

020779

FARO CLAIMS

Yukon Territory

GRAVITY INTERPRETATION

for

ANVIL MINING CORP.

by

Robert B. Galeski, P. Geoph.

August, 1967

Field work was completed on the above claims by United Geophysical Company of America, during the summer of 1967. The work covers claims to the north of those in the Faro group, surveyed in 1966. Approximately 1220 stations were surveyed and metered. United prepared elevation and Bouguer maps of the field data. These are included in this report. In as much as the 1966 base stations were destroyed, the 1967 programme was not tied to the earlier work, and the interpretation following was made independently of the previous one. The bulk of the 1967 work was run on lines at 800' intervals, with station spacing at 200', and must be considered a reconnaissance programme. In the southwest portion of the area, programme was detailed in that 400' line spacing and 100' station spacing were utilized.

The writer plotted Bouguer gravity, regional and residual profiles which are attached to this report. Regionals were drawn through the profiles and tied, and a residual map was prepared by the profile method. Template residuals, using a 700' circle, were computed as a check against the profile residuals.

#### ELEVATION MAP

Elevation varies from a high of 5517' a.s.l. in the north central part of the area, to a low of 4051' a.s.l. in the southwest corner. Except in the area of highest elevation, none of the gravity features appears to be related to topographic variations, and the elevation correction factor of .059 is adequate. However, in the vicinity of highest elevation (near the intersection of

120 West with the northernmost base line) this factor does not appear to give proper correction. Apparently the rocks making up the bulk of the material in the hill are of considerably lower density than those in the surrounding countryside. They may be composed of glacial debris or perhaps highly fractured bedrock. In either case, they yield a strong Bouguer negative in the area of highest elevation. The amplitude of this negative was reduced in residual treatment, but the gravity low was not eliminated. To completely eliminate the Bouguer low, it would be necessary to recompute the Bouguer values with a correction factor of about .069 which corresponds to surface density of about 2-0.

#### BOUGUER MAP

There are no prominent reversals in Bouguer value within the area. Steep northerly gradient in the southeast portion is on the north flank of the Faro ore body, and it is not matched elsewhere. Several noses and gradient disruptions are apparent, however. Those of importance have been brought out in residual treatment and are discussed in the residual section.

#### RESIDUALS

The more meaningful positives are labelled "A" through "E" on the profile residual map, in order of importance. "A", of course, is on the flank of the Faro ore body. The reader's attention is called to "A" to indicate that there is no other gravity anomaly of equal relief and amplitude on this map.

"B" is shown as a trend between lines 120W and 128W. Because of the interference due to the mass of light material in this area of high elevation, the anomaly due to the smaller mass of heavy material here is distorted, and it does not look very promising on the residual map. However, the reader's attention is called to profile 128W. Here, four stations of higher Bouguer value can be seen in the local area of the lowest values on the line. These have been interpreted to constitute a "bump" on the flank of the regional negative. A further refinement isolates an anomaly of 0.7 mgals amplitude. Though its shape has been formed rather deviously, it would indicate a depth to top of causative mass of about 210 feet. There is a suggestion of a similar feature at station 68N on line 120W, and the feature has been trended in this direction. "B", though rather poorly controlled, represents the most likely drilling location in the area. It is suggested that more detailed gravity work be done around this anomaly, before a firm drilling decision is taken.

"C", "D" and "E" are positive anomalies of considerable areal extent and amplitudes of 0.5 mgals to 1.0 mgals. Computations indicate depths to causative masses in excess of 500' in each case. None of these retain residual positive values under template treatment. This suggests depths in excess of 700'. In all probability, all three should have been included in the regionals and eliminated from the residual map.

Several very small positives of low relief are scattered about the map. These probably are overburden effects and of no

interest.

RECOMMENDATIONS

1. Place a tight grid of lines with 100' spacing about the "B" anomaly.
2. Consider drilling the "B" anomaly upon completion of the additional gravity work.

