

UMEX

UNION MINIERE EXPLORATIONS
AND MINING CORPORATION LIMITED

SUITE 200 - 4299 CANADA WAY
BURNABY, B.C. V8G 1H4

TELEPHONE 437-9491

ASSESSMENT REPORT

on

Ground Magnetic, Geochemical Soil Sampling,
and Geological Mapping

MINERAL CLAIMS

REM 1 to 58, 63 to 72, 74,
76, 78 to 88

AMP 1 to 7

Omineca Mining Division, British Columbia

N.T.S. 93N/13; 14; 94C/3; 4

56° North Latitude

125°30' West Longitude

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **4737** MAP

by

Alfred A. Burgoyne, P.Eng.

Andre M. Pauwels, B.Sc.

WORK DATES: June 3-19, July 12-19, July 27-August 11, 1973

DATE: November 27, 1973

OWNER: Union Miniere Explorations and Mining Corporation Limited

CONTENTS

	Page
INTRODUCTION	1
GRID CONTROL	1
GEOLOGICAL MAPPING	1
MAGNETOMETER SURVEY	3
Method	3
Results	3
GEOCHEMICAL SOIL SURVEY	3
Method	3
Analytical Treatment of the Soil Samples	4
Results	4
CONCLUSIONS	5

Appendices

APPENDIX I Statement of Expenditures	6
APPENDIX II Distribution of Assessment Costs	8

Figures

	following page
#1 FIGURE 1 Location Map, Rem and Amp Claims, 1"=4 miles	1
#2 FIGURE 2 Cumulative Frequency vs Silver Content	3
#3 FIGURE 3 Cumulative Frequency vs Copper Content	3
#4 FIGURE 4 Claim and Grid Location Map, 1"=800'	in pocket
#5 FIGURE 5 Geology, 1"=800'	in pocket
#6 FIGURE 6 Magnetometer Survey, 1"=800'	in pocket
#7 FIGURE 7 Geochemical Soil Survey for Silver, 1"=800'	in pocket
#8 FIGURE 8 Geochemical Soil Survey for Copper, 1"=800'	in pocket

ASSESSMENT REPORT ON REM AND AMP MINERAL CLAIMS

INTRODUCTION

The Rem and Amp claims are located approximately thirty-five miles northwest of Germansen Landing, B.C. The Omineca Mines Road comes to within fifteen miles of the property at Usilika Lake. Access to the property is by helicopter from this point. A branch secondary gravel road from the Omineca Road terminates within five miles of the claims at Kennco's Lorraine property.

The Rem claims were staked in January and recorded in February 1973.

The Amp claims were staked contiguous to Rem claims 23 and 24 on the 27th of July, 1973 and recorded in August 1973. The location of the claims and the grid lines are illustrated on Figures 1 and 4.

This report is to cover assessment requirements for the following claims:

<u>Claim Name</u>	<u>Record Number</u>
Rem 1-58	119766-119823
Rem 63-72	119829-119837
Rem 74, 76	119838, 119841
Rem 78-88	119843-119853
Amp 1-7	127635-127641

Soil sampling, geological mapping and ground magnetic surveys were started in early June 1973 on the Rem claims and extended over the Amp claims immediately after staking on July 27, 1973. All field work was completed on August 11, 1973.

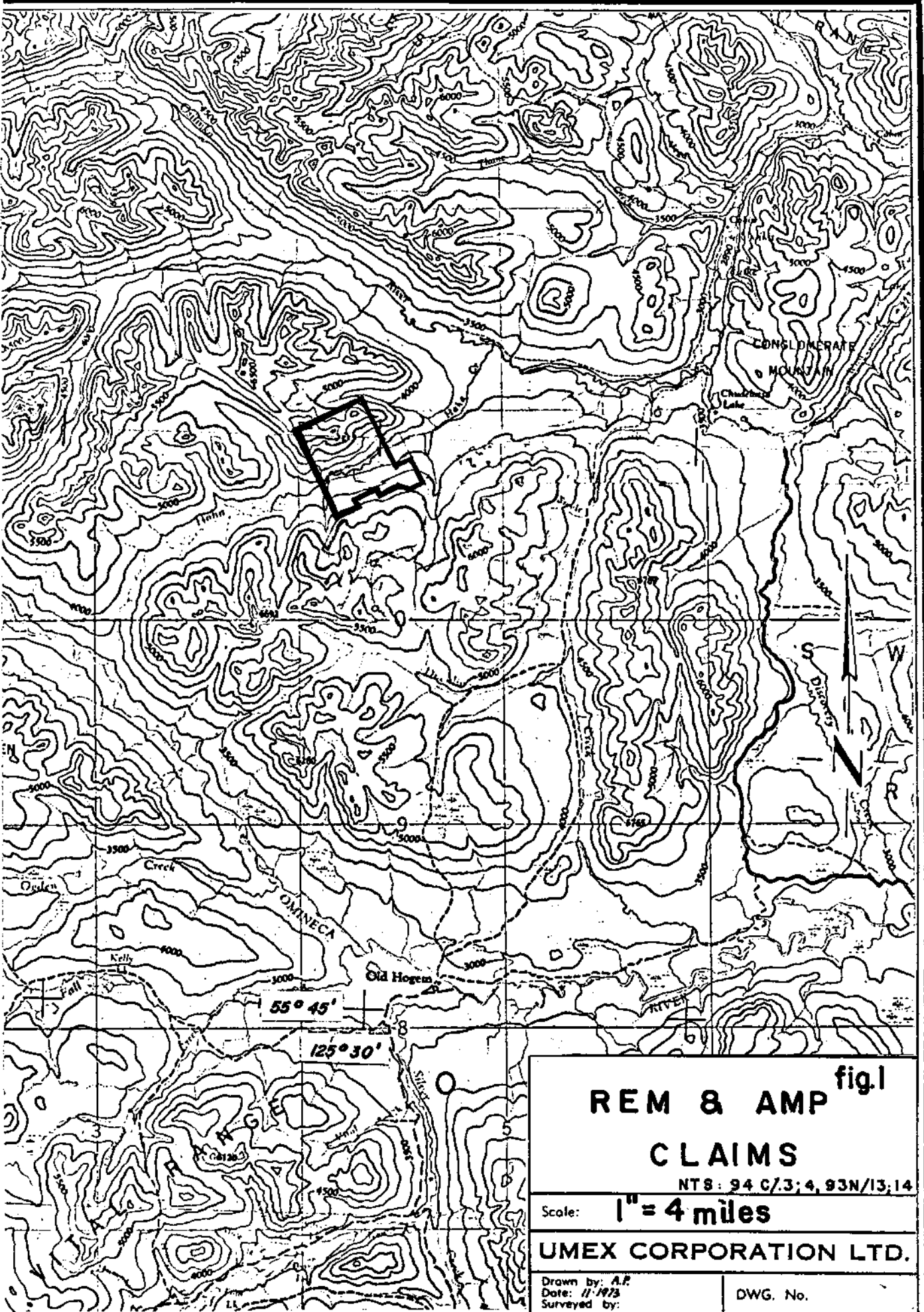
The field work was under the supervision of Mr. A. Pauwels, Geologist, who in turn was under the supervision of Mr. A. Burgoyne, P.Eng.

