

GEOCHEMICAL AND GEOLOGICAL REPORT
ON THE VUG CLAIMS

Mayo Mining District
Yukon Territory



N.T.S. 116-A-9

Latitude: 64°34' N

Longitude: 136°17' W

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 \$6000.00.

[Handwritten Signature]

Resident Geologist or
~~Resident Mining Engineer~~

By: P. Dean
W. Roberts

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

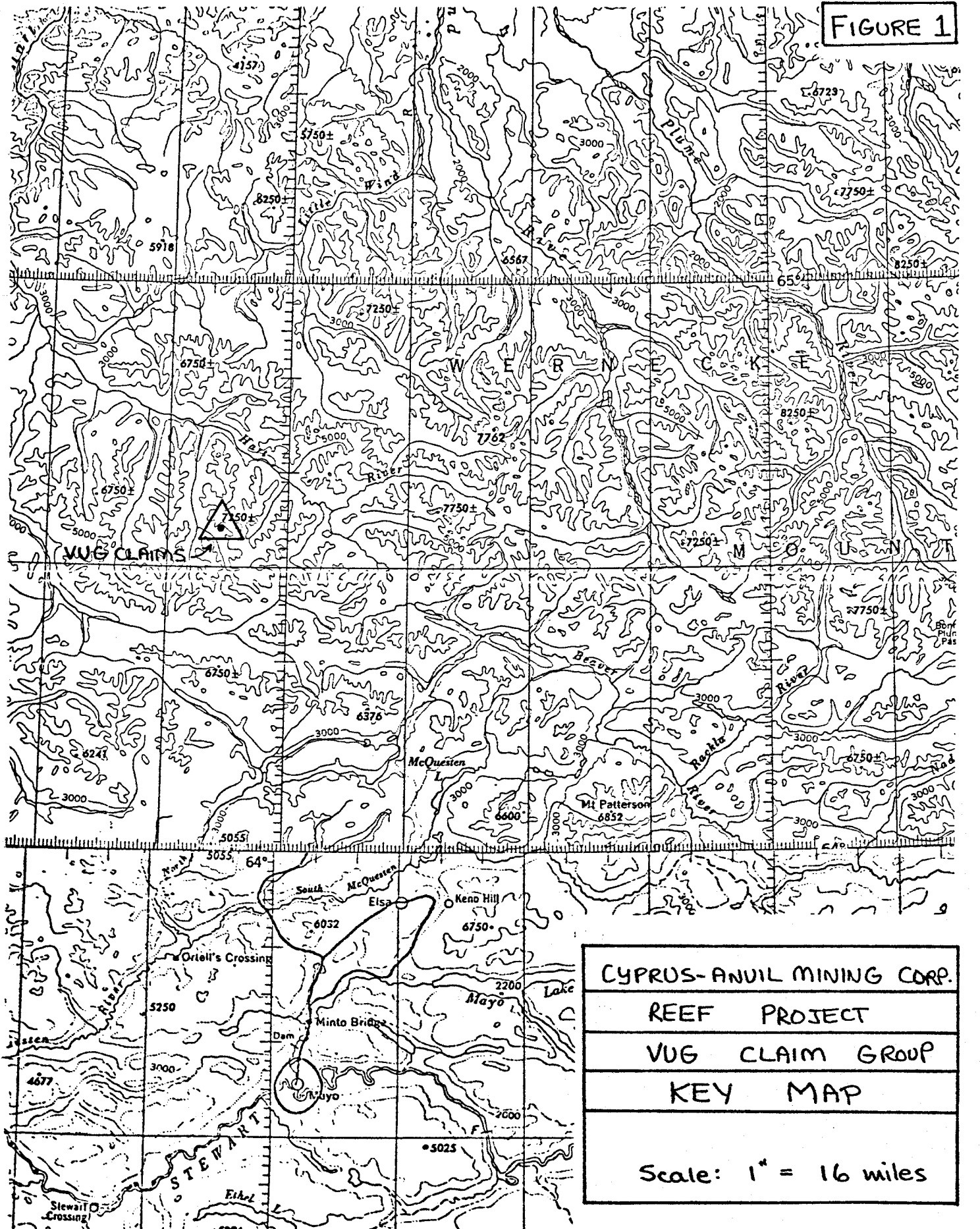
CYPRUS ANVIL MINING CORPORATION

December, 1975

[Handwritten Signature]
M. BAXTER
Supervising Mining Recorder
Commissioner of Yukon Territory

