

020965

Faro Grid

Gravity Interpretation  
Anvil Area, Yukon Territory

for

Anvil Mining Corporation, Ltd.

by

Robert B. Galeski, P. Geoph.

August, 1971

## Introduction

Field work was completed in the area by Airborne Geophysical Surveys, Ltd. in the summer of 1971. 324 stations were surveyed and metered. Station spacing was 100' along lines spaced at approximately 400' intervals. Line direction is NE-SW.

Elevations decrease gradually from about 4300' a.s.l. along the southwest edge of the prospect to about 3800' a.s.l. along the northeast edge.

Data were reduced to a sea level datum by use of a 0.060 elevation correction factor. Latitude corrections were made appropriate for the area (rate of change =  $1.307 \times \sin (2 \text{ lat.})$  mgal/mi.).

Bouguer values were plotted in profile form along with surface elevations. These were smoothed, then plotted contoured and presented with this report as the "Bouguer Map". Regionals were run on the profiles, and residual values were extracted, plotted and contoured to constitute the "Residual Map" of this report. The profiles, the Bouguer map and the residual map form the basis of the interpretation which follows.

## Interpretation

### Bouguer Map

A gradient of 2.4 milligals exists across the area (0.6 mgal/1000'). Highest values are in the southwest corner, and lowest values are in the northeast. Origin of this gradient is probably deep-seated and beyond the scope of this report.

There are no closures within the area. However, distinct nosings are present in the central part and at 8 S along the western edge. A local steepening of gradient exists around 15 S in the eastern part.

### Residual Map

A residual high trend extends from 27 S on line 168W across the area to 12 S on line 136 W. Local closures on this trend exist on lines 156 W, 148 W and 140 W. Maximum relief is on line 156 W (station 17S), but it is only 0.45 mgal, and flank gradients are relatively flat. Maximum possible depth of causative mass from flank gradient and amplitude, were computed at two places; and values of 250' and 450' were obtained. However, sharp, one-point flexures noted locally, suggest that depth of causative mass actually may be less than 100'.

Another residual high was found at 8S on line 168 W.  
Here again, amplitude is only 0.35 milligal and  
depth of source is thought to be shallow.

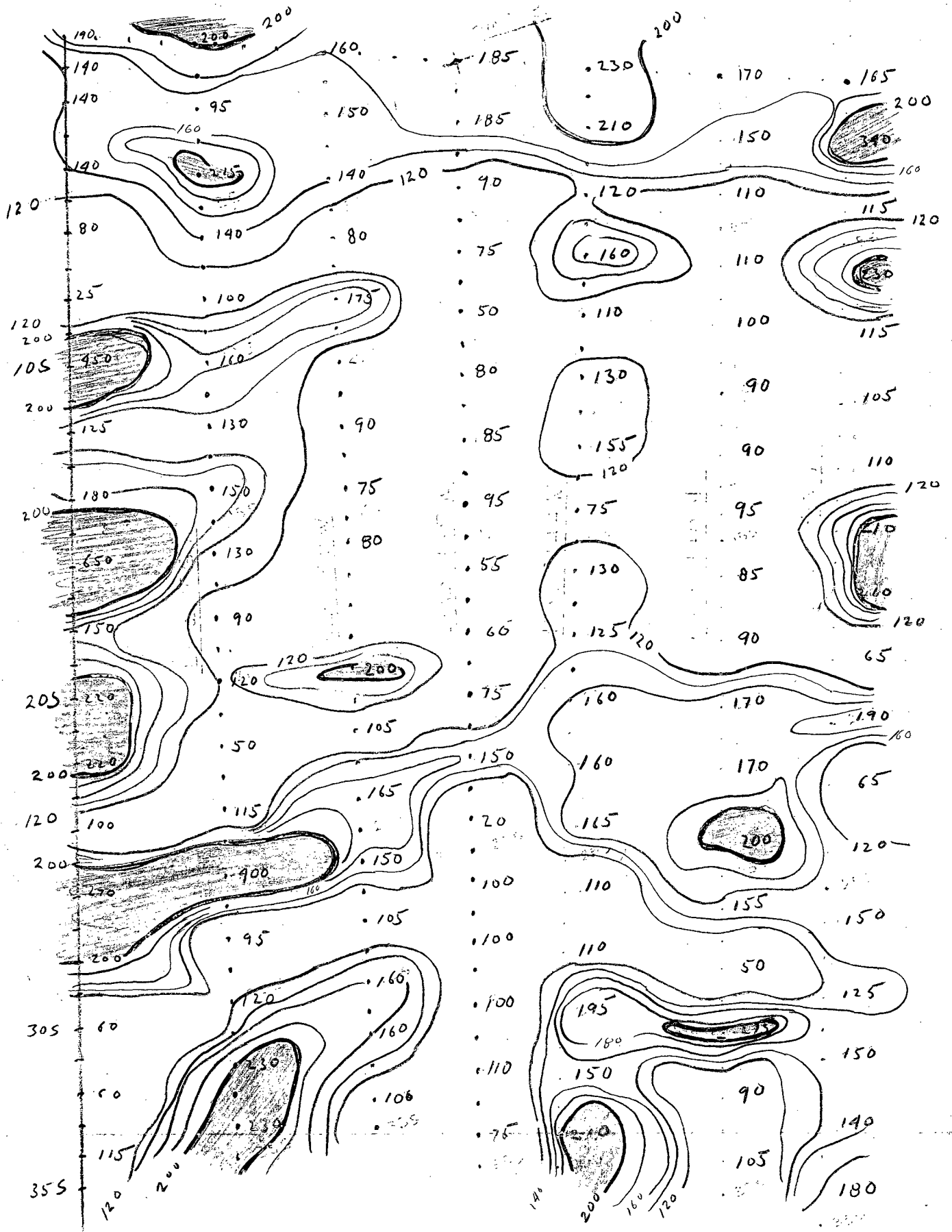
Conclusions and Recommendations

1. It is thought that the residual highs mapped are more likely due to thinning of surface overburden rather than to the presence of ore bodies.
2. However, the latter possibility cannot be definitely eliminated.
3. No other evidence of the existence of an ore body was found.
4. It is not recommended that any anomaly shown here be drilled, unless it is backed up by other geological or geophysical evidence.
5. If drilling is to be done, recommended location is at 17 S on line 156 W.