GRID CONTROL (note Figure 4)

A flagged base line was established by compass and chain north and south of Haha Creek in a N34°W direction. Crosslines were located in a N56°E direction at 1000 foot intervals north of Haha Creek, and at 800 foot intervals south of Haha Creek. The crosslines were chained and marked every 100 feet with a Topofoil chain.

GEOLOGICAL MAPPING (note Figure 5)

The claims were geologically mapped in June and August 1973.



REM & AMP fig.1
CLAIMS

NTS: 94 C/3; 4, 93N/13, 14

Scale: 1" = 4 miles

UMEX CORPORATION LTD.

Drawn by: A.P.
 Date: 11/1973
 Surveyed by:

DWG. No.

4737 M1

The property lies within the Hogen Batholith of the Omineca Intrusions of late-Jurassic to early-Cretaceous age. According to Garnett¹, the claims cover about three miles of contact between intrusive syenites (Duckling Creek Syenite) to the southwest and more basic K-feldspar hybrid monzonite to the northeast.

Outcrop is locally abundant along the crests of the ridges north of Haha Creek; however, no rock exposure was found south of Haha Creek. Four rock types can be distinguished:

1. Coarse-grained monzonite, inequigranular, large K-feldspar crystals in a finer grained groundmass of feldspar, pyroxene, biotite, and minor chlorite.
2. Coarse-to-medium grained monzonite, equigranular; composed of feldspar, biotite, pyroxene (5 to 20%, locally over 20%), minor epidote and chlorite.
3. Coarse-to-medium grained syenite, equigranular, pink-to-grey in colour; composed of K-feldspar, sericite, calcite, minor chlorite and biotite.
4. Fine-grained foliated syenite, equigranular, pink in colour; composed of K-feldspar, sericite and minor chlorite or biotite (<5%).

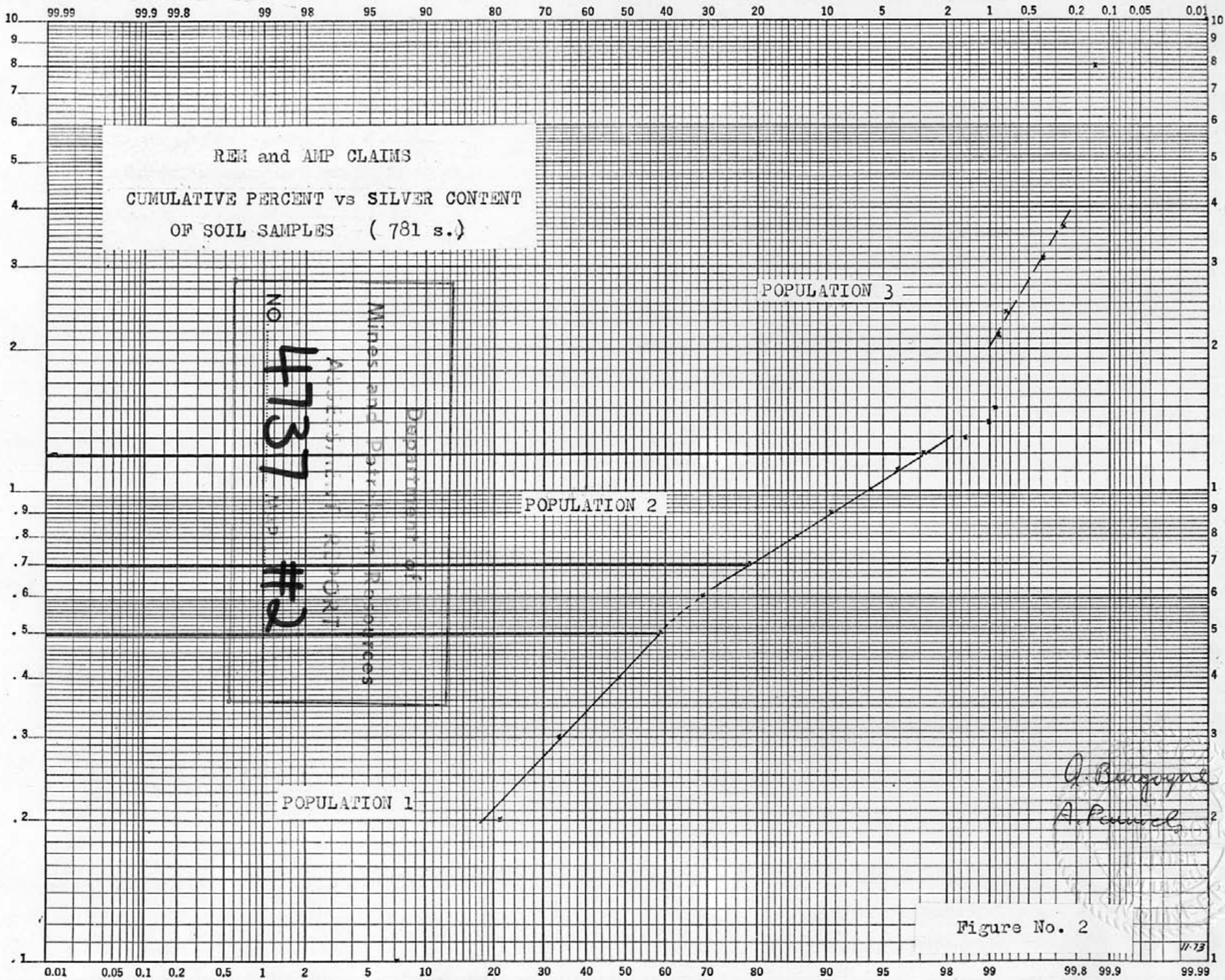
The sequence 1 to 4 above is thought to represent a progressing decrease in age of the respective rock units.

