

812526

PROPERTY REPORT *92-H-8*
on the
"ILE" MINERAL CLAIMS
SIMILKAMEEN M.D.

January 4 , 1971 D. M. Scott , P.Eng.

file

CYPRUS EXPLORATION CORPORATION, LTD.
810 WEST HASTINGS STREET
VANCOUVER 2, BRITISH COLUMBIA
TELEPHONE: 683-9304

March 8, 1971

Mr. David M. Scott,
Mining Engineer,
102-1765 Duchess Avenue,
WEST VANCOUVER, B.C.

*S. of road near
Hedley - Nipitate
area.*

Dear Sir:

We thank you for the opportunity to examine the "ILE" claims report. However, I do not feel there is a situation that Cyprus could be interested in at this time.

Feel free to submit other properties you feel may be of interest to us and we look forward to hearing from you in due course.

Yours very truly,

CYPRUS EXPLORATION CORPORATION, LTD.

J. G. Simpson
J. G. Simpson
Regional Manager - Western Canada

JGS/jel

JGS
26/3/71

"ILE" MINERAL CLAIMS

SIMILKAMEEN MINING DIVISION - N.T.S. 92H/8

LAT. 49°22' N. -- LONG. 120°14' W

PROPERTY REPORT

by

D.M. SCOTT, A.C.S.M., BA.Sc., P. Eng.

January 4, 1971

"ILE" MINERAL CLAIMS

SIMILKAMEEN MINING DIVISION

LAT. 49°22' N -- LONG. 120°14' W

1. INTRODUCTION

The following report describes a property held by the writer in the Similkameen Mining Division, B.C. It describes exploration results obtained to date and succeeds a similar report dated December 1st 1970.

The sole difference in the reports is the manner of presentation of EM-16 data. The mode of presentation is based on a preprint of an article to appear in the January 1971 issue of the Canadian Institute of Mining & Metallurgy bulletin and to references noted therein.

The data processing technique has clarified interpretation of mineralization controls and materially enhanced the attractiveness of the property.

2. SUMMARY AND CONCLUSIONS

The "ILE" claim group lies astride the Nicola volcanics - Coast Intrusive contact. In the near vicinity and to the west of the property a volcanic vent of Tertiary age pierces the contact.

Anomalously high geochemical concentrations of silver have been located in the immediate area and mineralization of Tertiary age - associated with the vulcanicity - is believed to be the cause.

A number of coincident and near coincident magnetic and E. M. anomalies having a NE-SW trend have been located in the overburden covered area and a detailed sophisticated geophysical programme is considered essential to resolve the nature of the structures and determine if a drill programme is warranted.

3. RECOMMENDATIONS AND COSTS

It is recommended that:

- (a) An I.P. survey be carried out on the south portion of lines 0+00 to 36+00 E inclusive. Multiple electrode spacing should be employed to obtain the maximum amount of diagnostic data.
- (b) During the course of I.P. work, an additional six key claims should be staked and 2 to 4 fractions staked at the boundary of the ILE and SM groups. Four full size claims would adjoin ILE 5 and 7 and extend north. Two full size claims and two fractions would close the gap between ILE 10 west to the SM boundary. Fractions staked as required.
- (c) Contingent upon IP results diamond drilling would be initiated to determine the cause of the anomalies.

COSTSFIRST STAGE, firm, I.P.

3 miles I.P. - Contract	\$ 4,000
Field manager (self) 2 weeks, field and office	1,000
Field man, staking, etc., 10 days	400
Vehicle rental and operation, 2 weeks	300
Accommodation, board, etc., 10 days, 2 men @ \$12	250
Cat. D4 - road clearing (1 day <u>if</u> needed)	<u>250</u>
	6,200
Contingency	<u>800</u>
TOTAL	<u>\$ 7,000</u>

SECOND STAGE, contingent, DRILLING

3,000 ft. BQ @ \$12 inclusive	\$36,000
Cat. D6 - 200 hours @ \$30	6,000
Engineer/Geologist, 2 months @ \$1,200	2,400
Vehicle rental and operation, 2 months @ \$400	800
Accommodation, 2 months @ \$200	400
Assaying	600
Administrative and overhead, 10%	4,600
Contingency, 15%	<u>7,200</u>
TOTAL	\$58,000

4. LOCATION AND ACCESS

The property is located in the Okanagan Range, a plateau member forming the eastern boundary of the Cascade Mountains. It

overlooks the deeply incised Similkameen River valley to the north and the equally steep-walled Smith Creek to the South.

Elevations range from 3,200 ft. to 4,700 ft. All present work has been carried out above the 4,000 ft. elevation.

A large part of the claims area is located on the 10-15° upper slopes of Smith Creek. Timber cover is light on the south Facing slope and consists primarily of Yellow Pine (Ponderosa). To the north, timber cover increases with the appearance of jackpine and poplar thickets and reflects the marked change in precipitation as the direction of slope changes from south to north. Water is available from Smith Creek at an elevation of about 3,500 ft. and a number of springs are reported at higher elevations.

The property is readily accessible from the town of Princeton via Highway #3, a distance of 18 miles and 3.2 miles of Forestry Access Road. The access road has recently been improved and can take two wheel drive vehicles during dry weather. As the name implies, the road gives access to a large forest region to the south and is also used by local cattle ranchers for high level summer grazing. No logging has been done in recent years, but this is an important industry in the general area.

5. PROPERTY

The property consists of the following unsurveyed mineral claims:

<u>CLAIM</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>	<u>EXPIRY DATE</u>
ILE 1-10	27326-335 incl.	March 26/70	March 26/71

Approximately 4 years work is available for assessment work requirements.

The claims were staked under the name P. H. Sevensma and a 50 per cent interest transferred to D. Scott on June 1st, 1970.

Two further Bills-of-Sale have since been executed and present ownership is now D. Scott 85 per cent, Dr. P.H. Sevensma 15 per cent.

The Bills-of-Sale are filed at the Office of the Mining Recorder, P.O. Box 9, Princeton, B.C., and will also be on record in Vancouver in due course.

6. HISTORY

The nearest important mining activity was carried out at Hedley 7 miles to the east and Copper Mountain 14 miles to the west. Hedley operated as a gold producer from 1904 to 1955, and Copper Mountain (Granby) from 1925 to 1957. This property has recently been reactivated by Newmont and a 15,000 t.p.d. open pit operation is scheduled to start late 1971.

In the immediate area of the "LE" group no work is known to have been done, and the nearest development is two miles distant at the now inactive property of Hedley Sterling Gold Mines Ltd., last reported work was in 1935.

The writer became interested in the area as a result of a number of reconnaissance prospecting trips during the summer of 1967

and spring 1968. The area prospected was approximately 6 miles by 1 mile split into two equal sections north and south of the Similkameen River from a point of origin near Bromley Provincial Park, 17 miles east of Princeton.

No massive mineralization was found, but a number of samples selected on the basis of alteration - with some carrying very fine disseminated pyrrhotite - carried remarkably high silver values, ranging from 3 p.p.m. to a maximum of 18 p.p.m. (i.e., 0.1 to 0.5 oz./ton silver).

For purposes of reference, the ores of Copper Mountain rarely exceeded a content of 0.10 oz./ton and those of Hedley, 0.05 oz./ton silver. Under these terms the probability of commercial silver deposits existing in the area appeared high.

Most of the higher values came from the general "ILE" area and a ten claim group was staked to cover what was surmised to be the most promising area. The claims were staked May 1968.

For financial reasons and lack of time no work could be done on the claims, and they lapsed in 1969. During early 1970, the writer interested Dr. P. H. Sevensma in the project and the "ILE" group was staked March 1970.

Reconnaissance soil sampling was carried out at the same time.

The "ILE" group covers much of the ground staked earlier but during the lapsed period an independent party staked the SM group of 20 claims, effectively prohibiting extension to the west.

Configuration of claim boundaries is shown on the "Location Map".

A systematic programme of work was carried out November 9th - 20th inclusive 1970 and involved 10.4 miles line cutting, 10 miles magnetometer survey and 2 miles of detailed E.M.

7. GEOLOGY

Geology of the region is described in the comprehensive G.S.C. Memoir #243 - "The Geology and Mineral Deposits of the Princeton Map Area" - by H.M.A. Rice, 1946, to which reference should be made.

In general terms the map area comprises a north trending elongated basin of volcanics and intercalated sediments. To the east and west the basin is bounded by granitic Coast intrusives. The volcanic sequence approximates 20 to 30 miles in width and is itself intruded by a series of igneous rocks ranging in composition from peridotite to syenite.

The ore deposits of Copper Mountain and Hedley are within the volcanics sequence and closely associated with the smaller stock-like intrusions.

On the "ILE" claims the contact between the economically important Nicola volcanics and the Coast intrusives passes near the north boundary of the group and a volcanic vent of Tertiary age is located approximately 1 mile to the west.

The evidence of Tertiary vulcanism is extremely significant.

The vent has evidently pierced the crust at its point of greatest weakness, namely along the contact of two divergent rock types and it is, furthermore, this period of vulcanism that is associated with most of the Cordillera's deposits of silver both in North, Central and South America.

The geological environment is thus markedly different from that at Hedley and Copper Mountain, and is surmised to be responsible for the anomalous silver values of the Nicola volcanics in the vicinity.

No detailed mapping was carried out during the programme under discussion because of time limitations and the presence of a mantle of overburden on the main area of interest. However, outcrop near the north and south boundaries confirmed the geological picture shown on Map 888A (Princeton Report, Memoir #243) and the presence of agglomerate and distinctive red porphyry float near the north end of line 0+00 indicates the close proximity of the Princeton Group - a product of the Tertiary vulcanism noted above.

8. EXPLORATION WORK

(i) GEOCHEMISTRY

A total of 172 soil samples were taken; 142 in March were analysed for copper, lead, nickel, silver and arsenic, and during November a further 30 were taken but analysed for copper and silver only.

All values were remarkably low - viz. copper background 9 p.p.m.; lead 12 p.p.m.; nickel 22 p.p.m.; arsenic 4 p.p.m.; and silver 0.5 p.p.m.

The background of 9 p.p.m. for copper compares with the 20-30 p.p.m. that would normally be found in soils derived from a non-mineralized area and all other metals determined can be classified in a similar manner.

