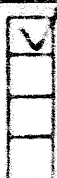


MAP No.

105-M-13

ASSESSMENT REPORT  
N. M. E. A. P.  
CONFIDENTIAL  
OPEN FILE

TYPE OF

WORK: Geophysical

REPORT FILED UNDER	Canadian Reserve Oil & Gas Ltd.	DOCUMENT NO	060789
DATE PERFORMED	August-Sept, 1971.	DATE FILED	Jan. 6, 1972.
LOCATION - LAT.	63° 51' N	AREA	Mount Haldane Area, Yukon
LONG.	135° 49' W		
CLAIM NO.			
	NORTH 1-16		
	STAR 1-34		
	44-48		
VALUE \$			
WORK DONE BY	E. J. Wilson and R. W. Stemp	(Spartan Aero L)	
WORK DONE FOR	Canadian Reserve Oil & Gas L		
REMARKS	A number of encouraging conductors and magnetic anomalies were located by ground EM and magnetic surveys. The claims are underlain by a series of greenstones, thick bedded quartzite, graphitic schist and minor limestone. Two samples of sheared greenstone assayed 0.02-0.08 % Cu, nil to Tr. Au and Tr. Ag.		

060789

A Geophysical Report on the North and Star Claim Groups

Mount Haldane, Mayo, M.D. Sheet 105-M-13

Lat.  $63^{\circ} 51'$  N., Long.  $135^{\circ} 49'$  W.

August 3rd. to September 14th. 1971

For Canadian Reserve Oil and Gas Limited

By E.J. Wilson, Supervised by R.W. Stemp, P.Eng.

Spartan Aero Limited, Ottawa

Project No. 71205

SPARTAN AERO LIMITED

## TABLE OF CONTENTS

	<u>Page</u>
<b>SUMMARY</b>	
<b>I. INTRODUCTION</b>	1
<b>II. GEOLOGY</b>	3
<b>III. GEOPHYSICAL INSTRUMENTATION AND METHODS</b>	4
<b>IV. DISCUSSION OF RESULTS</b>	6
<b>V. CONCLUSIONS AND RECOMMENDATIONS</b>	13
<b>VI. References</b>	

### Accompanying this Report:-

<b>Fig. 1</b>	<b>Geophysical Traverse Plan (1)</b>	<b>Scale 1" = 200 feet.</b>
<b>Fig. 2</b>	<b>Geophysical Traverse Plan (2)</b>	<b>Scale 1" = 200 feet.</b>
<b>Fig. 3</b>	<b>VLF-EM and Magnetic Survey Profile Presentation (1)</b>	<b>Scale 1" = 200 feet.</b>
<b>Fig. 4</b>	<b>VLF-EM and Magnetic Survey Profile Presentation (2)</b>	<b>Scale 1" = 200 feet.</b>
<b>Fig. 5</b>	<b>Geophysically Detailed Areas</b>	<b>Various Scales</b>
<b>Fig. 6</b>	<b>VLF-EM and Magnetic Contour Plan of Area E.</b>	<b>Scale 1" = 100 feet.</b>

## S U M M A R Y

Previous recent work on the property consists of reconnaissance geochemical sampling by P.H. Sevensma Consultants Limited, followed by bulldozer, stripping and trenching.

Between August 3rd. and September 14th. 1971, 28 line miles of magnetic and EM 16 survey was carried out over an area of approximately 30 claims on the south-eastern slopes of Mount Haldane, Yukon Territory on behalf of Canadian Reserve Oil and Gas Limited by Spartan Aero Limited.

A number of encouraging conductors and magnetic anomalies were located and it is recommended that further geophysical, geological and geochemical examination be carried out, possibly followed by drilling of selected areas.

SPARTAN AERO LIMITED

## I. INTRODUCTION

A geophysical survey was conducted on behalf of Canadian Reserve Oil and Gas Limited by Spartan Aero Limited on portions of the North and Star Claim Groups in the period from August 3rd. to September 14th. 1971. These claims appear on the Mount Haldane Sheet 105-M-13.

Geophysical methods employed were VLF electromagnetic (VLF EM), magnetic (Mag.) and the Crone shoot-back electromagnetic method with some vertical loop search.

The objective of the survey was to outline favourable areas for base metal deposits, in particular lead-zinc-silver bearing bodies and structures and to conduct more detailed investigation over these areas where warranted.

A total of 28.0 line miles of reconnaissance VLF EM and magnetic survey was performed on chain and compass traverse lines. Included in this total is 6.7 line miles of base line.

This work is divided among the claim groups as follows:

North claim nos. 1 to 16 inclusive	3.6 miles
Star claim nos. 3 to 14 inclusive and 31 to 34 inclusive	14.7 miles
Star claim nos. 15 to 30 inclusive	9.7 miles.

One hundred foot station spacing was generally employed on lines spaced about 800 feet apart. In areas of high gradients readings were made every 50 feet or closer.

Detailing of interesting anomalies where time permitted totalled 2.5 line miles of traverse which was distributed as follows:

North claim nos. 1 to 16 inclusive	2,800 feet
Star claim nos. 3 to 14 inclusive and 31 to 34 inclusive	6,800 feet
Star claim nos. 15 to 30 inclusive	5,600 feet.

Hand cleared and picketed traverse totalled 9,700 feet, 3,500 feet on Star claim nos. 3 to 14 inclusive and 31 to 34 inclusive and 6,200 feet on Star claim nos. 15 to 30 inclusive.

Personnel associated with the project were as follows:

C. Pawlowich	Keno, Y.T.	Line cutter
D. Pawlowich	Keno, Y.T.	Line cutter
E.R. Rockel	Richmond, B.C.	Geophysicist
E.J. Wilson	Ottawa, Ont.	Geophysicist
R.W. Stemp, P.Eng.	Ottawa, Ont.	Chief Geophysicist.

## II. GEOLOGY

Mapping by the Geological Survey of Canada shows the claim blocks to be underlain by rocks of the Central quartzite formation belonging to the Yukon Group which is Precambrian and/or Palaeozoic in age. This formation consists chiefly of thick-bedded quartzite, thin-bedded quartzite, graphitic schist and minor limestone dipping south at about 25°. Sadlier-Brown (1968) gives the following statement regarding the geology of the claim blocks.

"The claims are underlain by a series of greenstones, thick bedded quartzite, graphitic schist, and minor limestone, all except the greenstone, being Permian and/or Triassic age. The greenstone was observed apparently underlying the quartzites but with an appreciable covered interval between the two. The metamorphic rocks near the head of Fortune Creek are cut by a large dike or sill of porphyritic granite or granodiorite which appears to lie between the two areas of interest. Apparently associated with this body are several smaller offshoots or satellite bodies similar in composition but generally finer grained and more distinctly porphyritic.

Evidence of faulting is fairly common in the area, mostly in the form of sheared zones filled with rusty gouge and broken rock. They vary in width from a few inches to several feet and seem to have no preferred orientation".

During the course of the reconnaissance work schists, some graphitic, were noted as being fairly common on the south facing hillside between Aldis and Fortune Creeks. Thin-bedded quartzite is common in the area northeast of Fortune Creek on the east slope of the mountain.

Glacial deposits, mainly till occur on the lower slopes below about 3,500 feet and are variable in thickness ranging up to 50 feet or more. Above this elevation the slopes were covered with screes, thin soils and talus.

### III. GEOPHYSICAL INSTRUMENTATION AND METHODS

Two geophysical instruments were employed in the reconnaissance survey. The Ronka EM 16 unit (Serial no. 111) for VLF-EM measurements and the Sharpe MF 1 Vertical Fluxgate magnetometer (Serial no. 409109 and 30427) for mapping the magnetic field. For detailing an SE-300 EM unit was used in the Crone shoot-back mode of operation (Crone 1966) and in the vertical loop mode.