In the eastern part of the area, coarse, inequigranular monzonite (1) is found in several outcrops. Jointing is poorly developed. To the west this rock type grades into finer grained equigranular monzonite. Jointing is well developed in an EW or NE direction and numerous small dikes of coarse, pink K-feldspar, resembling rock unit 3, cut the monzonite.

Extensive exposures of syenite were found in two places; in the central part of the property and to the extreme west where the contact of the syenite with the monzonite is gradual. At or near this contact the monzonite is invaded by individual veinlets and veins of pink K-feldspar. Locally the syenite grades into a fine-grained, well-foliated (NW trend) rock type with a similar mineralogical composition. Two shear zones striking northwest occur within monzonite; the easterly shear zone constitutes the contact between monzonite and syenite.

Malachite and azurite staining was found in minor amounts in several localities on joint planes in the monzonite or on foliation surfaces in the

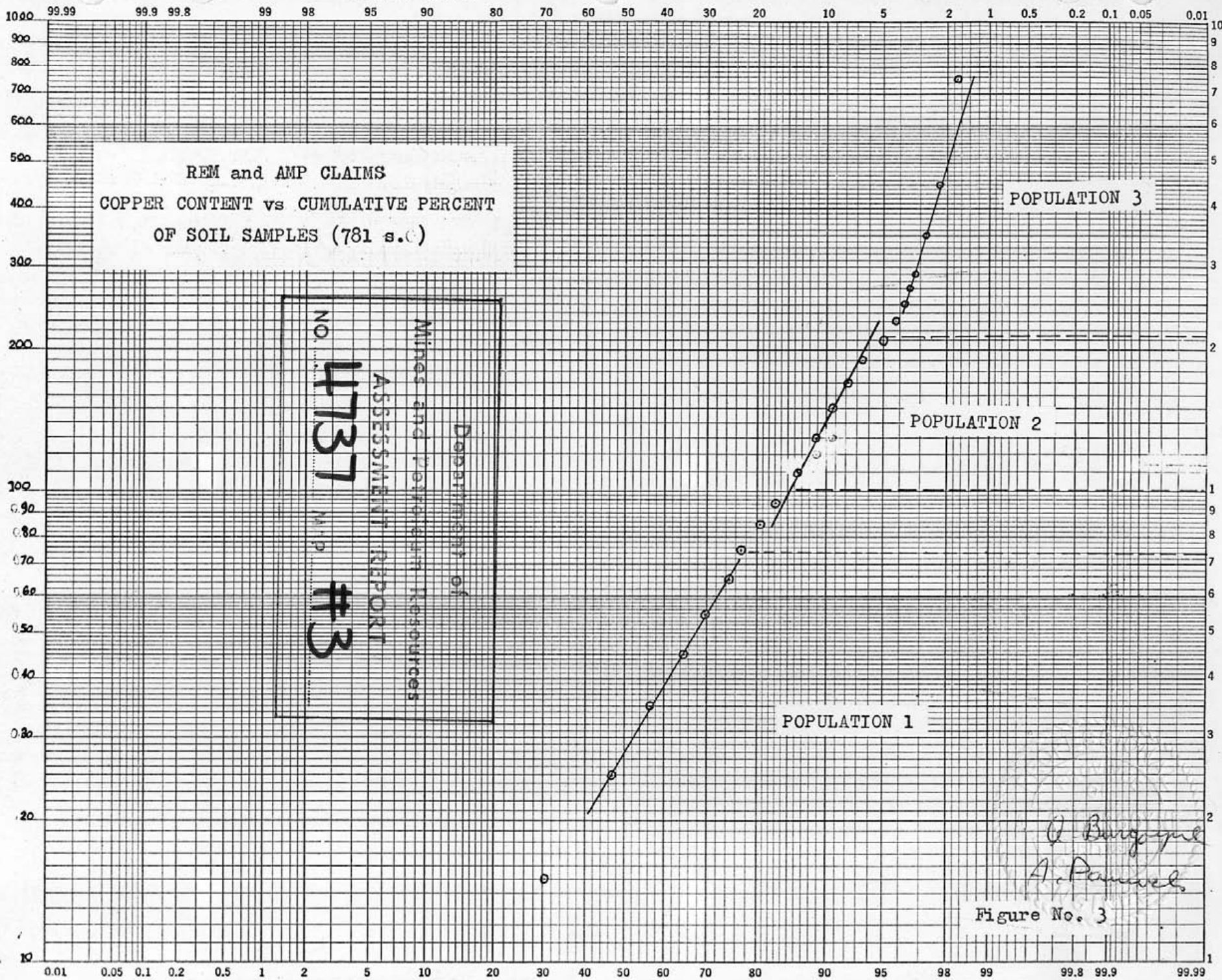
¹Garnett, T.A., Preliminary Geological Map of Part of the Hogen Batholith, Duckling Creek Area; B.C. Dept. of Mines Map No. 9



Q. Burgoyne
A. Powell

Figure No. 2

11-73



fine-grained syenite. Assays of rock chips taken from these copper showings indicate very weak mineralization grading 0.02 to 0.06% Cu. The locations of the above copper mineralization and the grades are given on Figure 5.