It has since been learned that soil sampling in the area is not an effective exploration technique because of the local development of caliche soils. Much of the area east of Princeton is arid, there is little precipitation and an alkaline horizon consisting of calcium and sodium carbonates develops. The alkaline layer effectively precipitates soluble metals and little if any metal values from bedrock reach surface. Soil geochemistry at Copper Mountain has also provided similar case histories and orthodox techniques of sampling are of little value.

On the accompanying plans, copper values are noted but their importance is open to question.

(ii) MAGNETIC SURVEY

Magnetometer readings were taken with a Sabre Mk II instrument at 100 ft. centres and intermediate readings taken where required.

The area is one of comparatively low relief with a major exception at the NE corner of the grid where relief reaches a maximum of 4,000 gammas on Line 56 E. Cause of this is not known.

A number of local magnetic lows and highs are of interest. Some coincide or sub-parallel E. M. conductors and probably reflect zones of hydrothermal alteration and pyrrhotite deposition

respectively. The coincidence of E. M. and magnetic anomalies is considered to be of material significance.

(iii) E. M. SURVEY

E. M. work was carried out with a Ronka E. M. - 16 unit. The instrument is a general reconnaissance tool and functions most effectively as an aid in determining structure. Penetration is approximately 50-75 ft. below surface, and it will detect massive sulphide within this range. It is unable to clearly resolve disseminated mineralization unless the mineralization is accompanied by fracturing. However, the association of fracturing with disseminated mineralization is frequent and is believed to be in effect on the property.

The field E. M. data has been processed by a technique developed by the Keevil Mining Group Ltd. and the results contoured. This technique clearly defines anomalous zones and discriminates against data due to topographic effect.

For a full description of the method reference should be made to two recent articles:

- (a) Fraser, D.C., Contouring VLF-EM data: Geophysics December, 1969.
- (b) Fraser, D.C., VLF-EM Data Processing: C.I.M. January, 1971.

All readings were taken at 50 ft. centres and transmission received from either Cutler, Maine or Seattle, Washington. Irregularity of transmission from the Cutler station compelled use of Seattle during weak periods, however no discordance in profiles is apparent and contouring of results from alternate transmitting stations confirms the overall picture of a zone of NE-SW structures traversing the property.

9. SUMMARY OF EXPLORATION RESULTS

All pertinent data has been extracted from individual magnetic and E. M. plans and shown on the "General Plan".

It is evident that the prime direction of possible ore making structures is NE-SW. Three magnetic depressions possess this strike and the sharply defined E. M. anomalies on lines 0+00 to 16E and 32-36E concur.

Two well defined magnetic linears on the contour plan are postulated as faults and are so shown on the General Plan - these also possess a NE-SW orientation.

The coincidence of both magnetic and E.M. features is considered to be of extreme exploration significance and suggests sub-parallel zones of alteration enveloping structurally controlled sulphide disseminations.


It is apparent that not all E. M. conductors can be equated with mineralization - the E. M. 16 is unable to distinguish between a conductive fault zone, a body of sulphide mineralization or a graphitic shear. Nevertheless, the sum total of evidence to date, with particular reference to local geology and the anomalous silver content of the Nicola Volcanics all suggest a strong case exists for detailed I. P. work to clearly delineate and differentiate the conductive zones located to date.

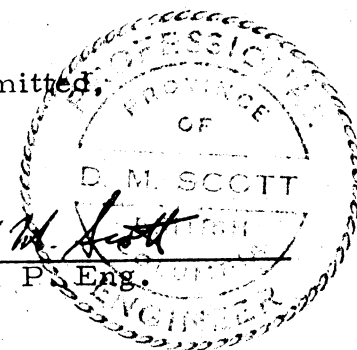
The target sought is considered to be a structurally controlled sulphide dissemination in one or more favoured volcanic horizons.

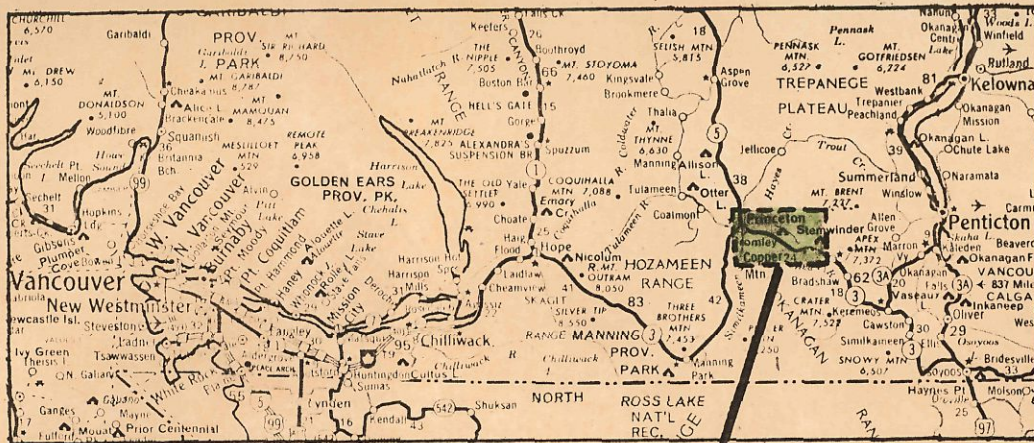
Mineralization most probable in this environment would comprise pyrite, pyrrhotite, chalcopyrite and tetrahedrite. Size of individual ore body is entirely speculative and the writer would guess within the 3-7 million ton range for 3 or 4 zones on the present property.

This data is simply intended to give a guide to exploration and bring the target into perspective. There is no evidence at the present time to give support to these estimates.

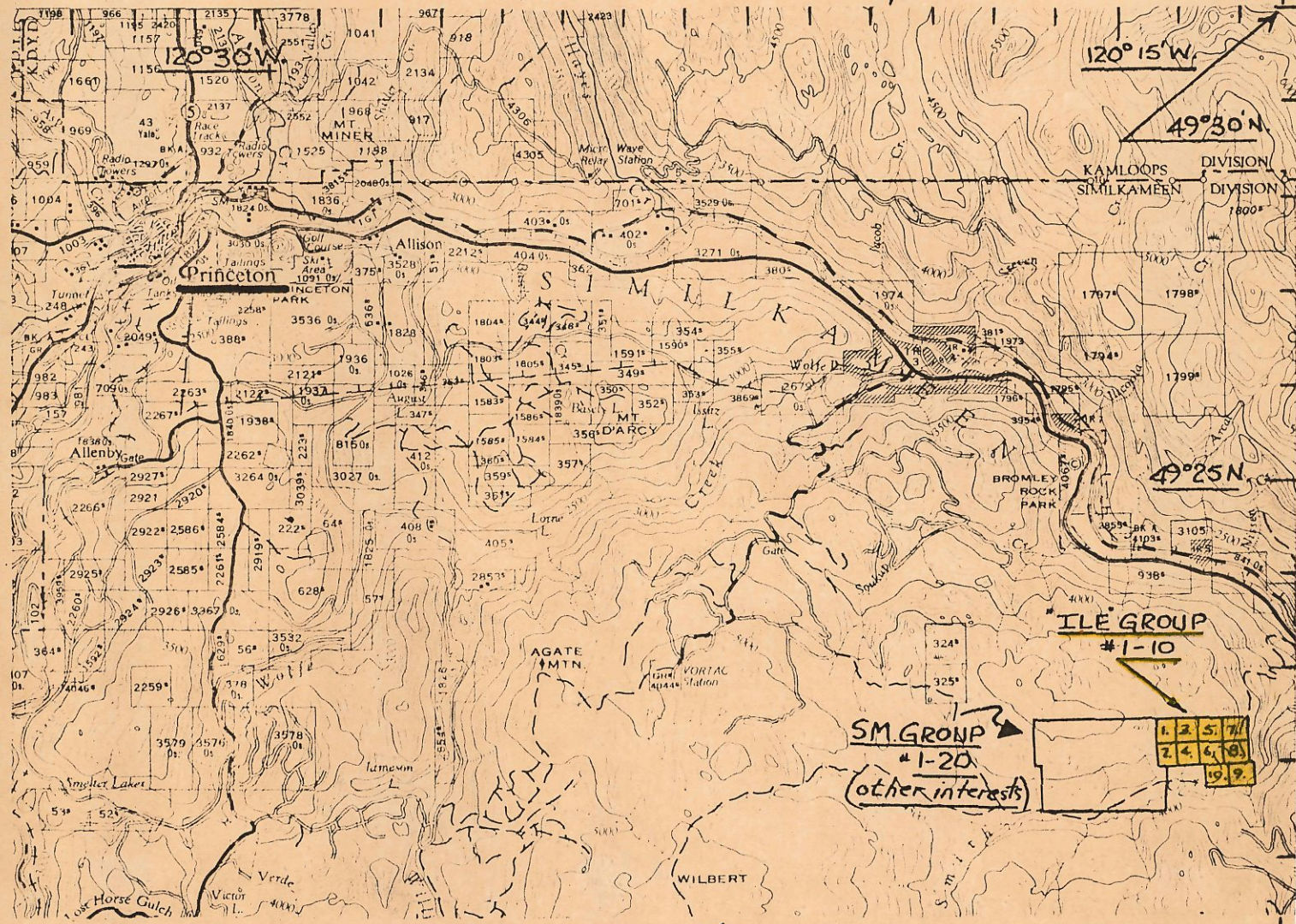
Respectfully submitted,


D. Scott, P. Eng.





Scale 1" = 40m.



Scale: 1" = 2 miles

"ILE" CLAIM GROUP
 LOCATION MAP
 Similkameen M.D. — 92H/B.
 Scale: as shown. — Nov. 1970
 Comp. DMS.

GROUND MAGNETICS.