090275

FIGURE 1



CYPRUS-ANVIL MINING CORP.
REEF PROJECT
VUG CLAIM GROUP
KEY MAP
Scale: 1" = 16 miles

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LIST OF CLAIMS

<u>Claim Nos.</u>	<u>Grant Nos.</u>	<u>Recording Date</u>
VUG 1 - 40	Y97599 - Y97638	July 4, 1975

CYPRUS-ANVIL MINING
CORPORATION

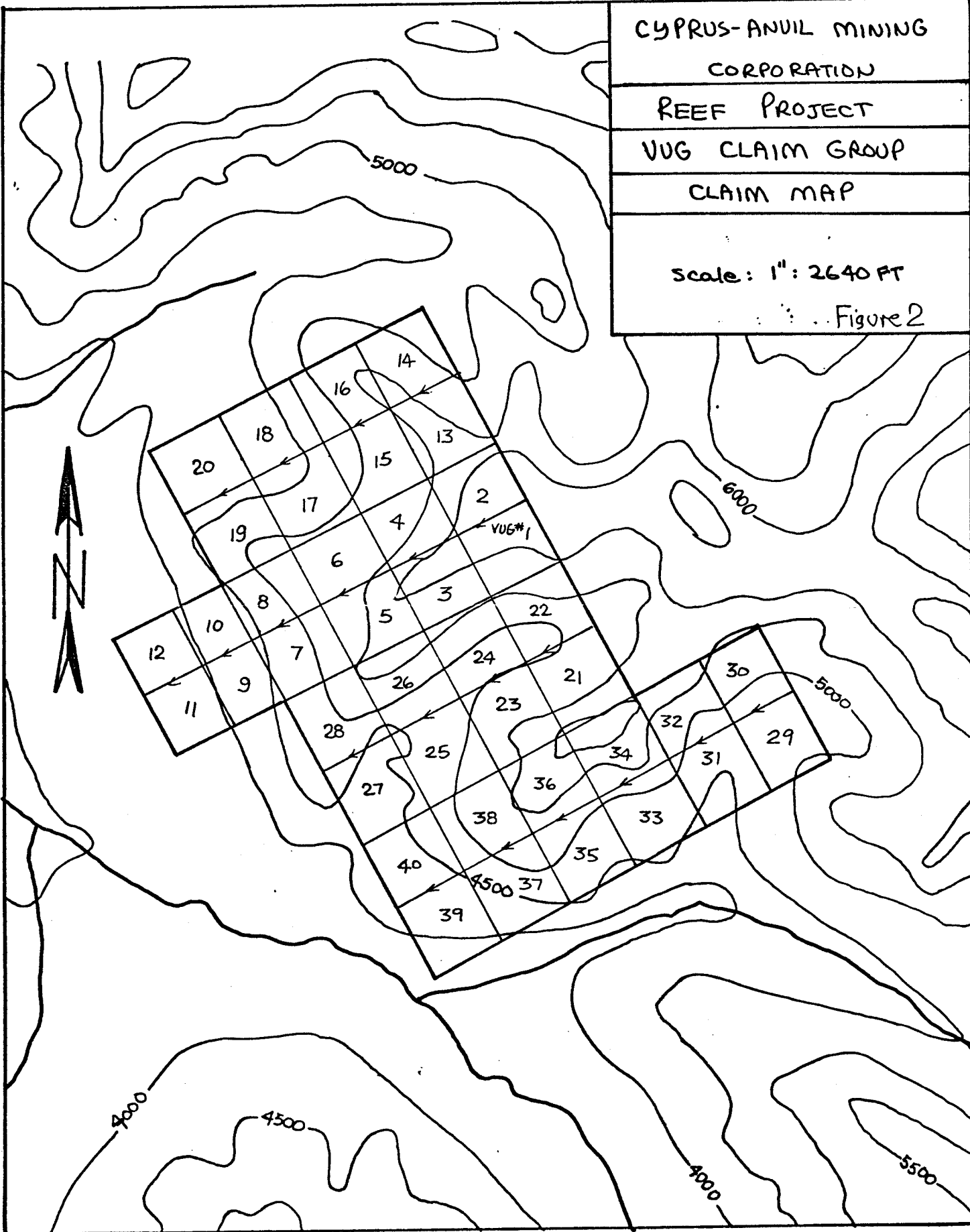
REEF PROJECT

VUG CLAIM GROUP

CLAIM MAP

Scale: 1" = 2640 FT

Figure 2



Cyprus Anvil Mining Corporation

330, 355 Burrard Street Telex 04508594
Vancouver, British Columbia
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GEOCHEMICAL AND GEOLOGICAL REPORT
ON THE VUG CLAIMS

INTRODUCTION

The Vug claims, located eight miles north of Mt. Hoffman (Figure 1), cover showings of lead and zinc mineralization discovered as a result of regional geochemical surveys carried out by Cyprus Anvil during 1975. Geological mapping and geochemical sampling were carried out on the claims during August of this year.

Access to the property was accomplished by helicopter from a base camp at Worm Lake, ten miles to the southeast. The nearest year-round helicopter base is located at Mayo, 68 miles south of the claim group.

SUMMARY AND CONCLUSIONS

Lead and zinc showings or float occurrences have been found in all areas of anomalous geochemistry discovered on the claim group. The showings appear to be related to fault zones and are likely to be narrow, erratic, and of little potential economic value. Low grade, disseminated, stratiform sphalerite mineralization also occurs on the claims, but does not reach economic grades in place or in talus. A limited program of additional work is recommended for three of the showings, to be done on a low priority basis.

... 2

CYPRUS ANVIL

GEOCHEMISTRY

