GEOPHYSICAL REPORT

on

HOG CLAIM GROUP

at

ROSE CREEK, YUKON
(62° 20' N, 133° 33'W)

for

ANVIL MINING CORP LTD

by

EXPLORATION GEOPHYSICS (YUKON) LTD
WHITEHORSE, YUKON

NOVEMBER 1966

REPORT BY: D. Hayes, B. Sc.
Geologist for
ANVIL MINING CORP. LTD.

APPROVED BY: R.S. Adamson, P. Eng.
Chief of Exploration for
ANVIL MINING CORP. LTD.

PROPERTY SURVEYED: August 12th to August 16th, 1966

GEOPHYSICAL SURVEY

MOG CLAIM GROUP

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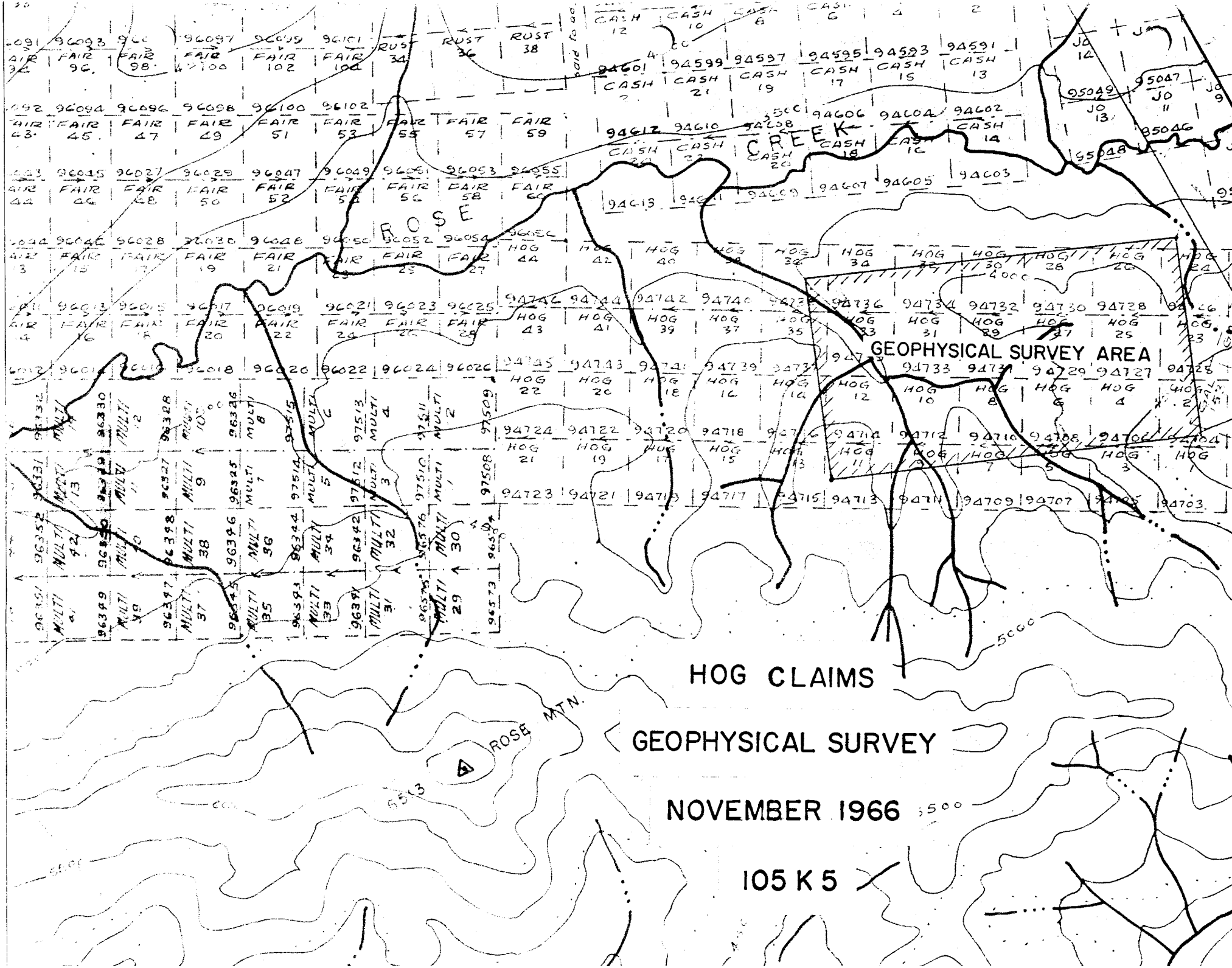
GEOPHYSICAL SURVEY AREA
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GEOPHYSICAL SURVEY
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INTRODUCTION

