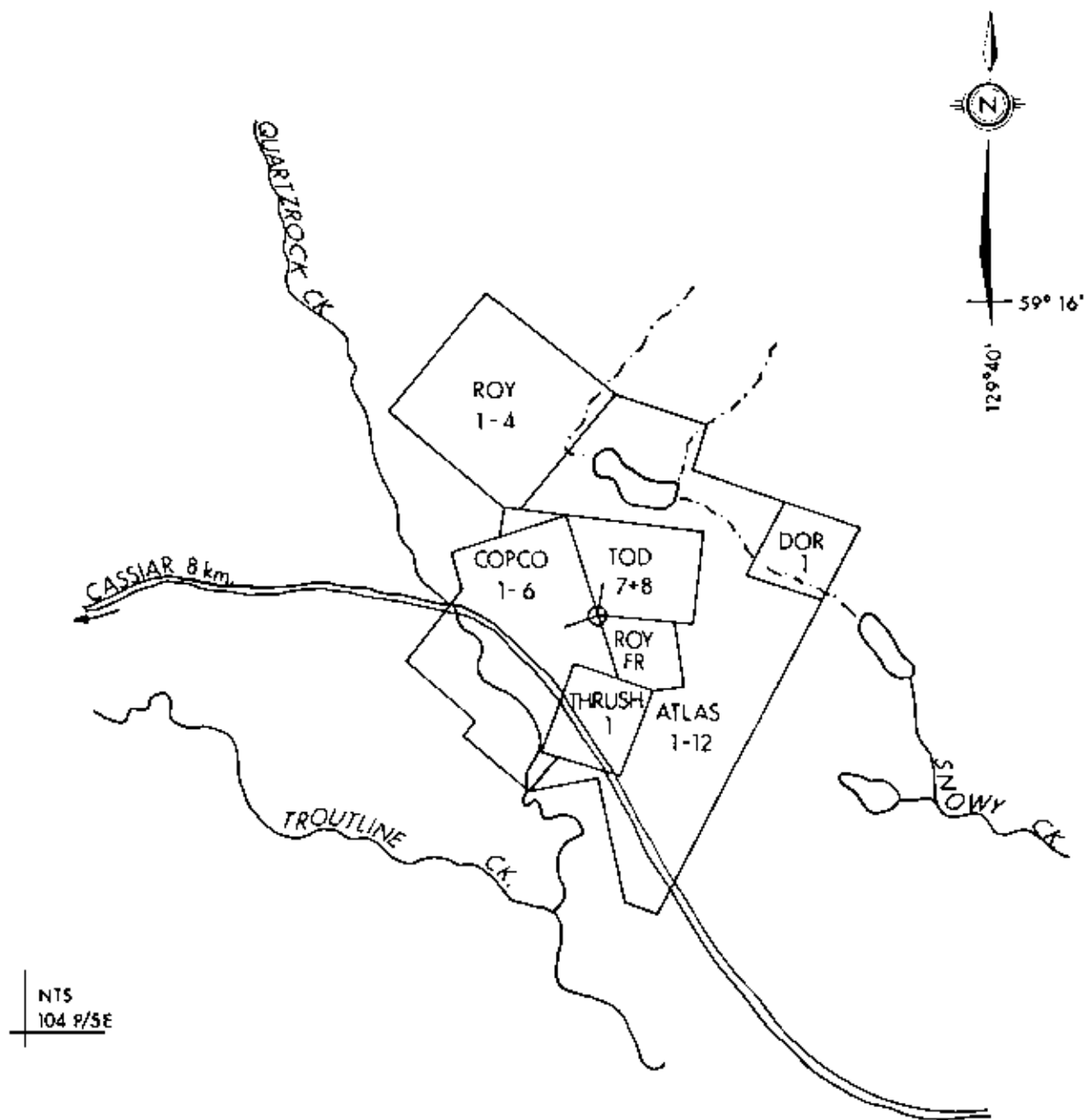
Gary V. Severson

Calgary, Alberta.
October 22, 1978.



