

UMEX UNION MINIÈRE EXPLORATIONS
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GEOCHEMICAL SOIL SURVEY FOR
COPPER, LEAD, AND ZINC
ELK AND MOUSE CLAIM GROUP

Elk, Deer, Pika, Bear Mineral Claims - Record Nos. 167, 166, 176, 164
Mouse, Sheep, Puma Mineral Claims - Record Nos. 165, 168, 193

Victoria Mining Division
N.T.S. 92B/13W

Latitude $48^{\circ}44'$
Longitude $123^{\circ}55'$

by
A. Pauwels, B.Sc.

7384

Owner and Operator: Union Miniere Explorations and
Mining Corporation Limited

Work Dates: May 25 to June 19, 1978

Report Date: June 2, 1979

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GEOCHEMICAL SOIL SURVEY FOR COPPER, LEAD, AND ZINC
ELK AND MOUSE CLAIM GROUP

INTRODUCTION

The claims are located 17 kilometers west of Chemainus and can easily be reached by 25 kilometers of logging roads and B.C. Hydro access roads (see Figure 1).

The centre of the claims are at latitude $48^{\circ}54'$ and longitude $123^{\circ}55'$ and the elevation ranges from 600 meters to 1100 meters above sea level. The claims are within the Vancouver Island Ranges of the Insular Mountains physiographic subdivision.¹ Geochemical soil sampling for copper, lead, and zinc was done from May 25 to June 19, 1978 and 1351 samples were taken. The work was planned and supervised by A. Pauwels, B.Sc.; sampling and line placement was done by Messrs. J. Reid, F. Thrane, D. Coops, S. Stannus, and Ms M. Haugen. Information regarding the claims is tabulated in Appendix I.

GEOLOGY

The claims are underlain by quartz sericite and chlorite schist of the Paleozoic Sicker volcanics.² Along the southern boundary of the claims conglomerates and shales of the Cretaceous Nanaimo Group unconformably overlie the Sicker metavolcanics.

GEOCHEMICAL SOIL SURVEY

Line Placement

Lines were all traced by compass, marked with coloured flagging and distances were measured with a hip chain. Stations were marked every 50 meters. Distances on slopes were corrected to horizontal through frequent measurements of the slope with a visual dip angle meter. The lines were oriented $N40^{\circ}E$ and spaced 200 meters apart.

¹Holland, S.S., 1964, Land Forms of British Columbia: A physiographic outline, B.C. Department of Mines and Petroleum Resources Bulletin 48