Control of measurements was obtained by running chain and compass traverse lines spaced about 800 feet apart simultaneously with the geophysical measurements. The traverses were tied to base lines located in convenient places such as roads, ridges and gullies, their spacing ranges from about one to four thousand feet apart. Base lines, roads and ties to claim posts etc. were surveyed with a Brunton Compass and chain. Slope distance for 100 feet horizontal

was derived in the field by using the direct reading Suunto level incorporated in the EM 16. The traverses were made using the same method of chaining and a Silva "Prospector" compass. Closures of 20 feet in chainage and 100 feet in direction over distances of two to three thousand feet were common. One hundred foot stations were marked with either red or orange flagging labelled with felt pen, and where required, 50 foot stations were marked with blue flagging.

The magnetic survey has an arbitrary base level of 280 gammas at station 20+00S on line 0+00E. Magnetic closures were made at least every 3 hours and corrections applied to remove diurnal drift.

The EM 16 data are presented such that a crossover has its minimum to the left and its maximum to the right of the current axis of the conductor. Crone shoot-back data is presented in the normal fashion (Crone 1966).

#### IV. DISCUSSION OF RESULTS

In presenting the EM 16 data no attempt has been made to correct for topographic effects. The persistent and relatively uniform positive and negative values on many of both the in-phase and quadrature profiles are a result of the steeply sloping (up to 30°) topography. The VLF primary field tends to "wrap around" the major features of the topographic surface, particularly if the surface is at all conductive. A good example of this is afforded by line 32+00W, Fig. 3, note how both components change sign over the ridge and across the gully. In areas of overburden cover, particularly if it is conductive the quadrature EM readings are considered of little significance as phase shifts are associated with the effects of conductive ground on the primary and secondary signals. Most of line 32+00E and parts of line 24+00E show little variation in EM response indicating these areas are probably deeply covered, greater than about 50 feet, with glacial till which is relatively electrically uniform and conductive. Should further search be carried out on these areas conventional EM techniques discriminating against surface conductivity should be used.

The reconnaissance profiling revealed a number of significant anomalies, several of particular interest. These are divided into three groups, those with VLF EM response, those with magnetic response and those with both responses together. Conductor

axes interpreted from the EM 16 data are shown in Figs. 2 and 3. The majority were unaccompanied by magnetic response and of these only a few were tested with the Crone shoot-back EM. The conductor on line 64+00W at 8+00N gave a somewhat weak response (Area A, Fig. 5) indicating a flatly dipping poor conductor, probably extending to the north. Immediately up slope of this anomaly trenching revealed little of significance. Profiling in this vicinity (line 66+00W and base line 2) detected no anomalies. This area is not considered worthy of further investigation.

Other EM 16 anomalies tested with Crone shoot-back EM, Fig. 4 are at 6+60S and 18+20S on line 8+00W and at 12+40N, 17+50N, 21+90N and 38+40N on traverse R2. In all cases except R2-38+40N which shows no response, the responses (Area B, Fig. 5) are negative and typical of flat lying conductivity, either conductive glacial overburden or more probably graphitic schists at relatively shallow depth. The conductors in the same area, R1-2+70N, R1-5+30N and those on line 12+00E and the south ends of lines 0+00 and 16+00W are considered to be similar in origin and as such do not warrant further investigation.

The conductors on lines, 12+00E, 16+00E, 24+00E, 32+00E and the north end of 8+00E are considered due to conductive overburden effects as they have no related magnetic features and the cover is probably thick on the lower slopes of the mountain in this area. The anomaly at 65+00N on line 12+00E was trenched to a

depth of about 12 feet in overburden and probably arises from within the overburden. Part of this response may be due to topographic effects as it is situated close to the top of a ridge.

None of the areas showing magnetic responses only were tested with Crone shoot-back EM for conductivity due to the short field season. The magnetic anomaly at 10+00N on line 40+00W (Fig. 3) was detailed and proved to be isolated and very local. It is about 400 feet in diameter, the distance from the minimum to the maximum being 40 feet and the amplitude 2,800 gammas. No significant conductivity was detected with the EM 16 in the vicinity.

A small area of anomalous magnetics about 300 feet by 600 feet occurs at 24+00N, 49+00W (Area C, Fig. 3 and Fig. 5). Anomalies are complex and of small scale, the total observed relief is 1000 gammas. A reconnaissance geochemical traverse just below this area by Sadlier-Brown (1968) returned anomalous values of lead and zinc. Only weak conductivity was detected with the EM 16 and tests should be carried out using conventional EM.

A number of magnetic anomalies were revealed along Base line 4 between 22+00W and 40+00W on the ridge north of Fortune Creek (Area D, Fig. 4 and Fig. 5). The strongest anomalies occur in the area of 25+00 and 26+00W, however, no conductivity was revealed by the EM 16. There is possibly a slight indication at 38+40N on line 24+00W but if present is almost hidden by the high

rate of slope change in the primary VLF field over the sharp ridge. Detailing around this anomaly shows it to trend N.NE for a distance of about 900 feet. This anomaly is very likely related to a quartz-biotite porphyry dyke 3 feet wide intruding thin-bedded quartzite outcrop on the ridge on Base line 4 at 24+60W, it trends N40°E and dips 70°W. Quartz veining is common close by.

The other magnetic anomalies up Base line 4 to the west, those between 12+00W and 17+00W on line 36+00N, those between 7+00W and 17+00W on Base line 5 and at 62+00N on line 16+00W are considered of little significance as no conductivity was detected. The anomalies on Base line 5 may be either due to greenstone noted in the area or to magnetite in the thin-bedded quartzites as these are very iron stained in parts. A similar explanation may be true for the magnetic features on Base line 4 at 4+00W and on lines 40+00N and 44+00N to the north (Fig. 4). This feature is still open at each end.

Detailing in the vicinity of 13+00N on line 24+00W (Area E, Figs. 4, 5 and 6) where a magnetic and weak VLF EM anomaly occurs revealed several small interesting bodies either occurring within greenstone or at its contact with quartzite. Contouring the in-phase VLF data according to Fraser (1969) revealed two anomalies, one centred at 24+00W, 13+25N and the other at 26+75W, 13+00N. The latter anomaly is stronger and coincident with somewhat circular magnetic low of 550 gammas. The second anomaly gave a

weaker VLF response and lies on the west flank of a one thousand gamma magnetic anomaly. Both these bodies are small and appear to trend about north-south. The magnetic high to the east is open at the south end but probably does not persist far as it is weak where it crosses line 24+00W at 10+50N if indeed this is the same structure. Checking with the Crone shoot-back method showed significant conductivity at 24+00W - 13+00N and only a very weak indication, if at all, at 26+75W - 13+00N. At 24+00W - 13+00N the response is of a thin sheet coming close to the surface and dipping west about 60-70°. Part of the response used in estimating the dip may be affected by the abrupt change in the topography that occurs along the traverse line 13+00N. This body is considered a good massive sulphide prospect and perhaps warrants testing in spite of its small size. In order to select a drill site it would be necessary to re-visit the site and examine the access in relation to topography.

On the ridge 600 feet south of Fortune Creek at an elevation of 3,400 feet a roughly circular anomalous area centred at line 4+00W, 0+00N about 1,400 feet across was outlined (Area B, Fig. 4). This represents a greenstone intrusion. Parts of this area have been examined by Sadlier-Brown (1968) and are described as gossan developed in sheared greenstone. The shear zones, where uncovered by bulldozer stripping are extremely rusty and tend to be flat lying

or nearly so. Two samples from this area showed the following metal values.

<u>Description</u>	<u>Width</u>	<u>Cu.</u>	<u>Au.</u>	<u>Ag.</u>
Fairly fresh Greenstone	Grab.	.08	nil	tr.
Rusty Gouge in Greenstone	6 feet	.02	tr.	tr.

Anomalous magnetic and EM readings were encountered in this area. No attempt is made to correlate the features from line to line because of their small apparent size. The anomalous magnetic values are considered related to the greenstone and the VLF EM conductors to shear zones in the greenstone and perhaps to contacts. There is no noticeable consistent relationship of the magnetic features to the VLF EM conductors.