MAGNETOMETER SURVEY

Method

A ground magnetic survey was completed over 19 line miles with a McPhar M-700 Fluxgate Magnetometer that measured the vertical component of the geomagnetic field. The inherent sensitivity of the instrument is maximal at 2% of the scale. All measurements were relative to standard base station readings. Corrections of diurnal variations of the geomagnetic field were based on base station readings several times a day. Readings were taken every 100 feet on the grid lines south of Haha Creek. The magnetometer was operated by L. Mamoser.

Results (note Figure 6)

Nineteen line miles were surveyed south of Haha Creek at 100 foot intervals. The results are illustrated on Figure 4.

A strong NNW trend is clearly seen on the contoured results. This trend corresponds with the general geological trend in the Duckling Creek Syenite Complex.

The readings vary from -600 to +2000 gammas. The lower values (<0 gammas) are found in two linear zones; the first one trends along the baseline in a NNW direction. The second in a NE direction along line 66S. The highest values are found west of the base line and in a broad belt in the eastern part of the claims.

The magnetic values possibly reflect lithological changes; the higher values representing the basic hybrid rock types of the area, and the lower values the syenite. No threshold values in relation to lithology could be established since outcrop is absent in the surveyed area.

GEOCHEMICAL SOIL SURVEY

Method

A total of 884 soil samples were collected and analysed for silver and copper content. At each sample location a pit was dug with a shovel to a

depth of 16 inches or less, depending on the soil development, and a sample was taken from the B soil horizon. The soil was then placed in a Kraft paper soil sample bag and marked. The soil development for the surveyed areas is:

- A₀ Organic litter, 0 to 1 inch thick, but thicker in swampy areas and valley bottoms.
- A₁ Decomposed organic debris, and humus rich black in color, 0 to 2 inches thick but considerably thicker in swampy areas and valley bottoms.
- A₂ Light-coloured horizon of maximum eluviation. Thickness varies from 0 to 3 inches; spotty distribution.
- B Brown to orange in colour, loose structure, accumulation of clay minerals, iron minerals, and organic matter, 0 to 4 inches thick.
- C Weathered bedrock or glacial overburden.

Analytical Treatment of the Soil Samples

The soil samples were analysed by Core Laboratories in Smithers, B.C. The samples were dried in their respective bags at a temperature of 120°F and sieved through a -80 mesh nylon screen. Two gram portions of the -80 mesh fraction of the soils were placed in culture tubes and digested in 4 ml of a 50 percent nitric acid solution for three hours. The digested samples were bulked to a specific volume with deionized water and then asperated into an atomic absorption spectrophotometer. Calibration of the spectrophotometer is done by preparation of silver and copper standard solutions daily.

Results (note Figures 2, 3, 7, 8)

A total of thirty-four line miles were soil sampled at 200 foot intervals (see Figures 6 and 7).

A study of the frequency of silver and copper values (see Figures 2 and 3), reveals two, and possibly three, distinct populations of values. For silver, the first two populations overlap between 0.5 and 0.7 ppm silver; the third population comprising only 1.5% of the samples exceeds 1.4 ppm silver. For copper, three populations can be distinguished; overlap occurs between 75 - 85 and 230 - 250 ppm copper. High copper and silver values are found in the same locations but the higher copper values occur over a larger area and extend downslope, especially on the steep slopes north of Haha Creek. This pattern is explained by the higher mobility of the copper ion. The first two populations

of copper and silver may reflect lithological units. The second populations representing biotite and pyroxene-rich basic hybrid rock types found in the area; whereas the first or lowest populations being associated with syenites. Some of the highest values (line 12S, 44E; line 20S, 46-48E) apparently are caused by organic fixation and accumulation of silver and copper in poorly drained swampy areas. The third and highest copper/silver population is represented by high spot values and reflects erratic and weak copper and silver mineralization in bedrock - mainly found on the scree and talus-covered northside of the Haha Creek valley where overburden is very thin.

CONCLUSIONS

The ground magnetic and soil surveys completed over the Rem and Amp claims have been useful in indicating and outlining inferred lithological changes of the bedrock. Above background and low anomalous silver and copper soil values have indicated mineralization in restricted areas. Prospecting and geological mapping have shown that these high copper and silver results represent weak copper with associated silver mineralization.

Respectfully submitted,

Alfred A. Burgoyne
Alfred A. Burgoyne, P.Eng.

A. Pauwels
Andre M. Pauwels, B.Sc.

APPENDIX I

Statement of Expenditures, Amp and Rem Claims

A. Geochemical Soil Survey for Copper and Silver
and Placement of Lines

Labour - Field Costs

A. Burgoyne	June 11, July 27, 1973 @ \$75/day	\$ 150.00
G. Wine	June 3-9, 12, 13, 1973 @ \$20/day	\$ 180.00
L. Mamoser	June 3-9, 13, 16, 19, 30, July 12-14, 30, Aug. 1, 10, 11, 1973 @ \$26/day	\$ 468.00
B. Walker	June 16-20, July 16, 17, 1973 @ \$20/day	\$ 140.00
B. Wong	June 16-20, July 13, 14, 17, 1973 @ \$20/day	\$ 160.00
G. Bandura	July 30, 1973 @ \$33/day	\$ 33.00
A. Pauwels	June 3-5, 11, 13, 14, 19, July 29-30, 1973 @ \$47/day	\$ 423.00

Helicopter Transportation

Rental - 10 hours @ \$215/hour	\$2150.00
Fuel - 300 gallons @ \$1/gallon	\$ 300.00

Personnel Maintenance

Meals, field personnel, 54 days @ \$10/day	\$ 540.00
Equivalent meals, 3 days for helicopter pilot and mechanic @ \$10/day	\$ 60.00

Analytical Costs

884 samples @ \$1.75/sample	\$1547.00
-----------------------------	-----------

Office (reports and drafting)

A. Burgoyne 4 days @ \$75/day	\$ 300.00
A. Pauwels 10 days @ \$47/day	\$ 470.00
G. Bandura 2 days @ \$33/day	\$ 66.00
B. Woodworth 1 day @ \$25/day	\$ 25.00

