

UMEX

UNION MINIERE EXPLORATIONS
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GEOCHEMICAL SOIL SURVEY FOR COPPER, ZINC, AND LEAD

HEAVY METAL, METAL EAST, METAL SOUTH, HIDDEN METAL, METAL,
RICH METAL, MINI METAL AND BOG METAL MINERAL CLAIMS

Record Numbers: 110, 111, 112, 113, 159, 160, 173, 174

Victoria Mining Division

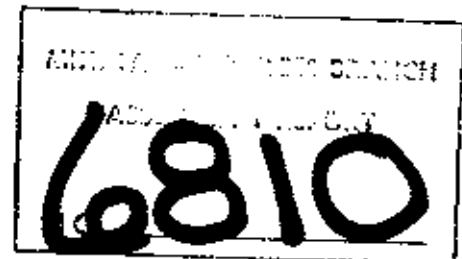
N.T.S. 92B/12W

Latitude $48^{\circ}38'$

Longitude $123^{\circ}48'$

by

A. Pauwels, B.Sc.



Owner and Operator: Union Miniere Explorations and
Mining Corporation Limited

Date: July 25, 1978

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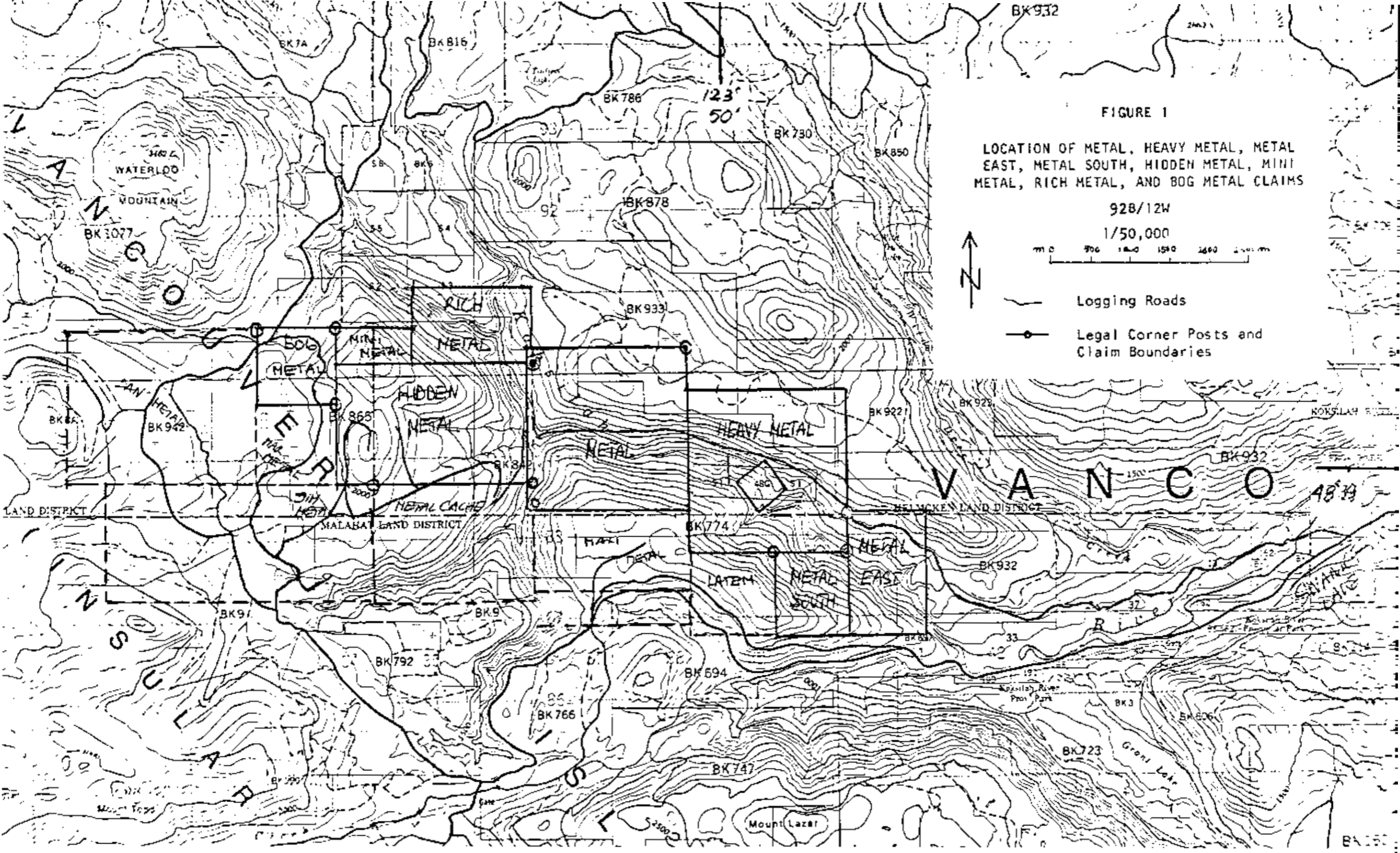
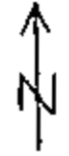
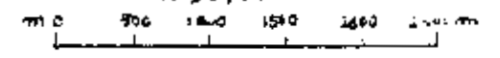



