

105K-3 ASSESSMENT REPORTS

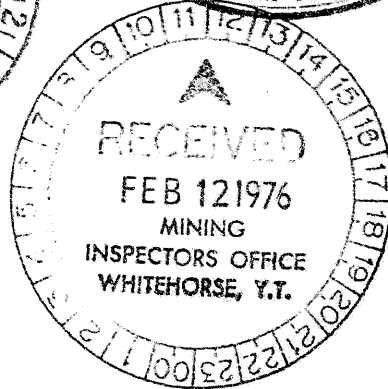
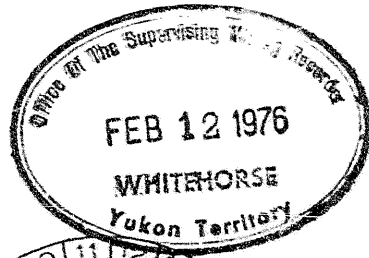
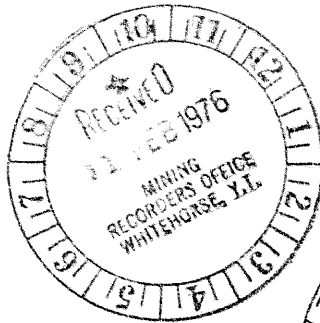
Whitehorse, Y.T.

MAP No.

TYPE OF WORK:

Geophysical Report

REPORT FILED UNDER	Cyprus Anvil Mining Corp.	090078
DATE PERFORMED	Sept 23-26 '75	DATE FILED: February 11 '76
LOCATION - LAT.	62°02'N	Faro area, Yukon.
LONG.	133°04'W	
CLAIM Nos.	Kirk 1-2,	
	Y9/291-92	
\$3,397.50		
WORK DONE BY	Peter R. Walcott, P. Eng.	
WORK DONE FOR	Cyprus Anvil Mining Corp.	
REMARKS	A detailed gravity survey with stations every 100 feet was conducted on the claims.	



A REPORT

ON

A GRAVITY SURVEY

Kirk Grid, Whitehorse, M.D.

Yukon Territory

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 3397.50

*D. B. Craig*  
Resident Geologist or  
~~Resident Mining Engineer~~

FOR

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

*[Signature]*  
L. L. BAXTER  
Supervising Mining Recorder  
Commissioner of Yukon Territory

CYPRUS ANVIL MINING CORPORATION

Vancouver, British Columbia

BY

PETER E. WALCOTT & ASSOCIATES LIMITED

Vancouver, British Columbia

DECEMBER 1975

090078

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ACCOMPANYING MAPS - Scale 1" = 200'

MAP POCKET

PROFILE OF BOUGUER GRAVITY & SURFACE ELEVATION W-206-1

## INTRODUCTION

Between September 23rd and 26th, 1975 Peter E. Walcott & Associates Limited carried out a limited gravity survey on the Kirk property optioned by Cyprus Anvil Mining Corporation.

The survey was carried out over N 50° E lines, the majority of which were above the tree and brush line, and which were chained and picketed at 100 foot intervals.

Measurements of relative gravity were made every 100 feet along the picket lines using a CG-2 gravity meter. In addition elevations at each of the gravity stations were obtained using a Sokkisha TM-20C theodolite and rod.

The data was then processed and presented in profile form on Map W-206-1 that accompanies this report.

PROPERTY, LOCATION AND ACCESS

The property is located in the Whitehorse Mining District of the Yukon Territory, and consists of the following claims:

<u>Claim Name</u>	<u>Record Number</u>
AL 1 - 4	Y91287 - 90
KIRK 1 - 2	Y91291 - 92
RIM 1 - 6	Y91293 - 98

The claims are situated at about the 5500 foot level straddling a mountain peak some 15 miles south of the town of Faro.

Access is obtained by means of helicopter from Faro.

PREVIOUS WORK

Previous work on the property consisted of geological prospecting, geochemical sampling and bulldozer trenching by the previous owners. The results are well documented in reports held by Cyprus Anvil Mining Corporation.