Vert. scale: 1" = 100 ♂

DATUM: 54,000 ♂



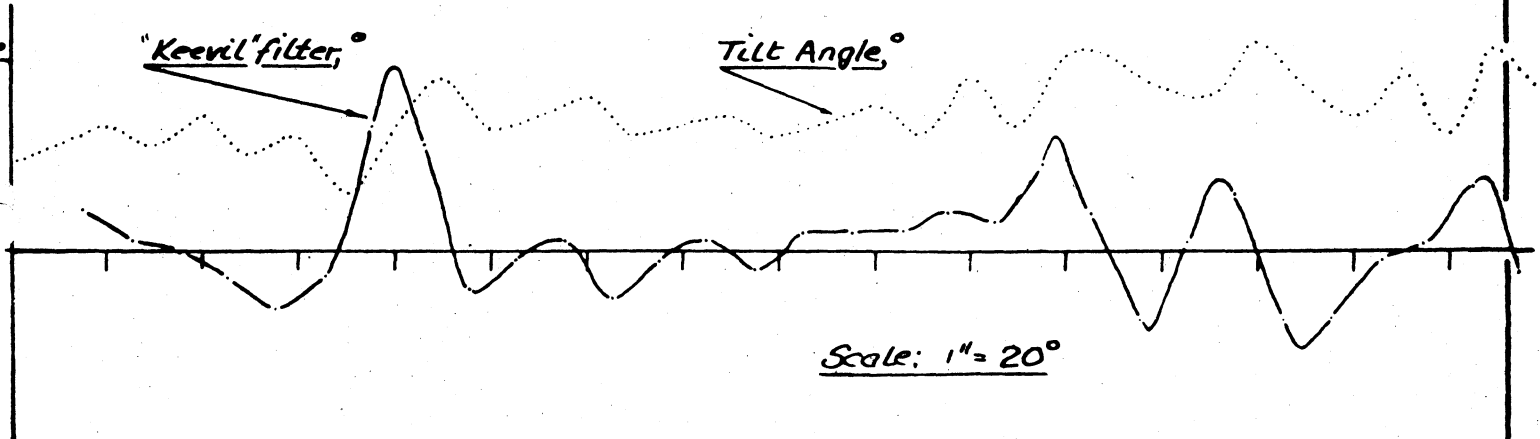
E.M.-16

20°

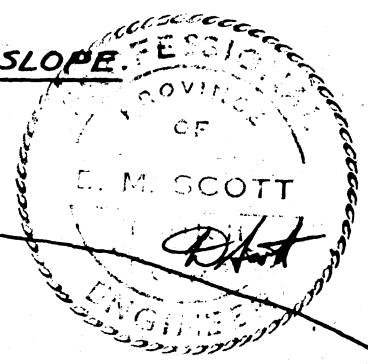
"Keovil" filter,

Tilt Angle,

Scale: 1" = 20°



GROUND SLOPE.



E.M.-16 Transmission: N.A.A. Cutter, Naine

Field work: Nov. 17/70 - D. Scott.

LINE 0+00E

0-15S.

'ILE' CLAIM GROUP

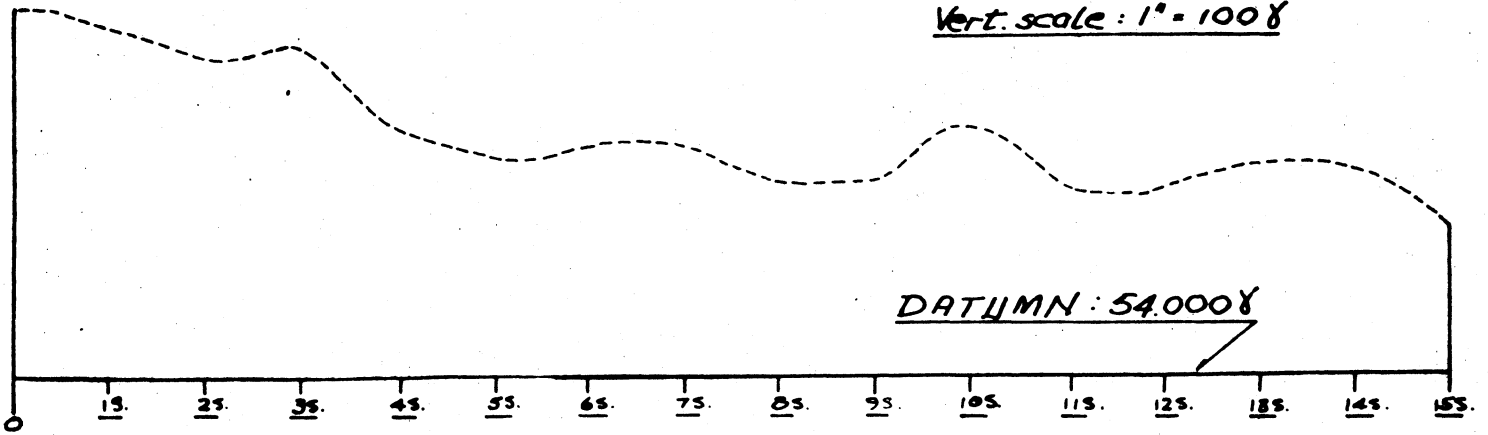
LINE DATA

Dec. 1970 — DNS.

Horiz. scale: 1" = 200'

GROUND MAGNETICS

Vert. scale: 1" = 100γ

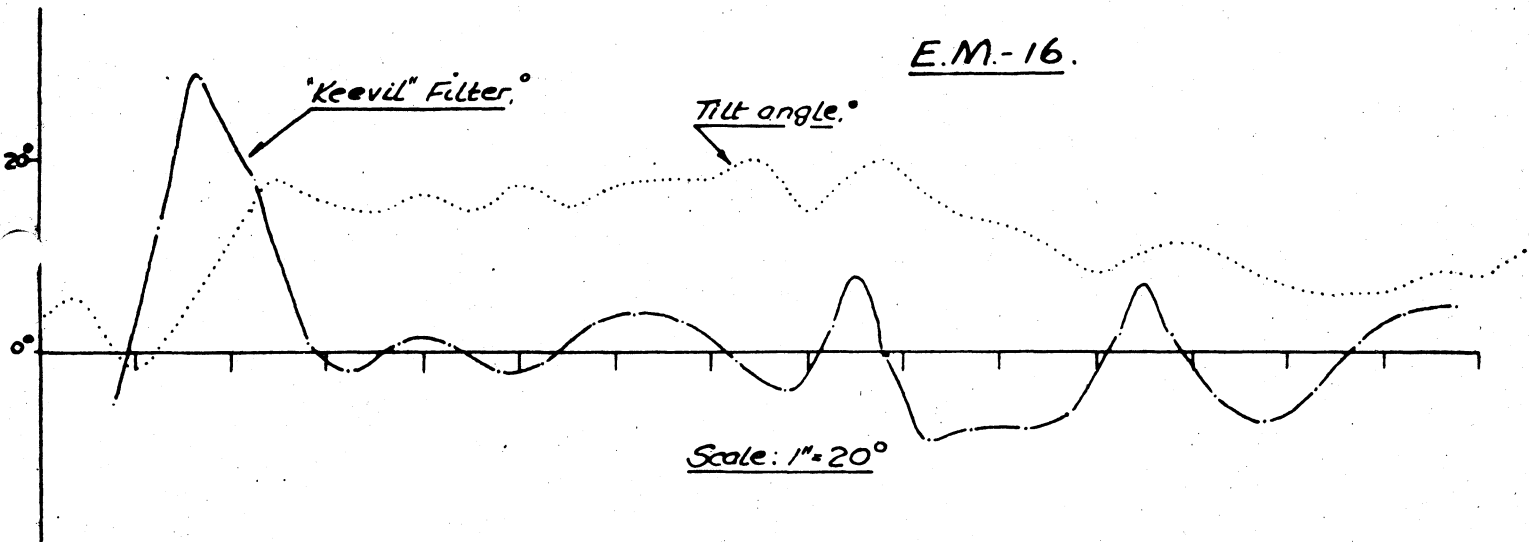


E.M.-16.

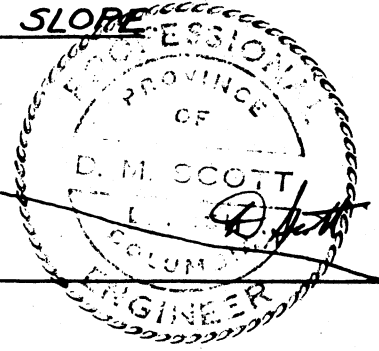
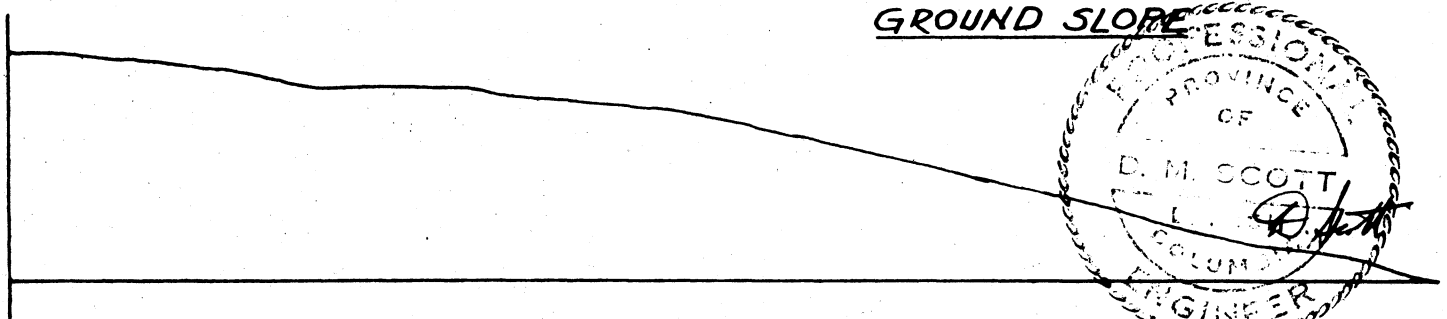
"Keovil" Filter.

Tilt angle.

Scale: 1" = 20°



GROUND SLOPE



E.M.-16 Transmission: NLK/NPG-Seattle.
Field work: Nov. 17/70 - D. Scott.