Approximately 300 soil samples were taken on the Vug claims, on "contour" lines which cover the entire claim group and considerable areas to the north and south along the same belt of geologic formations. Sample sites were marked in the field with plastic flagging. Samples were taken from the B and C soil horizons where a good soil profile was present, but in many cases only talus and slide material was available. Samples were air dried in kraft paper bags, screened to yield a -80 mesh fraction, and then subjected to a nitric-perchloric extraction. Analysis was done on an atomic absorption instrument.

The results have been plotted at a scale of 1":1,320 feet (Figure 3).

Sample analysis was carried out at Dawson City by Acme Analytical Laboratories Ltd., 6455 Laurel Street, Burnaby, B.C.

REGIONAL GEOLOGY

The "Rae Creek Dome", located in the northeastern portion of the Larsen Creek map sheet (N.T.S. 116 A), is formed by an elliptical-shaped, uplifted area of Helikian shales and overlying dolomites. The Helikian units are unconformably overlain by Ordovician and younger carbonates and shales. The domal area is characterized by a high level of erosion or lack of deformation or possibly both, since orange weathering dolomites are only common along the southern border of the uplifted area. The Vug claims cover a small area of orange weathering dolomite in the south central portion of the dome which was not defined by earlier G.S.C. mapping.

GEOLOGY (Figure 4)

The oldest unit mapped on the property consists of black to dark grey to greenish grey weathering, thin bedded, well-foliated, interbedded black shale, argillite and chert. Tan weathering, light brown to grey quartzite interbeds are common. This unit, as a whole, weathers recessively, forming small, jagged cliffs with smooth talus slopes. Very steeply dipping, roughly northeast-trending foliation is pervasive and can be mistaken for bedding when mapping at distances or from air photos.