A combined magnetic and electromagnetic geophysical survey was carried out by Exploration Geophysics (Yukon) Limited for Anvil Mining Corporation Ltd. on HOG mineral claims 2 to 12 incl. and 23 to 36 inclusive during the period August 12th to 16th, 1966.

Preparatory linecutting was done by contract linecutters of White, Rosford and Impey Ltd. of Whitehorse. All of the linecutting costs were submitted for assessment purposes with a geochemical survey.

Access to the property by all people involved with the property was by helicopter from FARO Camp.

The object of the ground survey was to follow up anomalies, both magnetic and electromagnetic, detected from an airborne geophysical survey done in 1965.

All geophysical data is presented in the form of profiles using a distance scale of 1 inch to 400 feet. Vertical scales are 1 inch to 40 degrees and 1 inch to 400 gammas for electromagnetics and magnetics respectively.

The only available published data of the Anvil Range Area is a preliminary 4 mile to the inch map of the regional geology of the Tay River map sheet done by Dr. J.A. Roddick and Dr. L.H. Green of the Geological Survey of Canada. Rocks in the immediate area of the HOG group are metamorphosed sediments of Mississippian (?) age., the same age of the sediments where previous ore bodies have been found.

SURVEY SPECIFICATIONS

Grid System

A base line was laid out with a transit and picket lines turned off at 400 foot intervals along the base line by transit. Stations were established along the picket lines at 100 foot intervals by line of picket site and chaining.

Magnetometer Survey

A Sharpe's MF-1 Fluxgate type vertical component magnetometer was used during the entire magnetic survey. This instrument is hand held and needs only coarse levelling and no orientation. The magnetometer has a maximum sensitivity of 20 gammas per scale division on 1000 gamma range and a readability of 5 gammas per scale division.

Readings were taken at 400 foot intervals along the base line and 100 foot intervals along picket lines. Prior to the actual survey, readings were taken at the intersection points of each picket line with the base line. These stations were looped and re-read every two hours as a means of controlling drift and diurnal variations.

Electromagnetic Survey

For the electromagnetic survey a CRONE JEM unit (18 volts) was employed. The instrument is a modification of the original JEM unit designed by Crone in 1963; the power supply has been increased thus increasing effective depth penetration to approximately 300 feet under normal operating conditions using the horizontal loop method. The CRONE measures resultant dip

angles of the primary and secondary field, is dual frequency (440 and 1800 c.p.s.) and may be used either as a vertical or horizontal loop system.

In contrast to the magnetometer survey which was run along the base line as well as the picket lines, only the picket lines were run with the EM. A 400 foot separation of the coils was used and readings were taken at 100 foot station intervals.

RESULTS and INTERPRETATION

Magnetometer Survey

After each gamma value was corrected for diurnal variation they were plotted on a plan of the survey grid (1 inch = 400 feet). Profiles of each line were drawn to a standard scale (see map in folder).

Upon plotting of the values, three areas of high anomalous magnetics were revealed; one lying on HOG claims 31 to 36 inclusive, another over HOG claims 27 and 28 and the final one over HOG claim 25. There were no areas of significant geochemical values associated with these anomalies.

Geological mapping related to the HOG claim group indicates that the magnetic anomalies occur where volcanics rocks are present. It is postulated that these andesite rocks are the cause of the magnetics. It was also noted that the magnetic anomalies occurred over topographic highs which in the whole area is indicative of volcanic rocks.

Electromagnetic Survey

Both high and low frequency electromagnetic readings were plotted on a plan of the survey grid (1 inch = 400 feet). Profiles of each line were drawn to a standard scale (see map in folder).

