GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE UG CLAIM GROUP

Dawson Mining District

Yukon Territory

N.T.S. 116-C-16

Latitude: 64°52'N

Longitude: 140°02'W

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be accepted as representation work in the amount of $1585.67

Resident Geologist or
Resident Mining Engineer

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

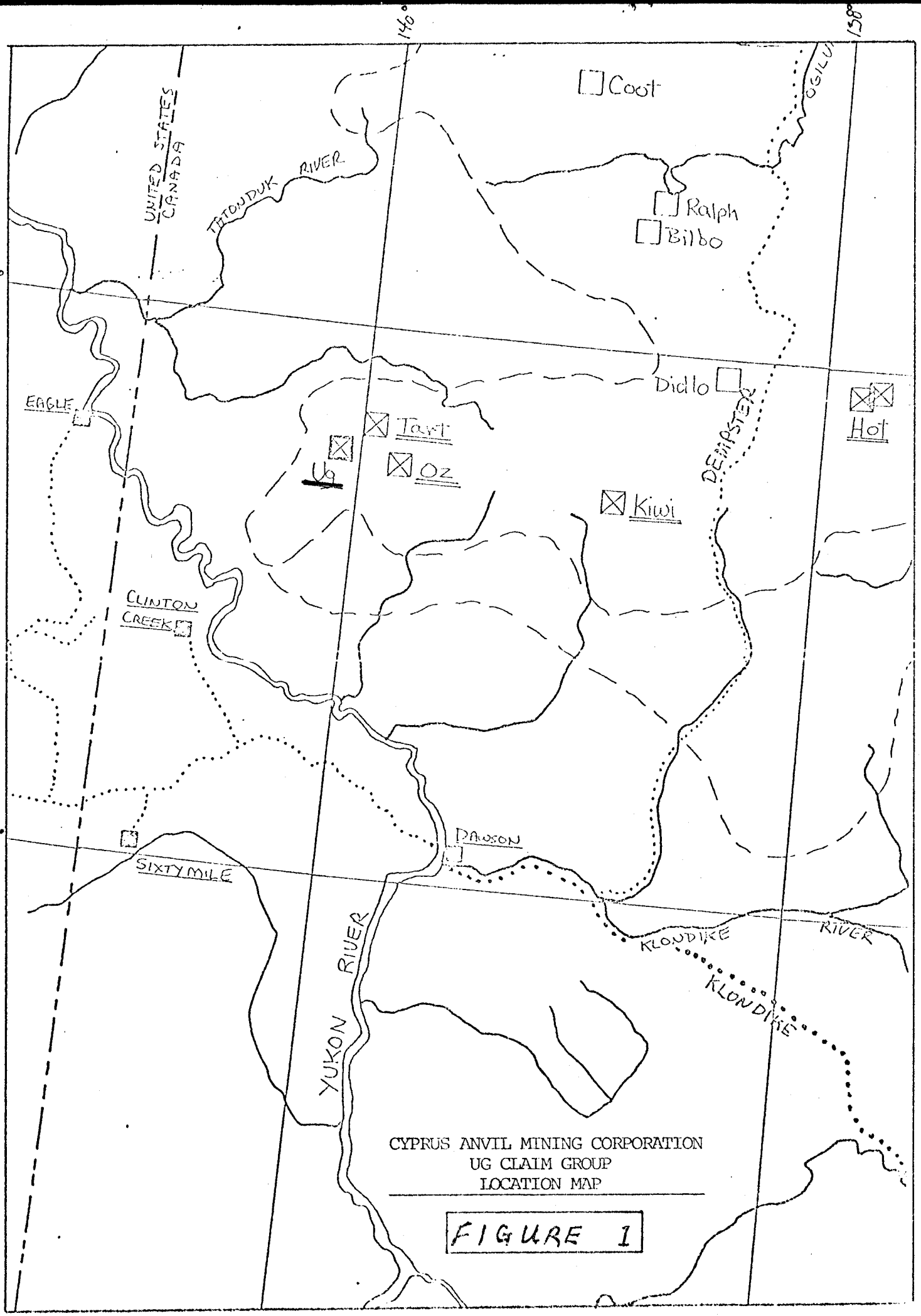
B. R. BAXTER
Supervising Mining Recorder
for Commissioner of Yukon Territory

By:

P. M. Dean

CYPRUS ANVIL MINING CORPORATION

February, 1976



CYPRUS ANVIL MINING CORPORATION
UG CLAIM GROUP
LOCATION MAP

FIGURE 1

TABLE OF CONTENTS

LIST OF CLAIMS

Claims	Grant Nos.	Recording Dates
Ug 1 - 32	Y99787 - Y99818	June 30, 1975

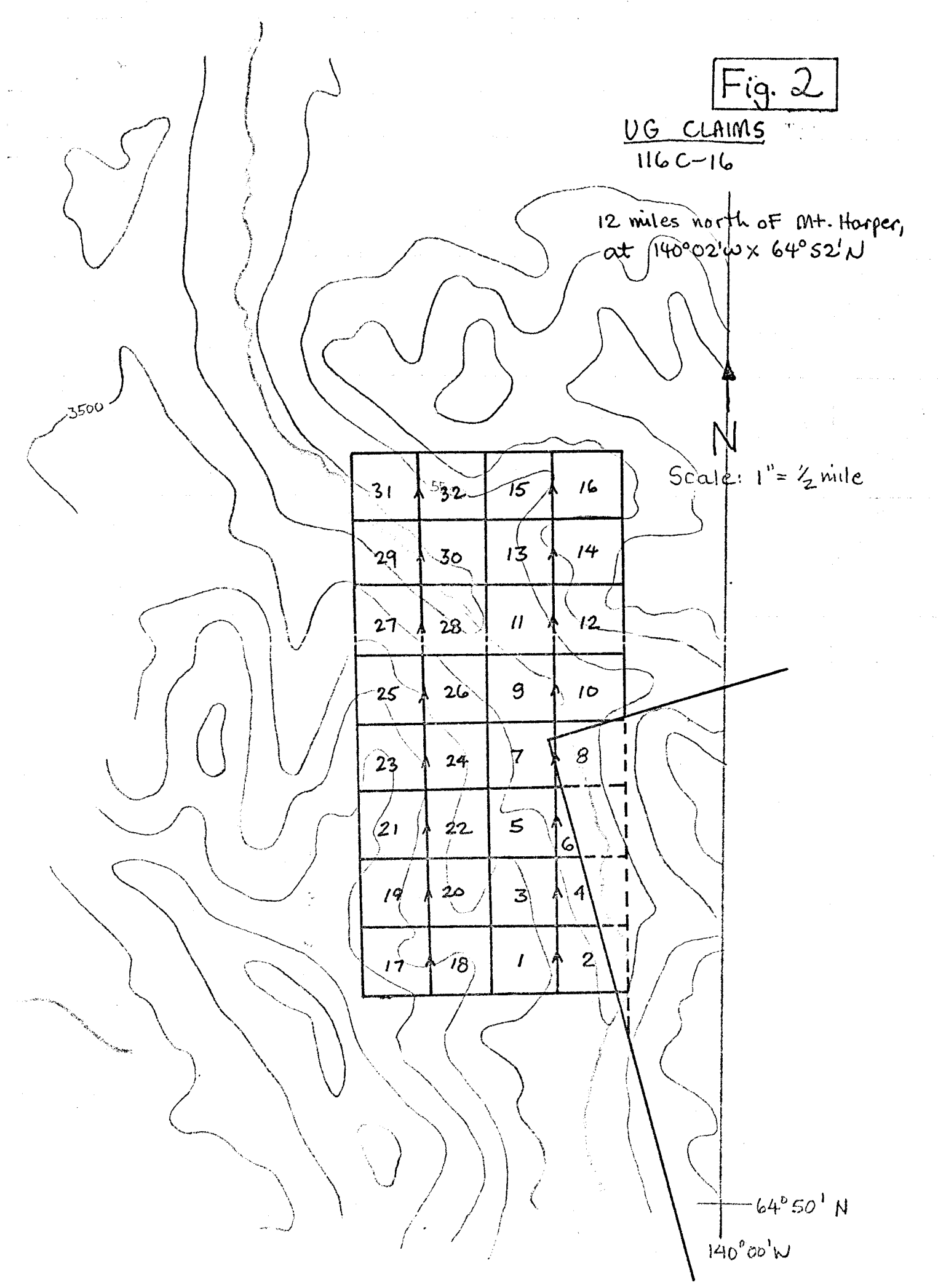


Fig. 2
UG CLAIMS
116 C-16
12 miles north of Mt. Harper,
at 140°02'W x 64°52'N
N
Scale: 1" = ½ mile
3500
31
32
15
16
29
30
13
14
27
28
11
12
25
26
9
10
23
24
7
8
21
22
5
6
19
20
3
4
17
18
1
2
64°50' N
140°00' W

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GEOLOGICAL AND GEOCHEMICAL REPORT ON THE UG CLAIM GROUP

INTRODUCTION

The Ug claims were staked during June 1975, to cover showings of lead and zinc mineralization discovered during the prospecting of 1974 regional silt geochemical anomalies. The claims are located 55 miles northwest of Dawson City, at approximately 140°02' W longitude, 64°52'N latitude. Access is by helicopter from Dawson or from the Clinton Creek airstrip, 40 miles due south, which is the nearest highway point. Lead and zinc showings on the Og claims, which are being drilled this year by Hudson Bay Exploration, lie two miles to the southeast, and the Tart claims zinc showings, drilled by Cyprus Anvil during July of this year, lie four miles to the east.