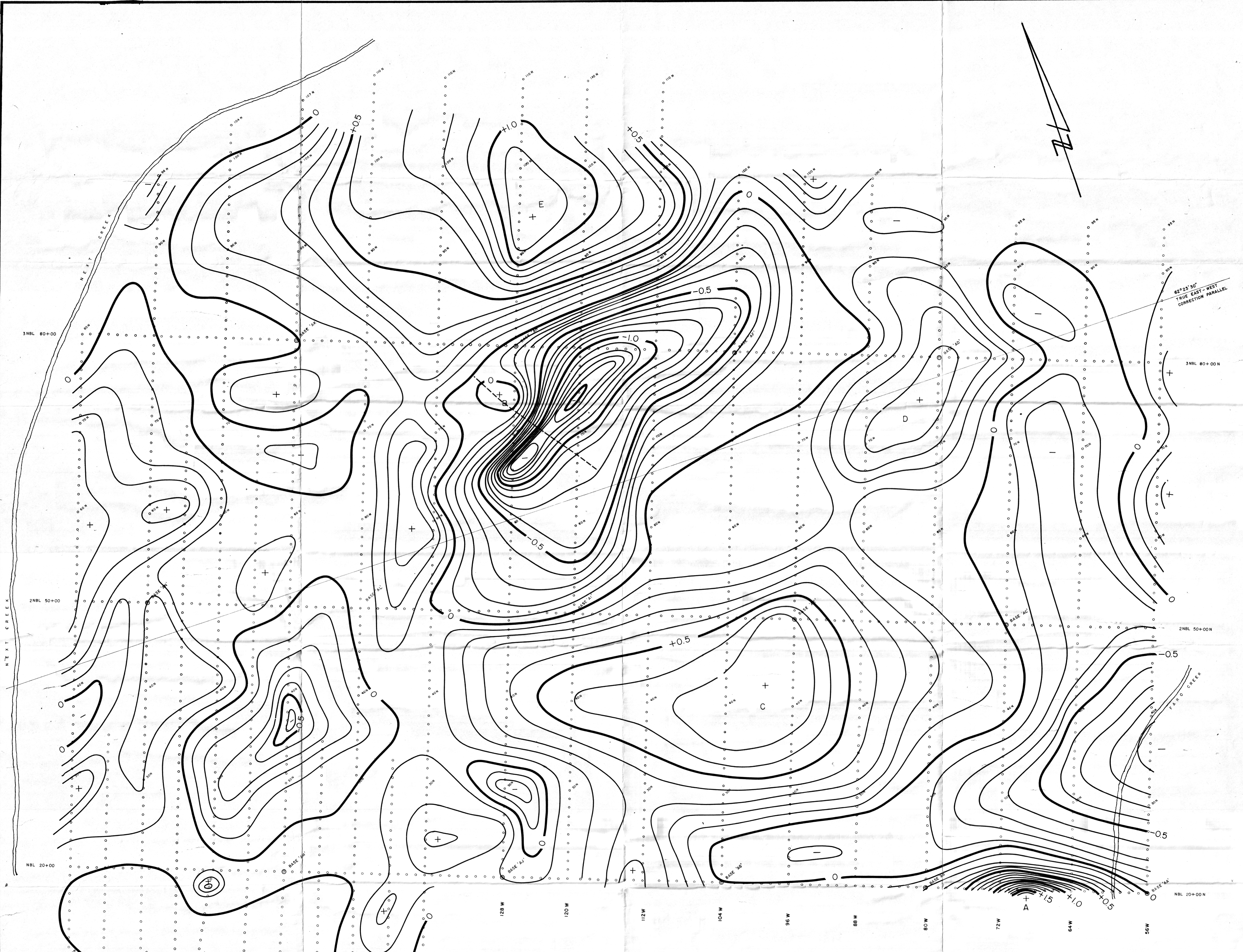
Respectfully submitted,



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RBG:gp





ANVIL MINING CORPORATION LIMITED	
FARO GROUP	
PROFILE RESIDUALS	
UNITED GEOPHYSICAL COMPANY OF AMERICA	
PARTY 507	
CONTOUR INTERVAL — 0.1 MGAL.	SCALE 1" = 400'
DATE — JULY 1967	INTERPRETED BY — R.B. GALESKI