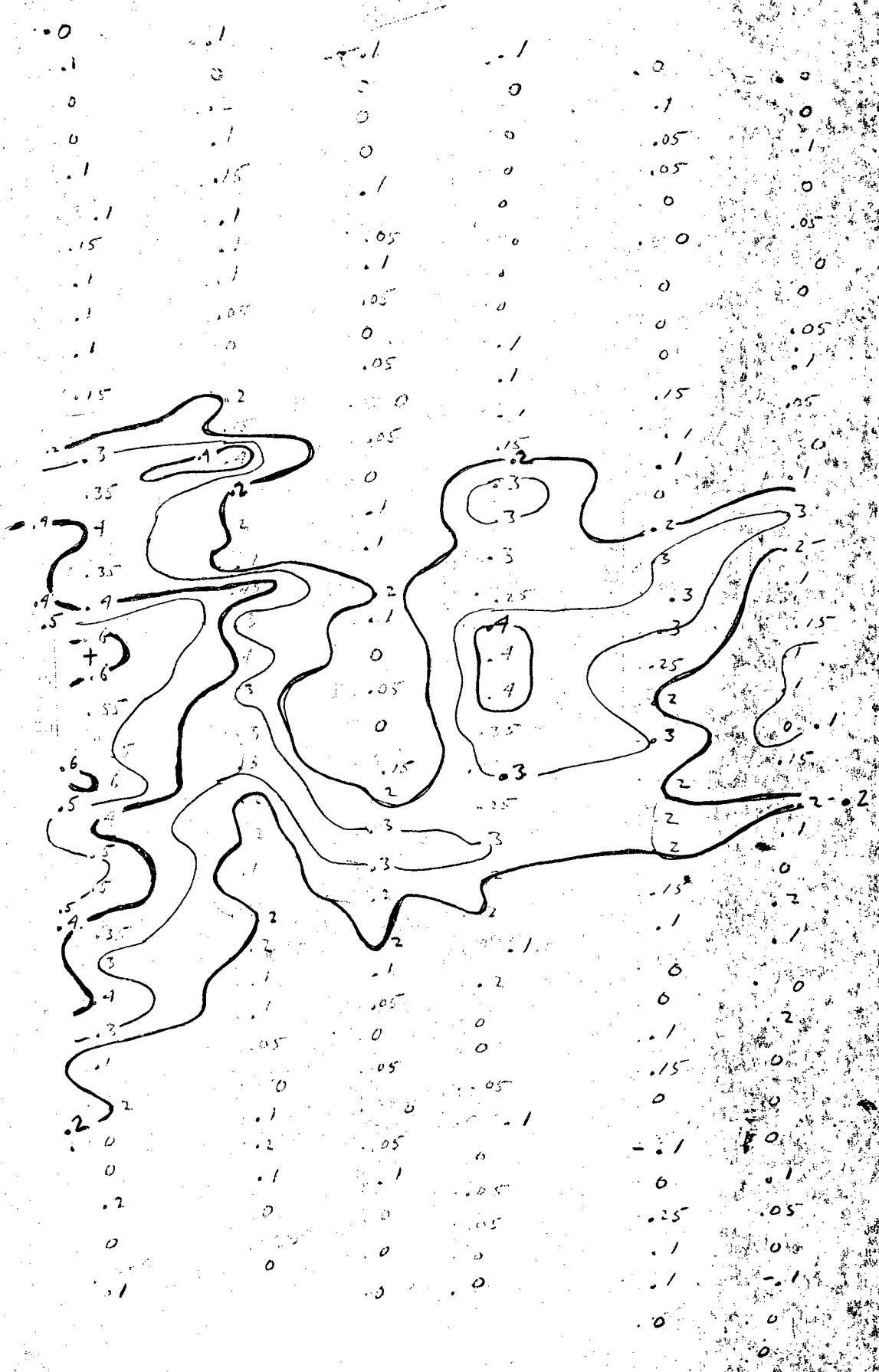
Respectfully submitted,

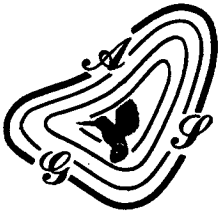


R. B. Galeski, P. Geoph.  
1 September, 1971



926-1334





*Airborne Gravity & Seismic Services Ltd.*

Calgary

Alberta

U.S.  
#311, 330 - 9TH AVE. S.W.  
CALGARY 2, ALBERTA  
PHONE 403 - 264-3434

August 5, 1971

Mr. Murray Hampton  
Anvil Mining  
Faro, Yukon Territories

Murray:

The three lines you recently added on the west side of the previous project at Faro were disappointing. The only thing of possible interest that I can possibly see is at 8 south on line 168+00. Here there is a residual positive of about 0.4 mgal. Even this could be an overburden effect. However, if it is caused by mineralization, north dip is indicated with top of causative mass no deeper than 135'.

If you will return copies of the data we sent in June, I will tie this into them and send the lot back in finished form.

Yours very truly,

R.B. Galeski



*Airborne Gravity & Seismic Services Ltd.*

Calgary

Alberta

#311, 330 - 9TH AVE. S.W.  
CALGARY 2, ALBERTA  
PHONE 403 - 264-3434

June 15th, 1971

Mr. Murray Hampton,  
Anvil Mines Ltd.,  
Faro, Yukon

Murray:

Am sending work sections and maps to you prior to final drafting so that you may have the information as soon as possible. If you will return these at your leisure, I will have the drafting completed.

The Bouguer gravity shows regional gradient toward the north - with some indication of a regional high at the south end of the prospect. There is a local steepening in this gradient through the central part of the area along the 55 mgal. contour. The steepening suggests a sharp contact - perhaps along a fault - with heavier materials to the south and lighter ones to the north.

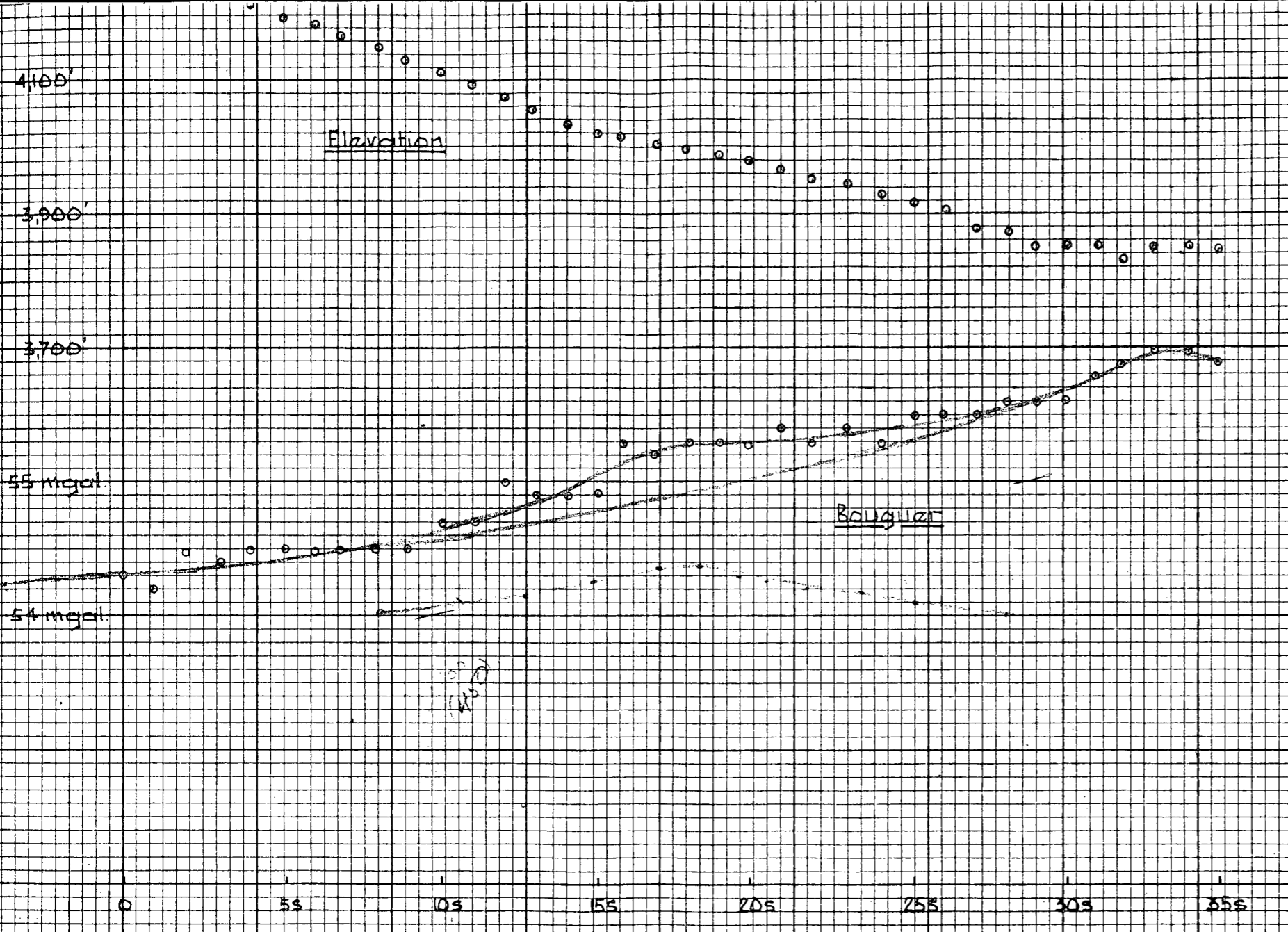
Although areal coverage is limited, an attempt was made to break the gravity field into regional and residual components. The steepening mentioned above and a slight flattening south of it combine to yield a residual positive - or rather, two positives split by a saddle. On the westerly of these, maximum amplitude is 0.45 gmal. and calculated maximum possible depth to causative mass is 450'. On the easterly one amplitude is 0.40 mgal and maximum depth is 250'.

Neither residual positive is strong, and both could be due to near-surface effects. In fact, on all lines except 144, there are slight topographic swells in the vicinities of the residual positives. They <sup>(the residuals)</sup> could represent mineralization, however. If so, you might expect something comparable to the deposit southeast of the main Faro ore body (Faro "B"). Note that the westerly positive is open west of line 156W.

The Bouguer positive at the south ends of all the lines may be of additional interest. However it is too close to the edge of the work for proper analysis.