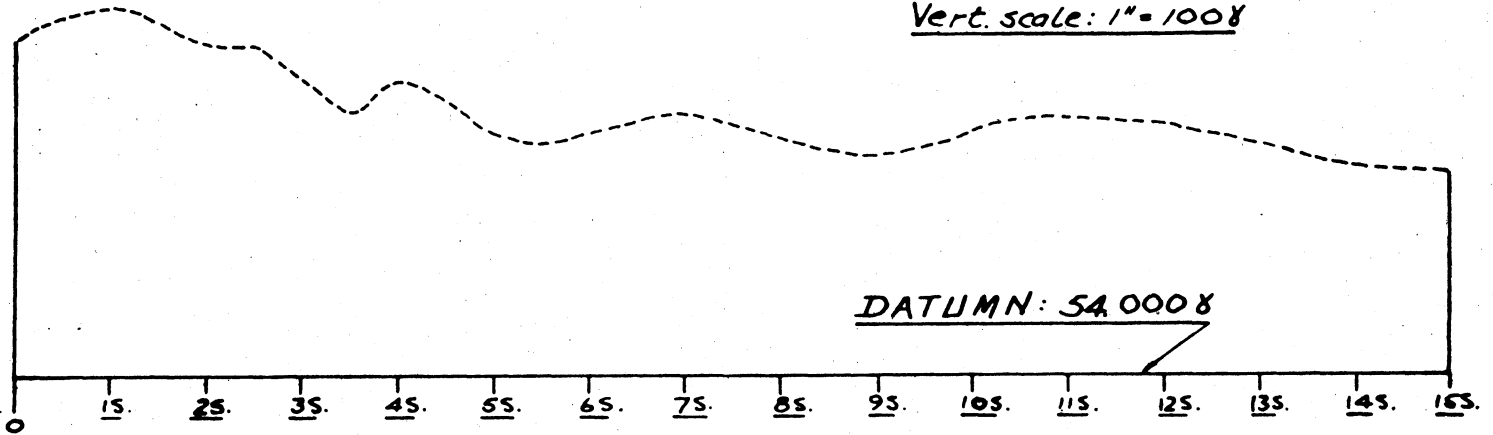
LINE 4+00E
0-15S.

"ILE" CLAIM GROUP	
LINE DATA	
Dec 1970	DMS.
Horiz. Scale: 1" = 200'	

GROUND MAGNETICS

Vert. scale: 1" = 1008

DATUM: 54,0008



E.M.-16.

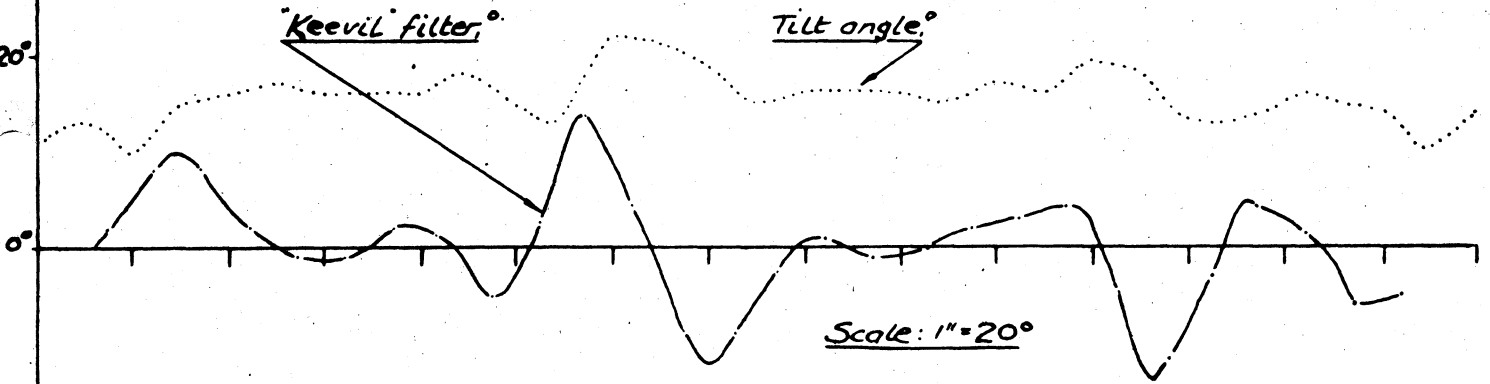
"Keovil" filter,

Tilt angle,

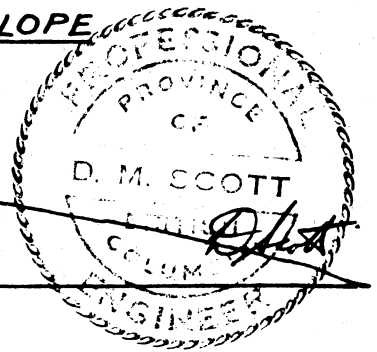
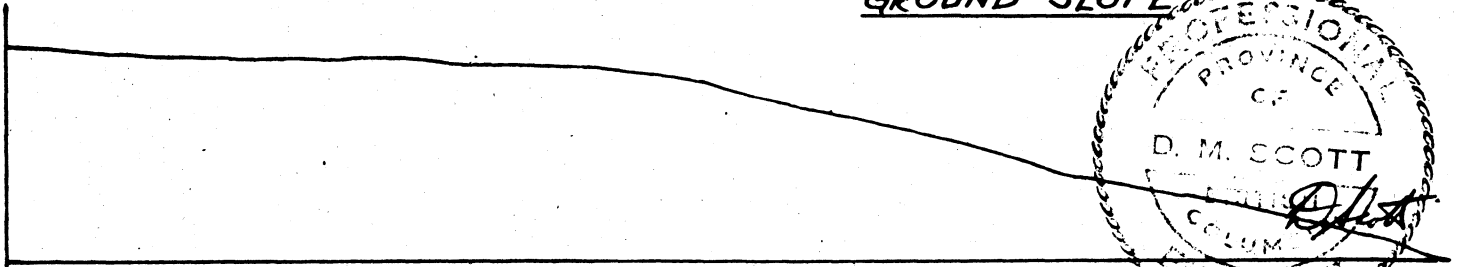
20°

0°

Scale: 1" = 20°



GROUND SLOPE



E.M.-16 Transmission: NLK/NPG - Seattle.

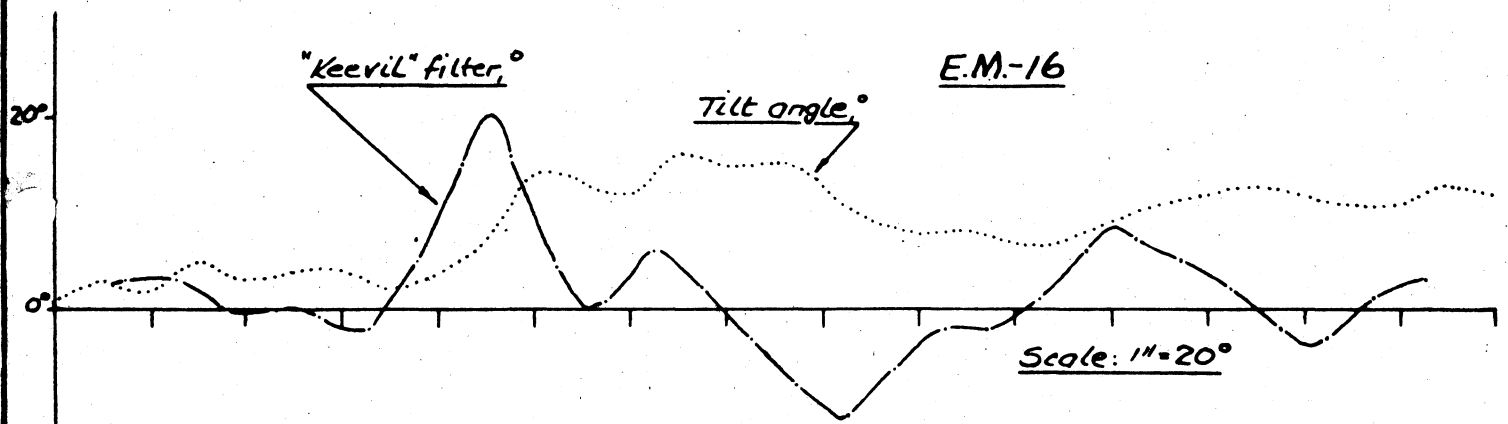
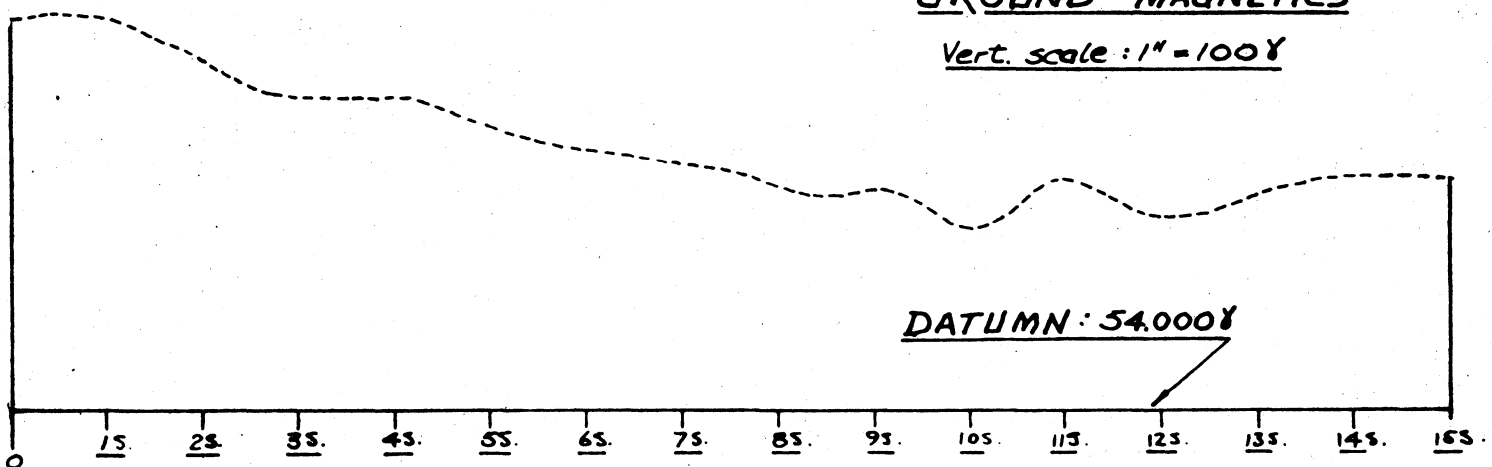
Field work: Nov. 17/70 - D. Scott.