²Muller, J.E., 1977, Geology of Vancouver Island: G.S.C. Open File 463

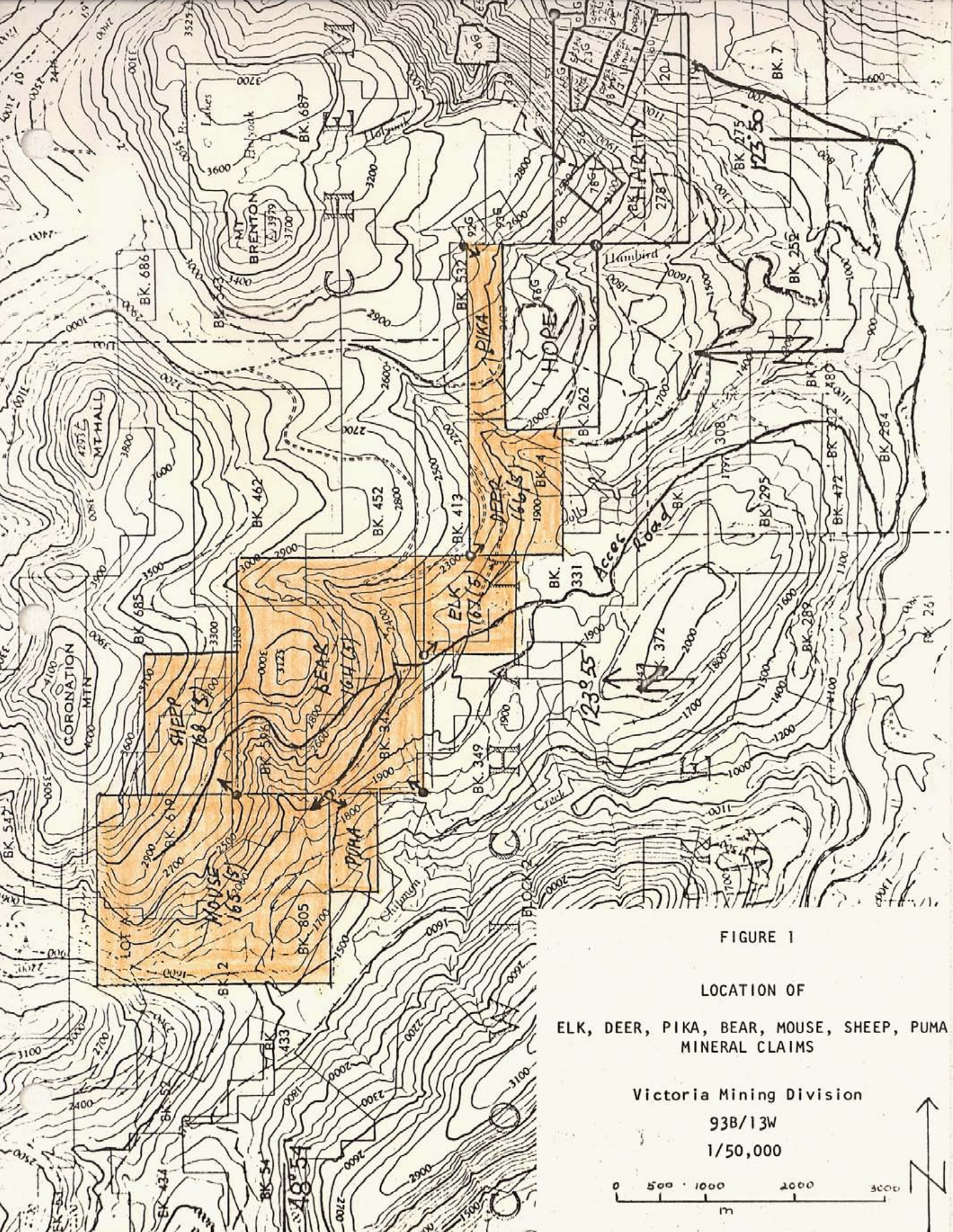


FIGURE 1

LOCATION OF
ELK, DEER, PIKA, BEAR, MOUSE, SHEEP, PUMA
MINERAL CLAIMS

Victoria Mining Division
93B/13W
1/50,000



Soil Sampling and Analytical Methods

At each sample site a hole was excavated with a shovel and 0.5 to 1 kg of medium brown coloured B soil horizon was collected and placed in a kraft sample bag. The B soil horizon is well developed and the soil samples were taken from the top of the B horizon at a depth of 10 to 30 cm. The copper, lead, and zinc in the soil samples were analyzed by Acme Analytical Laboratories Ltd., 6455 Laurel Street, Burnaby, B.C. Soil samples were dried at 75°C and sieved to a -80 mesh. An 0.5 gram sample of this sieved soil was digested in dilute aqua regia in a boiling water bath for 1-2 hours, bulked with demineralized water and analyzed by atomic absorption. The sensitivity of the analytical method is, Cu 1 ppm; Pb 2 ppm; and Zn 1 ppm.

Results

A total of 1351 samples were collected over the claims. All samples were analysed for copper, lead, and zinc and the results are illustrated in Figures 3, 4, and 5. Plots of the cumulative frequency versus copper, lead, and zinc are found in Figure 2 and show the following lognormally distributed populations:

	Population I	Overlap	Population II	Population III
Copper	0-75 ppm	75-95 ppm	95-140 ppm	140 ppm
Lead	0-19 ppm	20 ppm	21 ppm	- - -
Zinc	0-110 ppm	- - - -	110 ppm	- - -

The first population for all three metals is thought to represent normal background contents in bedrock.

The results for copper show a large area with values of second and third populations north of the baseline. Over half of the values in this area are over 70 ppm and peak values reach 205 ppm.

Zinc values of the second population are concentrated in several clusters along the southern boundary of the property from line 28W to 11E. The highest values occur from 5E to 11E near the baseline on the Elk claim, coinciding with higher lead and copper values. Another cluster of higher zinc values, with no associated high lead or copper, occurs from lines 16 to 26W from 9 to 10S. Lead results show erratic distribution of higher spot values throughout the property.

CONCLUSIONS AND RECOMMENDATIONS

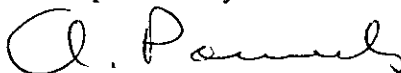
Three areas with high base metal contents in soils were delineated on the property.

- 1) A large area of high copper values north of baseline.
- 2) A linear zinc-copper-lead anomaly on the Elk claim.
- 3) An area of high zinc occurring near Puma and Mouse claim.

The wide distribution of the higher copper values and the lack of associated lead and zinc suggests a high lithological background as cause of the high values in area 1. The lack of associated lead or copper also suggests a similar origin for the higher zinc values in area 3. The linear association of high zinc-copper and lead in area 1 suggests mineralization is a probable cause.

It is recommended to investigate all three areas through rock sampling/prospecting/mapping to ascertain the causes of the high base metal values in the soils.