Profiling with the Crone shoot-back EM method (Area B, Fig. 5) showed conductivity at line 0+00W, 6+00N., line 4+00W, 0+50N. and line 8+00W, 3+00N. with possible weak indications at line 4+00W, 6+50N and line 8+00W, 11+00N. The former three anomalies all "tail off" to the south suggesting they are either flatly dipping in this direction or there is a decrease in the content of conductive material. Readings at two frequencies on line 8+00W show the conductivity to be poor which is supported by the fact that considerable quadrature effects were noticeable in all anomalous areas. The reading on line 4+00W at 0+50N is in doubt because of the very strong quadrature component present. This reading, if correct would indicate the conductor is narrow and

has considerable vertical extent at this point. The profile on line 0+00W shows the responses from what is probably two flat lying conductors superimposed, the north edges being at 4+00N and 7+50N. The weak responses at line 4+00W, 6+50N and line 8+00W, 11+00N occurring on the steep hillside falling into Fortune Creek are possibly related to weakly mineralized shear zones, they have no magnetic expression.

Bulldozer stripping in the anomalous areas on lines 4+00W and 8+00W would probably reveal additional information on the geometry of the body or bodies and provide opportunity for sampling. Additional geophysical work should also help in outlining the geometry if drilling is attempted.

A vertical loop search in the vicinity of the VLF EM and magnetic anomalies on traverse R2 at 31+00N failed to detect any significant conductivity and no further work is recommended.

V. CONCLUSIONS AND RECOMMENDATIONS

The search for lead-zinc-silver vein deposits in the Keno Hill area poses a number of problems. The major one is the usually small dimensions of the mineralized sections of the vein faults rendering them difficult to detect. Thus to efficiently search an area geophysical line spacing should be no greater than 400 feet.

Conventional EM techniques should be quite effective on those of sufficient size with high contents of lead mineralization. However, there are often significant amounts of sphalerite present which is a very poor conductor, thus limiting its usefulness.

VLF-EM surveys offer the advantages of being inexpensive and rapid but are subject to a number of limitations. Firstly conductive overburden or host rocks severely limit the depth of exploration. Secondly, anomalies tend to be generated by conductivity changes in the overburden, or at the overburden/bedrock interface. Thirdly since the frequency is high, the response factor of many geological conductors, including orebodies, is above the range where appreciable quadrature effects are generated. Phase shifts are more usually associated with the effects of conductive ground. An additional problem in the Keno Hill area is that the strongest primary VLF signal, Jim Creek, Washington, couples very poorly with the northeast and north trending vein deposits. The signal

from Hawaii which would couple excellently is, unfortunately too weak to be used for reliable measurements.

None of the common minerals found in the vein fault systems of the area are magnetic, thus magnetic measurements are of little use in directly detecting deposits. However, they are very useful when used in conjunction with geological mapping in helping to determine the relations and distributions of greenstone bodies which exert important control over the location of mineralized zones.

The following recommendations are made:

1. Bulldozer stripping at line 4+00W, 0+00 to 1+00N and line 8+00W, 2+00 to 3+00N and depending on the results perhaps additional geophysical detailing to gain more information on the geometry of the body if drilling is programmed.
2. Ascertaining the trends and testing the following magnetically anomalous areas for conductivity to conventional EM.
  - (a) 49+00W, 24+00N.
  - (b) Base line 4, 25+00W.
  - (c) Base line 5, from 7+00 to 16+00W.
  - (d) The body occurring at Base line 4+00W, line 40+00N, 0+00E. and at line 44+00N, 0+50E.

3. Possible drilling at 24+00W, 13+00N, this body is a good target but of small dimensions. Geological mapping and geochemistry should yield useful information.

Respectfully submitted,

*E. J. Wilson*

E.J. Wilson, B.Sc.,  
Geophysicist.

OTTAWA, ONTARIO,  
January 6, 1972.

*R. W. Stemp*  
R.W. Stemp, P.Eng.,  
Chief Geophysicist.

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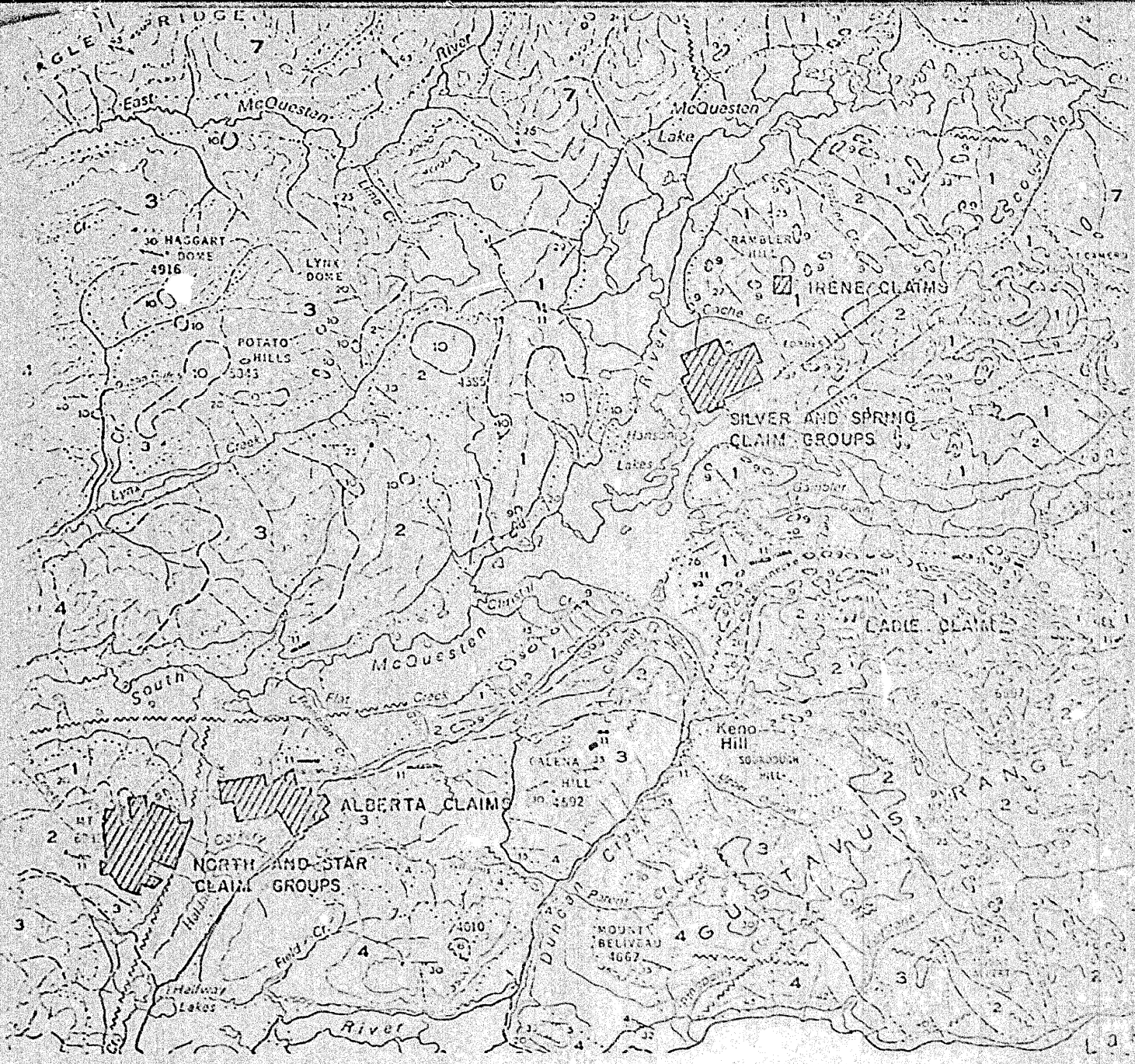
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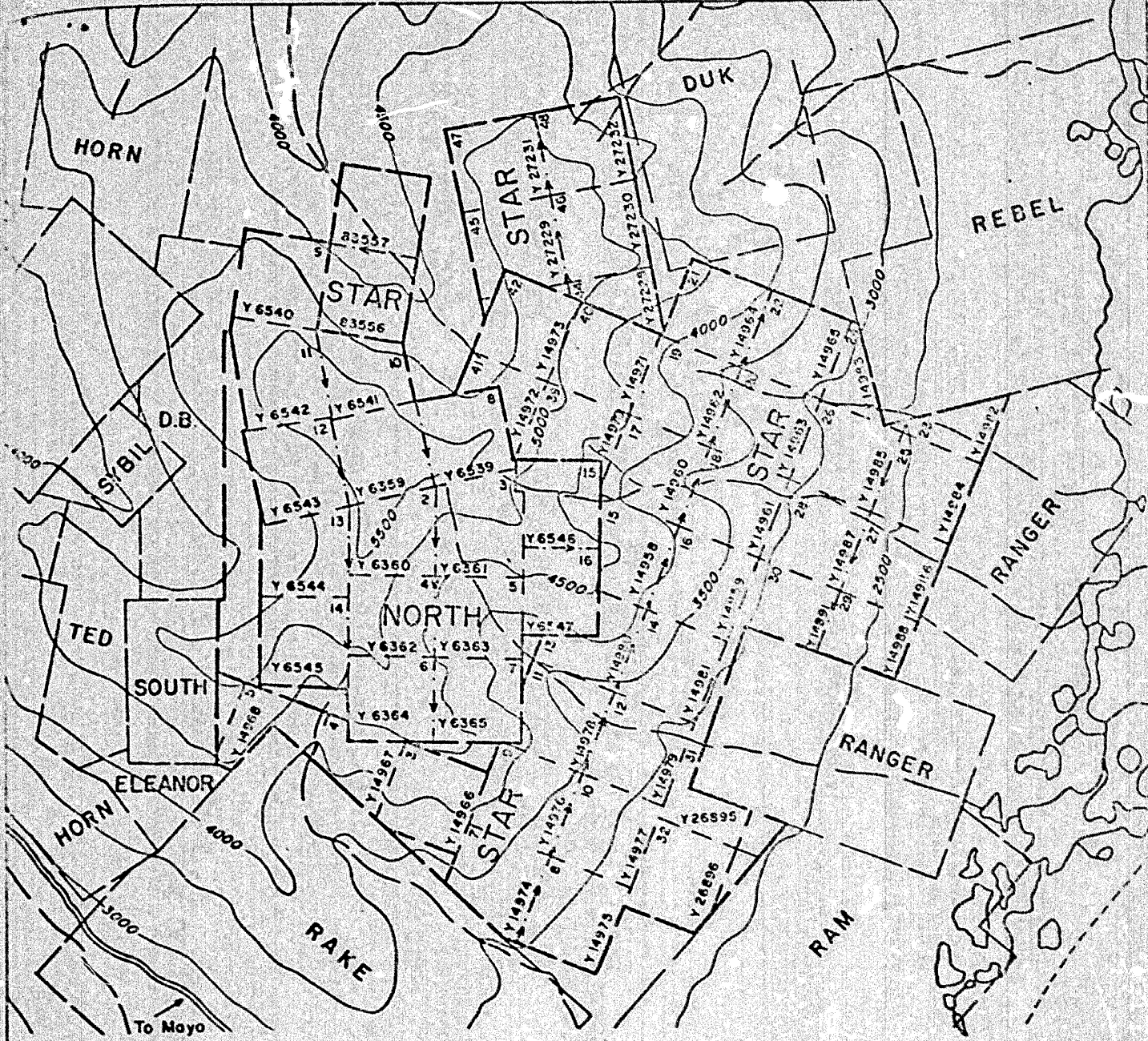