The whole area that was run resulted in values that indicated electromagnetic conductors throughout the survey area.

Geological mapping of the survey area indicated that there was a large band of graphite schist associated with the volcanic rocks, probably interbedded in places. The graphite schist is an electromagnetic conductor.

CONCLUSIONS and RECOMMENDATIONS

There is an unfavourable geological setting associated with the anomalous geophysical areas. As the more favourable quartzites and sericite schist rocks occur higher up the hill from this survey grid further geophysical work is recommended in this area. Also it is indicated that this area is of geochemical interest resulting from the geochemical survey also done on this grid.

Further work on the southern area by magnetics and electromagnetics or induced polorization is recommended if the geochemistry is favourable. A Gravity Survey is not feasible because of the terrain.

D. Mayes, B. Sc.
Geologist for
ANVIL MINING CO. LTD.

APPENDIX I (1)

STATEMENT OF COSTS — HOG Claim Group

(A) Linecutting - Contract: White, Mosford & Impey Ltd.
already submitted for Geochemical Survey

(B)	Contract Geophysics - Invoice submitted	$1,452.75
	Exploration Geophysics (YUKON) Limited	
	Maintenance 20 man days @ $8.00	160.00
	Transportation, helicopter	300.00
(C)	Compilation of Report	100.00
(D)	Supervision	100.00
	Total:	$2,112.75

APPENDIX I (ii)

PERSONNEL

(A) Linecutting - White, Mosford & Impey Ltd.
Contract

(B) Geophysics - Exploration Geophysics (YUKON) Ltd.
Contract

J. Gehring	Party Chief, Magnetometer	Box 1188,	Whitehorse,	Y.T.
Gamble	Magnetometer	"	"	"	"
V. Lund	Electromagnetic	"	"	"	"
P. Walsh	Electromagnetic	"	"	"	"

(C) Compilation of Report
D. Mayes Geologist Box 2470, Whitehorse, Y.T.

(D) Supervision

R.A. Adamson	Exploration Chief	"	"	"
D. Mayes	Geologist	"	"	"

APPENDIX I (iii)

A F F I D A V I T

SUPPORTING STATEMENT OF COSTS
Geophysical Report
August 12th to 16th, 1966

I, Robert S. Adamson, Chief of Exploration for ANVIL MINING CORPORATION LIMITED, have compiled the statement of costs as presented in this report "Geophysical Survey of HOG Claim Group", DO MAKE OATH AND SAY AS FOLLOWS:

That to the best of my knowledge and belief, the statement of costs as presented is true and an accurate representation of expenditures to be applied as representative work on the HOG claims 1 to 44 inclusive.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA R.S. ADAMSON

R. S. Adamson

Robert S. Adamson, B.A.Sc., P.Eng
Chief of Exploration for
ANVIL MINING CORP LTD

SWORN before me in the City of Whitehorse, Yukon Territory

this...22.....day of....NOVEMBER.....1966.

A Commissioner for taking Affidavits
in and for the Yukon Territory.

ANVIL MINING CORP.