Orange weathering dolomite, subdivided into two units on the basis of weathering pattern and bedding characteristics, conformably overlies Unit 1. Light orange weathering, beige to light greenish grey to grey well-bedded platy dolomite with interbedded shale directly overlies the black shales. This unit varies in thickness from 100 to over 1,000 feet, but averages about 500 to 700 feet. Minor breccia zones with no apparent mineralization are present within the unit.

All known mineralization occurs in orange weathering, thick to massive bedded, dark to light grey dolomite. Dark grey bands appear to be more argillaceous. The orange weathering color appears to be due to fine-grained pyrite disseminated throughout the unit.

Late, brown weathering, dark green diorite to gabbro dykes cut both Helikian units.

TABLE 1

TABLE OF GEOLOGICAL FORMATIONS

Helikian	Unit 3	Brown weathering, green gabbro dyke.
	Unit 2	Orange weathering, light grey dolomite, often shaly and argillaceous.
	2b	Orange weathering, thick to massive bedded dark grey dolomite with argillaceous rich intervals.
	2a	Light orange weathering, beige to light greenish grey to grey platy dolomite with interbedded shale.
	Unit 1	Dark grey to black weathering, black to greenish black thin bedded, well foliated black shale and argillite with quartzite interbeds.

ECONOMIC GEOLOGY

A total of eight showings of sphalerite with minor galena were examined during the three-day period. Type and mode of mineralization is summarized below. Locations of all showings may be noted on the accompanying "Preliminary Geology Map" (Figure 4).

Showing No. 1 - A five-foot thick band of dark grey dolomite with shaly partings contains hydrozincite on fracture surfaces. Minor sphalerite grains were noted in a particular bed and are of probable sedimentary origin. Rock geochemical results of hydrozincite-coated dolomite have not been received to date.

Showing No. 2 - Talus with grey, massive dolomite boulders contains some fractures filled with sphalerite and minor galena in a white sparry dolomite gangue. Mineralization appears minor and is not thought to be of any significance.

Showing No. 3 - A fault zone trending 015 degrees dipping 60 degrees northwest, from a few inches to a maximum of three feet in width, was traced for a distance of 25 to 30 feet. This zone contains breccia fragments of dolomite in a matrix of sphalerite, galena and white sparry dolomite. A grade of 10% ZnS and 5% PbS is estimated within a breccia zone. Very few fractures outside this zone contain sphalerite or galena mineralization. The tonnage potential of

these showings is very limited.

Showing No. 4 - Similar to Showing No. 3, containing sphalerite and minor galena mineralization in a narrow fault breccia. No economic significance.

Showing No. 5 - Massive bedded, orange weathering, dark grey dolomite cut by fault zone trending and dipping 040 degrees, 75 degrees west, with brecciated dolomite fragments in a matrix of sphalerite, minor galena and white secondary dolomite. Grade is estimated at over 20% combined zinc and lead in a narrow zone, which has a maximum thickness of 3 feet. The fault was traced for over 100 feet before it began to horsetail into the dolomite.

Showing No. 6 - A small showing of sphalerite fillings paralleling foliation trending $065^{\circ}/60^{\circ}\text{S}$ in black shaly dolomite. The zone is roughly 2 to 3 feet wide and was traced for 20 feet along strike. Less than 10% ZnS is estimated over a 3-foot width.

Showing No. 7 - Sphalerite infills spaces in a small tectonic breccia along an overturned fold nose trending $040^{\circ}/45^{\circ}\text{SW}$. No economic grades or widths were found.

Showing No. 8 - An area measuring 50 x 50 feet of talus and outcrop of fractured grey dolomite with fillings of sphalerite, minor galena and white secondary dolomite. A few blocks of massive crystalline galena originate from a 2-foot thick galena vein. Overall grade is low but possible intraformational breccia contains some tonnage potential.