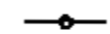
FIGURE 1

LOCATION OF METAL, HEAVY METAL, METAL EAST, METAL SOUTH, HIDDEN METAL, MINI METAL, RICH METAL, AND BOG METAL CLAIMS

928/12W

1/50,000



-  Logging Roads
-  Legal Corner Posts and Claim Boundaries

LAND DISTRICT MALABA LAND DISTRICT BELMCKEN LAND DISTRICT

VANCO 48° 19'

123° 50'

Mount Lazar

Grant Lake

123° 50'

GEOCHEMICAL SOIL SURVEY FOR COPPER, ZINC, AND LEAD
HEAVY METAL, METAL EAST, METAL SOUTH, HIDDEN METAL, METAL,
RICH METAL, MINI METAL AND BOG METAL MINERAL CLAIMS

INTRODUCTION

The claims are located 15 kilometers west of Shawnigan Lake by logging road and alternatively 17 kilometers south-southwest of Duncan, B.C. on south-eastern Vancouver Island. The property straddles the upper Koksilah River Valley in N.T.S. 92B/12W (see Figure 1). The centre of the claims is at latitude $48^{\circ}38'$, longitude $123^{\circ}48'$. The elevation of the area ranges from 300 to 700 meters above sea level and is within the Vancouver Island Ranges of the Insular Mountains physiographic subdivision.¹ A small amount of geochemical soil sampling (for Cu, Pb, and Zn) was done from October 10 to 16, 1977 on the Metal and Metal East claims. Most of the geochemical soil surveys (total 2063 samples) were taken from April 16 to May 24, 1978 on the Metal, Metal East, Metal South, Heavy Metal, Rich Metal, and Hidden Metal claims.

On the Bog Metal and Mini Metal claims geochemical surveys were done from June 21 to June 24, 1978, shortly after staking above claims and before recording the claims on June 26.

The work was planned and supervised by Messrs. A. Burgoyne, P.Eng. and A. Pauwels, B.Sc. Sampling and line tracing was done by Messrs. J. Reid, B.Sc., F. Thrane, D. Coops, S. Stannus, and Ms M. Haugen.

The Metal (16 units), Heavy Metal (16 units), Metal East (6 units), and Metal South (4 units) were recorded on August 2, 1977. The Hidden Metal (15 units) and Rich Metal (6 units) were staked on the 14th of April, 1978 and recorded on the 26th of April, 1978, and Mini Metal (2 units) and Bog Metal (4 units) were staked on the 6th of June, 1978 and recorded on the 26th of June, 1978.

GEOLOGY AND MINERALIZATION

The claims are underlain by andesitic (Paleozoic) volcanics of the Sicker group (north of Koksilah River) in fault contact with andesitic volcanics of the Bonanza (Jurassic) Formation². No geological mapping or prospecting has

¹Holland, S.S., 1964, Land Forms of British Columbia: A Physiographic Outline, B.C. Dept. of Mines & Petroleum Resources Bulletin 48

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

been completed on the claims to date. The only mineralization known in the area occurs on the "Robertson" Crown Grant claim (48G) where Cu, Pb, Zn, and Mo mineralization is reported to occur.³

GEOCHEMICAL SOIL SURVEY

Line Placement

Lines were all traced by compass and marked with coloured flagging and distances were measured with topofil chain. Stations were marked every 50 meters. Distances on slopes were corrected to horizontal through frequent measurements of the slope angle with a visual dip angle meter.