SUMMARY AND CONCLUSIONS

The showings on the Ug claims occur in Helikian dolomite, the host for the showings on the Tart, Og and Oz claims, in the sorrounding area. Unfortunately, the mineralized outcrops occur in a most difficult position at the bottom of a steep walled creek canyon, making any type of surface evaluation difficult. The showings do not seem to be of sufficient apparent size to warrant exploration by drilling. A geologically anomalous gossan zone on the north half of the claim group should be further explored by grid controlled soil sampling and possibly an I.P. survey.

... 2

Any further work on the claims should be done, if possible, in co-operation with Hudson Bay Exploration through some sort of option arrangement.

REGIONAL SETTING

The Coal Creek Dome, an east-west trending, 50-mile long eliptical uplifted area of Helikian shales and dolomites, is unconformably overlain by massive light grey Ordovician dolomite in the north and a thrusted block of Cambrian to Ordovician schists, grits, volcanics and black interbedded chert and argillite in the south. The units comprising the Coal Creek Dome represent the westward extension of the Hadrynian and Helikian sediments found in the curvilinear Mackenzie fold belt.

Major uplift occurred in the northern portion of the Domal area along a roughly east-west trending anticline containing a core of black shale and argillite. Both limbs contain conformably overlying Helikian dolomite units although the north limb is largely covered by unconformably overlying massive Ordovician dolomite. Uplift along the southwest to west trending Mt. Harper fault formed another roughly east-west trending band of southerly dipping black shale, siltstone and argillite conformably overlain by dolomite. Submersion in the western and southern portions of the exposed domal area during Helikian time formed a large blanket of unconformably overlying massive light grey dolomite.

Most dolomite units can be classed as the "blanket type" due to constant thickness and good areal extent, probably indicating a gently sloping, smooth platform or shelf environment. To date, only one rapid stromatolytic build-up or reef has been noted.

... 3

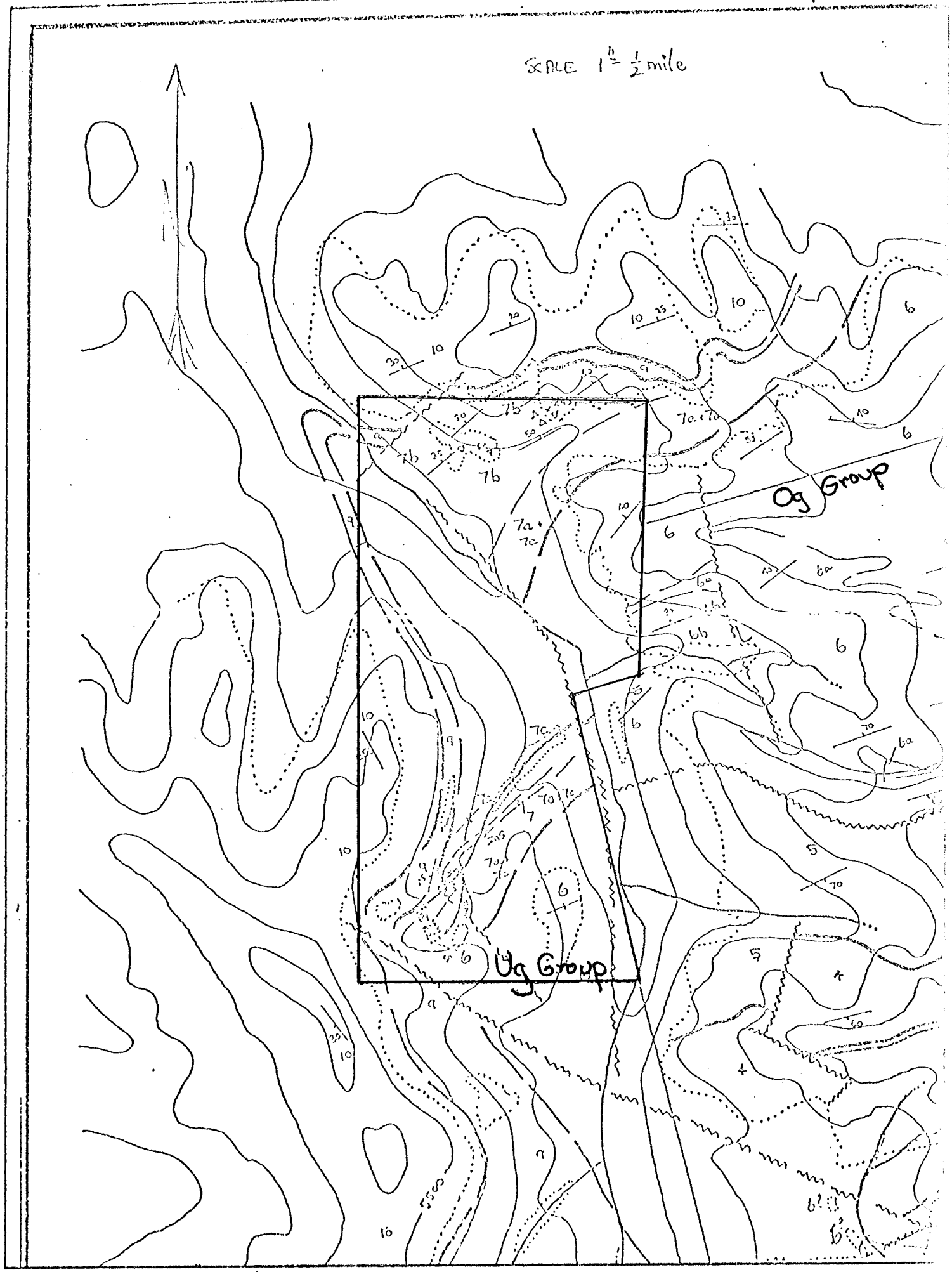
Three major regional unconformities, produced by uplift to subaerial conditions, interrupted the carbonate depositional sequence during the Helikian within this area.