Respectfully submitted,



A. Pauwels, B.Sc.

APPENDIX I

CLAIM STATUS

Group Name	Claim Name	Staked	Recorded	Record Number	Units
Mouse Claim Group (grouped March, 1979)	Mouse	April 29/78	May 5/78	165	20
	Sheep	April 26/78	May 5/78	168	6
	Puma	Sept. 22/78	Oct. 18/78	193	2
Elk Claim Group (grouped March, 1979)	Elk	April 24/78	May 5/78	167	4
	Deer	April 25/78	May 5/78	166	6
	Bear	April 25/78	May 5/78	164	20
	Pika	June 9/78	June 26/78	176	4

All claims are in the Victoria Mining Division

APPENDIX II

STATEMENT OF EXPENDITURES

ELK AND MOUSE CLAIM GROUP

Soil Sampling and Line Placement

F. Thrane, May 25-30, June 1-5, 12-14, 17-19, 1978 - 17 days @ \$46.00/day	\$ 782.00
M. Haugen, May 25-30, June 1-5, 7, 12-14, 18, 19, 1978 - 17 days @ \$38.96/day	\$ 662.32
J. Reid, June 1-5, 7, 12-19, 1978 - 14 days @ \$46.64/day . . .	\$ 652.96
S. Stannus, June 1-5, 7, 12-19, 1978 - 14 days @ \$38.96/day . .	\$ 545.44
D. Coops, June 15-19, 1978 - 5 days @ \$33.35/day.	\$ 166.75
F. Daley, Nov. 6-10, 1978 - 5 days @ \$59.28/day.	\$ 296.40
A. Pauwels, planning and supervision, May 25-28, 1978 - 4 days @ \$136.76/day.	\$ 547.04
A. Pauwels, drafting, interpretation, reports, Feb. 27-28, 1979 - 2 days @ \$140.08/day	\$ 280.16
Meals - 71 days @ \$8.75/person/day	\$ 621.25
Accommodation - 71 days @ \$8.50/person/day	\$ 603.50
Assays - 1351 samples @ \$2.08/sample	\$2,810.08
Survey supplies - 1351 soil sample bags @ \$0.04/bag.	\$ 54.04
- 40 rolls cotton thread for hip chain @ \$2.21 ea.	\$ 88.40
- 140 rolls flagging tape @ \$1.05 ea.	\$ 147.00
Truck - 17 days @ \$40/day (including gas)	\$ 680.00
Travel costs	\$ 150.00
Typing, office supplies	\$ 100.00
	TOTAL
	\$9,187.34

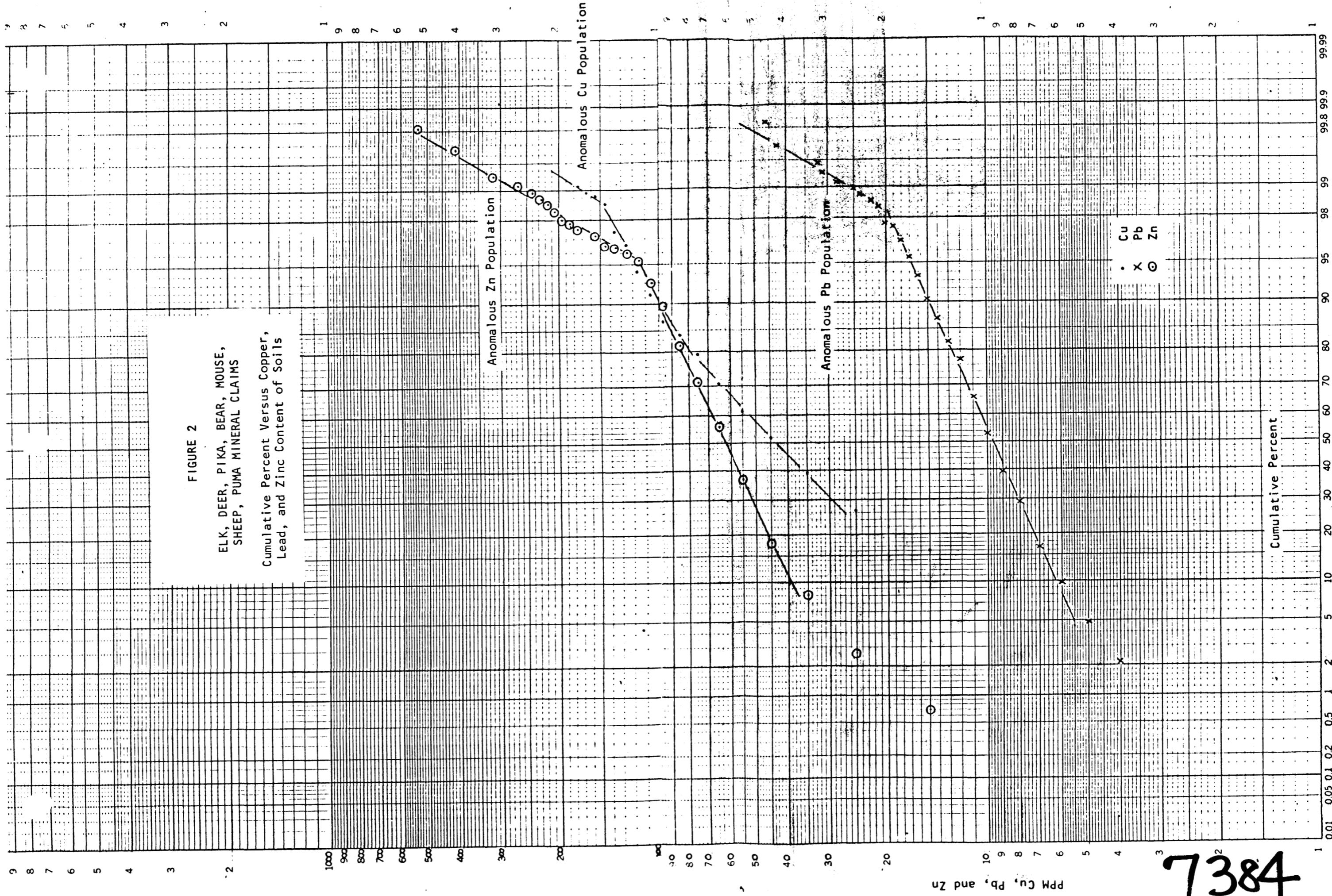
On ELK Group:	763 samples --	$\$9,187.34 \times \frac{763}{1351}$	=	\$5,188.70
On MOUSE Group:	588 samples --	$\$9,187.34 \times \frac{588}{1351}$	=	\$3,998.64