PURPOSE.

The purpose of the survey was to see if any excess mass, that could be indicative of sulphide mineralization, was associated with favourable geochemical response.

GEOLOGY

The reader is referred to the forementioned reports held by Cyprus Anvil Mining Corporation.

### SURVEY SPECIFICATIONS

The gravity survey was carried out using a Scintrex CG-2 gravity meter, which measures variations in the earth's gravitational field to an accuracy of  $\pm 0.01$  milligals.

Values of observed gravity were obtained every 100 feet along the picket lines. Corrections for meter drift were made by tying-in to previously established base stations at intervals not exceeding 2 to 3 hours. Drifts of over 0.10 milligals per hour were not allowable.

The elevations of the gravity stations were determined by rod and transit (Sokkisha TM-20C theodolite) using the stadia method. Errors in the tying-in of loops were kept to a minimal, this being dependent on the severity of the topography.

Density profiles were run over topographic features to determine the density of the underlying rocks.

Corrections were then applied to the observed gravity values for the difference in elevation and latitude. Two densities of 2.3 and 2.7 gm/cc were used in computing the former corrections.

The final Bouguer gravity values were then plotted ( $\rho = 2.3$  gm/cc only).

## DISCUSSION OF RESULTS

The results of the survey show a generally strong inverse correlation to exist between the calculated Bouguer gravity and the surface elevation.

This is not surprising in view of the location of the survey area across a mountain ridge where terrain effects are usually greatest.

The data shown here was calculated at a density of 2.3 gm/cc, for although the writer dislikes using a value so low over outcropping altered sediments the effect of lowering the density from 2.7 gm/cc effected some slight improvement in the inverse topographic relationship.

An exact approach to the problem of eliminating the above topographic effects would be to calculate these effects by digital techniques at each gravity station. To do this, however, would require a much more detailed topographic survey than is available. It would also be very expensive.

A second less accurate and less expensive approach would be to try adding a quadratic term to the elevation correction, the coefficient of which could be determined empirically from the data, to take out the bulk of the terrain effect.

Neither of these were attempted as the writer did not consider their cost justified due to the fact that

- (1) no local highs are apparent in the gravity gradient to the south of the crest of the main ridge in the southwestern area of the grid where the strongest soil anomalies are obtained.
- (2) no soil anomalies are obtained in the creek bank or bed immediately to the east of the gravity high on Line 24 W, and thus although the causative source of this apparent gravity anomaly has not been postulated it does not appear to be one of a large massive lead-zinc mineralization.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Between September 23rd and 26th, 1975, Peter E. Walcott & Associates Limited carried out a limited gravity survey over a property for Cyprus Anvil Mining Corporation.

The property, known as the Kirk property, is located in the Grew Creek area some 15 miles south of the town of Faro, Yukon Territory.

The results of the survey showed a strong inverse relationship to exist between the Bouguer gravity and the surface elevation, not considered surprising in view of the steepness of the terrain.

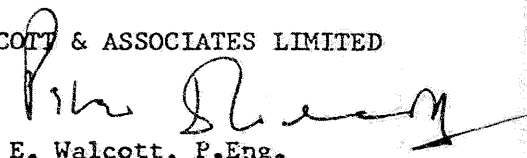
However no local gravity highs were obtained over the stronger more widespread geochemical anomalies to the south of the main ridge, nor were any soil anomalies associated with the strong gravity high on Line 24 W.

As a result the writer concludes that whatever the causative source of the gravity anomaly it does not appear to be one of a large lead-zinc deposit.

He therefore recommends that no further work be done on the property at this time on the basis of the above geophysical results.