Miscellaneous, Supplies, and Reproduction

	\$ 200.00
--	-----------

TOTAL

 \$7212.00

For 33.4 line miles of soil survey = \$215.9/mile

B. Magnetic Ground Survey

Labour - Field Costs

A. Burgoyne	June 28, 1973 @ \$75/day	\$ 75.00
A. Pauwels	June 19, July 27, Aug. 10, 11, 1973 @ \$47/day	\$ 188.00
L. Mamoser	June 11, 12, 14, 15, 18, July 15, 29, 1973 @ \$26/day	\$ 182.00

Helicopter Transportation

Rental - 2 hours @ \$215/hour	\$ 430.00
Fuel - 60 gallons @ \$1/gallon	\$ 60.00

Personnel Maintenance

Meals, field personnel, 12 days @ \$10/day	\$ 120.00
Equivalent meals, 1 day for helicopter pilot and mechanic @ \$10/day	\$ 20.00

Magnetometer

Equivalent rental, 11 days @ \$9/day	\$ 99.00
--------------------------------------	----------

Office (reports and drafting)

A. Pauwels 2 days @ \$47/day	\$ 94.00
G. Bandura 1 day @ \$33/day	\$ 33.00

\$1301.00

C. Geological Mapping

Labour - Field Costs

L. Mamoser Aug. 7-9, 1973 @ \$26/day	\$ 78.00
A. Pauwels June 6-9, 12, 15, 17, 18, Aug. 7-9, 1973 @ \$47/day	\$ 517.00
C. Dyson June 11, 16, 1973 @ \$60/day	\$ 120.00

Personnel Maintenance

Meals, field personnel, 16 days @ \$10/day	\$ 160.00
--	-----------

Analytical Costs

31 rock samples @ \$2.25/sample	\$ 69.75
---------------------------------	----------

Office (reports and drafting)

A. Burgoyne 1 day @ \$75/day	\$ 75.00
A. Pauwels 3 days @ \$47/day	\$ 141.00

\$1160.75

Total Costs, A, B, C

\$9673.75

APPENDIX II

Distribution of Assessment Costs

1. Rem Group I

Claims - Rem 1-6, 12, 14, 15-22, 27-30: 20 claims

Geochemical soil survey	11.4 miles @ \$215.9/mile	\$2461.00
Magnetometer survey	10.2 miles @ \$ 70.7/mile	\$ 721.10
		\$3182.10

2. Rem Group II

Claims - Rem 7-11, 13, 31, 33, 34, 41, 43, 45, 63-72,
74, 76, 78-88: 35 claims

Geochemical soil survey	9.3 miles @ \$215.9/mile	\$2007.80
Magnetometer survey	3 miles @ \$ 70.7/mile	\$ 212.10
Geological mapping	($\frac{1}{2}$ of the mapped area)	\$ 580.40
		\$2800.30

3. Rem Group III

Claims - Rem 23-26, 32, 35-40, 42, 44, 46-58
Amp 1-7: 33 claims

Geochemical soil survey	12.7 miles @ \$215.9/mile	\$2742.00
Magnetometer survey	5.1 miles @ \$ 70.7/mile	\$ 361.30
Geological mapping	($\frac{1}{2}$ of the mapped area)	\$ 580.40
		\$3683.70

Declared before me at the *City*
of *Vancouver*, in the
Province of British Columbia, this *3rd*
day of *December, 1973*, A.D.



Joan Paul SUB-MINING RECORDER

A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.



4737
M4

Department of
Mineral and Petroleum Resources
ASSESSMENT REPORT
NO. 4737 MAP #4

Figure 4

REM & AMP CLAIMS
CLAIMS & GRID
LOCATION

94C/3,4,93N/14,13

Scale: 1" = 800'

UMEX CORPORATION LTD.

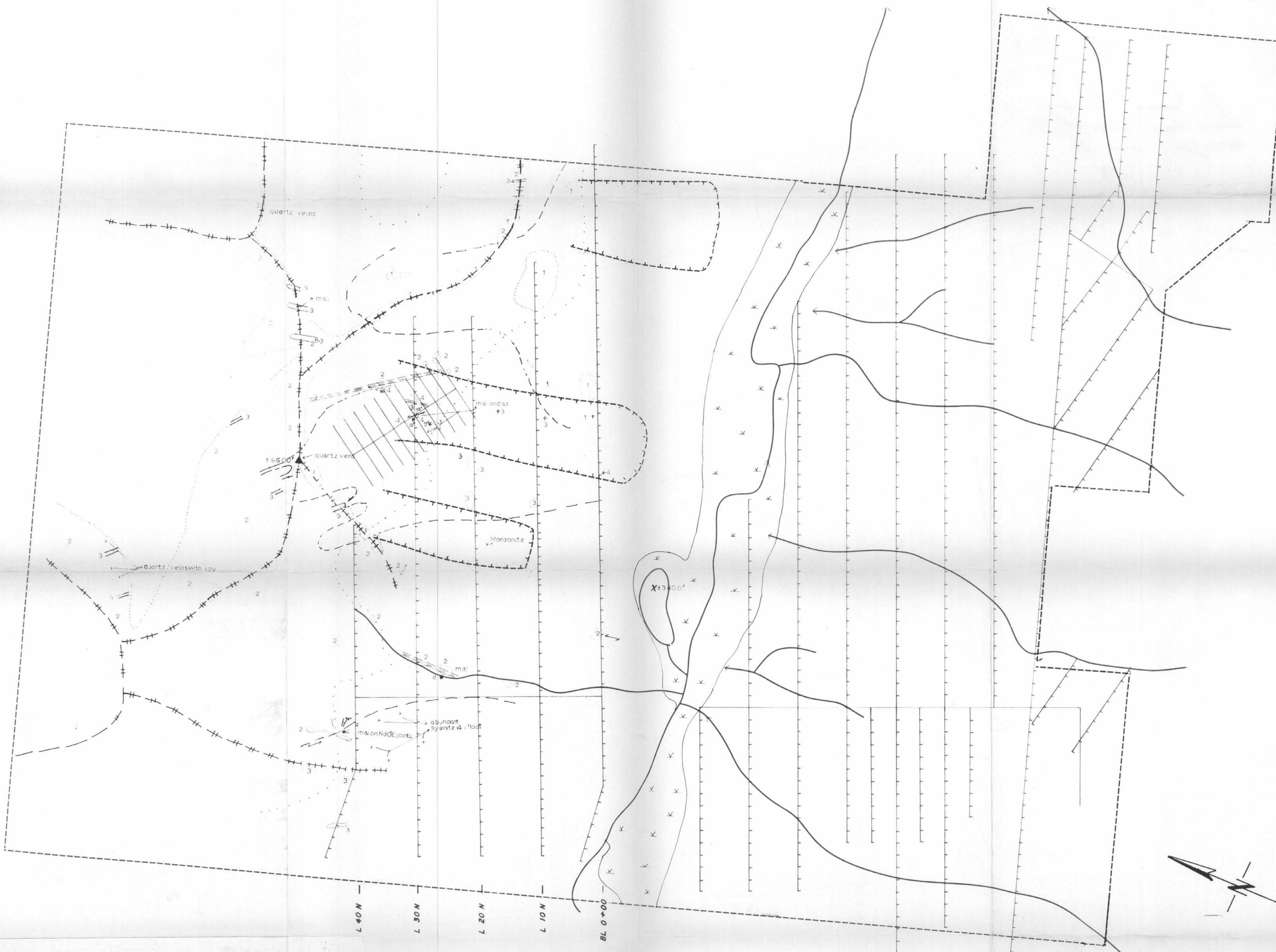
DRAWN BY: A. Pauwels
DATE: 11-73
SURVEYED BY: L.M. AP