PROPOSED EXPLORATION

With the possible exception of Showings Nos. 1 and 8, all showings examined are thought to be of minor importance. Further prospecting, sampling and mapping is definitely warranted in the following areas:

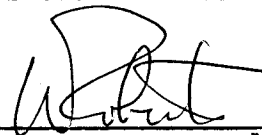
1. Showing No. 1.
2. Showing No. 8.
3. A widespread float occurrence 1,000 feet east of Showing No. 3 in the northeastern portion of the claim group.
4. Anomalous drainage in the northwestern corner of the claims.

This work should be done on a low priority basis, when a crew and helicopter transportation are available in the general area of the claim group.

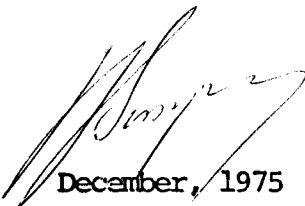
Respectfully submitted,



P. DEAN



W. ROBERTS



December, 1975

APPENDIX I

LIST OF PERSONNEL

P. Dean	Geologist	1405 - 1011 Beach Avenue Vancouver, B.C.
W. Roberts	Geologist	124 Mundy Street Port Coquitlam, B.C.
M. Fretwell	Field Assistant	2135 Abbot Street Kelowna, B.C.
D. Davis	Field Assistant	Totem Park Residence, U.B.C. Vancouver, B.C.

CONTRACTORS

Trans North Turbo Air Ltd.
TNIA Hanger, Airport
Whitehorse, Y.T.

Acme Analytical Laboratories Ltd.
6455 Laurel
Burnaby, B.C.

APPENDIX II

SUMMARY OF COSTSVug Claims Cost Summary
to November 30, 1975

	<u>Schedule No.</u>	<u>Amount</u>
Salaries and Wages	B	\$ 1,558.09
Assays	C	308.45
Equipment and Supplies	D	191.75
Camp Supplies	E	580.66
Rotary Wing	F	2,952.13
Fixed Wing	G	348.59
Miscellaneous Transportation	H	239.21
District Expense	I	133.31
		<u>\$ 6,312.19</u>
Administration - 10%		<u>631.22</u>
TOTAL		<u><u>\$ 6,943.41</u></u>

NOTE: Invoices in excess of \$200.00 are included and other invoices will be provided upon request.

Cyprus Anvil Mining Corporation

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Vancouver, British Columbia
V6C 2G8
Telephone (604) 687-2586

APPENDIX III

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, PETER DEAN, Geologist, Cyprus Anvil Mining Corporation, of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report (Geochemical and Geological Report on the Vug Claims) is both correct and true.