Best regards

R. B. Galeski

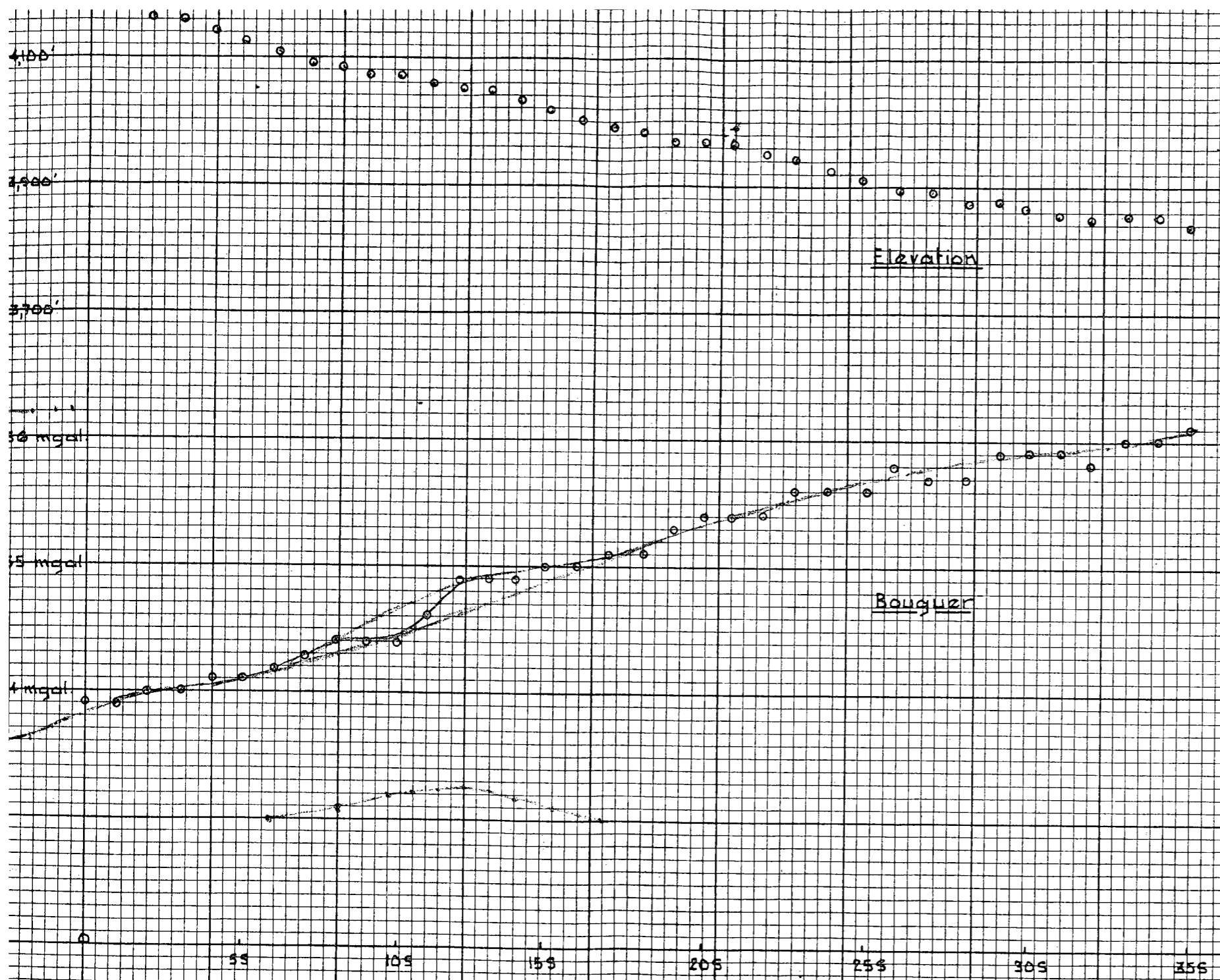


Horizontal Scale 1" = 400'

Vertical Scale { 1" = 200'  
1" = 1 mgal

ANVIL MINING  
GRAVITY PROFILE BY  
AIRBORNE GEOPHYSICAL CO.  
ELEVATION CORRECTION FACTOR 0.060      JUNE '71





Horizontal Scale 1"=400'

Vertical Scale {  
 " = 200'  
 " = 1 mgal.

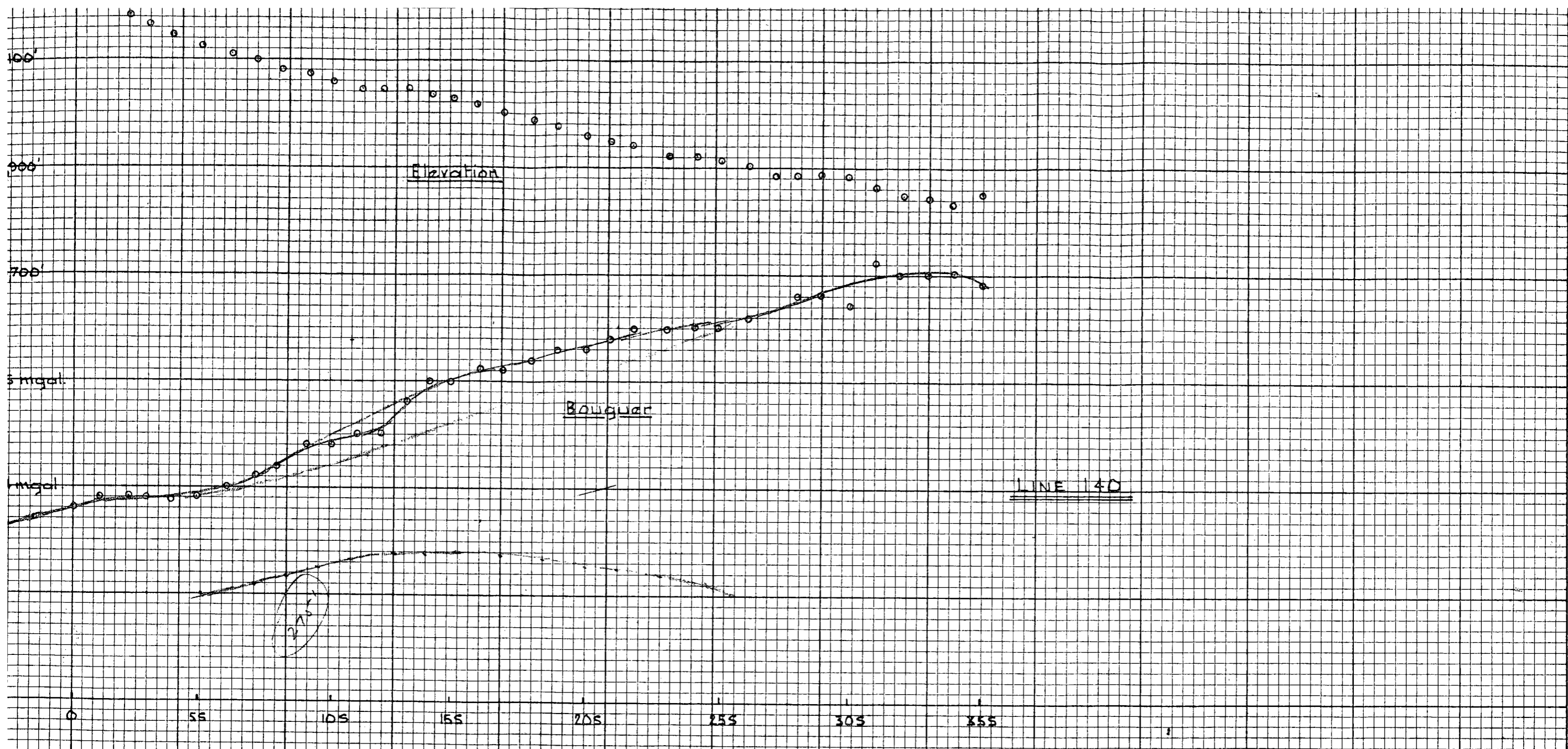
ANVIL MINING

GRAVITY PROFILE BY

AIRBORNE GEOPHYSICAL CO.