In 1977 a few lines were done on Metal and Metal East claims (MW and ME grid, see Figures 3, 4, and 5). The lines ran north-south and were spaced 150 meters apart, samples were taken every 50 meters in line in 1977. In 1978 baselines were run in a N60°W direction and lines were put in at N30°E. The lines were spaced 200 meters apart and sampling was done every 50 meters.

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. Soil profiles and the respective soil horizons are well developed over the claims and overburden cover is thin.

The copper, lead, and zinc in the soil samples were analysed by Acme Analytical Laboratories Ltd., 6455 Laurel Street, Burnaby, B.C. Soil samples were dried at 75°C and sieved to -80 mesh. A 0.50 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 analysed by atomic absorption. The sensitivity of the analytical method for the various metals is:

Cu, 1 ppm; Pb, 2 ppm; and Zn, 1 ppm.

³B.C.D.M. MMAR 1917, p.269; B.C.D.M. MMAR 1928, p.363

Results

Cumulative frequency versus copper, lead, and zinc for B soil horizon samples collected is illustrated in Figure 2. The plots for the three metals show two distinct populations for each metal as tabled in Figure 2. The lowest population for all the metals is thought to represent a background concentration caused by the average metal content of the underlying bedrock. The higher population for each metal is considered to be probably anomalous and caused by base metal mineralization. Values equal or in excess of 120, 25, and 130 ppm are considered probably anomalous values for copper, lead, and zinc, respectively. The zones of overlap or possibly anomalous values for copper, lead, and zinc are 80 to 120, 15 to 23, and 90 to 130 ppm, respectively. A third population possibly exists for zinc over 400 ppm.

The values for copper, lead, and zinc are illustrated on Figure 3 to 5. Copper values are contoured at 80 and 250 ppm, zinc values at 100 and 250 ppm, and lead values at 15 and 23 ppm.

Several areas of anomalous values are present on the claims. Anomalous areas are indexed by letters A to G on Figures 3 to 5 and are described below:

- A: located at CW1, 20 to 26W, north of baseline
Anomalous values of copper only are present.
- B: located at CW1A, 34 to 42W, 0 to 12N
Long, northerly trending linear trend of anomalous zinc and some associated anomalous lead.
- C: located CW1A, 22 and 24W near 12N
Anomalous values of zinc, copper, and lead.
- D: located at CW1A, line 8 to 12W, 6 to 7N
Anomalous zinc and lead values.
- E: located from CW1B, 2W, 2S to 28W 6.5S
Anomalous zinc and copper with high peak values for both metals; a few discontinuous highs of lead.
- F: located at CW1B, 14 to 18W, north of baseline
Mostly anomalous copper, some anomalous zinc.
- G: located over lines CW1B, 2 to 6W on baseline
Anomalous zinc only.

Other mostly single sample anomalies occur, mainly for copper and zinc. The anomalous results for copper, lead, and zinc are thought to represent

underlying base metal mineralization of undefined concentrations.

CONCLUSIONS AND RECOMMENDATIONS

A geochemical survey for copper, lead, and zinc in soils was completed and has revealed anomalous areas of lead and zinc. The two main areas are Anomaly B - a long linear trend of anomalous zinc, copper, and lead over at least 2600 meters on the Hidden Metal claim, and Anomaly E - a linear anomalous zinc and lead trend over 1500 meters on the Metal and Heavy Metal claims and extending south.

The magnitude and spatial distribution of all metal anomalies is no doubt related to their original concentration in bedrock and soils, the degree of mechanical dispersion and their solubility and chemical mobility and dispersion.

Prospecting, geological mapping and possible trenching or drilling should be completed over the highest magnitude copper, zinc, and lead anomalies to explain the source of these metal values.