Major north-south compression appears to have caused the east-west trending fold axes and thrusts, as well as the predominant north-west trending faults, some of which have measureable right lateral movement.

The following table summarizes the weathering characteristics, rock lithologies, and bedding characteristics of the various Helikian units mapped within the northwest region of the Coal Creek Dome. The units are believed to be in stratigraphic succession, although this presumption may be in error, since there are only a few localities where "tops" were noted from stromatolytic rich beds.

Rock Type	UNITS		
	Regional Map	G.S.C. Map 1284A	Geology Map Ug Claims
Orange weathering, grey dolomite.	5	2b	
Light orange weathering, interbedded dolomite with green and maroon shale.	6	2b	a
Buff weathering, grey to light brown quartzite to arkose.	7a	2b	b, c
Buff weathering, massive bedded light grey dolomite.	7	2b	d
Black weathering, black graphitic shale, argillite and chert.	7c	2b	e
Light grey weathering, light grey massive bedded dolomite.	10	2c	f
Medium grey weathering, dark grey to black massive bedded limestone to dolomite.	4	2b	
Black weathering, black thin bedded, well foliated black shale, argillite and interbedded quartzite.	1, 1a, 1b	1	

Figure 3



GEOLOGY

Detailed geologic mapping in the immediate area of the showings recognized five separate mappable units (Figure 4). The lowest unit in this sequence, Unit a, is a light brown weathering, thin bedded and shaley dolomite. This unit is overlain on part of the mapped area by medium grained, pink to rusty weathering quartz-arenites (Unit b). Elsewhere it is overlain directly by thin bedded black shales and brown, medium bedded argillites and sandstones (Unit e). Unit c and Unit d are in fault contact with each other and with all other formations, so age relationships are unknown. Unit c includes thin to medium bedded, well-foliated brown shales and minor interbedded quartz arenite lenses. Unit a is a massive, buff to light grey weathering, finely crystalline algal dolomite. Brecciated portions of this dolomite are mineralized with sphalerite, galena and pyrite. All of the foregoing units are overlain unconformably by Unit f. This unit consists of blocky, massive and resistant-weathering grey dolostone, with silicified oolites and cherty pods throughout, and is equivalent to Unit 10 on the regional map.

The mineralized showings occur in brecciated zones where Unit d dolostones have been cut by zones of faulting. Pale yellow sphalerite and pyrite or marcasite are the main sulphide minerals present, with galena becoming abundant in some areas. Two grab samples of typical mineralization from outcrops in the creek assayed 0.23% lead and 9.78% zinc, and 0.5% lead and 7.94% zinc.