LINE 8+00E
0 - 155.

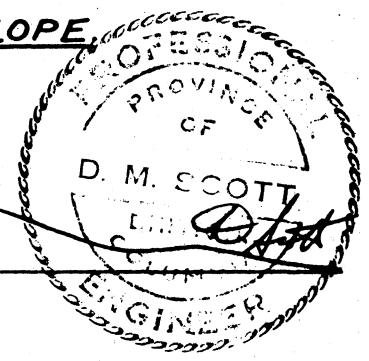
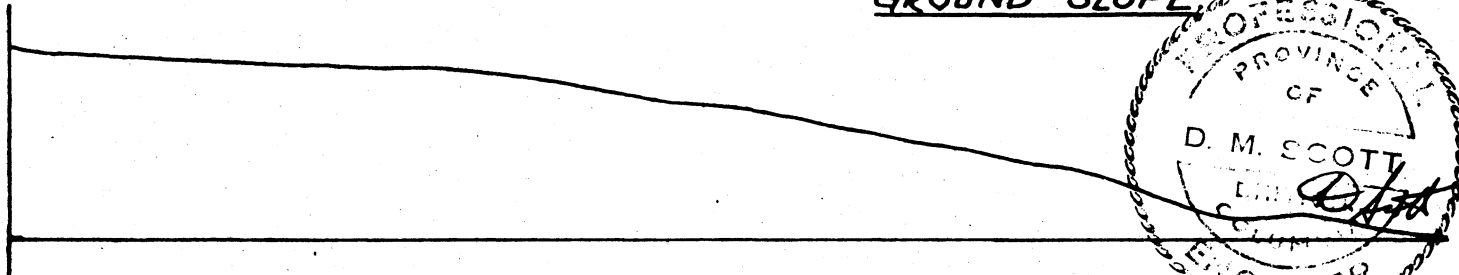
"ILE" CLAIM GROUP
LINE DATA
Dec. 1970 — DMS.
Horiz. Scale: 1" = 200'

GROUND MAGNETICS

Vert. scale: 1" = 100γ



GROUND SLOPE



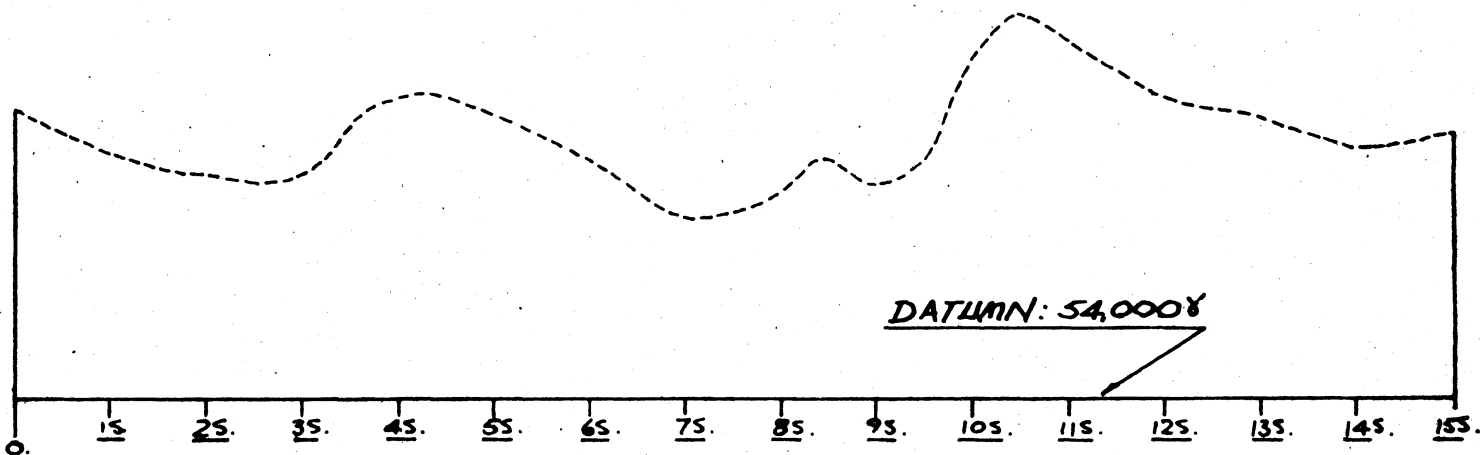
E.M.-16 Transmission: NAA - Cutler, Maine
Field work: Nov. 1970. - D. Scott.

LINE 12+00E
0-155.

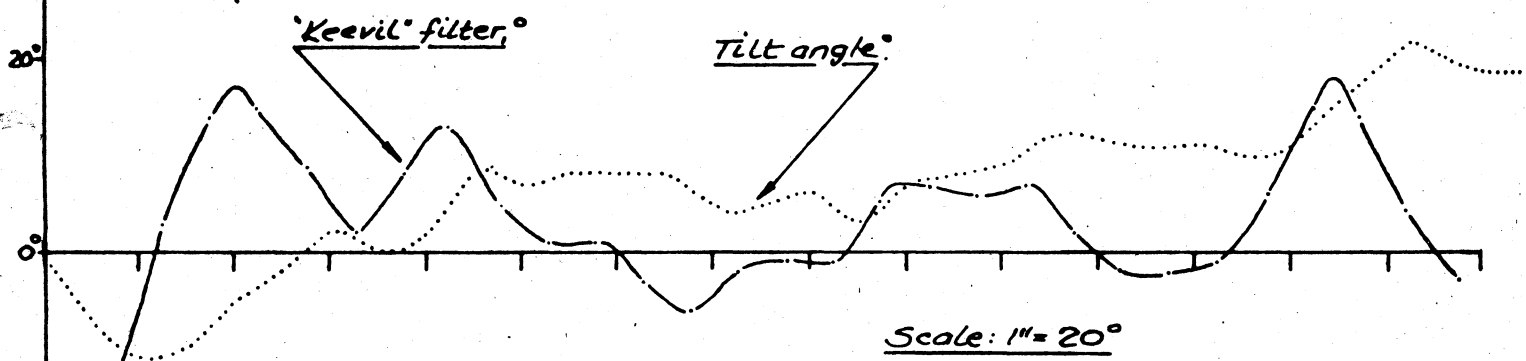
"ILE" CLAIM GROUP
LINE DATA
Dec. 1970 — DMS.
Horiz. Scale: 1" = 200'

GROUND MAGNETICS

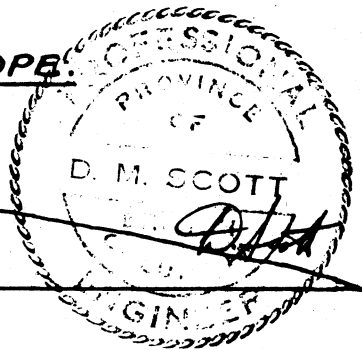
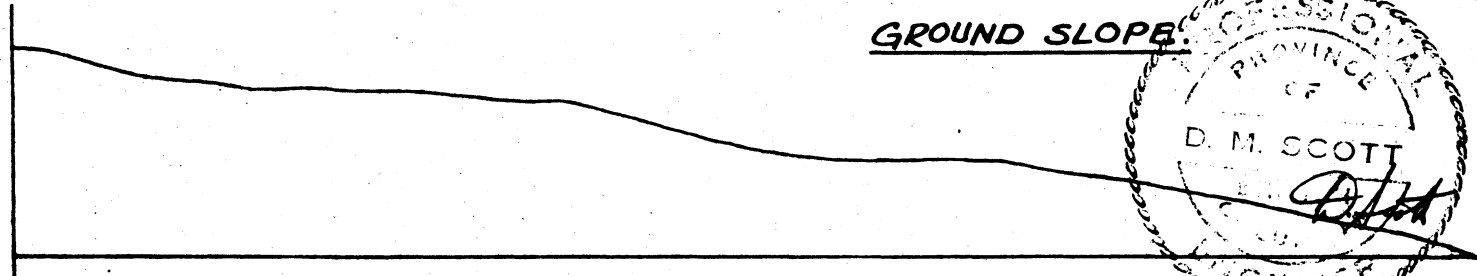
Vert. scale: 1" = 100 γ



E.M.-16



GROUND SLOPE:



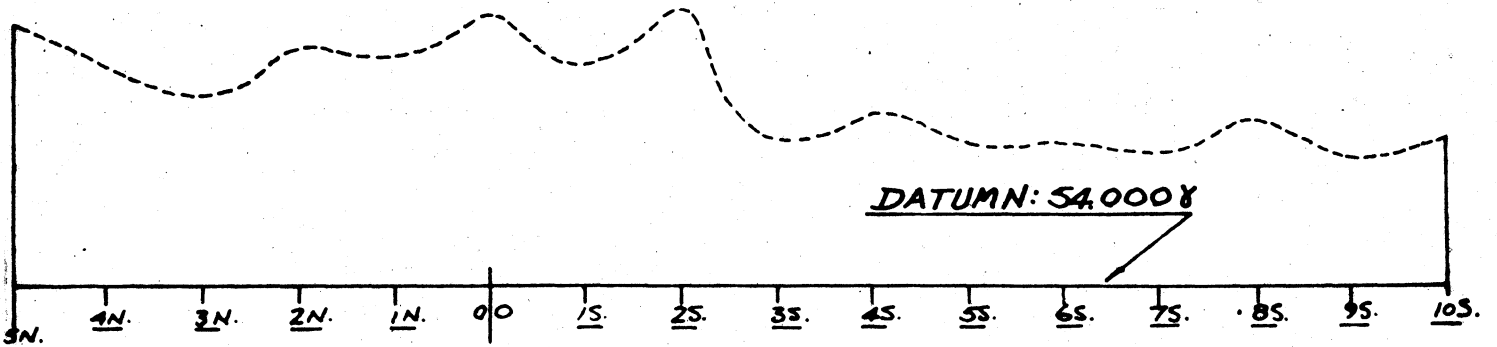
E.M.-16 Transmission: NAA Cutler, Maine
Fieldwork - Nov. 19/70 - D. Scott.

LINE 16+00E
0-155.