CANADIAN RESERVE OIL AND GAS LIMITED

CLAIM GROUP LOCATION MAP

MAYO M.D. - YUKON TERRITORIES

SCALE: 1 INCH = 4 MILES



CANADIAN RESERVE OIL AND GAS LIMITED

CLAIM MAP

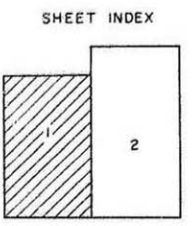
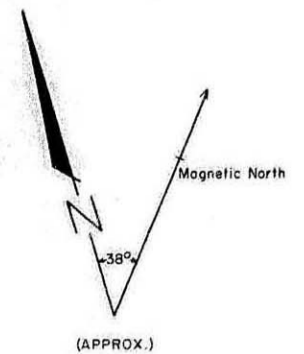
MAYO M.D. - SHEET 105-M-13

YUKON TERRITORIES

SCALE: 1 INCH = 1/2 MILE



1 of 2



- LEGEND**
- CHAINED AND PICKETED LINE
  - CHAINED, COMPASS AND FLAGGED TRVERSE LINE
  - CLAIM LOCATION LINE AND POSTS WITH DIRECTION FROM No. 1 FROM No. 2
  - CLAIM BOUNDARY
  - ROAD
  - CAT TRENCH
  - CAT STRIPPED AREA
  - STREAM OR GULLY
  - HILLCREST OR RIDGE
  - ROCK CLAIM

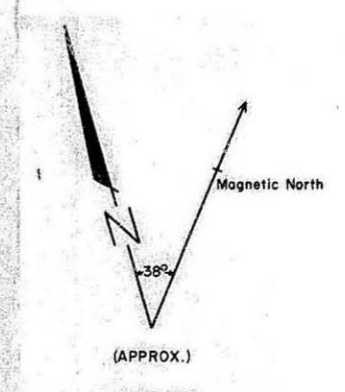
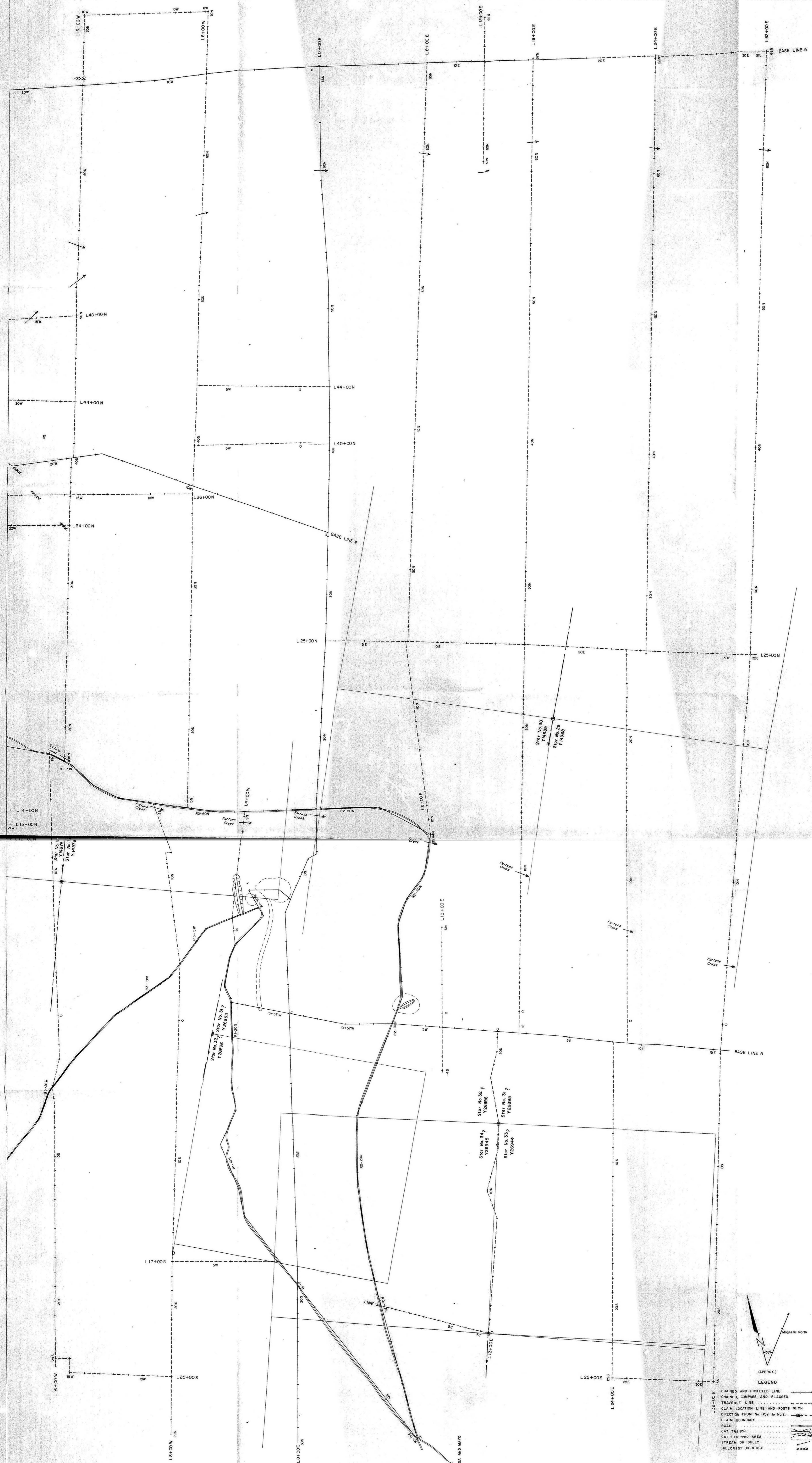
**GEOPHYSICAL TRAVERSE PLAN**  
**NORTH AND STAR CLAIM GROUPS**  
 MT. HALDANE, MAYO MD-YUKON TERRITORIES  
 FOR  
**CANADIAN RESERVE OIL AND GAS LIMITED**  
 BY  
 SPARTAN AERO LIMITED  
 SCALE: 1 IN = 200 FEET