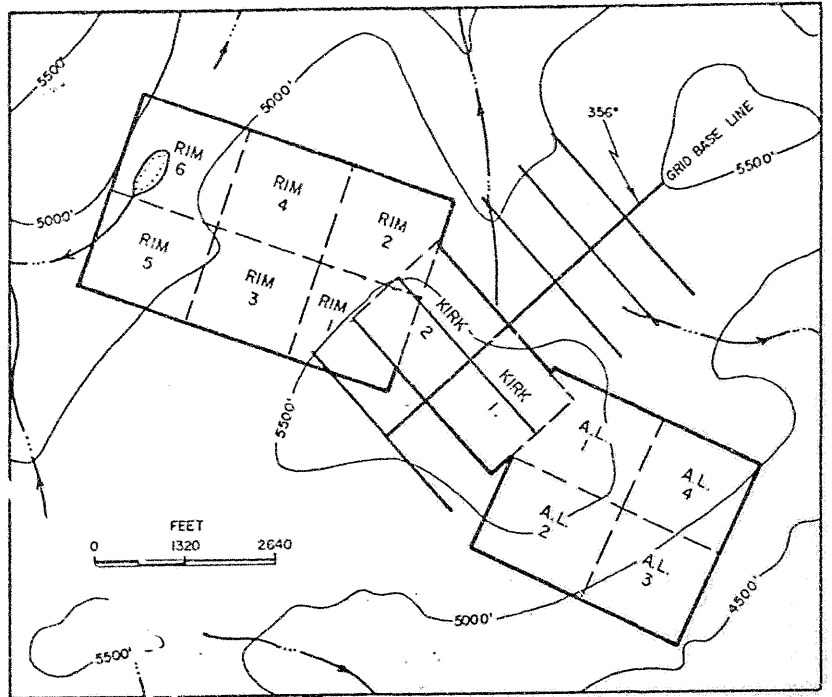
Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

  
Peter E. Walcott, P.Eng.  
Geophysicist

Vancouver, B.C.