DWG. No.

- Creek or stream
- Claimpost
- Claimboundary
- Gridline
- Campsite
- Witnesspost

To accompany report dated November 27, 1973 by Alfred A. Burgoyne, P. Eng., and Andre M. Pauwels, B.Sc., on Rem and Amp claims, thirty miles northwest of Germansen Landing, Omineca Mining Division, B.C.

Alfred A. Burgoyne
A. Pauwels



Rock Units

1. Coarse-grained monzonite, grey in colour, composed of large (2") K-feldspar crystals in groundmass of K-feldspar, pyroxene and minor biotite (5 to 20% mafics).
2. Coarse-to-medium grained monzonite, grey in colour, equigranular, composed of K-feldspar, pyroxene, minor biotite and epidote (5 to 20% mafics locally over 20%).
3. Coarse-to-medium grained syenite, pink-to-grey in colour, equigranular, composed of K-feldspar, sericite, calcite, minor biotite and chlorite (less than 5% mafic minerals).
4. Fine-grained foliated syenite, pink-to-grey in colour, equigranular, composed of K-feldspar, sericite, calcite, minor epidote, chlorite and biotite.

Rock Sampling

- *a 0.06% Cu over 30 feet (4 samples)
- *b 0.05% Cu over 36 feet (4 samples)
- *c 0.05% Cu over 150 feet (16 samples)
- *d 0.025% Cu over 40 feet (5 samples)

- Crest of ridges
- Creeks or streams
- Trailline
- Swamp
- Avalanche path
- Foliation, strike and dip Joints; strike and dip
- Outcrop
- Shearzone
- float
- * Rock sampling site
- Geological boundary (assumed)
- Geological boundary (observed)
- mal Malachite
- az. Azurite
- cpy. Chalcophanite

To accompany report dated November 27, 1973 by Alfred A. Burgoyne, P.Eng., and Andre M. Pauwels, B.Sc., on Rem and Amp claims, thirty miles northwest of Germansen Landing, Omineca Mining Division, B.C.

Alfred A. Burgoyne
A. Pauwels

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4737** MAP #5

figure 5

REM & AMP CLAIMS
GEOLOGY

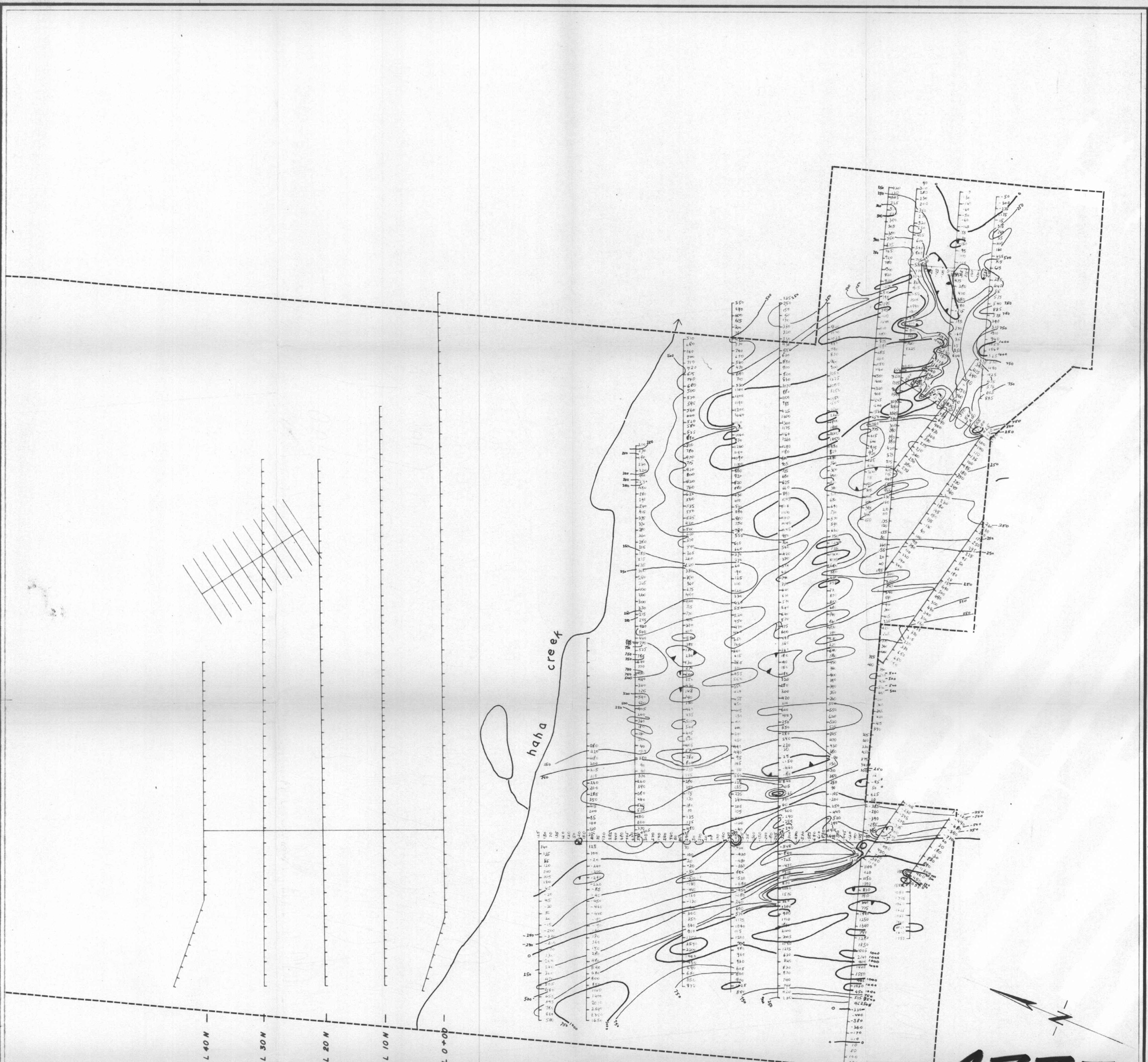
Scale: 1" = 800'