REGIONAL LOCATION MAP
 HANNA PROPERTY
 LIARD MINING DIVISION
 BRITISH COLUMBIA

FIG. 1

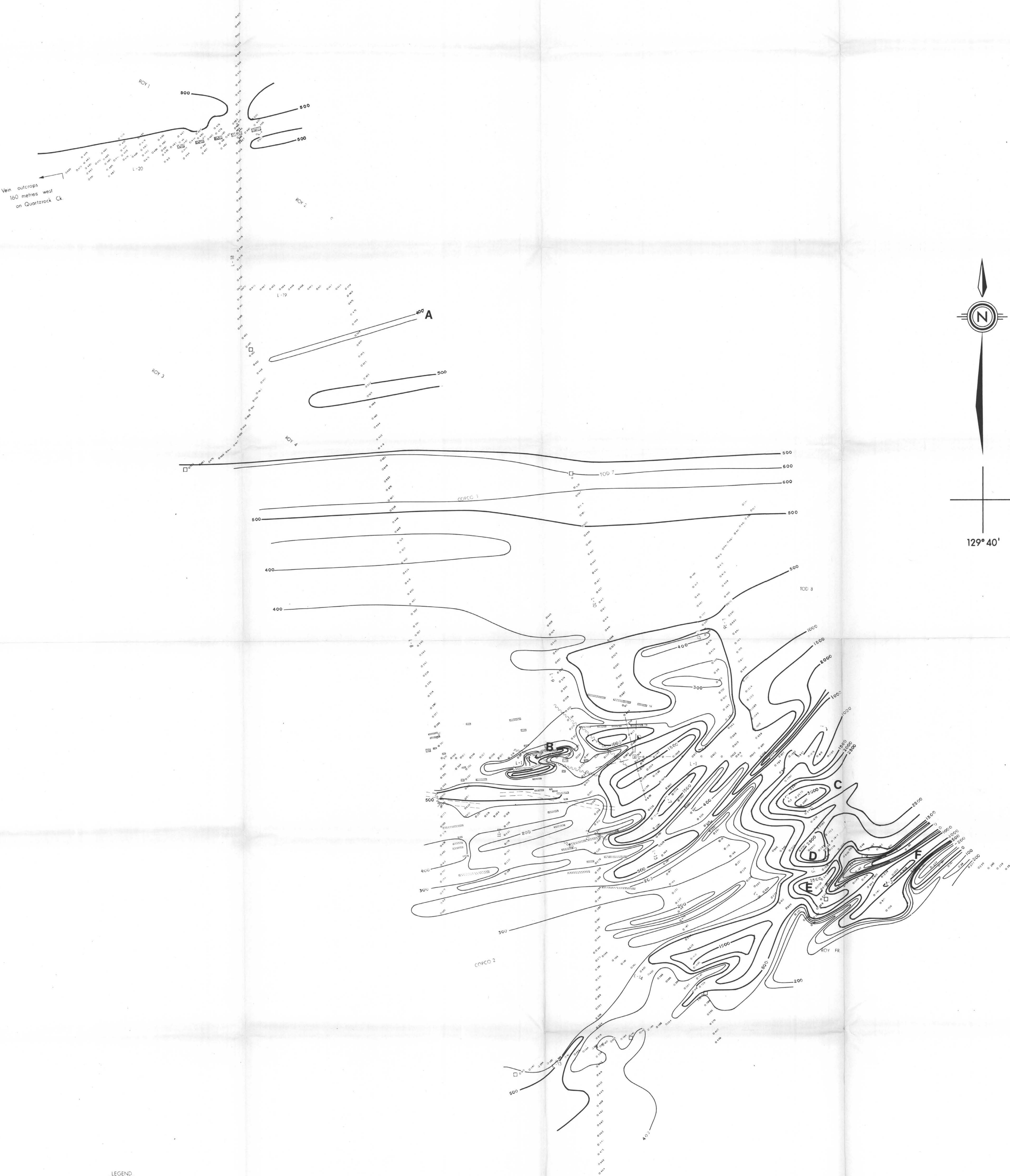


NTS
104 P/5E

CLAIM MAP
HANNA GOLD PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA

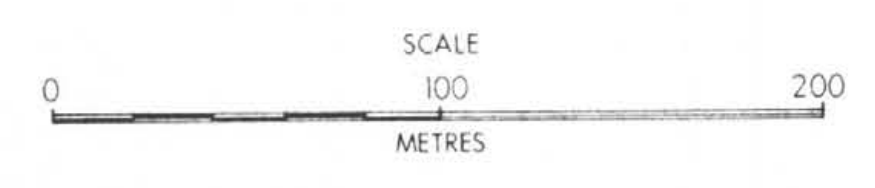


FIG. 2



- LEGEND**
- Quartz Vein
 - Fault with dip
 - Dyke
 - Winze
 - Claim Area
 - Line Designation
 - Survey Station
 - 387 Gamma Value, above background 58000 gammas
 - Gamma Contour, 100 gamma interval
 - Gamma Contour, 500 gamma interval
 - A** Anomaly

PROTON MAGNETOMETER SURVEY
 HANNA GOLD PROPERTY
 LIARD MINING DIVISION
 BRITISH COLUMBIA



MINERAL RESOURCES DIVISION
 6974