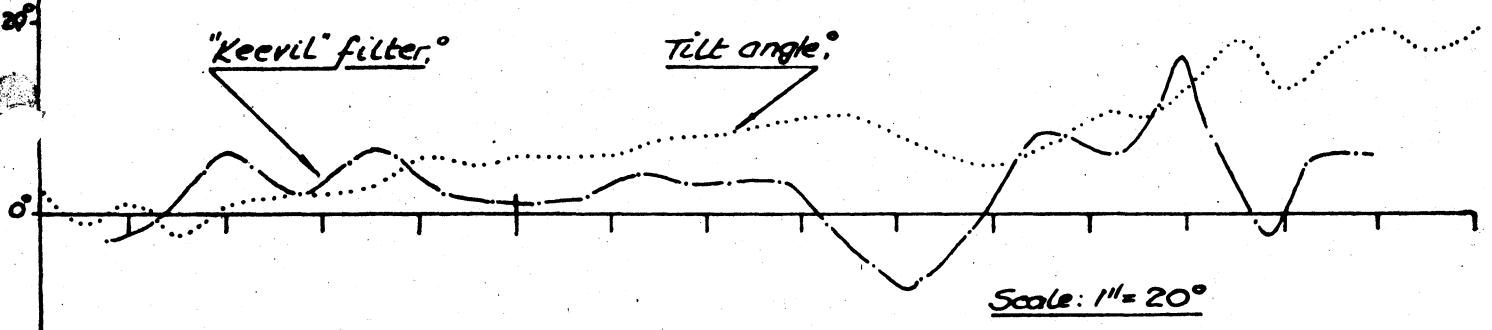
"ILE" CLAIM GROUP
LINE DATA
Dec. 1970 — DMS.
Horiz. Scale: 1" = 200'

GROUND MAGNETICS

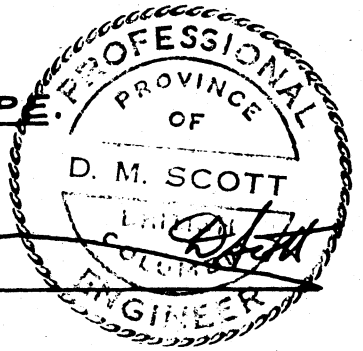
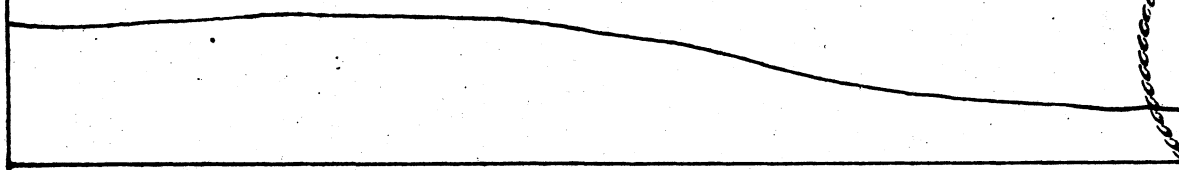
Vert. scale: 1" = 100γ



E.M.-16



GROUND SLOPE



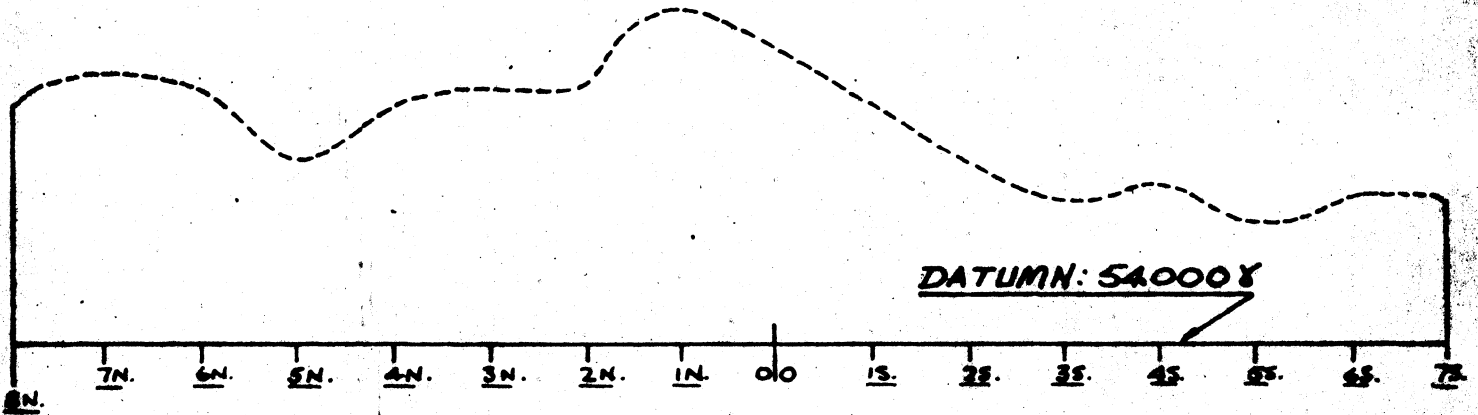
E.M.-16 Transmission: NLK/NPG - Seattle
Fieldwork: Nov. 17/70. - D. Scott.

LINE 32+00 E
SN-10S.

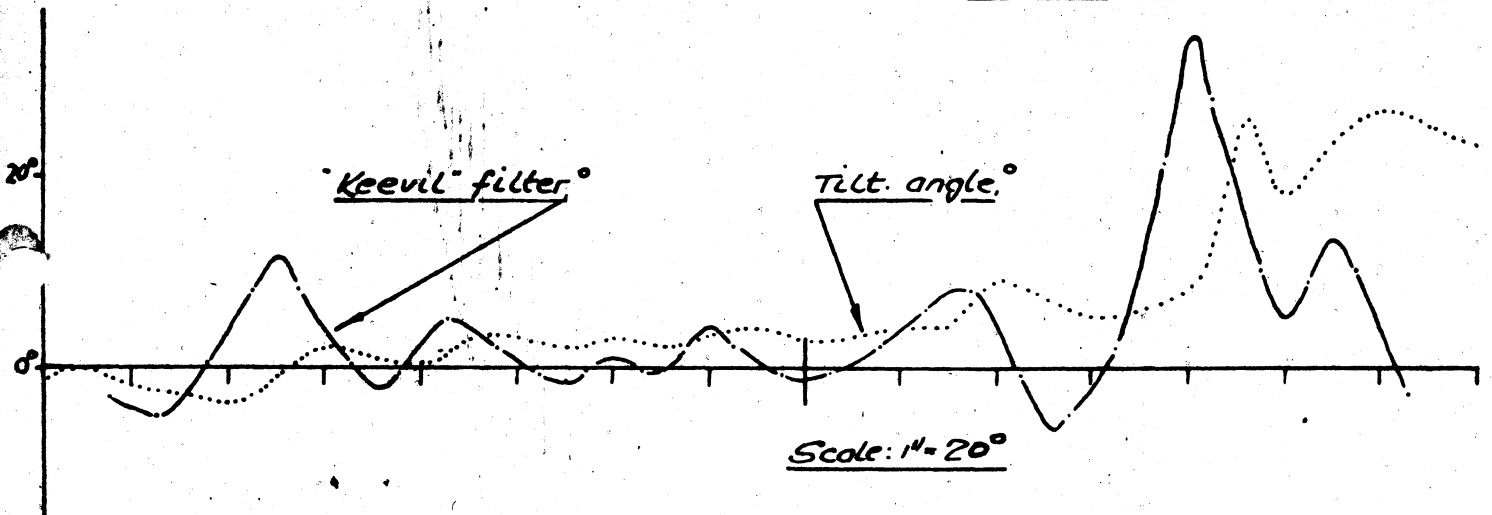
"ILE" CLAIM GROUP
LINE DATA
Dec. 1970 — DMS.
Horiz. Scale: 1" = 200'

GROUND MAGNETICS

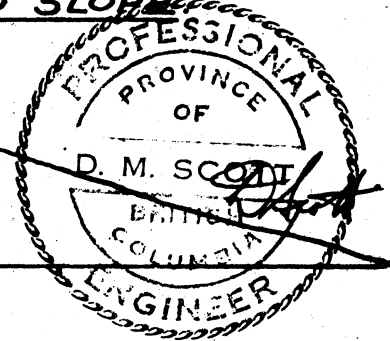
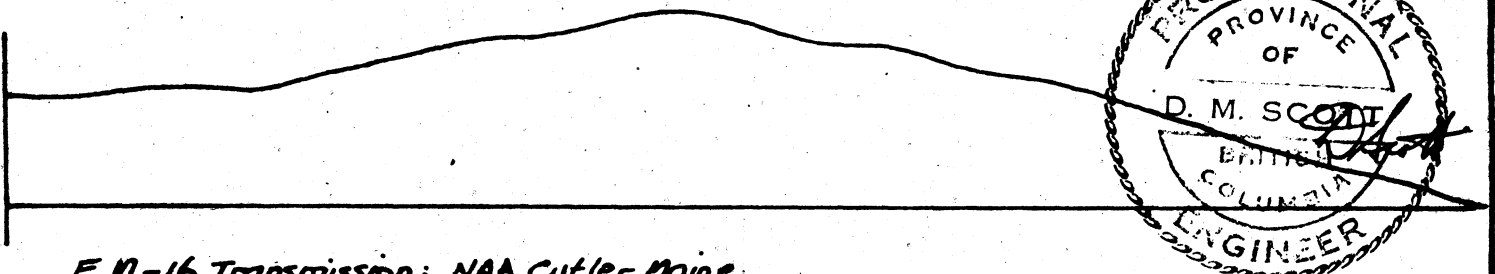
Vert. scale: 1" = 100γ