Fifth Conc Factor: 0.060

June '71



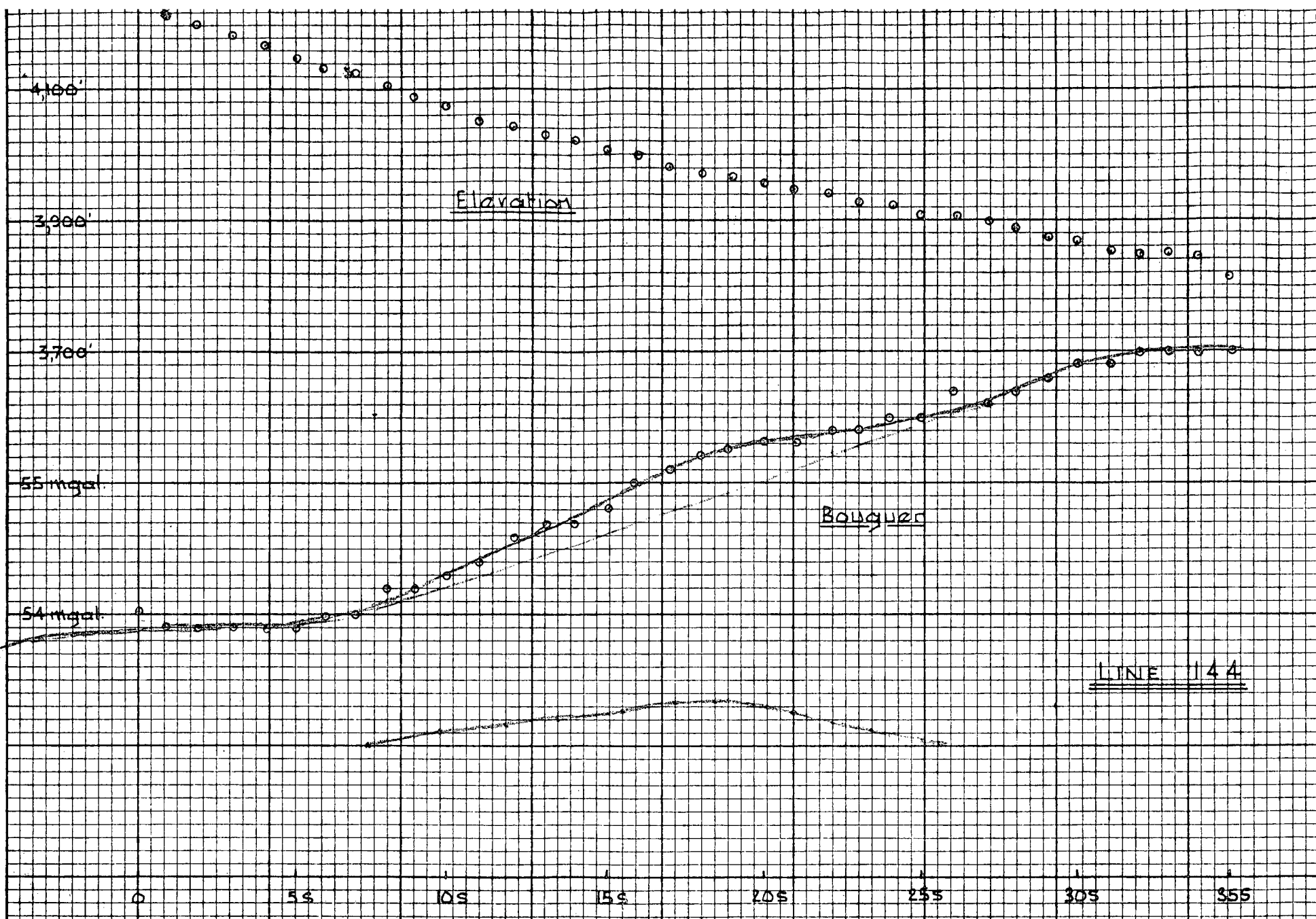
Horizontal Scale 1" = 400'

Vertical Scale {  
 " = 200'  
 " = 1 mgal.

ANVIL MINING  
GRAVITY PROFILE BY  
AIRBORNE GEOPHYSICAL CO.

Elv. Corc Factor : 0.060

June '71



Horizontal Scale 1" = 400'

Vertical Scale

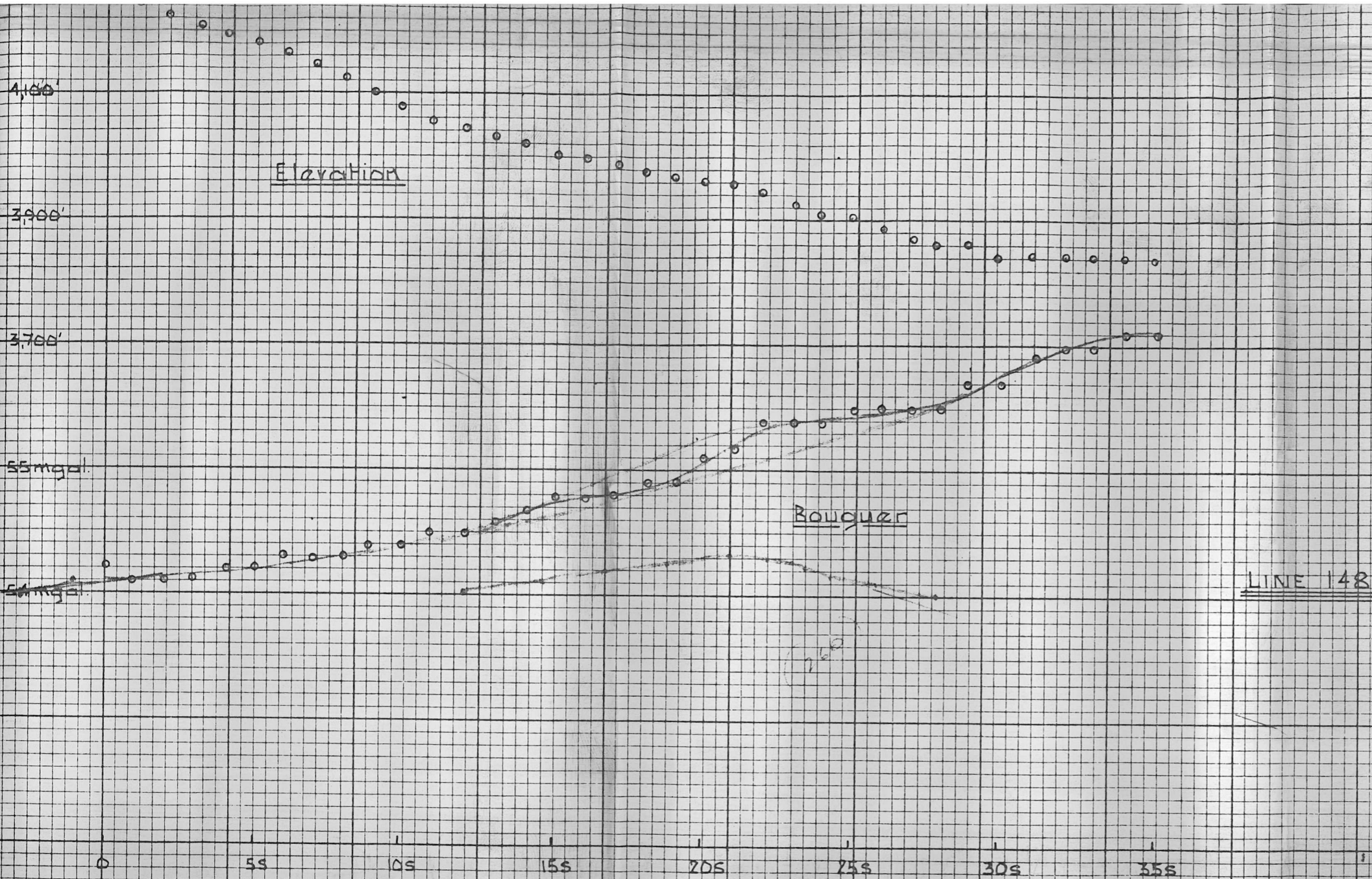
{ 1" = 200'  
1" = 1 mgal

ANVIL MINING

GRAVITY PROFILE BY  
AIRBORNE GEOPHYSICAL CO.

Elev. Core Factor 0.060

June '71



Horizontal Scale 1" = 400'

Vertical Scale { 1" = 200'  
1" = 1 mgal.