GEOCHEMISTRY

Geochemical work carried out during this season consisted mainly of contour lines of soil samples taken at the base of slope along most drainages on

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the claims. Samples were taken from the B & C soil horizon, or from slide material in the steeper areas where there was no soil development. Some samples were analysed by Acme Geochemical Laboratories at Dawson City. The analytical method consisted of a total extraction hot acid leach on the -80 mesh fraction of the sample, followed by analysis for copper, lead and zinc on an atomic absorption instrument. The same analytical procedure was used on all samples, regardless of whether it was a soil, a stream sediment, or a seepage sediment sample.

The results have been plotted on a regional geochemical map at a scale of 1 inch = 1,320 feet (Figure 5) and on two detailed geochemical maps at a larger scale.

No anomalous values of copper were obtained on the claims or surrounding area. Values in lead suggest a relatively high background of 75 to 150 ppm in areas underlain by rock Unit 7. Two lead anomalies occur on the claims, one associated with the known showings on the southwest corner of the claims, the other with a gossan zone in soils on the north central part of the claim group. Background values in zinc range from 100 to 300 ppm in areas underlain by Unit 7, with values ranging up to several thousand parts per million in two zones coincident with the lead anomalies. The results for samples taken on grid lines over the showing area (Figure 6) are somewhat meaningless, since almost all samples were taken upslope from the showings, which outcrop in the creek bottom. The sampling in the vicinity of the gossan (Figure 7) indicates the presence of anomalous values for a length of about 3,000 feet along the hillside.

... 6

PROPOSED EXPLORATION

The only areas of interest on the claims are the showing area on the south part of the claims, and the gossan area on the north part. Because of the location of the showings in the bottom of a creek canyon, there is no type of surface work which is likely to provide useful information about the extent of the mineralized zones. The fairly low grade of the two grab samples assayed, and the apparent association of the breccia zones with faults, detract from the significance of these showings, and therefore a diamond drill program cannot be justified. The gossan zone is in an overburden covered area, so nothing is known about the style or grades of mineralization which may be there. A grid controlled soil sampling survey would be a useful first step in outlining accurately the size and magnitude of the geochemical anomaly on this part of the claims. A possible second step would be an I.P. survey, since this type of geophysical work was apparently successful in detecting the mineralization on the Og claims.