December 1975

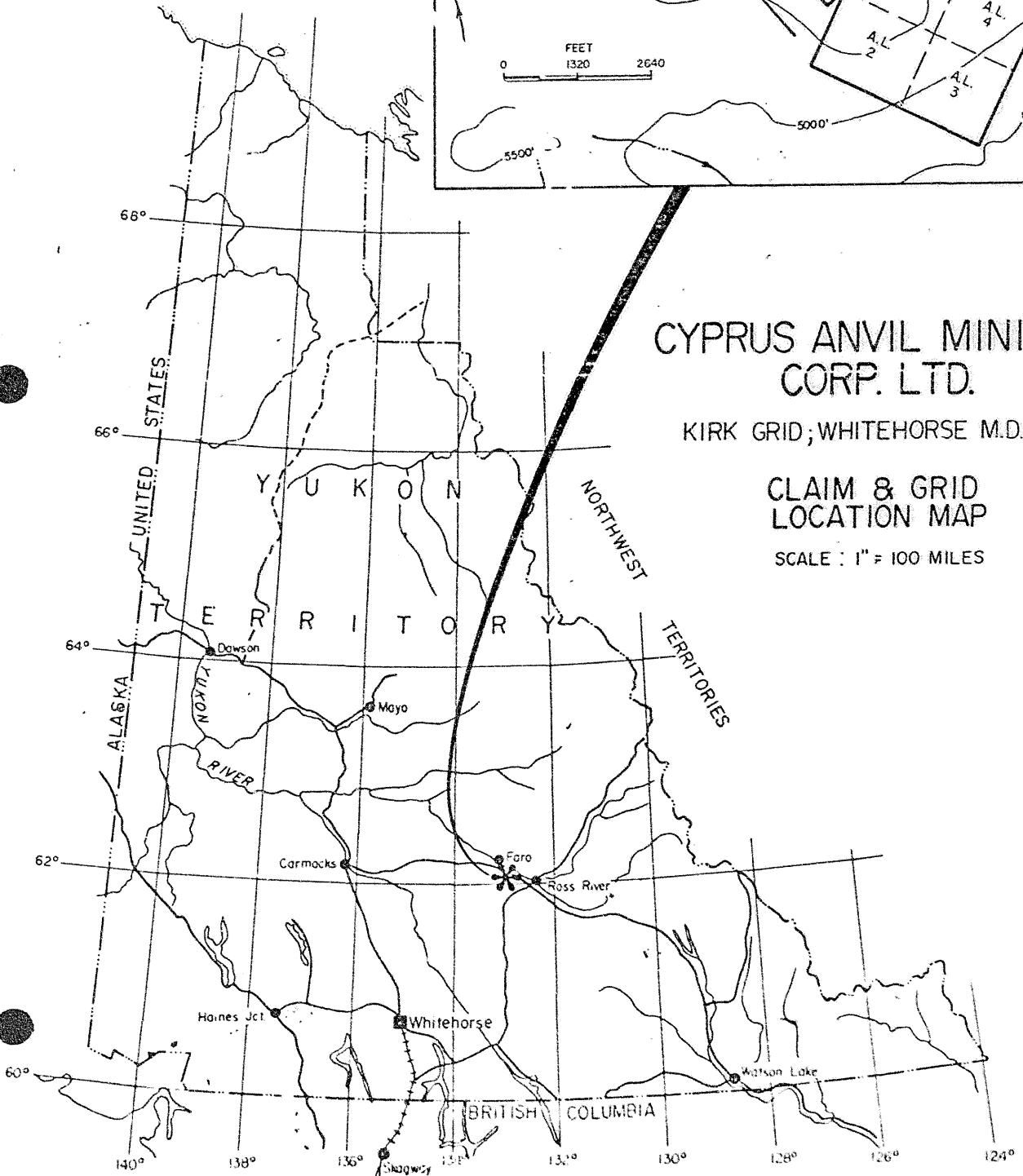


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CORP. LTD.

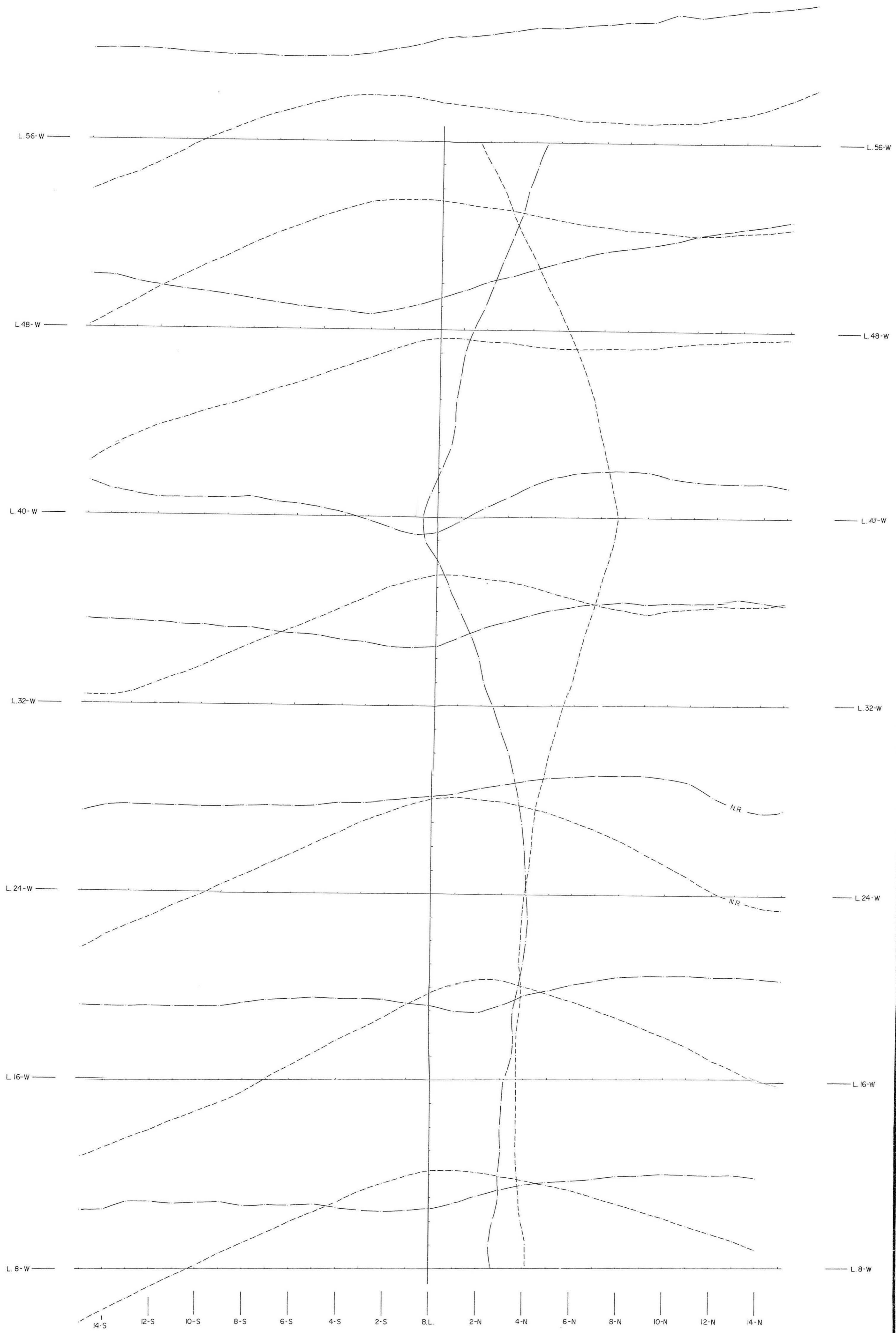
KIRK GRID; WHITEHORSE M.D., Y.T.