2 of 2

Figure 1

1 of 2

2 of 2



LEGEND  
 CHAINED AND PICKETED LINE  
 TRAVEL COMPASS AND FLAGGED  
 CLAIM LOCATION LINE AND POSTS WITH  
 DIRECTION FROM N 1/4 IN N 1/4  
 CLAIM BOUNDARY  
 ROAD  
 CAT TRACK  
 CAT STRIPPED AREA  
 STREAM OR GULLY  
 HILLCREST OR RIDGE

SHEET INDEX  
 1  
 GEOPHYSICAL TRAVERSE PLAN  
 NORTH AND STAR CLAIM GROUPS  
 MT. HALDANE, MAYO M.D.-YUKON TERRITORIES  
 FOR  
 CANADIAN RESERVE OIL AND GAS LIMITED.  
 BY  
 SPARTAN AERO LIMITED  
 SCALE: 1 IN = 200 FEET



V.L.F. E.M. AND MAGNETIC SURVEY  
 PROFILE PRESENTATION  
 NORTH AND STAR CLAIM GROUPS  
 MT. HALDANE, MAYO M.D. - YUKON TERRITORIES  
 FOR  
 CANADIAN RESERVE OIL AND GAS LIMITED  
 BY  
 SPARTAN AERO LIMITED  
 SCALE: 1 INCH = 200 FEET

E.M. 16 PROFILES  
 STATION N.P.G., 18.6 K.Hz. Jim Creek, Washington

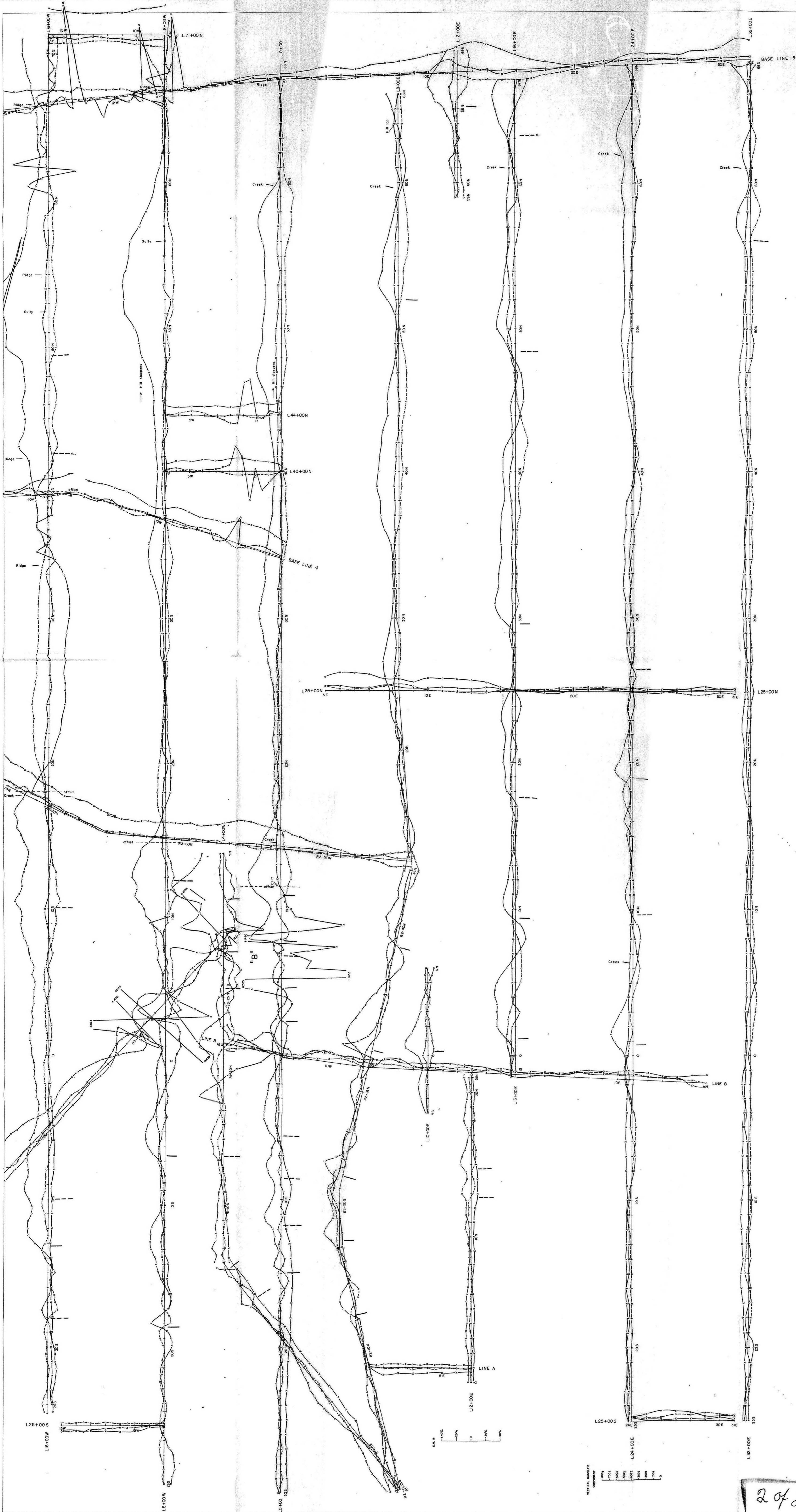
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 IN-PHASE .....  
 QUADRATURE .....  
 STRONG CONDUCTOR .....  
 WEAK CONDUCTOR .....  
 SCALE: 1 INCH = 40%

MAGNETIC PROFILES  
 (SHARPE M.F. 1)  
 VERTICAL COMPONENT .....  
 SCALE: 1 INCH = 400%

NOTE: LINES NOT SPACED TO SCALE

2 of 2

Figure 3



V.L.F. E.M. AND MAGNETIC SURVEY  
 PROFILE PRESENTATION  
 NORTH AND STAR CLAIM GROUPS  
 MT. HALDANE, MAYO MD.-YUKON TERRITORIES  
 FOR  
 CANADIAN RESERVE OIL AND GAS LIMITED  
 BY  
 SPARTAN AERO LIMITED  
 SCALE: 1 INCH = 200 FEET