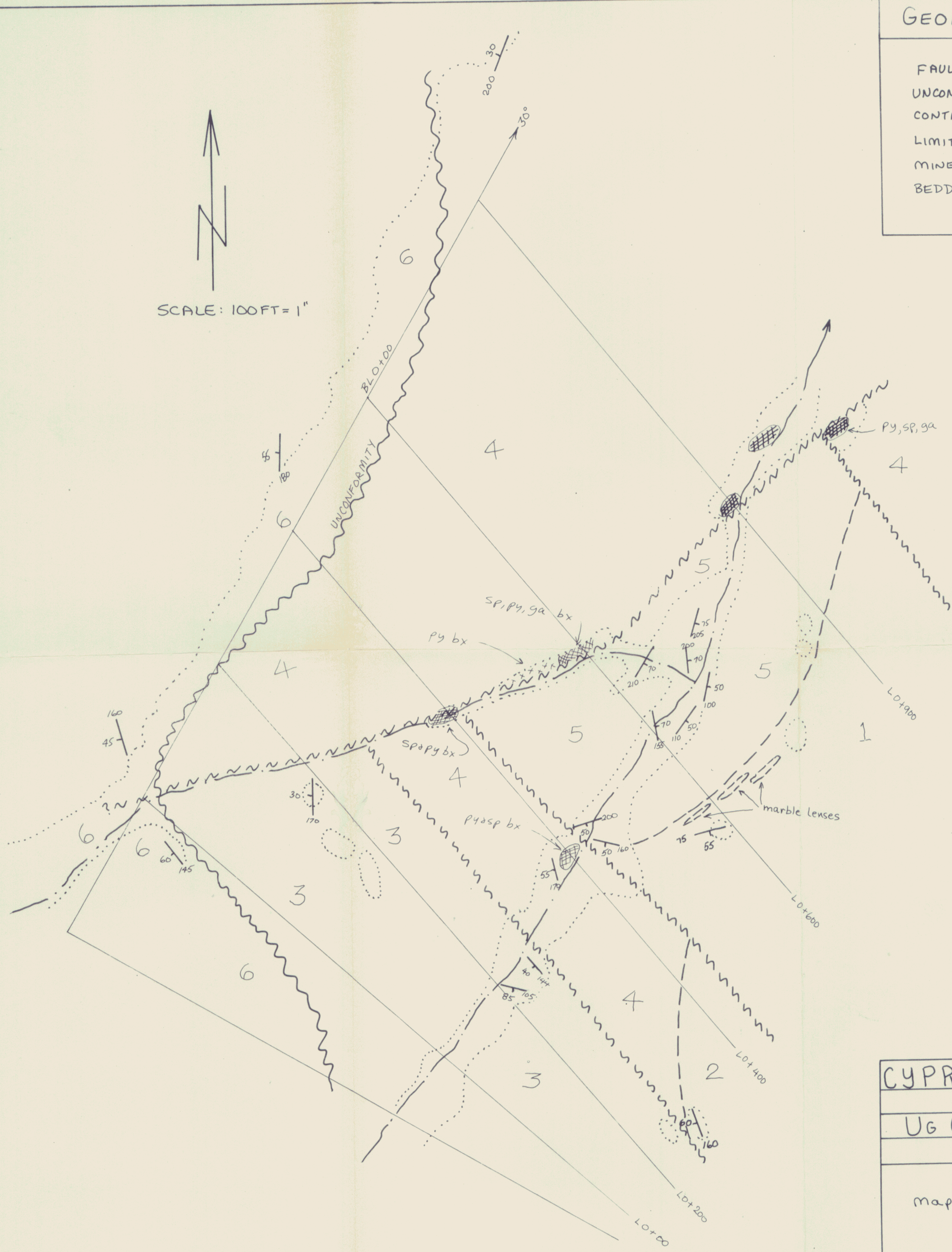
Respectfully submitted,

P. M. Dean

PETER M. DEAN

February, 1976

SCALE: 100FT = 1"



GEOLOGICAL LEGEND

FAULT: NNNNN

UNCONFORMITY: ~~~

CONTACT: – – – –

LIMIT OF OUTCROP: ⋯⋯

MINERALIZATION: ▨

BEDDING: 60 / 210

TABLE OF FORMATIONS

6	med. grey blocky and massive thick bedded grey-pink dolomite; Crossbedded and silicified oolites, cherty pods; medium xline, resistant
	UNCONFORMITY
5	thin bedded black shales, brown-black argillites, and brown, medium bedded quartz arenites
4	massive buff to light grey weathering finely xline algal dolomite, medium bedded, moderately resistant
3	thin to medium bedded, well foliated brown shales with minor interbedded qtz arenites.
2	medium grained, medium bedded pink-rusty weathering qtz arenite.
1	light brown weathering shaley dolomite, thin bedded

ALL UNITS ARE HELIKIAN

Fig 4

CYPRUS-ANVIL MINING CORP.