UMEX CORPORATION LTD.

DRAWN BY: A.P.
DATE: 11-73
SURVEYED BY: A. Pauwels

DWG. No.

4737
M5



4737

Department of
M 16 Resources
 ASSESSMENT REPORT
 NO. **4737** MAP #6

figure 6

REM & AMP CLAIMS
MAGNETOMETER SURVEY
 McPHAR M-700

NTS : 94 C/3;4,93 N/14,13

Scale: 1" = 800'

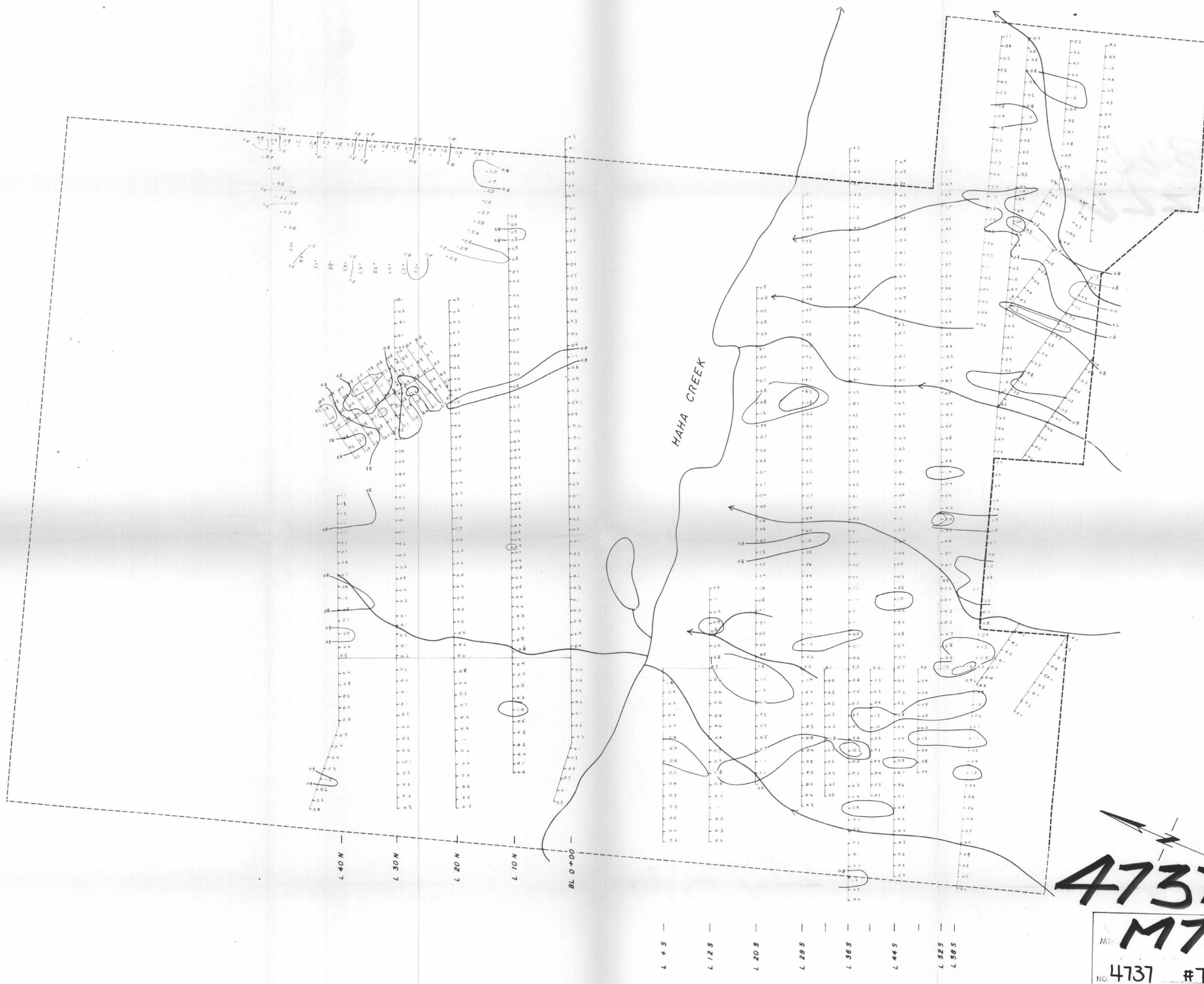
UMEX CORPORATION LTD.

DRAWN BY: A Pauwels
 DATE: 11-1973
 SURVEYED BY: L. Mamoser

DWG. No.