E.M. 16 PROFILES  
 STATION N.P.G. 18.6X.Hz. Jim Creek, Washington

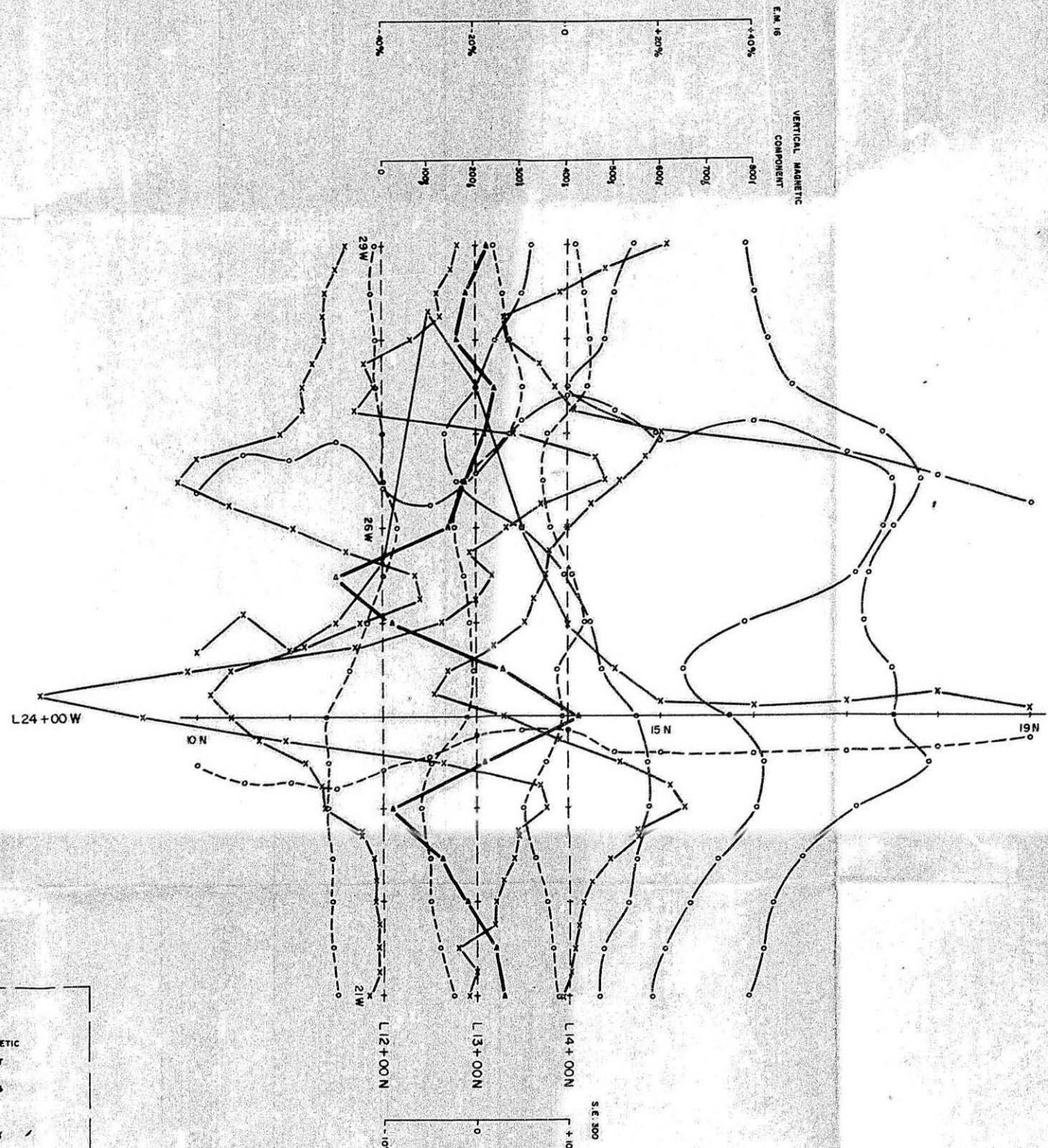
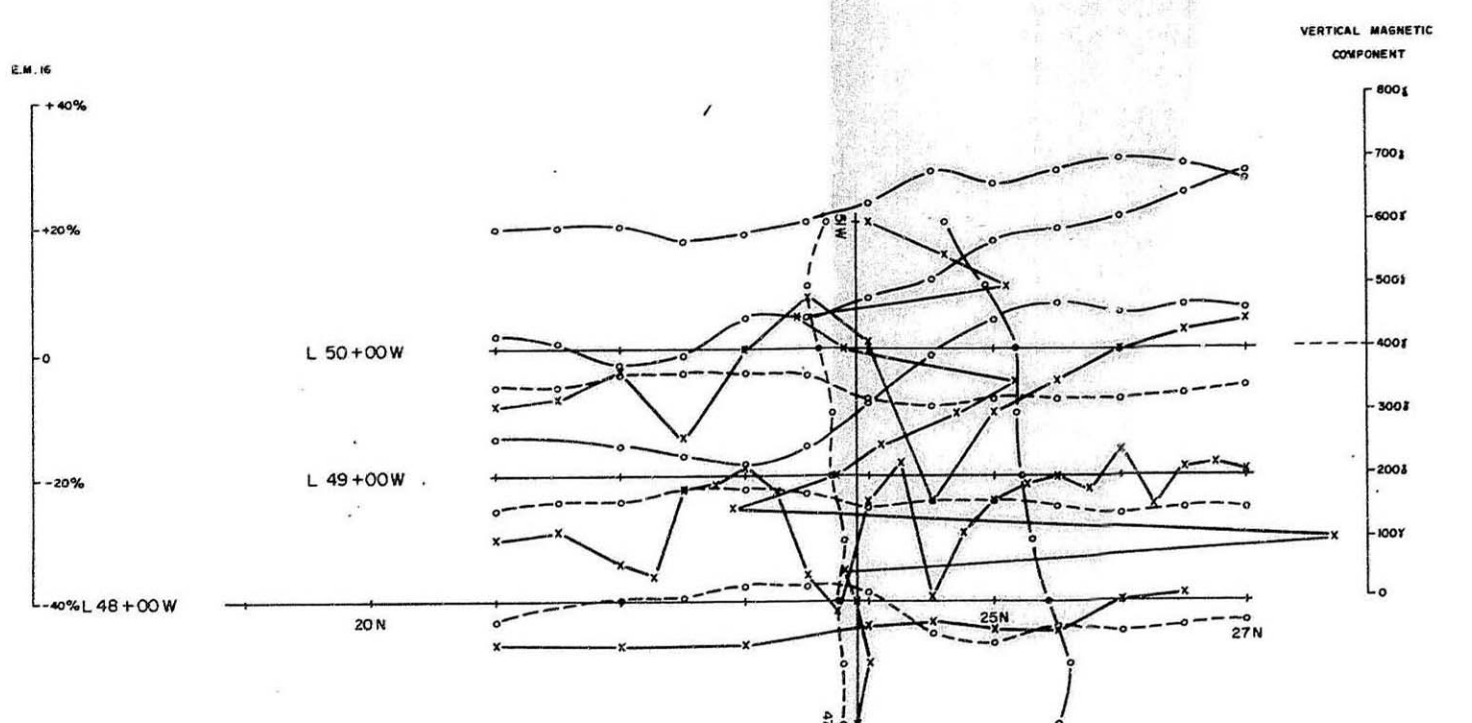
READINGS TAKEN FACING SOUTHWEST

IN-PHASE .....  
 QUADRATURE .....  
 STRONG CONDUCTOR .....  
 WEAK CONDUCTOR .....  
 SCALE: 1 INCH = 40%

MAGNETIC PROFILES  
 (SHAPE M.F. 1)  
 VERTICAL COMPONENT .....  
 SCALE: 1 INCH = 400'