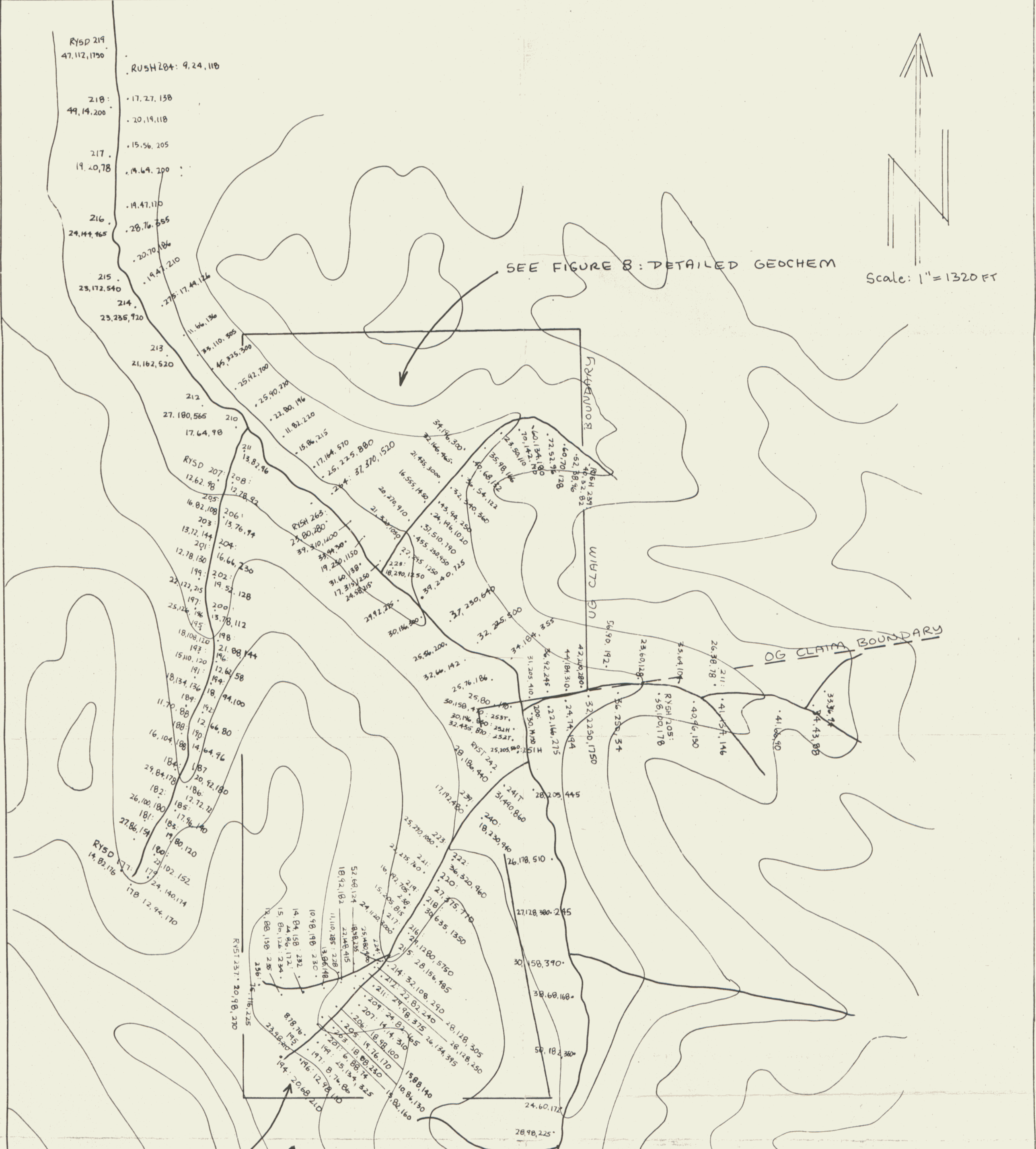
REEF PROJECT

UG CLAIMS: 116C-16

GEOLOGY

mapped by: R. CARNE

P.DEAN Oct. 1975


RYSD 219
47,112,1750
RUSH 284: 9,24,118
218:
49,14,200
17,27,138
20,19,118
217
19,20,78
15,56,205
19,69,200
19,47,110
216
24,144,165
28,76,355
20,70,186
19,47,210
215
23,172,540
214
23,236,920
213
21,162,520
212
27,180,565
17,64,98
211
13,82,96
RYSD 207:
12,62,98
208:
12,78,92
205:
16,82,108
206:
13,76,94
203:
13,12,144
204:
16,66,230
201:
12,78,130
202:
19,52,128
199:
22,122,215
200:
13,78,112
197:
25,126,196
198:
18,108,120
21,88,144
193:
15,110,120
196:
12,62,58
191:
18,134,136
194:
18,94,100
189:
11,70,88
192:
12,66,80
188:
16,104,188
190:
14,64,96
184:
29,84,178
187
20,92,180
182:
26,100,180
186:
12,72,72
185:
17,96,140
181:
27,86,154
183:
19,80,120
180:
22,102,152
179
24,140,174
178 12,94,170
RYSD 177:
14,82,176
RYST 237: 20,98,270
SEE FIGURE 6: DETAILED GEOCHEM
SEE FIGURE 8: DETAILED GEOCHEM
Scale: 1" = 1320 FT
UG CLAIM BOUNDARY
RUSH 239:
40,32,82
RYSH 263:
25,80,280
39,310,1400
33,94,30
19,250,1150
31,60,138
17,315,250
24,58,215
29,92,215
30,136,300
228:
18,290,1250
22,245,1250
39,240,725
RYST 242
RYST 251
RYSH 205:
36,100,178
24,60,172
28,98,225
12,84,134
Fig. 5
CYPRUS-ANVIL MINING CORPn
REEF PROJECT
UG CLAIMS: 116 C-16
Regional Geochem Values
Sample Sites: • Cu, Pb, Zn
Sampled by: H. Hannigan, A. Tench
June 1975
P. Dean Oct 1975