-WHITEHORSE-

HOG GROUP

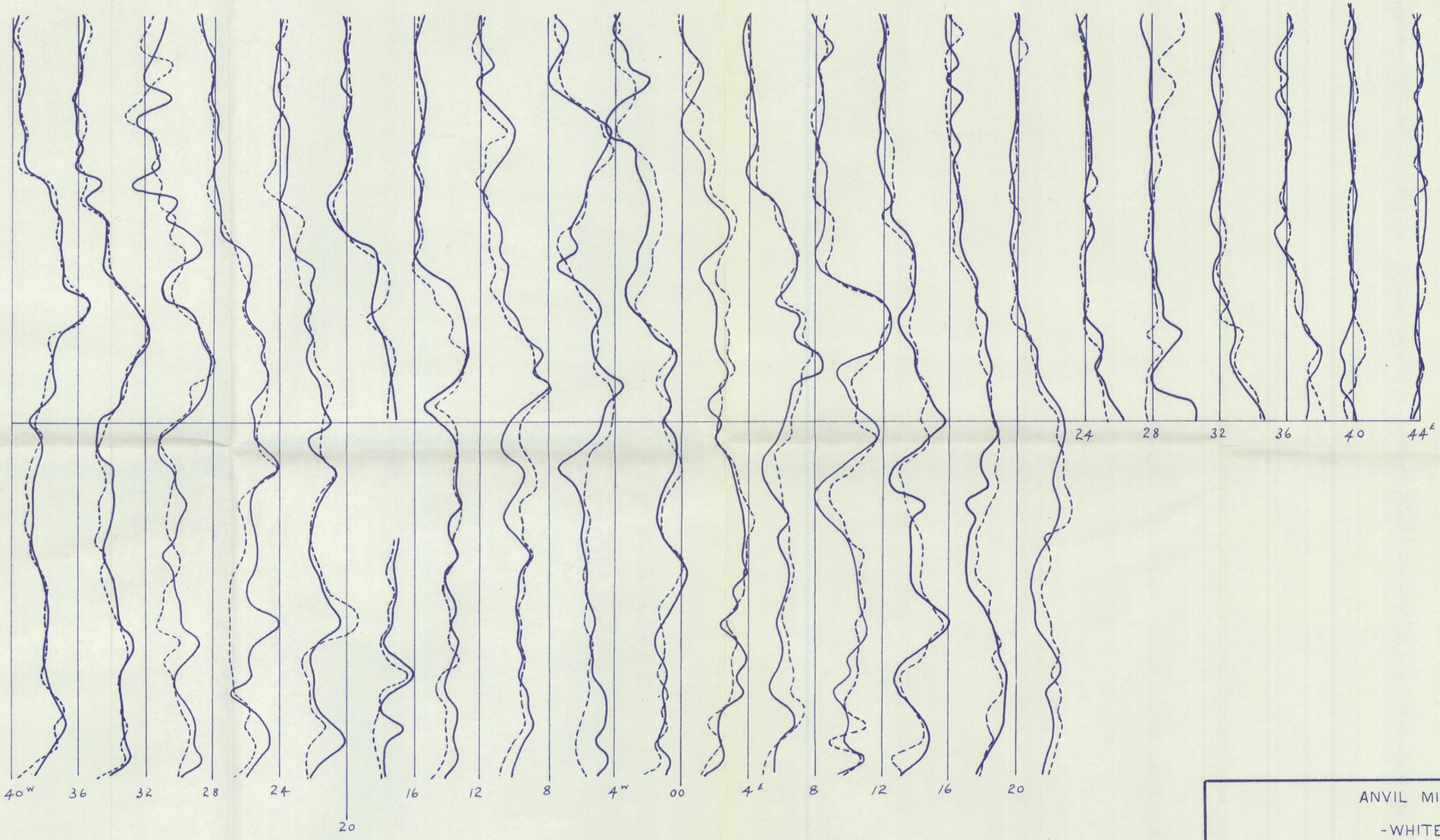
MAGNETIC SURVEY

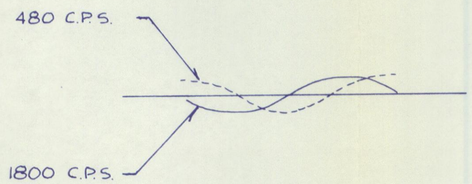
BY

EXPLORATION GEOPHYSICS (YUKON) LTD.

SURVEY DATE: AUG 12 - AUG. 16 1966
OPERATORS: LUND, WALSH, GEHRING, GAMBLE
PROFILE SCALE: 400 γ = 1"
RDG. INTERVAL: 100'
MAG. DATUM LEVEL: 600 (+) γ

DATE: SEPT 20 1966
SCALE: 1" = 400'
DR'N: W. CANNON.





ANVIL MINING CORP.

-WHITEHORSE-

HOG GROUP

ELECTROMAGNETIC SURVEY

BY

EXPLORATION GEOPHYSICS (YUKON) LTD.

SURVEY DATE : AUG 12 - AUG 16 1966
OPERATORS : LUND, WALSH, GEHRING, GAMBLE
PROFILE SCALE : 1" = 40° DIP.
RDG. INTERVAL : 100'
INST. SPACING. : 400'

DATE : SEPT 20 1966
SCALE : 1" = 400'
CRONE HORIZONTAL LOOP SURVEY
DRN : W. CANNON.