L 4 9 7
 L 1 2 5 7
 L 5 2 0 7
 L 5 8 2 7
 L 3 6 6 7
 L 4 4 5 7
 L 5 2 8 7
 L 5 8 6 7

Alfred A. Burgoyne
A. Pauwels
 To accompany report dated November 27, 1973 by Alfred A. Burgoyne,
 P.Eng., and Andre M. Pauwels, B.Sc., on Rem and Amp claims, thirty
 miles northwest of Germansen Landing, Omineca Mining Division, B.C.



4737

M7

NO. 4737 #7

figure 7.

Gridlines and silver values (ppm) from B soil Horizon
Contours at 0.8 and 1.4 ppm Ag.

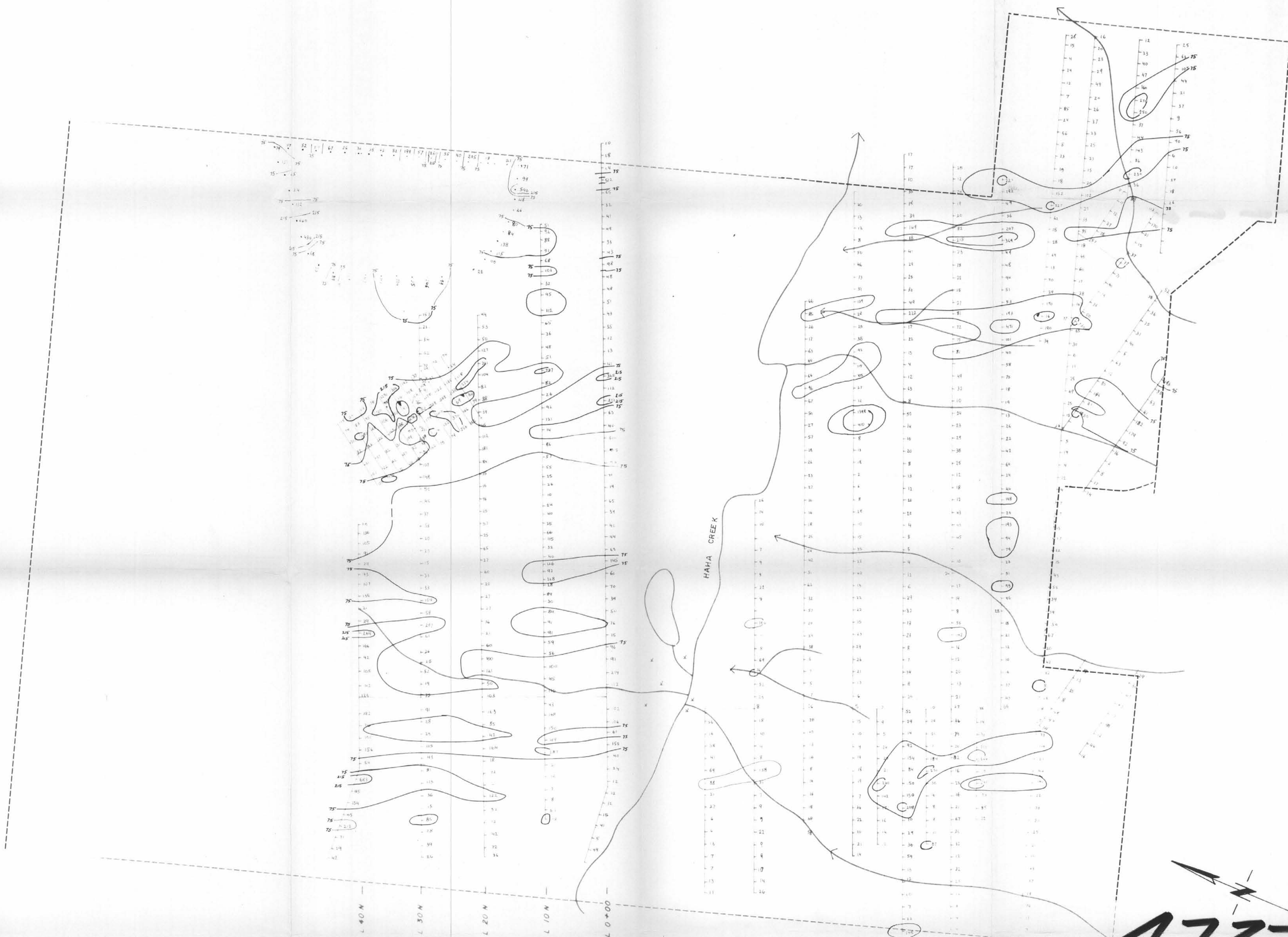
--- Claimboundary

ns. No sample.

REM & AMP CLAIMS	
GEOCHEMICAL SOIL SAMPLING	
SILVER	
NTS: 94C/3,4,93N/14,13	
Scale:	1" = 800'
UMEX CORPORATION LTD.	
DRAWN BY: A. Pauwels	DWG. No.
DATE: 11-1973	SURVEYED BY: wakajwng, wong

To accompany report dated November 27, 1973 by Alfred A. Burgoyne, P.Eng., and Andre H. Pauwels, B.Sc., on Rem and Amp claims, thirty miles northwest of Germansen Landing, Omineca Mining Division, B.C.

Alfred A. Burgoyne
A. Pauwels



4737

M8
 Mines and Resources
 ASSESSMENT REPORT
 NO. 4737 MAP #18

figure 8

Gridlines and Copper values from B soil horizon
 Contours at 75 and 215 ppm Cu
 Claim boundary
 ns. No Sample

To accompany report dated November 27, 1973 by Alfred A. Burgoyne, P.Eng., and Andre M. Pauwels, B.Sc., on Rem and Amp claims, thirty miles northwest of Germansen Landing, Omineca Mining Division, B.C.

A. Pauwels
Alfred A. Burgoyne

REM & AMP CLAIMS	
GEOCHEMICAL SOIL SAMPLING	
COPPER	
Scale:	1" = 800'
UMEX CORPORATION LTD.	
DRAWN BY: A P	DWG. No.
DATE: 11-73	
SURVEYED BY:	