APPENDIX III

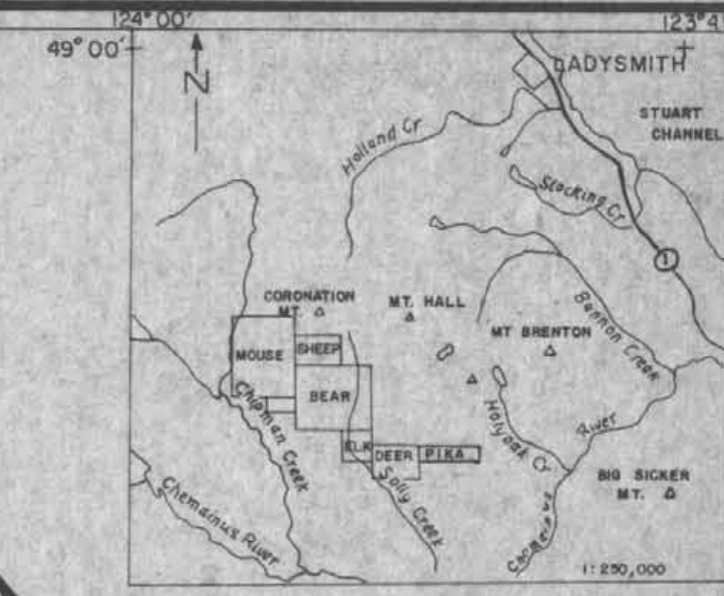
AUTHOR'S QUALIFICATIONS

I, Andre M. Pauwels of 4900 Mariposa Court, Richmond, B.C. hereby certify that:

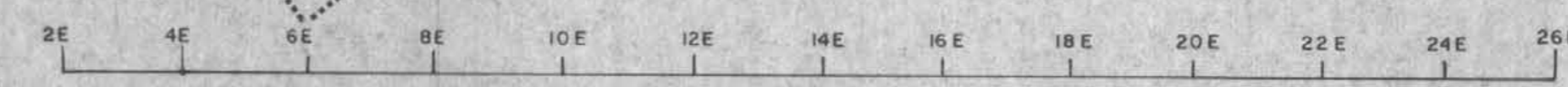
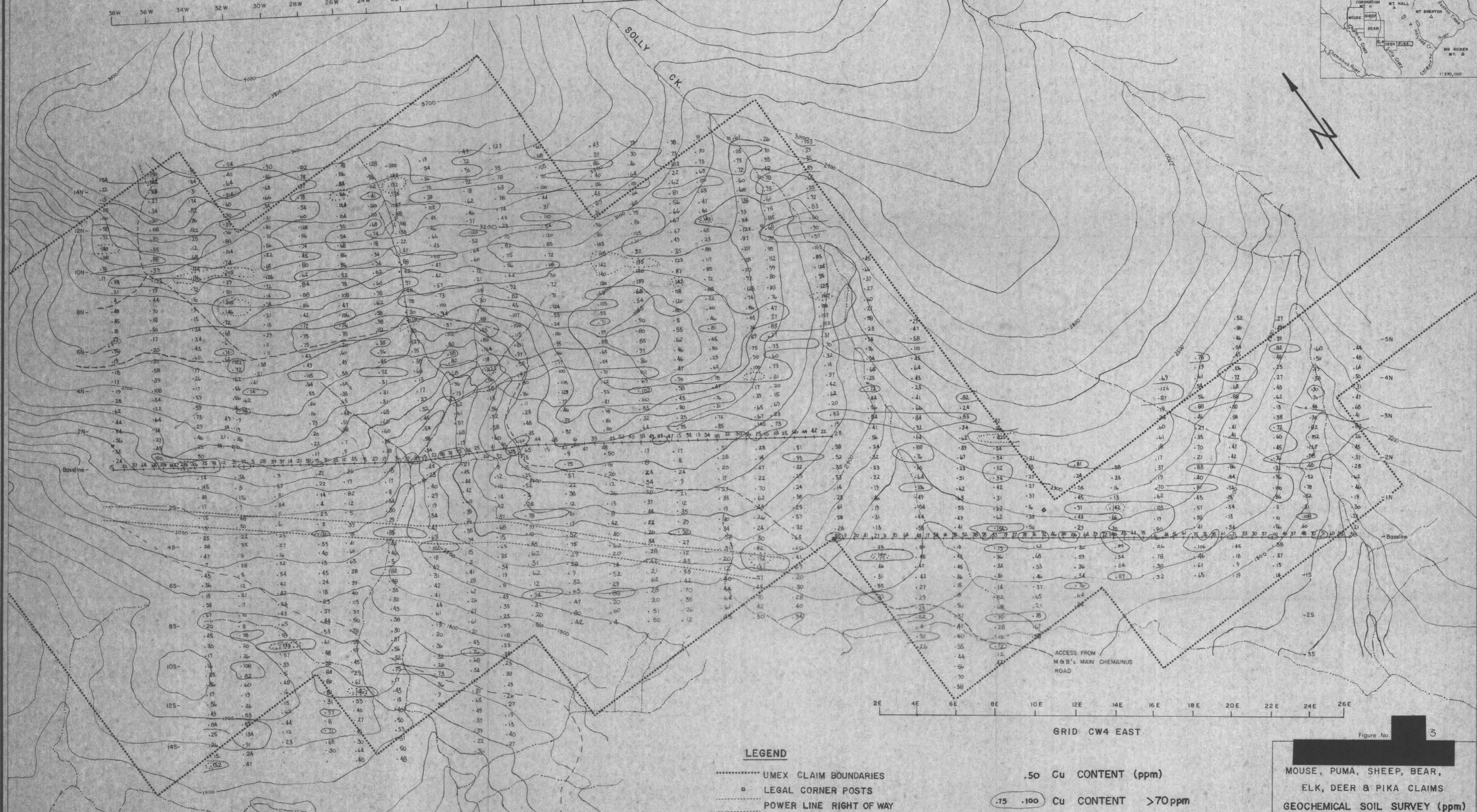
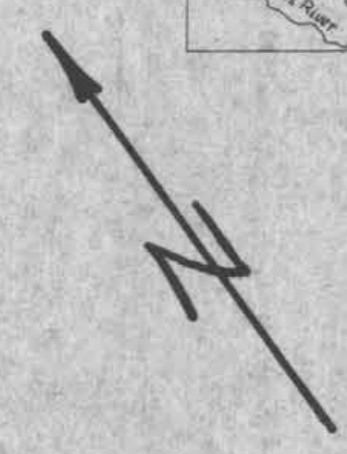
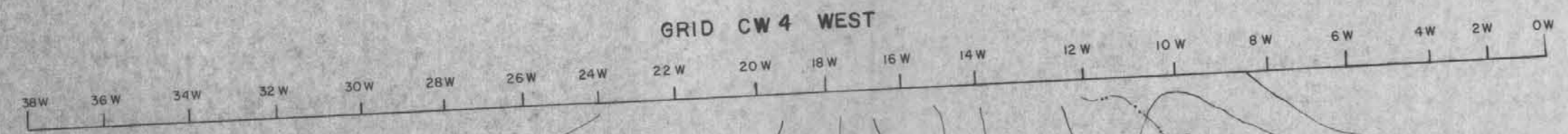
- 1) I am a graduate of the Rijksuniversitet of Ghent, Belgium, B.Sc. Geology in 1970.
- 2) I have practised my profession since 1970 with Union Miniere Explorations and Mining Corporation Limited (UMEX) in Ontario (1970-1972) and British Columbia (1972-1979).



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GRID CW 4 WEST



GRID CW4 EAST

LEGEND

- UMEX CLAIM BOUNDARIES
- LEGAL CORNER POSTS
- POWER LINE RIGHT OF WAY
- DRIVEABLE ROADS
- ACTIVE CREEKS
- SOIL SAMPLE LOCATION
- SILT SAMPLE LOCATION

- .50 Cu CONTENT (ppm)
- (.15 .100) Cu CONTENT >70ppm
- (.192 .190) Cu CONTENT >140ppm

7384 *Pauwels*

To Accompany Assessment Report "Geochemical Soil Survey for Copper, Lead, and Zinc, Elk and Mouse Claim Group" by A. Pauwels, B.Sc., June 2, 1979