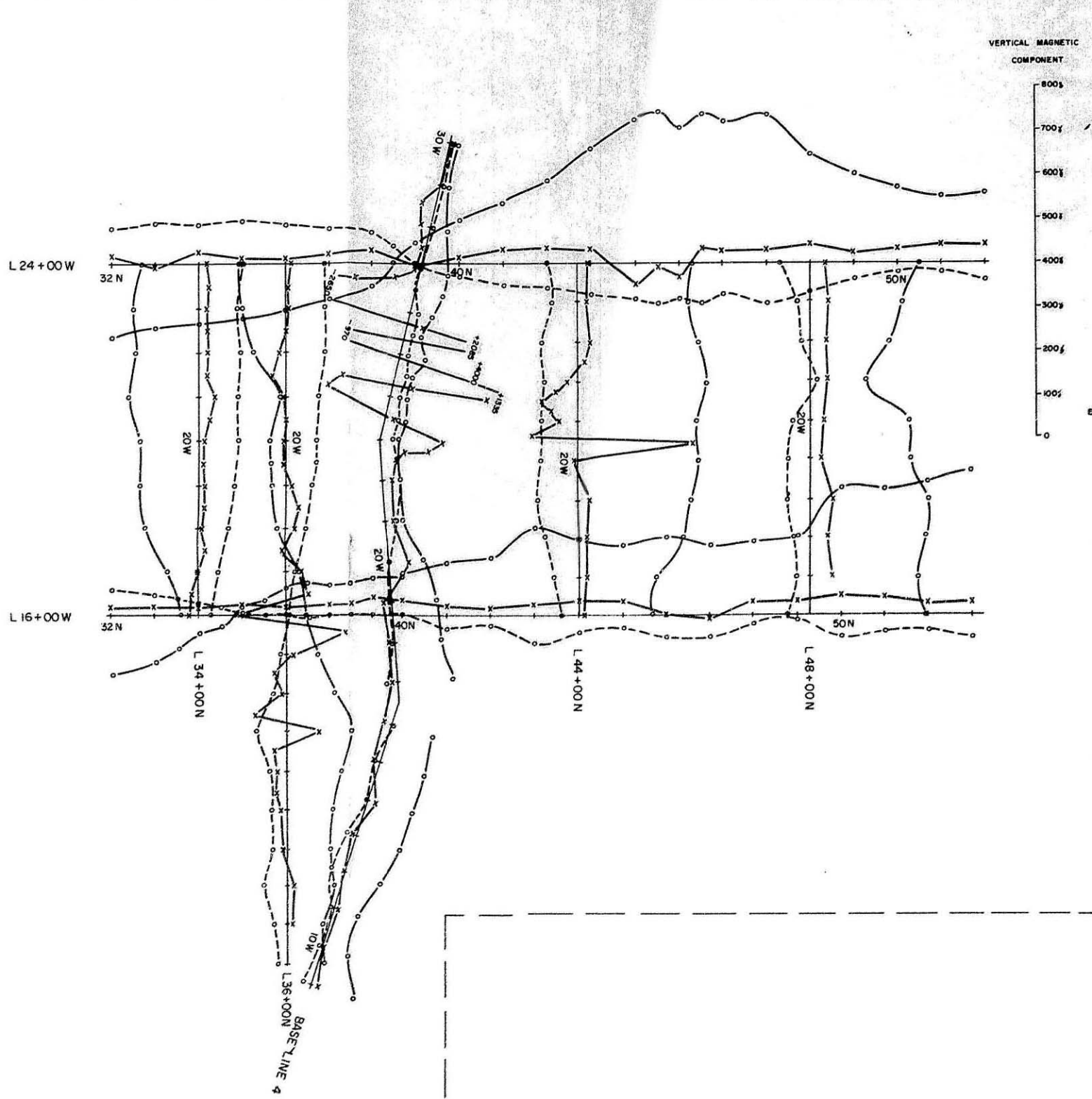
NOTE: LINES NOT SPACED TO SCALE

2 of 2

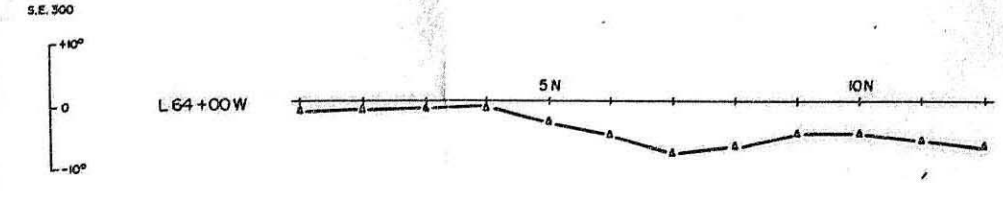


Area "C"  
SCALE: 1 inch = 100 feet

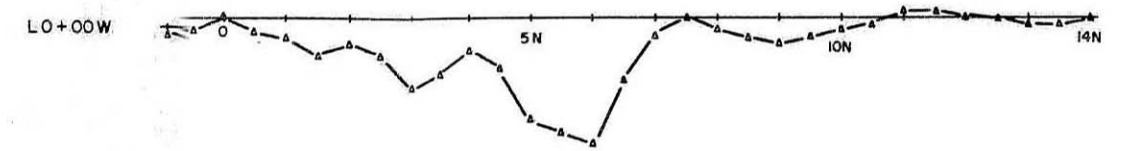
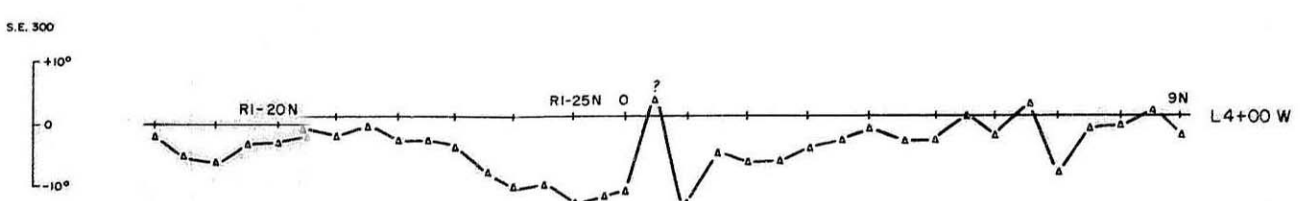
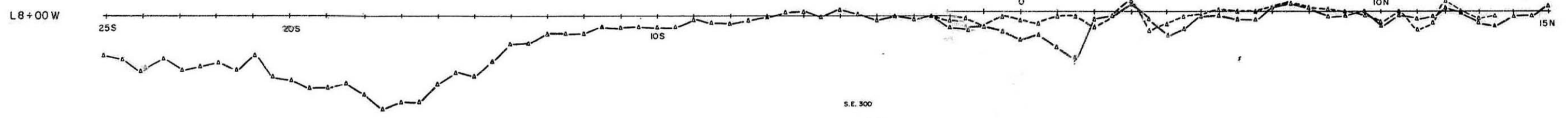
Area "E"  
SCALE: 1 inch = 100 feet



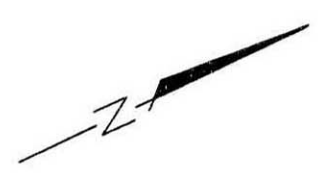
Area "D"  
SCALE: 1 inch = 200 feet



Area "A"  
SCALE: 1 inch = 200 feet



Area "B"  
SCALE: 1 inch = 200 feet



(APPROX)