ANVIL MINING

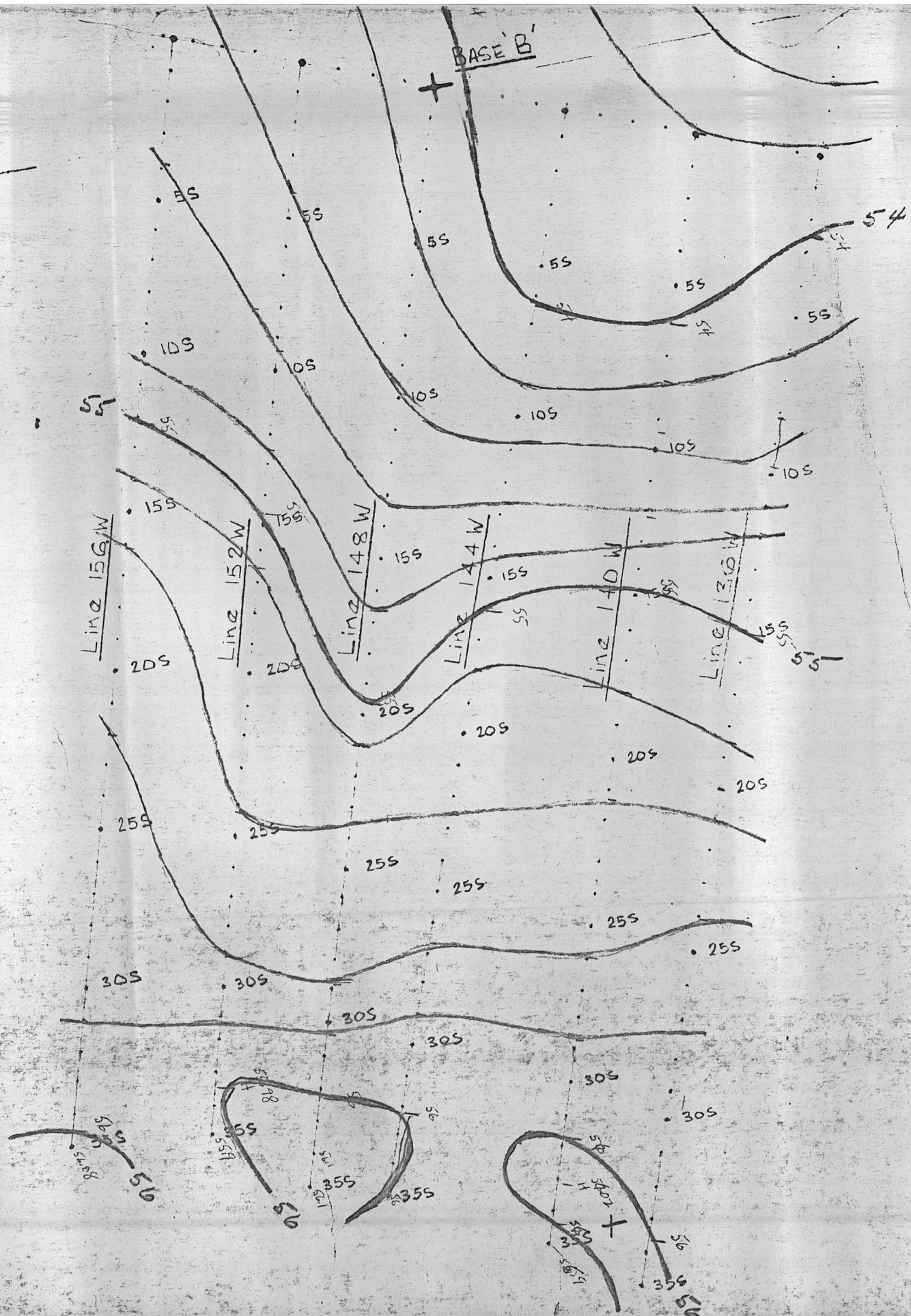
GRAVITY PROFILE BY  
AIRBORNE GEOPHYSICAL CO.

Elv. Cor. Factor 0.060

June '71

LAT. CORR. 1.00

BASE B'



Bouguer c

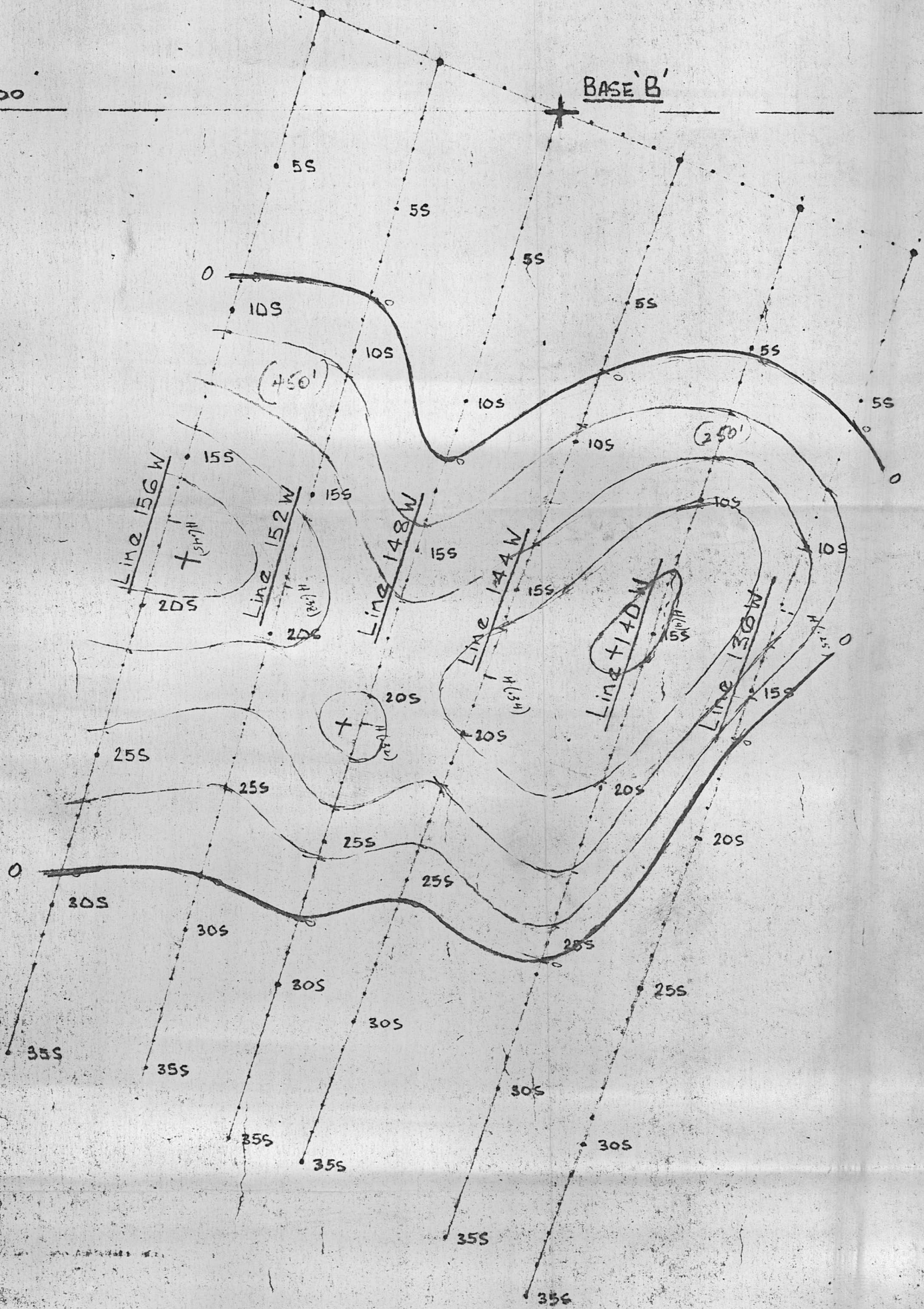
ANVIL M  
 LOCATION M  
 AIRBORNE GRA



1150

LAT. CORR. 1.00

BASE 'B'



56 m. —

4100'

55 m. —

3900'

54 m. —

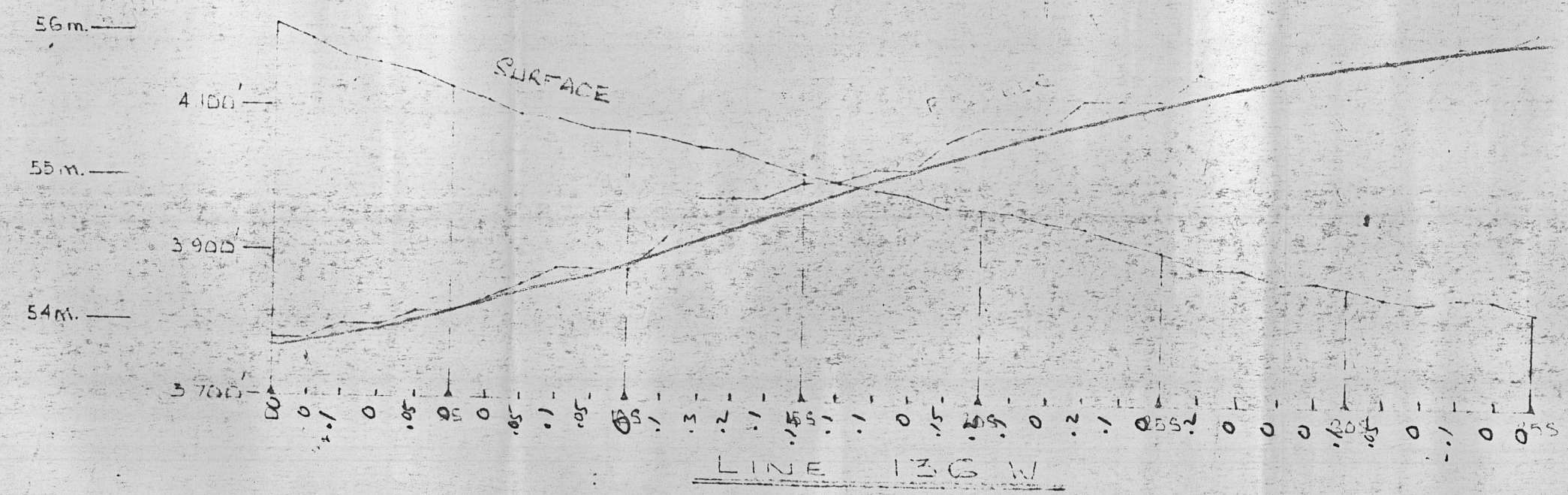
3700'