E.M.-16



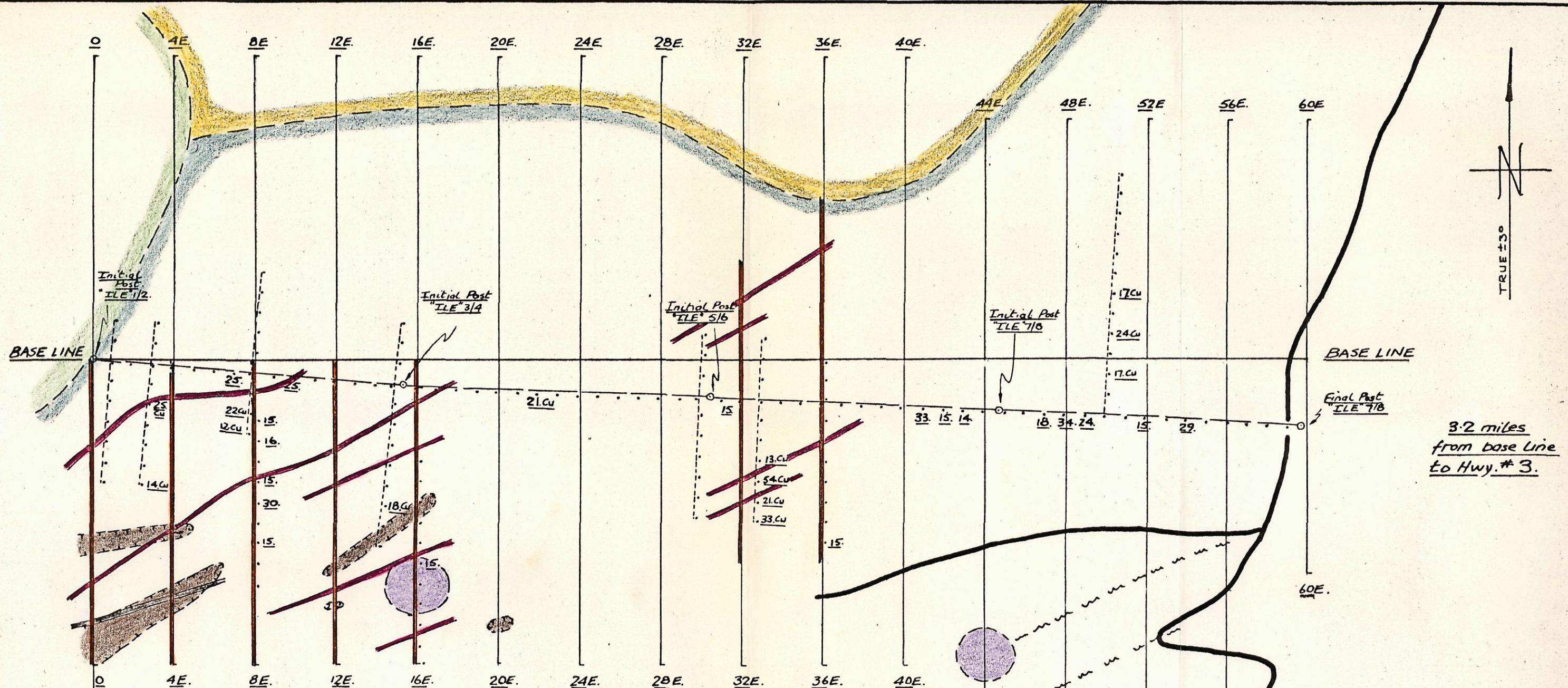
GROUND SLOPE



E.M.-16 Transmission: NAA Cutler, Maine
Field work: Nov. 1970 - D. Scott.

LINE 36+00E
8N-7S.

"ILE" CLAIM GROUP	
LINE DATA	
Dec. 1970	DMS.
Vert. Scale: 1" = 200'	



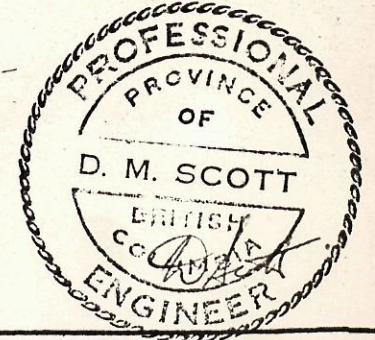
3.2 miles
from base line
to Hwy. # 3.

LEGEND.

G.S.C. Geology: Cretaceous Intrusive - granodiorite etc. ... [Yellow box]
 Triassic Volcanics - "NICOLA GROUP" ... [Blue box]
 Tertiary Volcanics - "PRINCETON GROUP" ... [Green box]

Access road [Wavy line symbol]

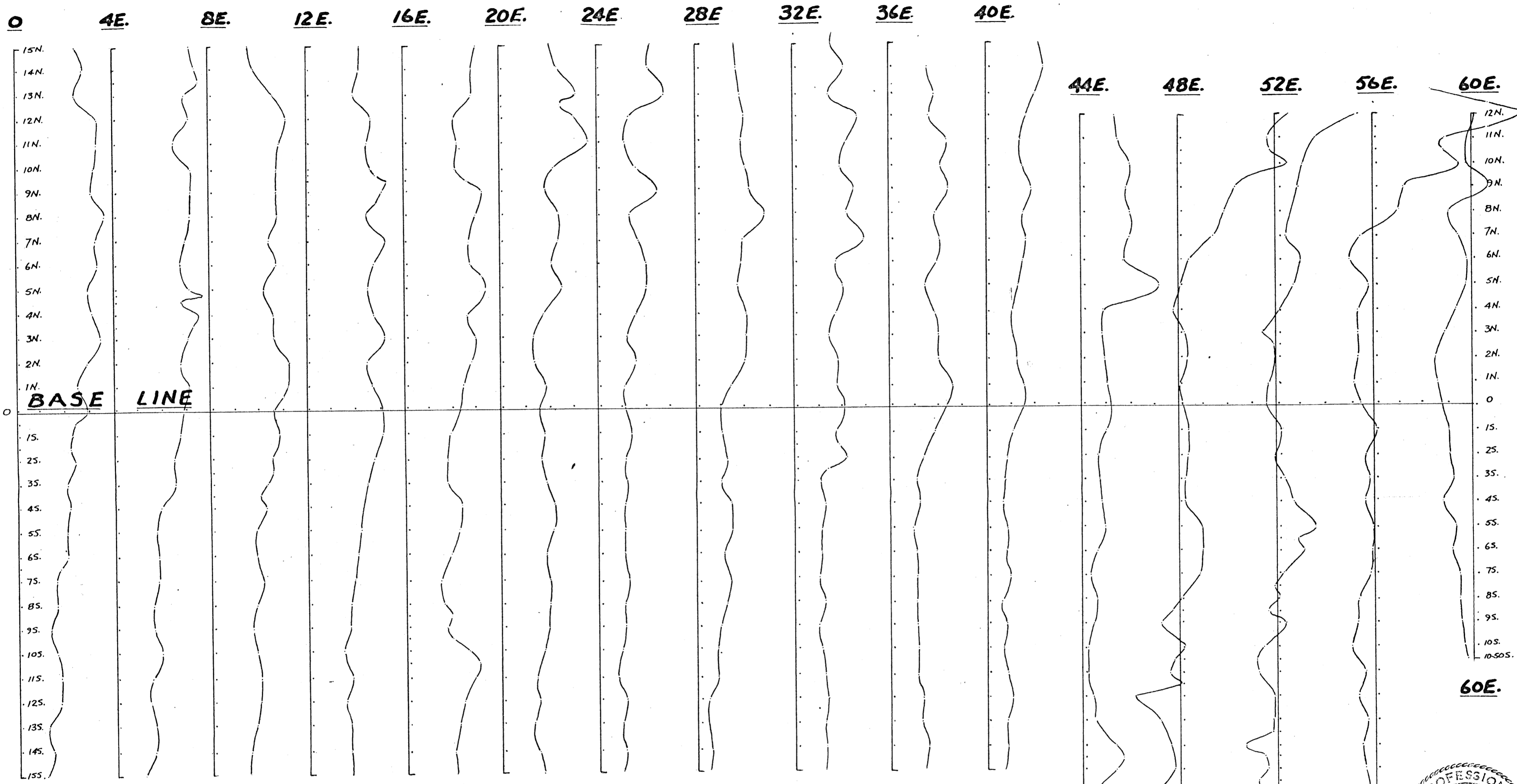
E.M.-16 coverage [Red line symbol]
 E.M. conductor trend [Red line symbol]
 Magnetic depressions of exploration significance [Hatched area symbol]
 Magnetic peaks [Purple circle symbol]
 Soil sample location [Small circle symbol]
 Significant soil values - Cu only [Number 30 symbol]
 Area recommended for intensive I.P. coverage [White box symbol]



**'ILE' CLAIM GROUP
GENERAL PLAN.**

SIMILKAMEEN M.D. N.T.S. 92H/8.
 Scale: 1" = 500' Date: Nov. 1970
 By: D. Scott.

32-735

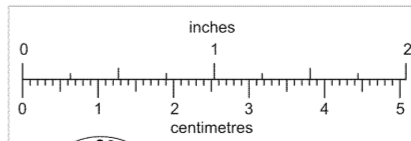
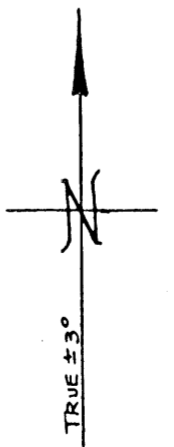


BASE LINE

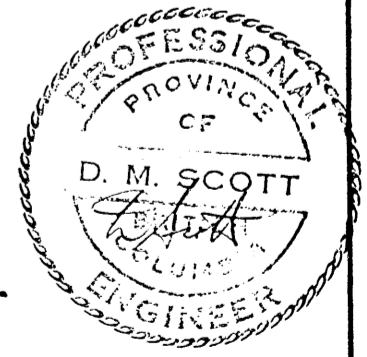
60E.

N.B. Gamma readings are shown in profile. Looking east. The cross lines shown in plan also function as the "x" axis from which gamma values originate. Each "x" axis/cross line represents a base value of 54,000 gammas. Vertical scale: 1" = 2000 gamma.