Respectfully submitted,



A. Pauwels

APPENDIX I

STATEMENT OF EXPENDITURES

Labour - Field

Sampling and line tracing

J. Reid, Oct. 10-16, 1977, 7 days @ \$40/day	\$ 280.00
F. Thrane, Oct. 10-16, 1977, 7 days @ \$39/day	273.00
J. Reid, April 16-23; May 2-24, 1978, 31 days @ \$46.64/day	1,445.84
S. Stannus, April 16-23; May 2-24, 1978, 31 days @ \$38.96/day	1,207.76
D. Coops, April 20-23; May 2-24; June 21-24, 1978, 31 days @ \$33.35/day	1,034.16
F. Thrane, June 21-24, 1978, 4 days @ \$46/day	184.00
M. Haugen, May 20-24; June 21-24, 1978, 9 days @ \$38.96/day	350.64

Materials

Sample bags - 2063 bags @ 4¢/ea.	\$ 82.52
Cotton thread for topofil chain, 55 rolls @ \$2.21/ea.	121.55
Flagging tape, 200 rolls @ \$1.05/ea.	210.00

Transportation

Travel costs	\$ 200.00
Truck, 42 days @ \$40/day	1,680.00

Accommodations (motel) 129 days @ \$8.75/day	\$ 1,128.75
Food, 150 days @ \$8.50/day	1,275.00

Analysis - 2063 samples for Cu, Pb, Zn @ \$2.08/ea. (Acme Analytical Laboratories Ltd. 6455 Laurel Street, Burnaby, B.C.)	\$ 4,291.04
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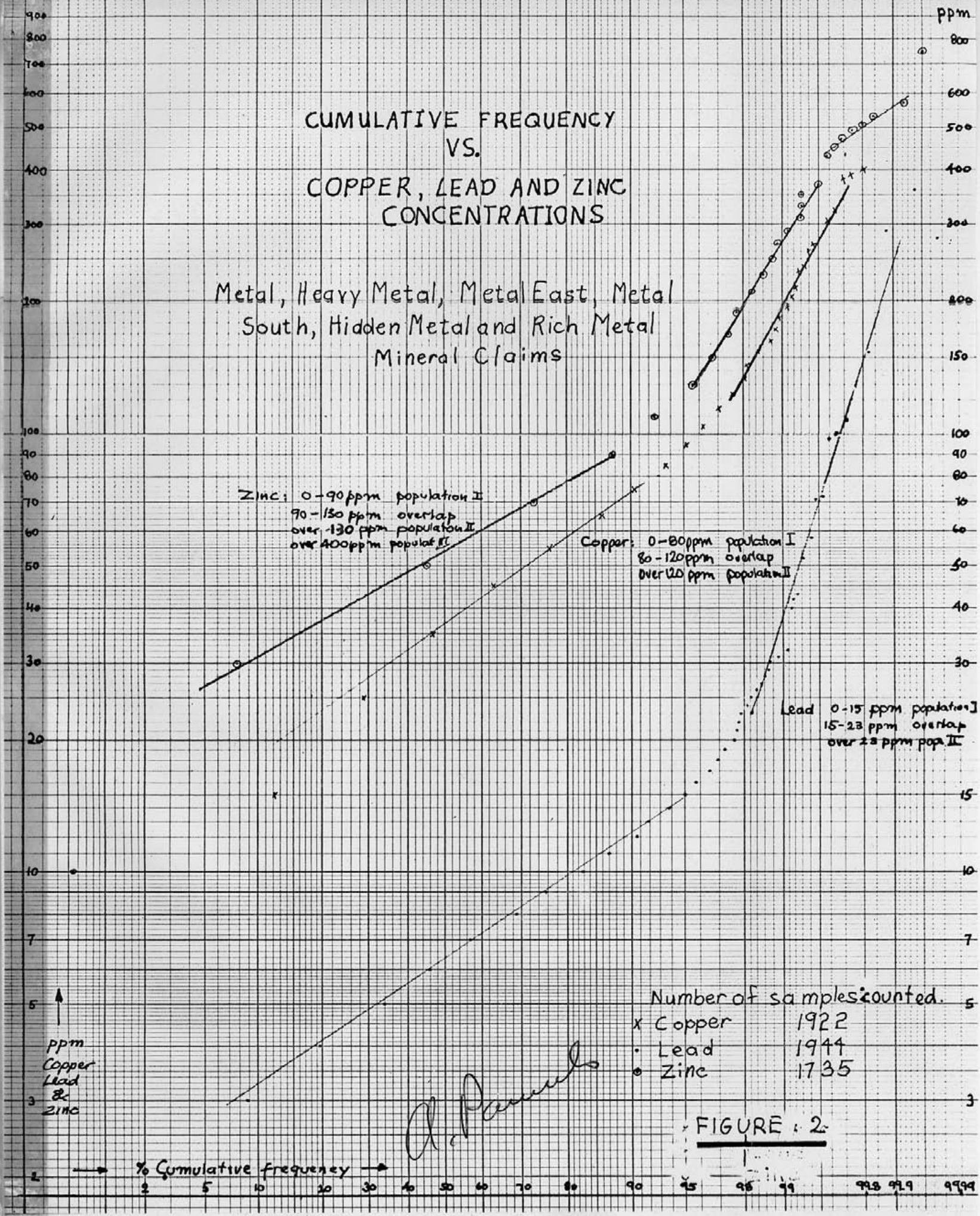
Office - drafting, interpretation, report