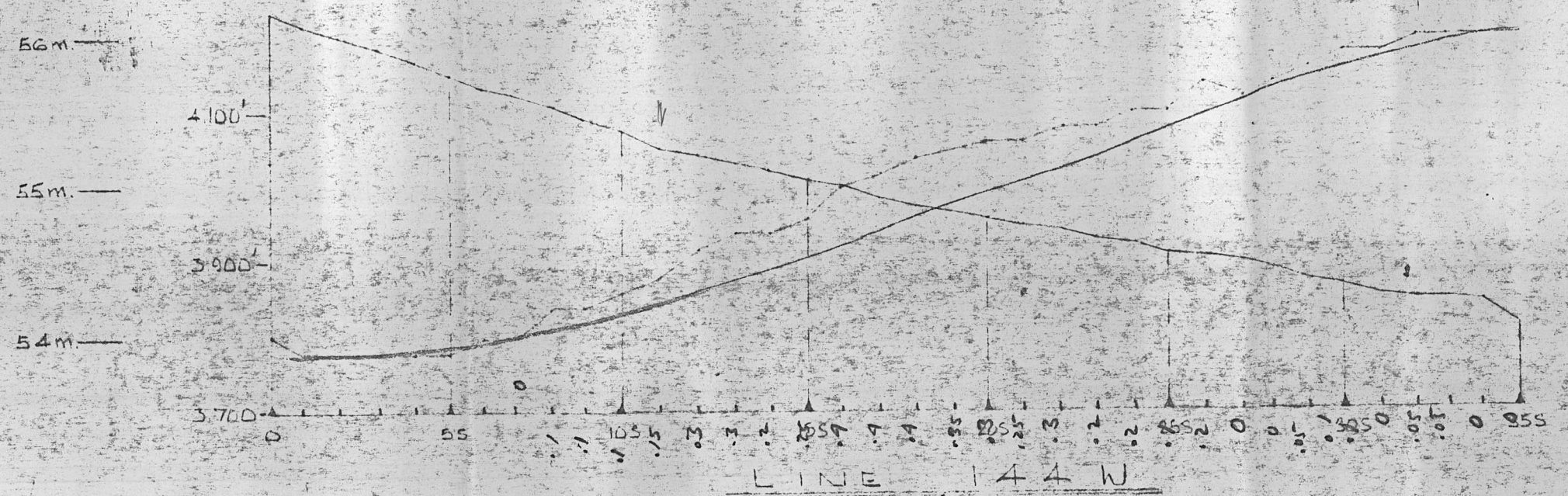
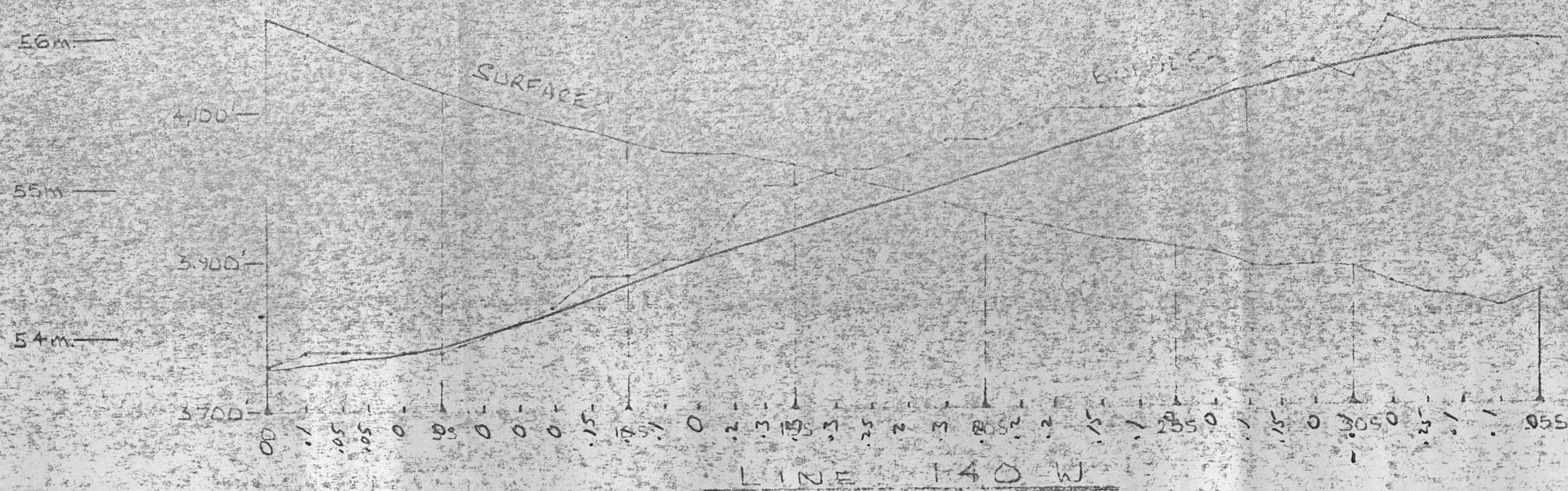
SURFACE