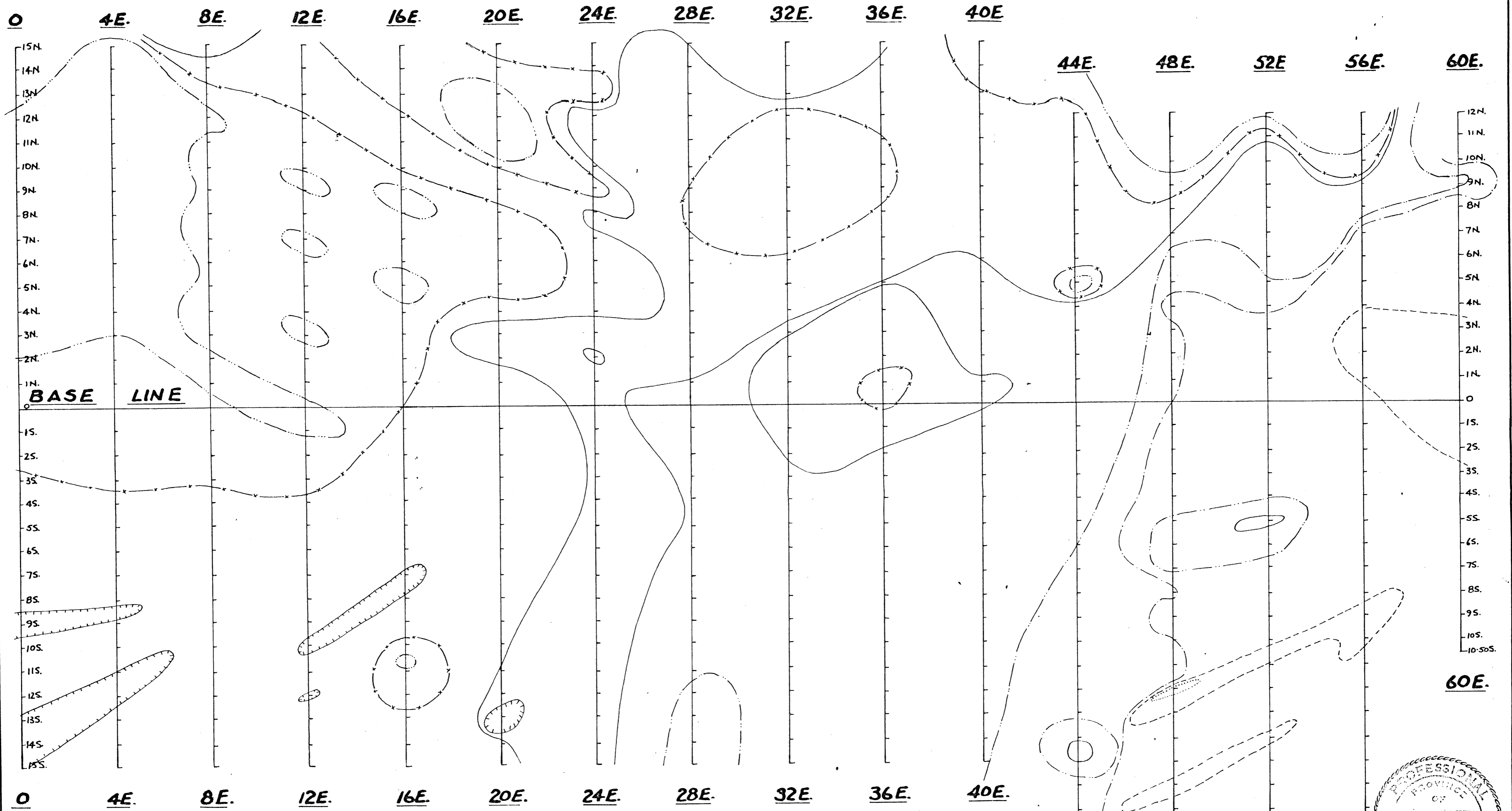
Instrument used: Sabre Mk. II (fluxgate type) # 501.
Survey by: D. Scott. Nov 13-16th incl. 1970.



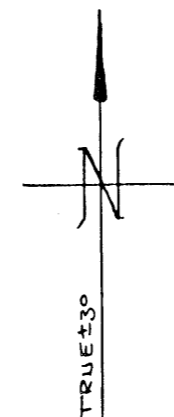
BRITISH COLUMBIA GEOLOGICAL SURVEY
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



"ILE" CLAIM GROUP	
MAGNETIC PROFILES	
SIMILKAMEEN M.D. — N.T.S. 92H/B.	
Scale: Horiz. 1" = 300'	Vert. 1" = 2000'
Nov. 1970 D. Scott.	

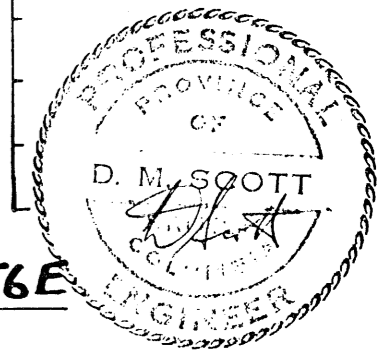
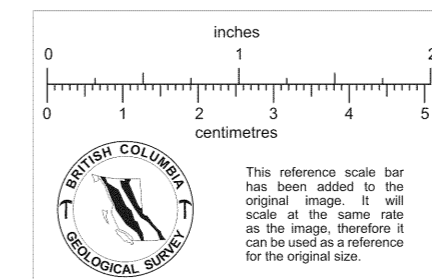


Instrument used: Sabre Mk II (fluxgate type) # 501.
 Survey by: D. Scott Nov. 13-16th incl. 1970.
 Line pickets @ 100ft c.c. base & cross lines



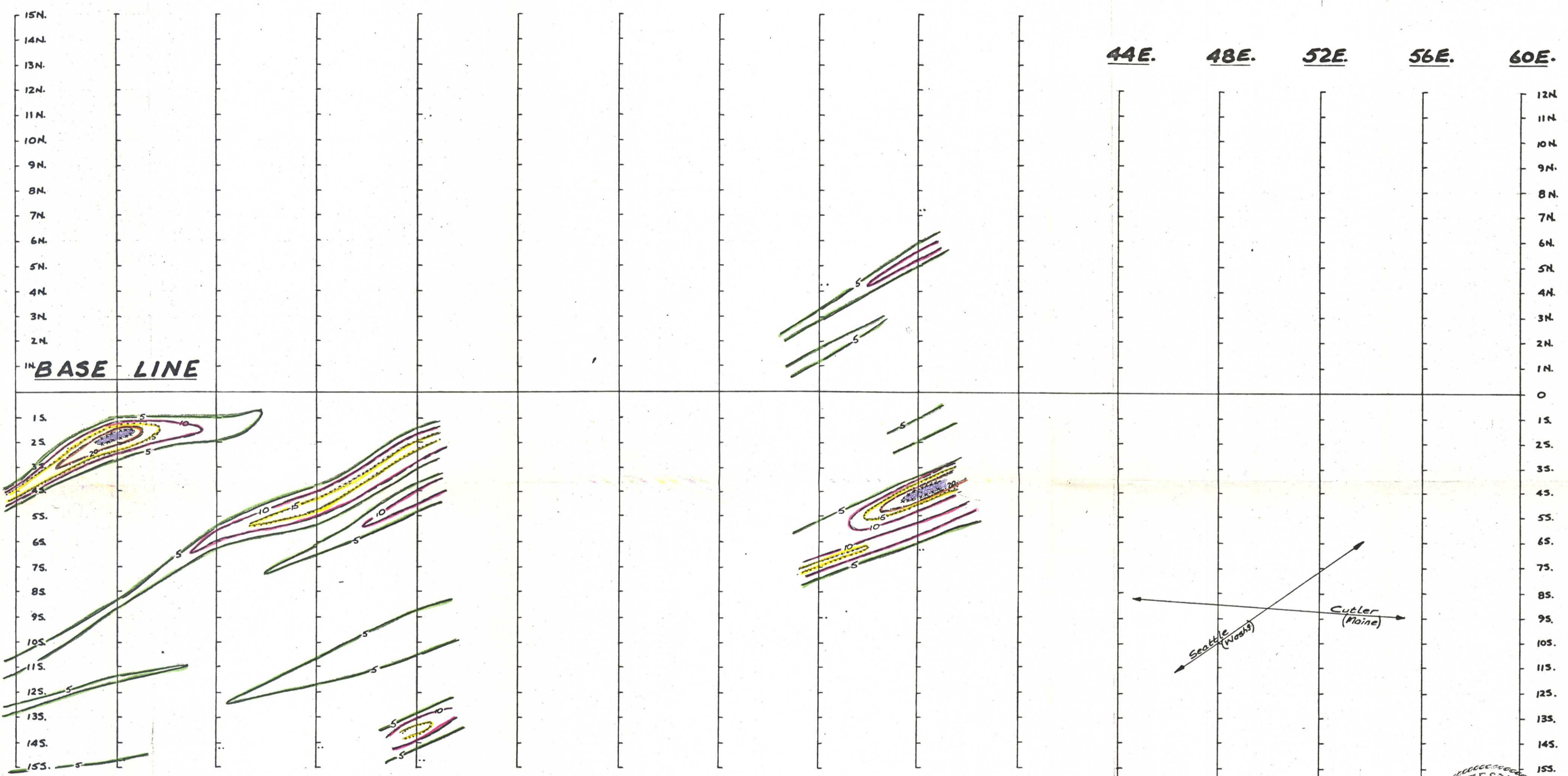
LEGEND

Contour 53,000	.....
" 53,500	.....
" 54,000	.....
" 54,500	.....
" 55,000	.....
" 55,500	-x-x-x-
" 56,000	.....
Depression	.....



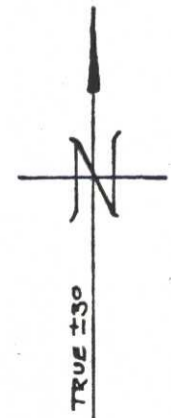
"ILE" CLAIM GROUP	
MAGNETIC CONTOUR PLAN	
SIMILKAMEEN M.D.	NTS. 92 H/B
Scale: 1" = 300'	Nov. 1970 D. Scott.

0 4E. 8E. 12E. 16E. 20E. 24E. 28E. 32E. 36E. 40E. 44E. 48E. 52E. 56E. 60E.



Instrument used: Ronka EM-16 unit.
 Survey by: D. Scott Nov. 17-19th incl. 1970

Extent of lines surveyed . . .



LEGEND

5° anomaly contour	.....
10°	.....
15°	.....
20°	.....
25°	.....

(a) Contours plotted direct from profiles
 (b) No zero nor negative values plotted.

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

"ILE" CLAIM GROUP

EM-16 CONTOUR PLAN

SIMILKAMEEN M.D. ————— N.T.S. 92 H/B

Scale: 1" = 300' Dec. 1970
D. Scott.