P. M. Dean

PETER DEAN

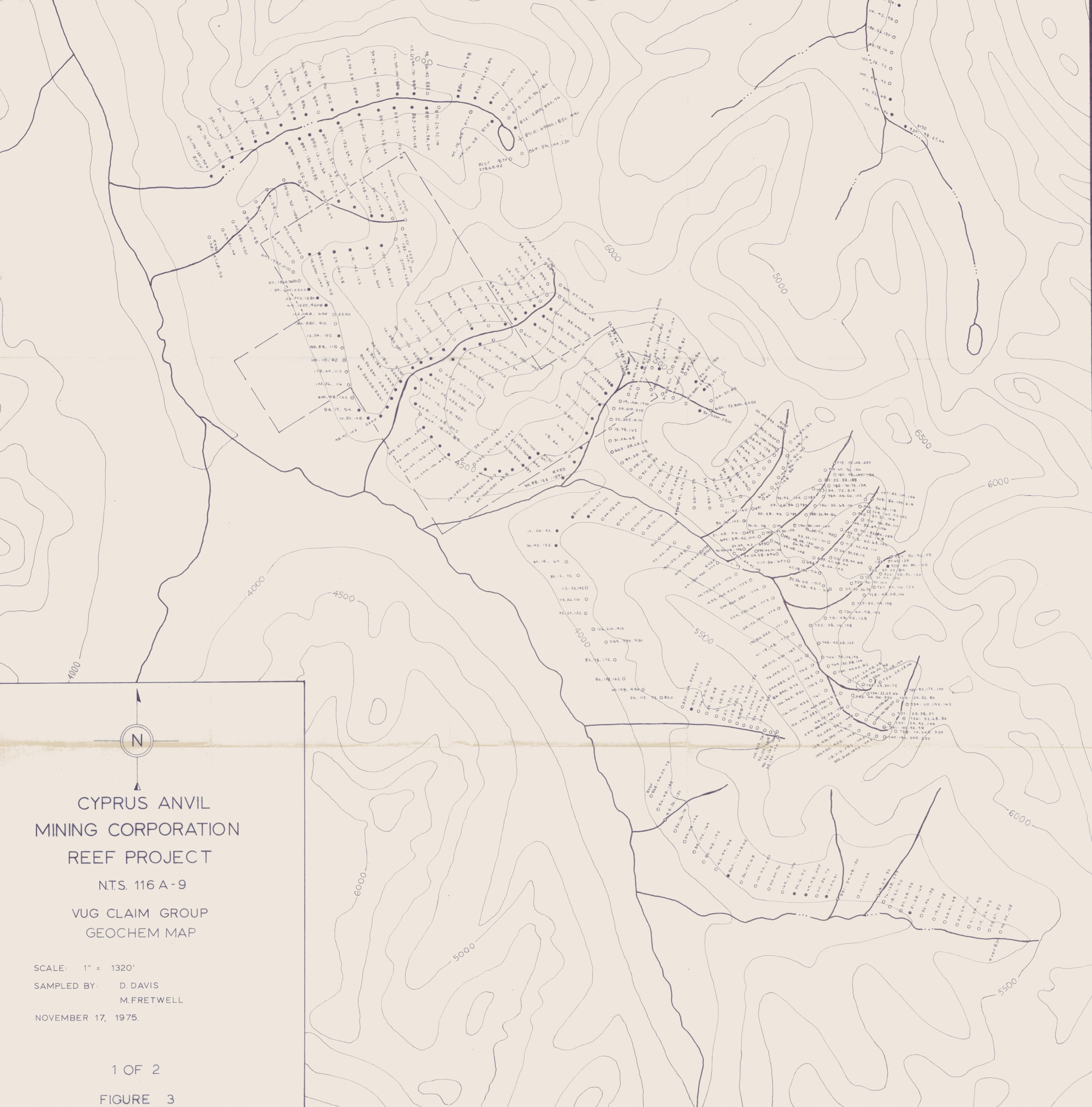
19 JAN 1976

(Date)

[Signature]

Notary Public in and for the
Province of British Columbia

CYPRUS ANVIL



CYPRUS ANVIL
 MINING CORPORATION
 REEF PROJECT
 N.T.S. 116 A-9
 VUG CLAIM GROUP
 GEOCHEM MAP

SCALE: 1" = 1320'

SAMPLED BY: D. DAVIS
 M. FRETWELL

NOVEMBER 17, 1975.