N

SCALE: 1"=400 FT

BASE LINE

11, 410, 860

14, 265, 815

12, 106, 275

13, 106, 325

14, 182, 710

17, 110, 350

11, 92, 250

31, 720, 1360

18, 92, 350

11, 96, 215

19, 310, 1190

96, 1300, 1340
Line 9+00

25, 146, 435

22, 285, 890

18, 104, 255

13, 88, 172

19, 118, 315

10, 50, 88

18, 112, 280

22, 54, 136

23, 144, 365

19, 38, 98

17, 52, 112
Line 6+00

8, 74, 124

19, 78, 156

17, 62, 138

15, 39, 112

17, 86, 118

23, 112, 260

22, 74, 210
Line 4+00

31, 146, 164

32, 108, 114

23, 76, 230
Line 2+00

Line 0+00

Figure 6

CYPRUS ANVIL MINING CORP
REEF PROJECT
UG CLAIMS: 116C-16
GEOCHEMICAL VALUES MAP

Sampled by: G. Burdikin June 1975

Sample Site: • Cu, Pb, Zn

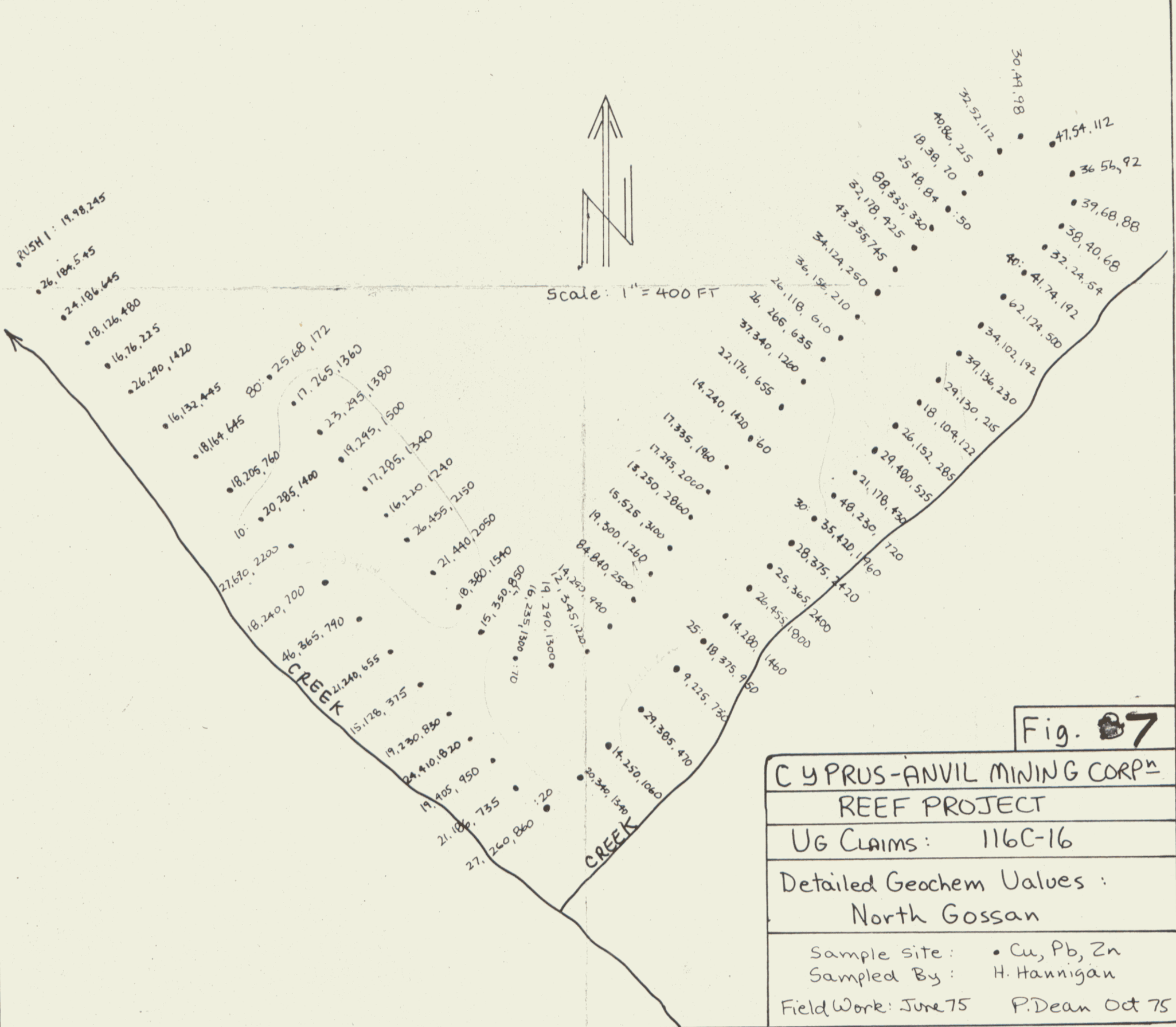


Fig. 87

CYPRUS-ANVIL MINING CORPn

REEF PROJECT

UG Claims: 116C-16

Detailed Geochem Values :
North Gossan

Sample site : • Cu, Pb, Zn
Sampled By : H. Hannigan

Field Work: June 75 P. Dean Oct 75