P. 2. 112

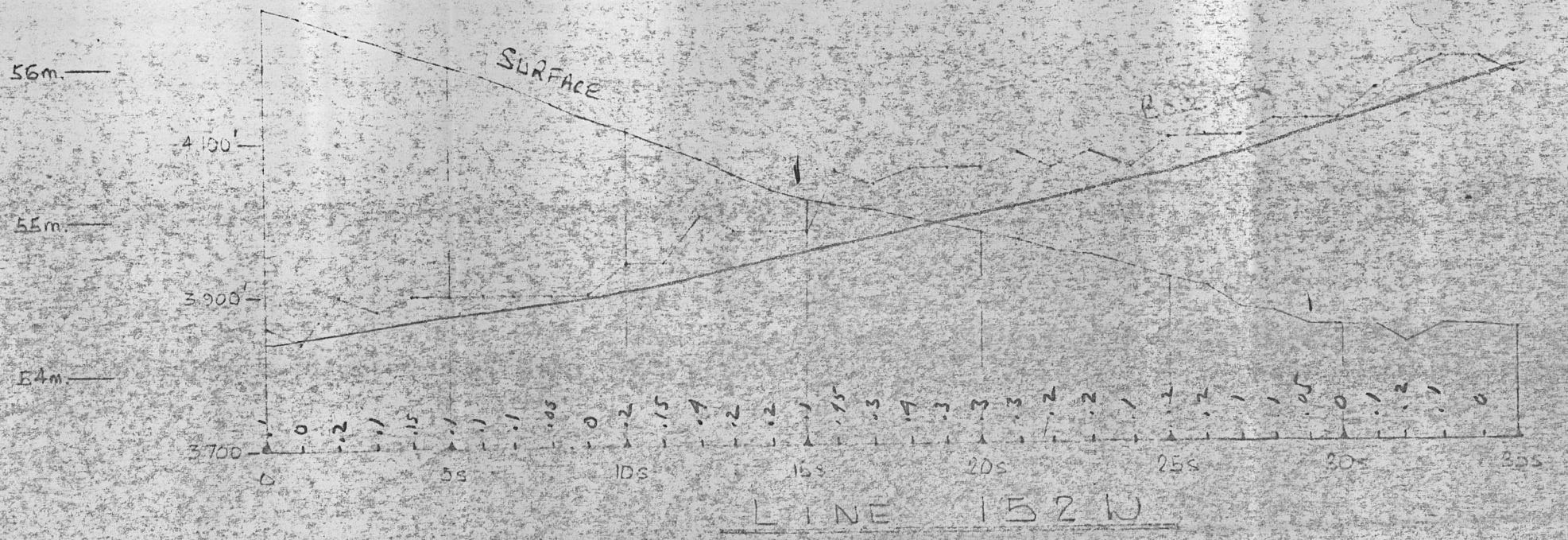
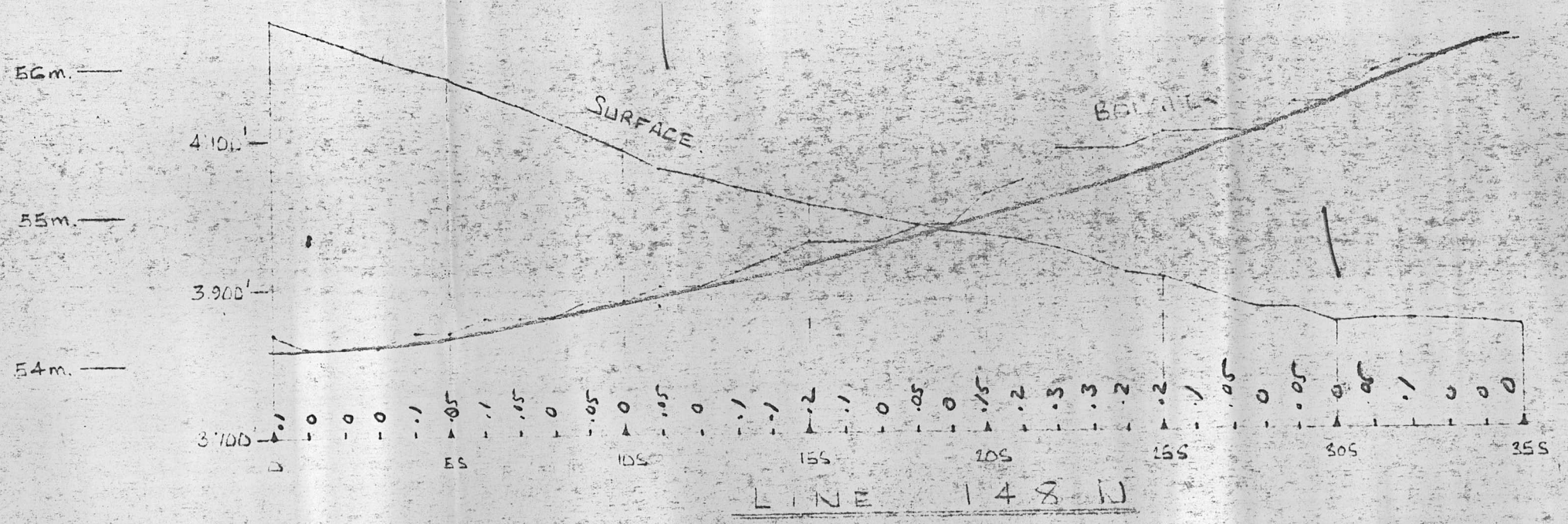
00 0.1 0.05 0.95 0.50 0.25 0.55 0.2 0.55 0.1 0.55 0.2 0.55 0 0 0.30 0.1 0 0.55

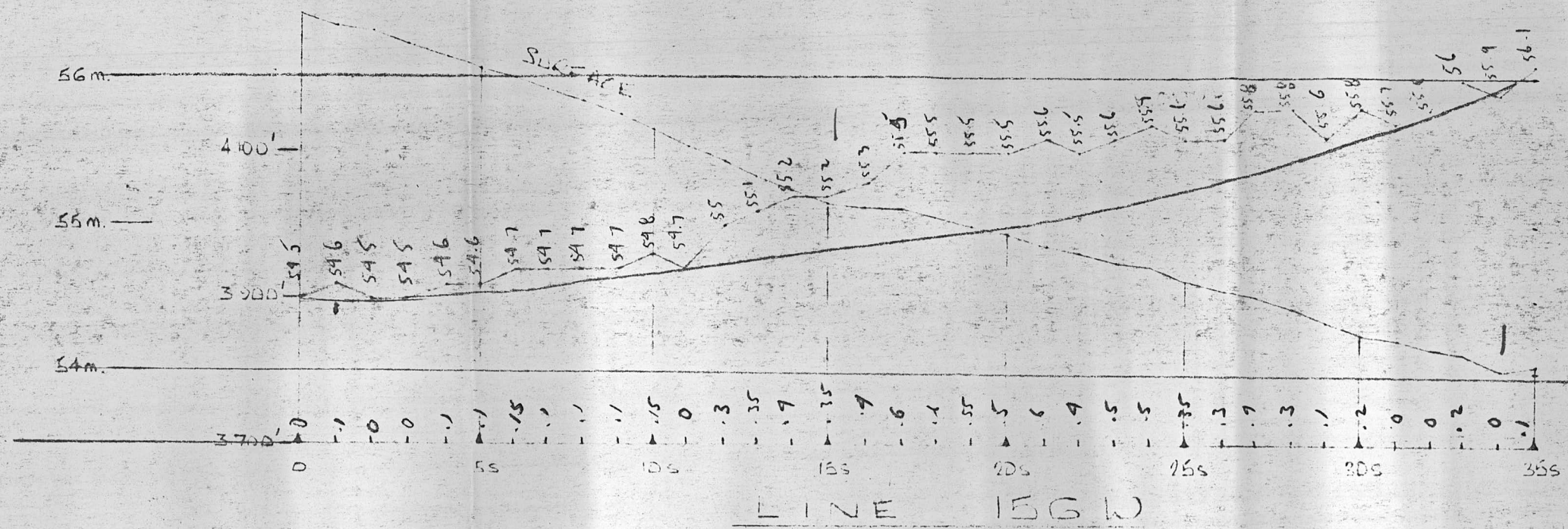
LINE 130 W





WAVY 12/11 ✓





ANVIL MINING CORP. LTD.

SECTION'S ALONG LINES 136<sup>w</sup>, 140<sup>w</sup>, 144<sup>w</sup>, 148<sup>w</sup>, 152<sup>w</sup> & 156<sup>w</sup>  
SHOWING BOULDER and SURFACE PROFILES

AIRBORNE GRAVITY CO.  
CALGARY

HORIZONTAL SCALE 1"=400'

VERTICAL SCALE { 1"=200' (SURFACE)  
 1"=1 milligal (GRAVITY)