Figure No. **3**

MOUSE, PUMA, SHEEP, BEAR, ELK, DEER & PIKA CLAIMS
GEOCHEMICAL SOIL SURVEY (ppm)
COPPER IN "B" HORIZON

NTS. 92 B

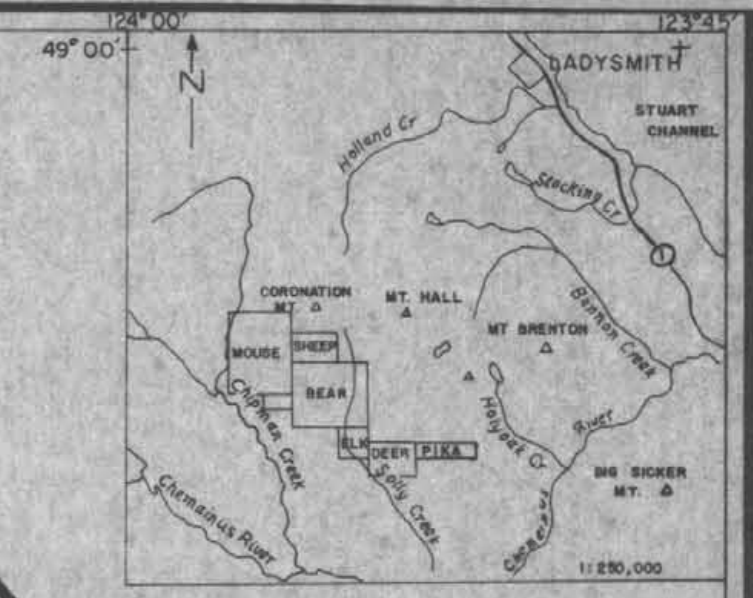
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UMEX CORPORATION LTD.

DRAWN BY: F DALEY
DATE: NOV. 1978
SURVEYED BY: JR, FT, SS, DC, MH

DWG. No.