CLAIM & GRID  
LOCATION MAP

SCALE : 1" = 100 MILES

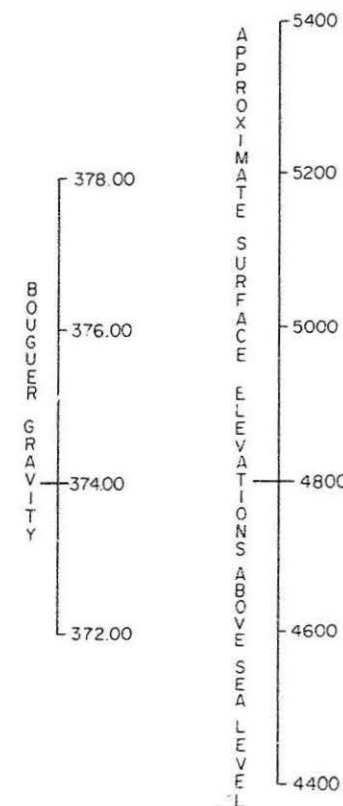


14-S 12-S 10-S 8-S 6-S 4-S 2-S B.L. 2-N 4-N 6-N 8-N 10-N 12-N 14-N

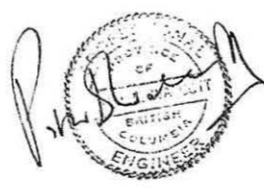


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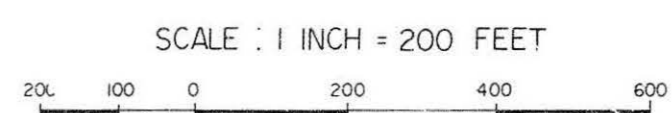


**LEGEND**  
 — BOUGUER GRAVITY  $\rho = 2.3 \text{ gm/cc}$   
 - - - SURFACE ELEVATIONS IN FEET



**CYPRUS ANVIL MINING CORP. LTD.**  
 KIRK CLAIMS; GREW CREEK AREA; WHITEHORSE M.D., Y. T.

**GRAVITY SURVEY**  
 PROFILES OF BOUGUER GRAVITY & SURFACE ELEVATIONS ABOVE SEA LEVEL



MAP NO. W-206-1  
 TO ACCOMPANY A REPORT BY **PETER E. WALCOTT & ASSOC. LTD.**  
 PETER E. WALCOTT P.Eng., DATED DEC.-1975