A. Pauwels, July 11-14; July 17-20, 1978, 8 days @ \$129.76/day	\$ 1,038.08
M. Haugen, July 11-14, July 17-19, 1978, 7 days @ \$38.96/day	272.72
Miscellaneous office supplies and typing	100.00

Planning and Supervision

A. Burgoyne, May 10, 11; June 21, 3 days @ \$175.36/day	\$ 526.08
A. Pauwels, March 20, 21; May 9, 10, 20; June 21, 1978 6 days @ \$136.76/day	820.56

TOTAL	\$ 16,521.70
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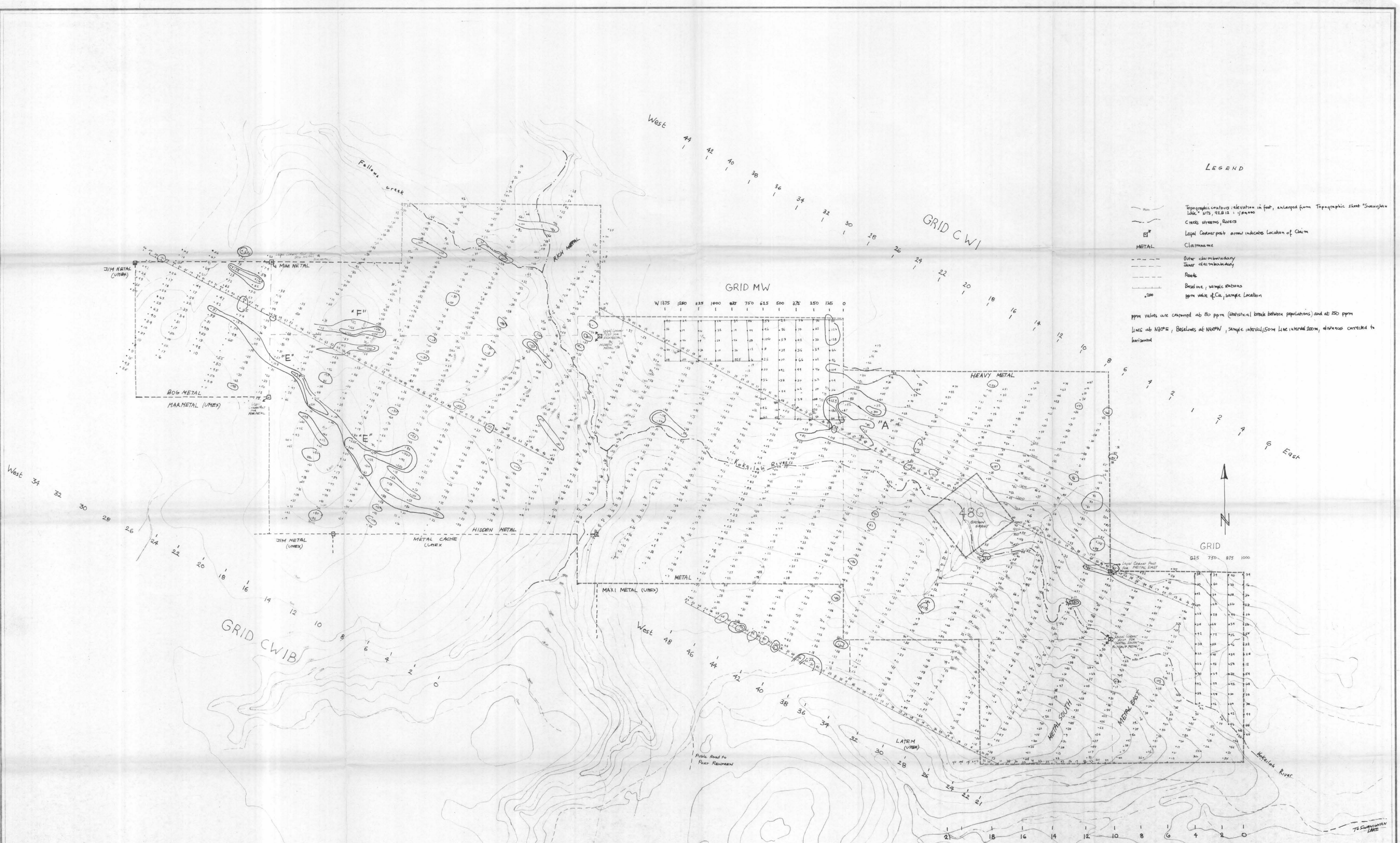
APPENDIX II