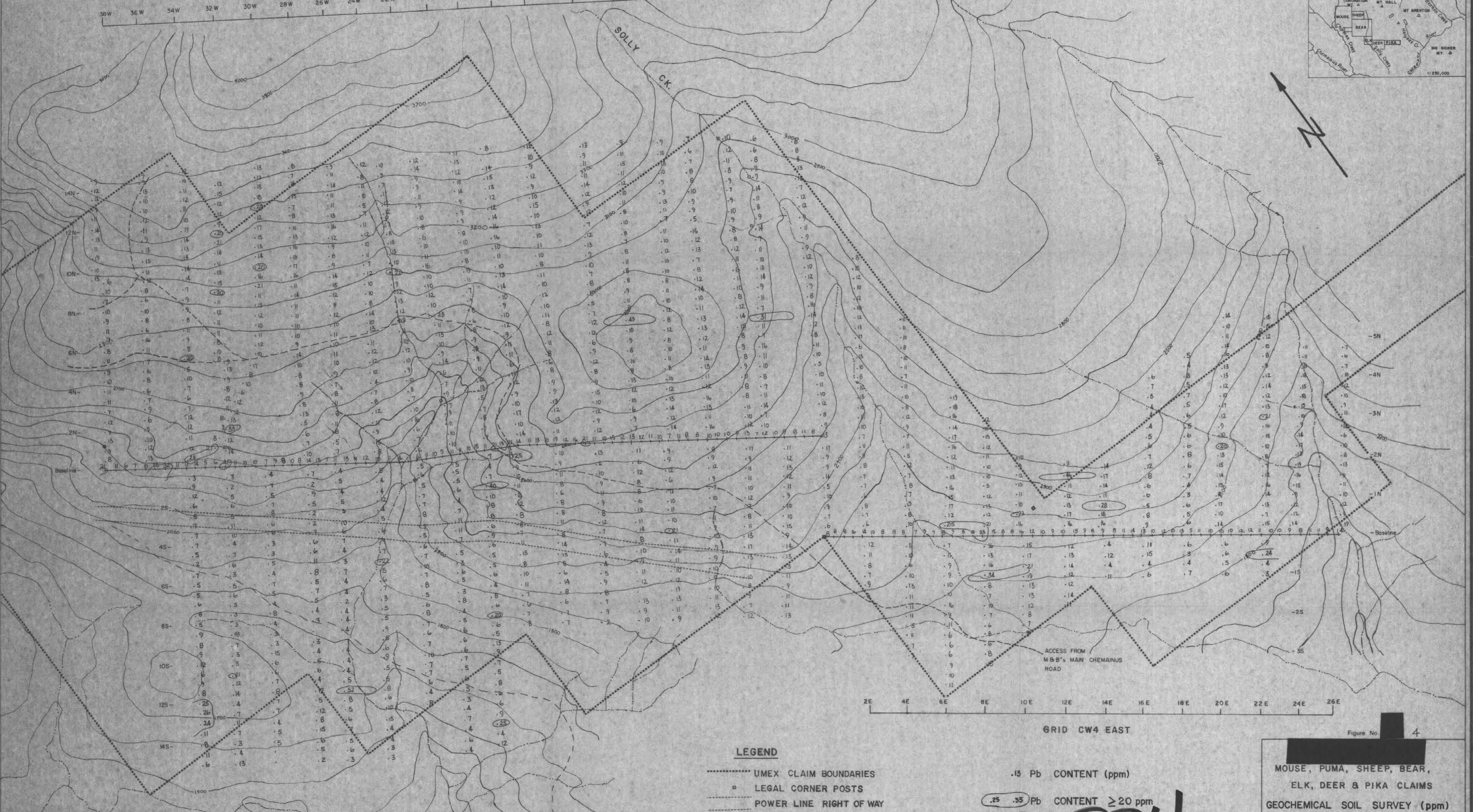
100' contours



GRID CW 4 WEST

38W 36W 34W 32W 30W 28W 26W 24W 22W 20W 18W 16W 14W 12W 10W 8W 6W 4W 2W 0W

SOLLY CK



LEGEND

- UMAX CLAIM BOUNDARIES
- LEGAL CORNER POSTS
- POWER LINE RIGHT OF WAY
- DRIVEABLE ROADS
- ACTIVE CREEKS
- SOIL SAMPLE LOCATION
- SILT SAMPLE LOCATION

.15 Pb CONTENT (ppm)
 .25 .35 Pb CONTENT ≥ 20 ppm

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A. Pauwels

Figure No. 4

MOUSE, PUMA, SHEEP, BEAR,
 ELK, DEER & PIKA CLAIMS
 GEOCHEMICAL SOIL SURVEY (ppm)
 LEAD IN "B" HORIZON

NTS. 92/B

Scale: 1:10,000

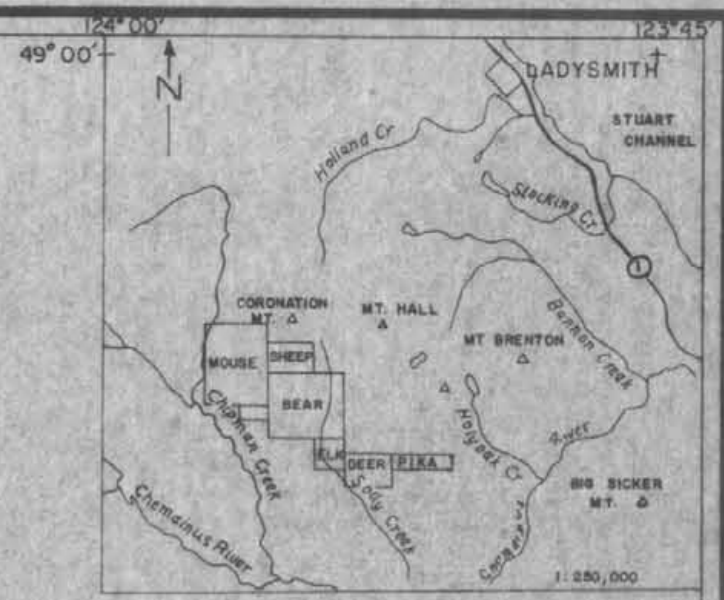
UMEX CORPORATION LTD.