**E.M. 16 PROFILES**  
STAT '0N N.P.G., 18.5 K.Hz. Jim Creek, Washington

**READINGS TAKEN FACING SOUTHWEST**  
IN-PHASE  
QUADRATURE  
SCALES: AS SHOWN

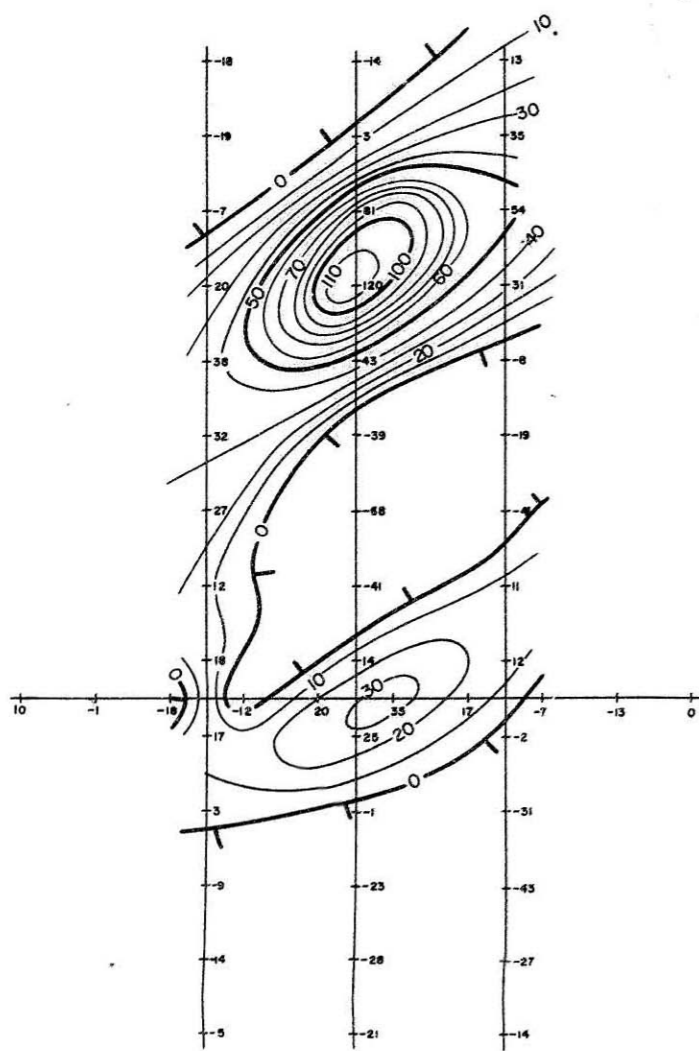
**MAGNETIC PROFILES**  
(SHARP, M.F. 1)  
VERTICAL COMPONENT  
SCALES: AS SHOWN

**S.E. 300 PROFILES**  
CRONE SHOOT - BACK MODE  
1600 Hz.  
400 Hz.  
SCALES: AS SHOWN

**GEOPHYSICALLY DETAILED AREAS**  
(REFER FIGS. 3 and 4)

**PROFILE PRESENTATION**  
NORTH AND STAR CLAIM GROUPS  
MT. HALDANE, MAYO M.D. - YUKON TERRITORIES  
FOR  
CANADIAN RESERVE OIL AND GAS LIMITED  
BY  
SPARTAN AERO LIMITED  
SCALES: - AS SHOWN

2 of 2



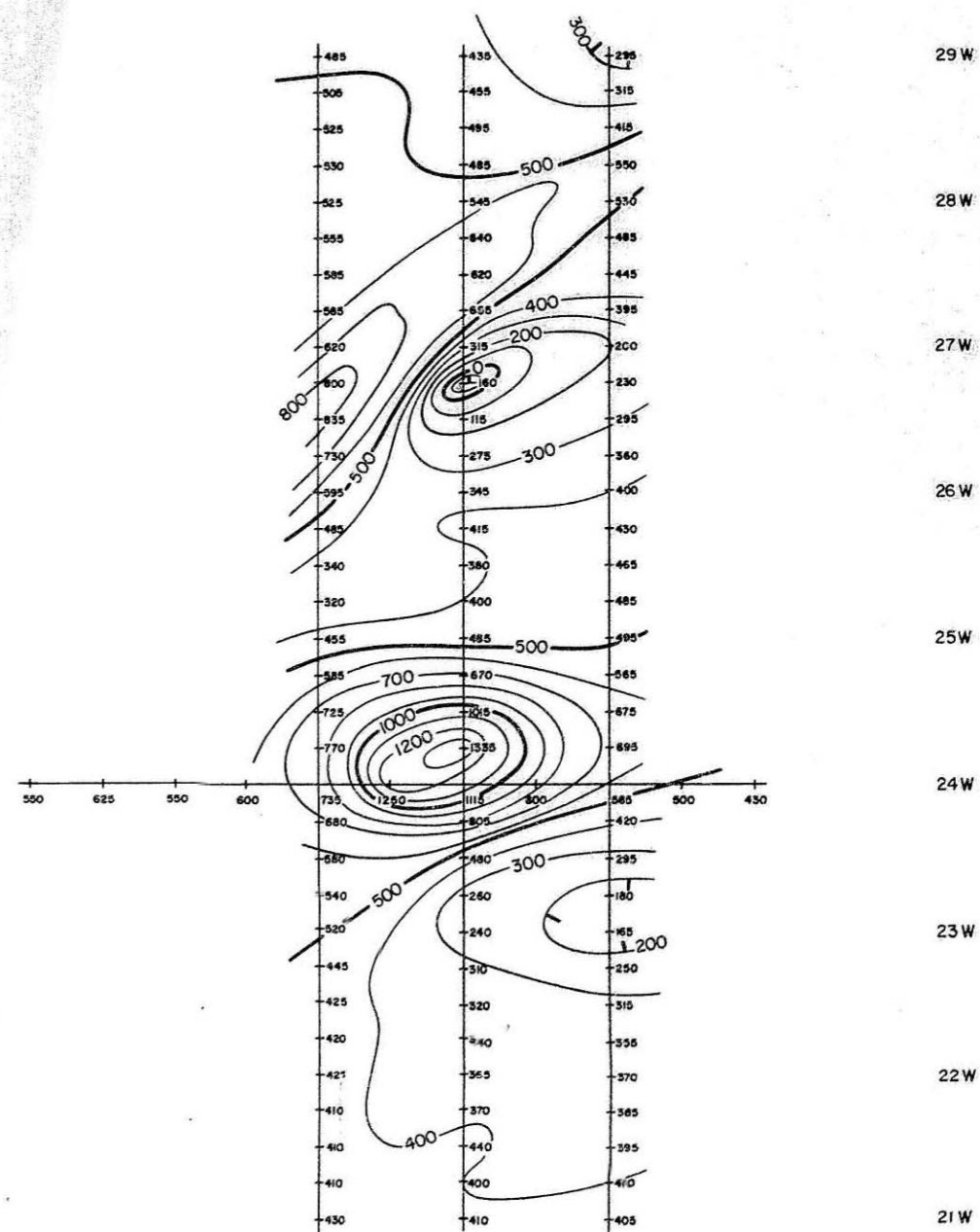
11N 12N 13N 14N 15N

V.L.F.-E.M. PLAN  
CONTOUR INTERVAL . . . . 10%

STATION N.P.G., 18.6K.Hz. Jim Creek, Washington

V.L.F.-E.M. PRIMARY FIELD  
WASHINGTON

29 W  
28 W  
27 W  
26 W  
25 W  
24 W  
23 W  
22 W  
21 W



10N 11N 12N 13N 14N 15N

MAGNETIC CONTOUR PLAN  
VERTICAL MAGNETIC-INTENSITY CONTOUR INTERVAL . . . 100g



(APPROX)

V.L.F.-E.M. AND MAGNETIC CONTOUR PLAN OF AREA "E"

(REFER FIG 3)

NORTH AND STAR CLAIM GROUPS

MT. HALDANE, MAYO M.D.-YUKON TERRITORIES

FOR

CANADIAN RESERVE OIL AND GAS LIMITED

BY

SPARTAN AERO LIMITED

SCALE 1:1N = 100 FEET