AUTHOR'S QUALIFICATIONS

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

1. I am a graduate of the Rijksuniversiteit 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 (1972-1978).



LEGEND

- Topographic contours elevation in feet, enlarged from Topographic sheet "Sawtooth Lake" NTS 92B12 : 1/50,000
- Creeks, streams, Rivers
- Legal Claim post arrow indicates location of Claim
- METAL Claim name
- Outer claim boundary
- Inner claim boundary
- Roads
- Baseline, sample stations
- ppm value of Cu, sample location

ppm values are converted to 80 ppm (statistical break between populations) and at 150 ppm Lines at N20°E, Baselines at N60°W, sample interval, 50m Line interval 200m, distances corrected to horizontal

FIGURE 3

METAL, HEAVY METAL, META LEAST, METAL SOUTH, HIDDEN METAL, RICH METAL, MINI-METAL & BOG METAL

MINERAL CLAIMS
Victoria Mining Div.

COPPER IN "B" SOIL HORIZON

NTS: 92 B12 W

Scale:

UMEX CORPORATION LTD.

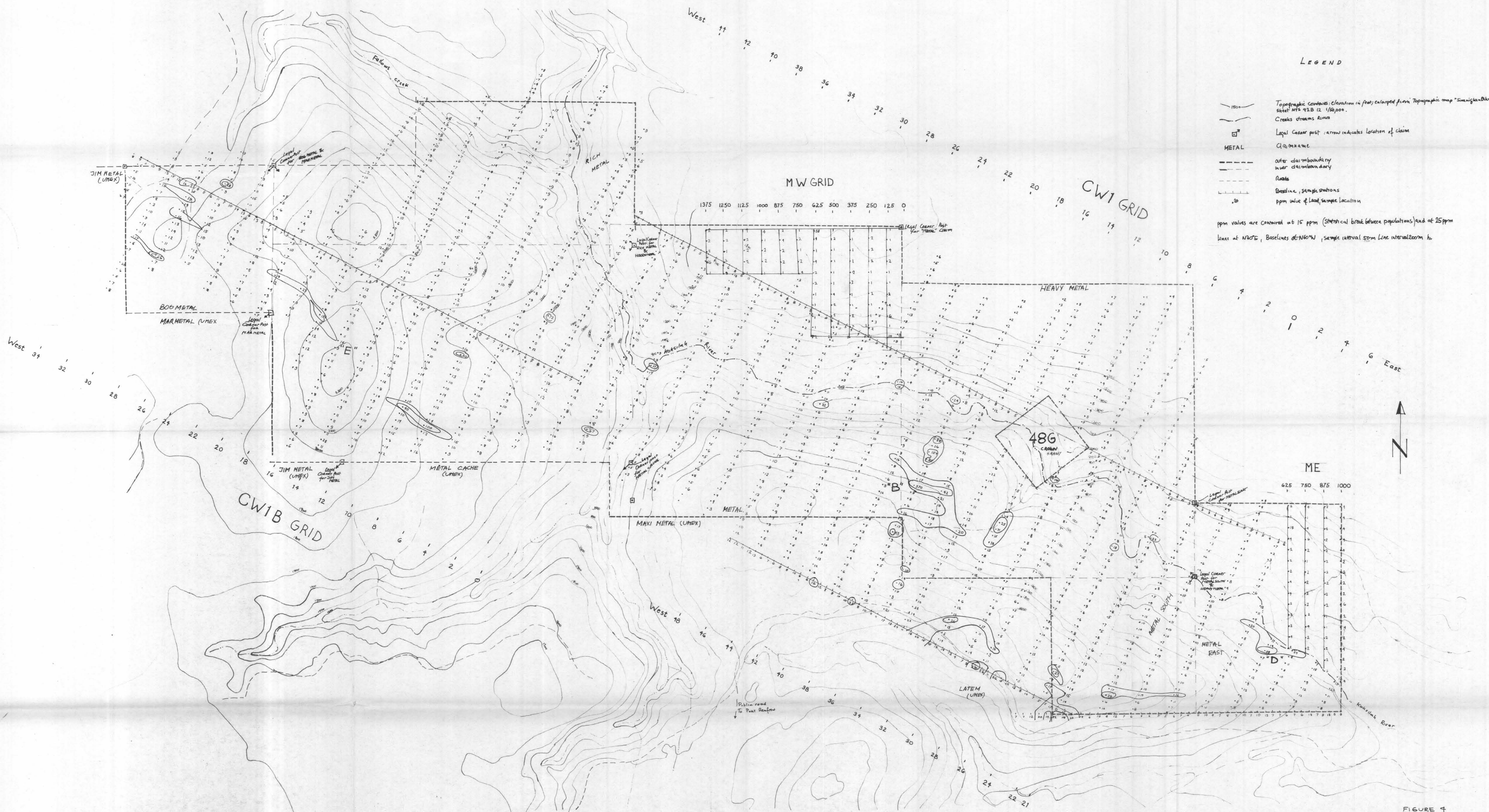
DRAWN BY: AP, MW
DATE: 20 JULY 1978
SURVEYED BY: DR, BC, PT, SS, PH