DRAWN BY: F DALEY
 DATE: NOV. 1978
 SURVEYED BY: JR, FT, SS, DC, MH

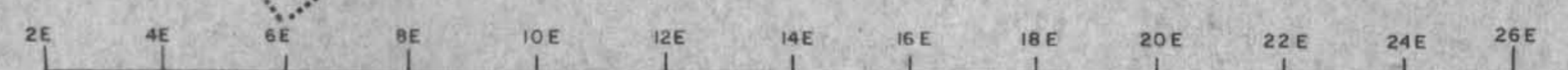
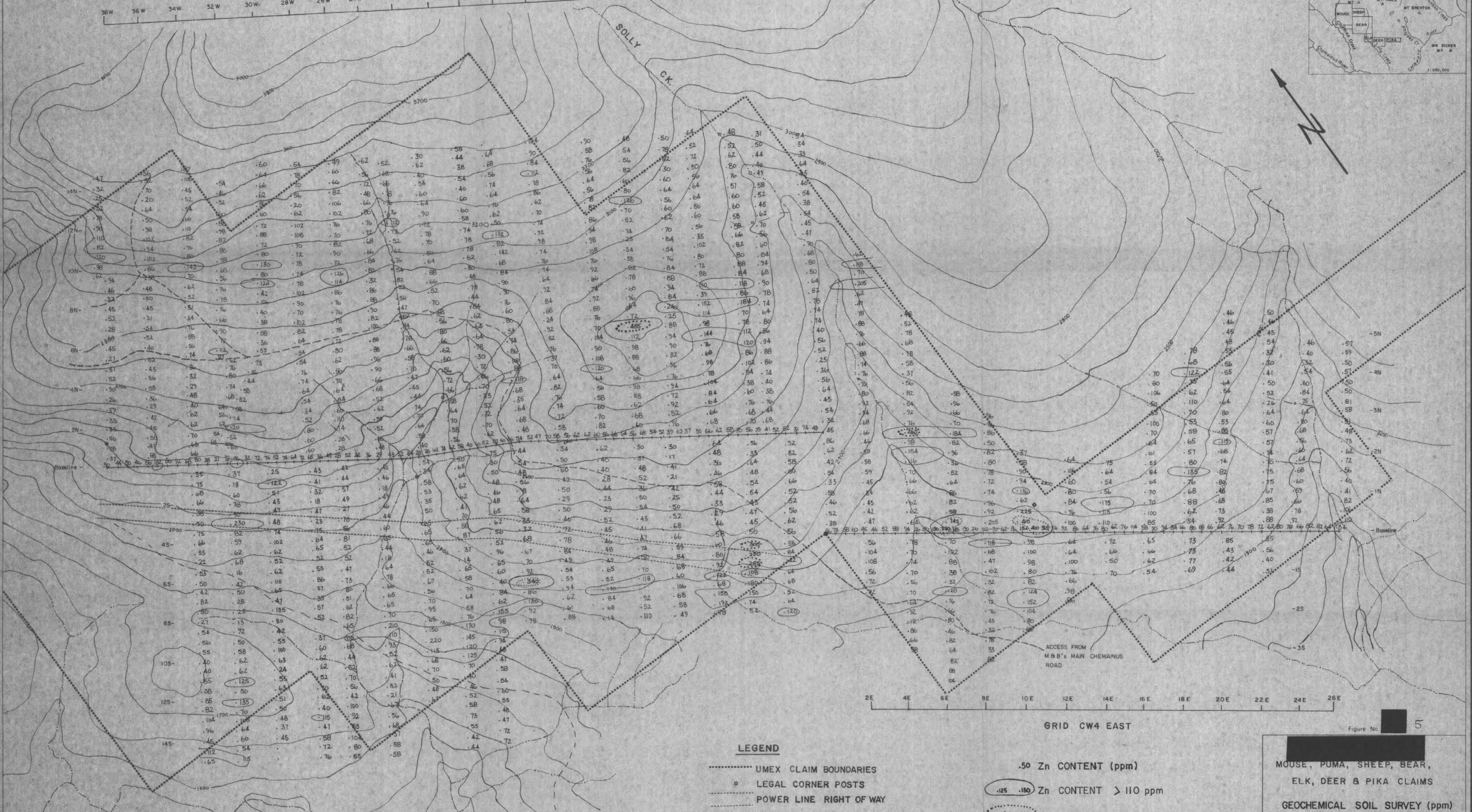
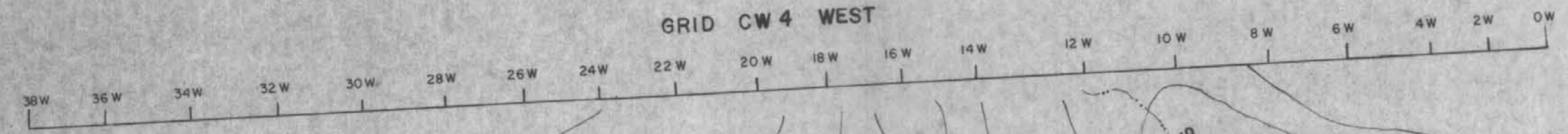
DWG. No. 1

To Accompany Assessment Report "Geochemical Soil Survey for Copper, Lead, and Zinc, Elk and Mouse Claim Group" by A. Pauwels, B.Sc., June 2, 1979

100' contours



GRID CW 4 WEST



GRID CW 4 EAST

LEGEND

- UMEX CLAIM BOUNDARIES
- o LEGAL CORNER POSTS
- POWER LINE RIGHT OF WAY
- DRIVEABLE ROADS
- ACTIVE CREEKS
- o SOIL SAMPLE LOCATION
- o SILT SAMPLE LOCATION

- .50 Zn CONTENT (ppm)
- .125 .150 Zn CONTENT > 110 ppm
- .250 .300 Zn CONTENT > 250 ppm

7384
A. Powell

Figure No. 5

MOUSE, PUMA, SHEEP, BEAR, ELK, DEER & PIKA CLAIMS

GEOCHEMICAL SOIL SURVEY (ppm)

ZINC IN "B" HORIZON

NTS. 92/B

Scale: 1:10,000

UMEX CORPORATION LTD.

DRAWN BY: F. DALEY
 DATE: NOV. 1979
 SURVEYED BY: JR, FT, SS, DC, MH

DWG. No.

To Accompany Assessment Report "Geochemical Soil Survey for Copper, Lead, and Zinc, Elk and Mouse Claim Group" by A. Powell, B.Sc., June 2, 1979

100' contours