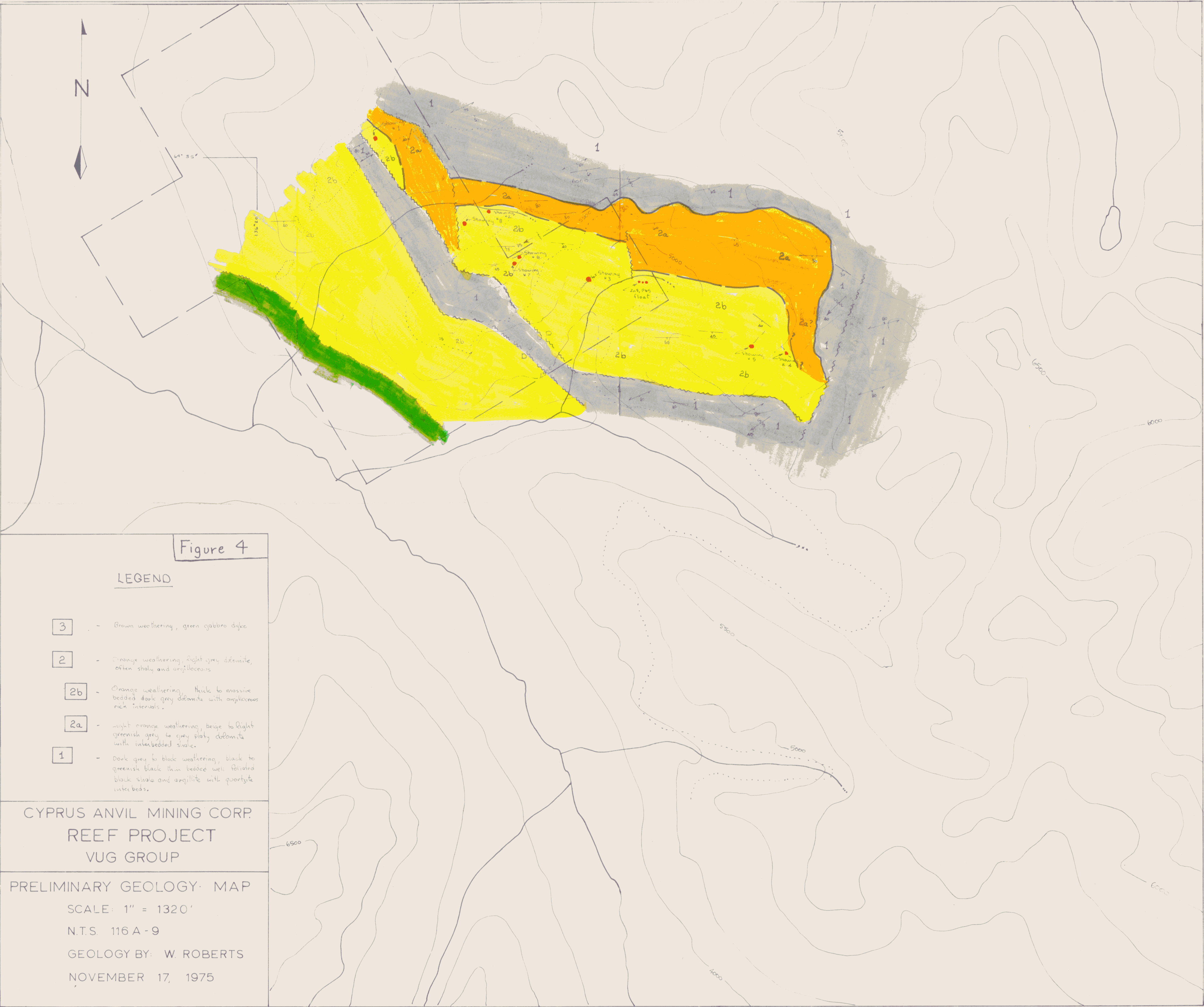


Figure 4

LEGEND

- 3 - Brown weathering, green gabbro dyke
- 2 - Orange weathering, light grey dolomite, often shaly and argillaceous
- 2b - Orange weathering, thick to massive bedded dark grey dolomite with argillaceous rich intervals.
- 2a - Light orange weathering, beige to light greenish grey to grey platy dolomite with interbedded shale.
- 1 - Dark grey to black weathering, black to greenish black thin bedded well foliated black shale and argillite with quartzite interbeds.

CYPRUS ANVIL MINING CORP.
REEF PROJECT
VUG GROUP

PRELIMINARY GEOLOGY MAP
SCALE: 1" = 1320'
N.T.S. 116 A-9
GEOLOGY BY: W. ROBERTS
NOVEMBER 17, 1975