Preliminary Drawing J.P.  
 MAY 1971

BASIS



10S

5S

5S

5S

5S

5S

5S

10S

10S

10S

10S

10S

10S

15S

15S

15S

15S

15S

15S

20S

20S

20S

20S

20S

20S

25S

25S

25S

25S

25S

25S

30S

30S

30S

30S

30S

30S

35S

35S

35S

35S

35S

35S

Line 160

Line 156 W

Line 152 W

Line 148 W

Line 144 W

Line 140 W

Line 136 W

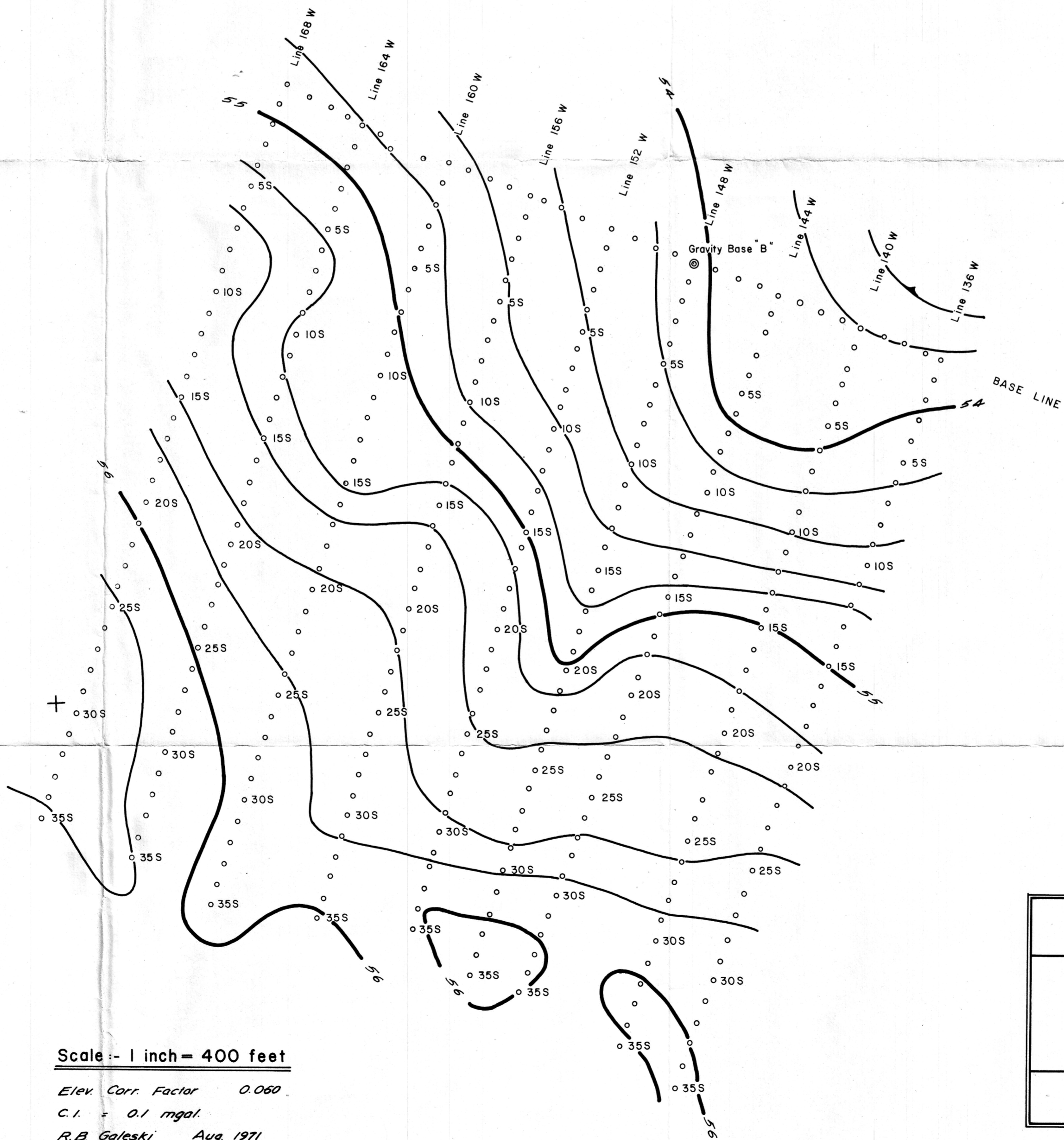
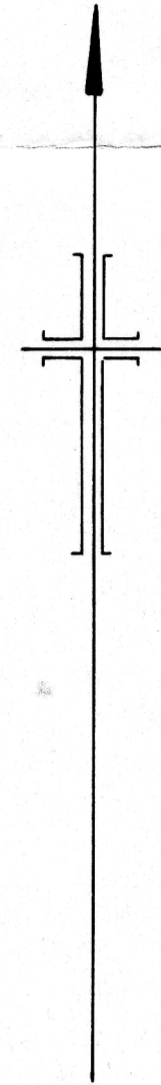
20S

30S

35S



62° 23' 30" TRUE EAST-WEST CORRECTION PARALLEL



Scale: - 1 inch = 400 feet

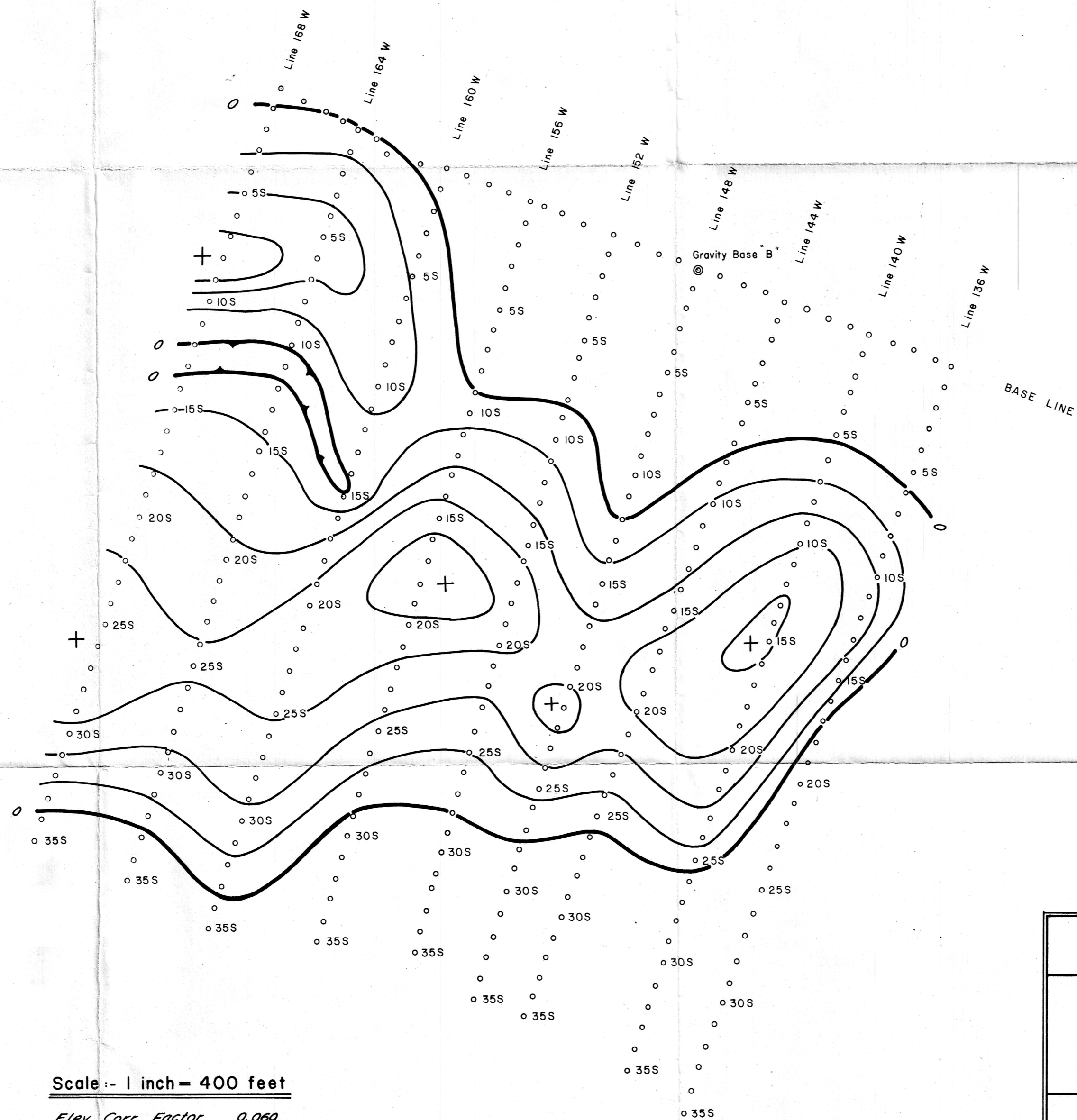
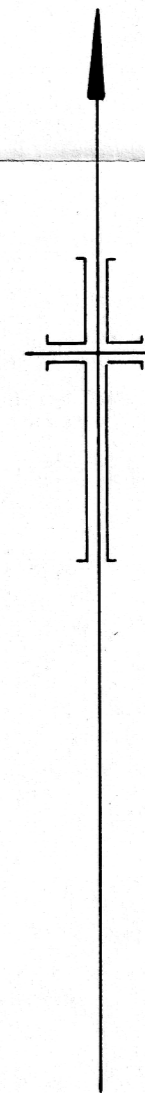
Elev. Corr. Factor 0.060

C.I. = 0.1 mgal

R.B. Galeski Aug. 1971

**ANVIL MINING CORP. LTD.**  
**GRAVITY METER SURVEY**  
**FARO GRID - ANVIL AREA - YUKON**  
**BOUGUER MAP**  
**AIRBORNE GRAVITY and SEISMIC SERVICES**

62° 23' 30" TRUE EAST-WEST CORRECTION PARALLEL



Scale: - 1 inch = 400 feet  
Elev. Corr. Factor 0.060  
C.I. = 0.1 mgal.  
R.B. Galeski Aug. 1971

<b>ANVIL MINING CORP. LTD.</b>
<b>GRAVITY METER SURVEY</b>
<b>FARO GRID - ANVIL AREA - YUKON</b>
<b>RESIDUAL MAP</b>
<b>AIRBORNE GRAVITY and SEISMIC SERVICES</b>