DWG. No.

MINERAL RESOURCES BRANCH
6810

To accompany Assessment Report "Geochemical Soil Survey for Copper, Lead and Zinc; Hord, Heavy Metal, Metal East, Metal South, Hidden Metal, Min Metal, Rich Metal, Bog Metal" mineral claims, Victoria Mining Division, by A. Pavelski BSc, 26 July 1978

A. Pavelski



LEGEND

- Topographic Contours: Elevation in feet; enlarged from Topographic map "Somerset-Duke" sheet NTS 92 B 12 1/50,000.
- Creeks stream lines
- Legal Corner post: arrow indicates location of claim
- METAL** Claim name
- Outer claim boundary
- Inner claim boundary
- Road
- Baseline, sample stations
- ppm value of lead sample location

ppm values are contoured at 15 ppm (Statistical break between populations) and at 25 ppm lines at N30°E, Baselines at N60°W, sample interval from line interval 200m.

FIGURE 9
 METAL, HEAVY METAL, METAL EAST, METAL-SOUTH, HIDDEN METAL, RICHMETAL, MINI-METAL, & BOG METAL,
 MINERAL CLAIMS
 VICTORIA MINING DIV.
 LEAD IN 'B' SOIL HORIZON

NTS: 92 B 12 W
 Scale:

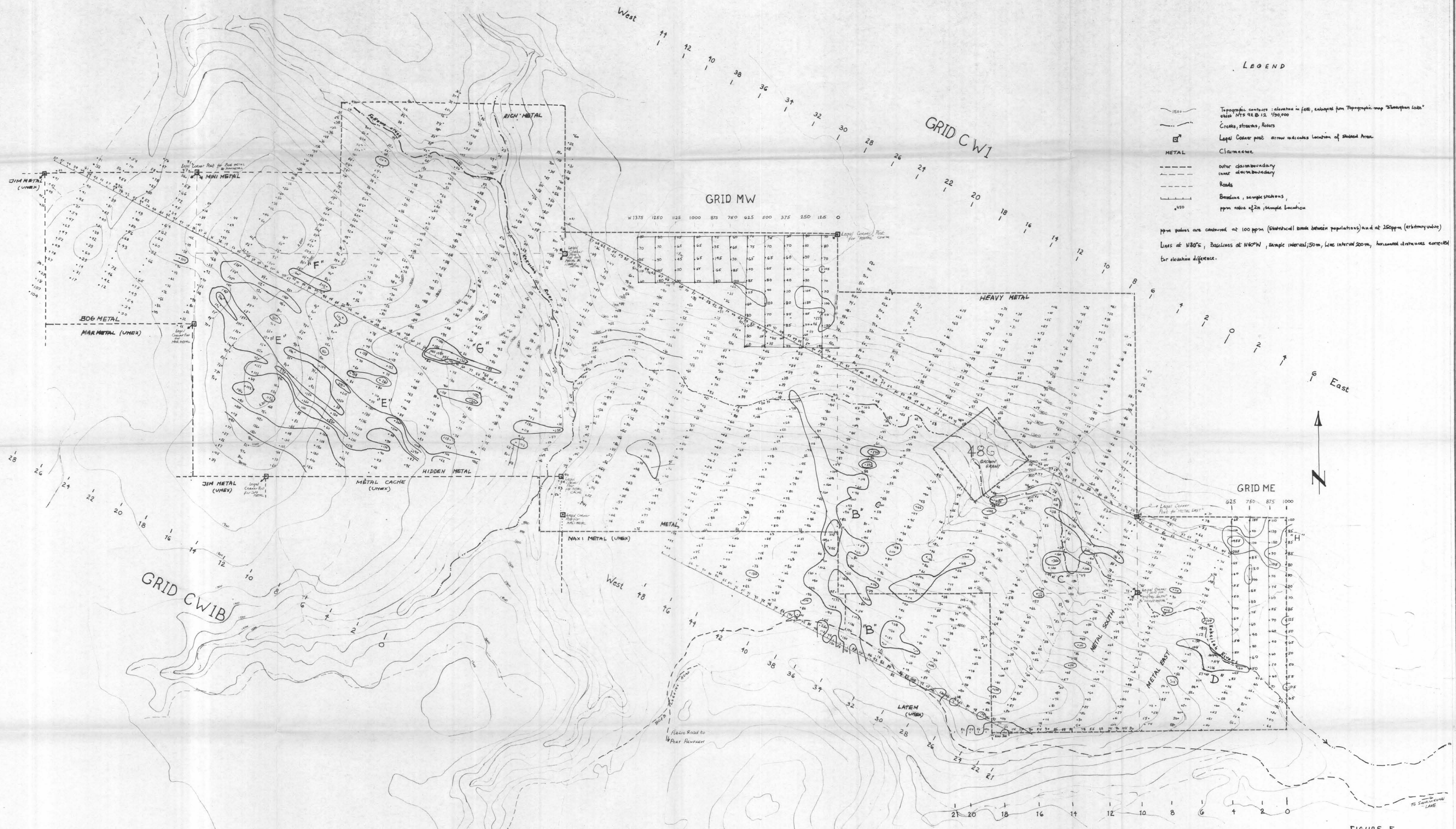
UMEX CORPORATION LTD.
 DRAWN BY: AP:MH
 DATE: 19 JULY 1978
 SURVEYED BY: JR, BC, P55 PM DWG. No.

To Accompany Assessment Report "Geochemical Soil Survey for Copper, Lead and Zinc" on Metal, Heavy Metal, Metal East, Metal South, Hidden Metal, Rich Metal, Bog Metal and Mini Metal, Victoria Mining Division, by A. Powell B.Sc.

MINERAL RECORDS BRANCH
6810

CW1A

A. Powell



LEGEND

- Topographic contours (elevation in feet, adapted from Topographic map 'Stanhope Lake' sheet NTS 92 B 12 150,000)
- Creeks, streams, Rivers
- Legal Corner post (arrow indicates location of shaded Area)
- METAL Claim name
- outer claim boundary
- inner claim boundary
- Roads
- Baseline, sample stations, ppm value of 25 (sample location)

ppm values are converted at 100 ppm (Statistical mean between populations) and at 250 ppm (arbitrary value)
 Lines at 180°e, Baselines at 180°W, Sample interval: 50m, Line interval: 200m, horizontal distances corrected for elevation difference.

FIGURE 5

METAL, HEAVY METAL, METAL EAST, METAL SOUTH, HIDDEN METAL, RICH METAL, MINI METAL, & BOG METAL

MINERAL CLAIMS
 Victoria Mining Div.

ZINC IN 'B' SOIL HORIZON

NTS: 92 B 12 W

Scale:

UMEX CORPORATION LTD.

DRAWN BY: AP
 DATE: 18 JULY 1978
 SURVEYED BY: J.R. DO, P.T. 8/78 DWG. No.

To accompany Assessment Report "Geochemical Soil Survey for Copper, Lead and Zinc, Heavy Metal, Metal East, Metal South, Hidden Metal, Bog Metal, Rich Metal, Bog Metal" Victoria Mining Division, by A. Pauls & B. So, 28 July 1978