

UMEX

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ASSESSMENT REPORT ON
GEOCHEMICAL SURVEYS FOR COPPER, LEAD, AND ZINC
ON THE CHARITY CLAIM GROUP

Charity, Hope, Copper Mint I, Copper Mint II,
Copper Mint 3, Susan, Victoria, Victoria Fraction,
Copper Canion, Elmoné Fraction, and Klondyke
Mineral Claims

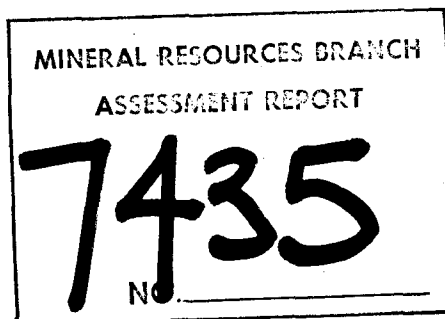
Record Numbers 136 (Feb.), 87 (May), 17566-68K,
35 (March), 18240M, 74 (Jan.), 18241M, 75 (Jan.),
18243M - Victoria Mining Division

N.T.S. 92B/13W

Latitude $48^{\circ}52'$
Longitude $123^{\circ}50'$

by

A. Pauwels, B.Sc.



Owner and Operator: Union Miniere Explorations and
Mining Corporation Limited

Work Date: March 15 to April 8, 1979

Date: May 4, 1979

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ASSESSMENT REPORT ON GEOCHEMICAL SURVEYS FOR
COPPER, LEAD, AND ZINC ON THE CHARITY CLAIM GROUP

INTRODUCTION

The claims are located 8 kilometers southwest by road from Chemainus, B.C. on the easterly slopes of the Chemainus River valley. An excellent main logging road, owned by MacMillan Bloedel, traverses the claim group.

The centre of the property is at latitude $48^{\circ}52'$ and longitude $123^{\circ}50'$. Elevations range from 70 meters along the Chemainus River to 800 meters above sea level on the slopes of Mount Brenton. The claims are within the Vancouver Island ranges of the Insular Mountain physiographic subdivision.¹ Geochemical soil sampling was done from the 24th of March until the 8th of April, 1979. Work was recorded at the Victoria Recording Office (B.C. mining receipt 482115G) on May 1, 1979.

All claims mentioned on the title page were grouped in the Charity claim group on February 9, 1979.

The geochemical work covered part of the Charity, Victoria Fraction, Susan, Elmone Fraction, Victoria, Klondyke, Copper Mint I, Copper Mint II, and Copper Mint 3 claims. The work was planned and supervised by A. Pauwels, B.Sc. Messrs. F. Thrane, D. Sketchley, and R. Turna did the line placement and soil sampling. Samples were analysed for copper, lead, and zinc by Acme Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, B.C.

GEOLOGY

The property is underlain by schistose metavolcanics of the Sicker, unconformably overlain to the south by Cretaceous sediments of the Nanaimo Group.² Mr. J. Deighton mapped parts of the property in 1976-1977³ and reported quartz-sericite schist, chlorite schist, rhyolite porphyries, and dioritic intrusion in the area. The property is located a short distance

¹Holland, S.S., 1964, Land Forms of British Columbia, a Physiographic Outline: B.C.D.M. Bulletin 48

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

³Deighton, J., 1977 Assessment Reports on Geological Mapping on Elmone Fraction, Susan, and Victoria Claims.

PREPARED OR SURVEYED, THE MAP POSITION OF A CLAIM IS BASED ON THE LOCATOR'S SKETCH, FOR FURTHER APPLICATION TO THE OFFICE OF THE MINING DIVISION

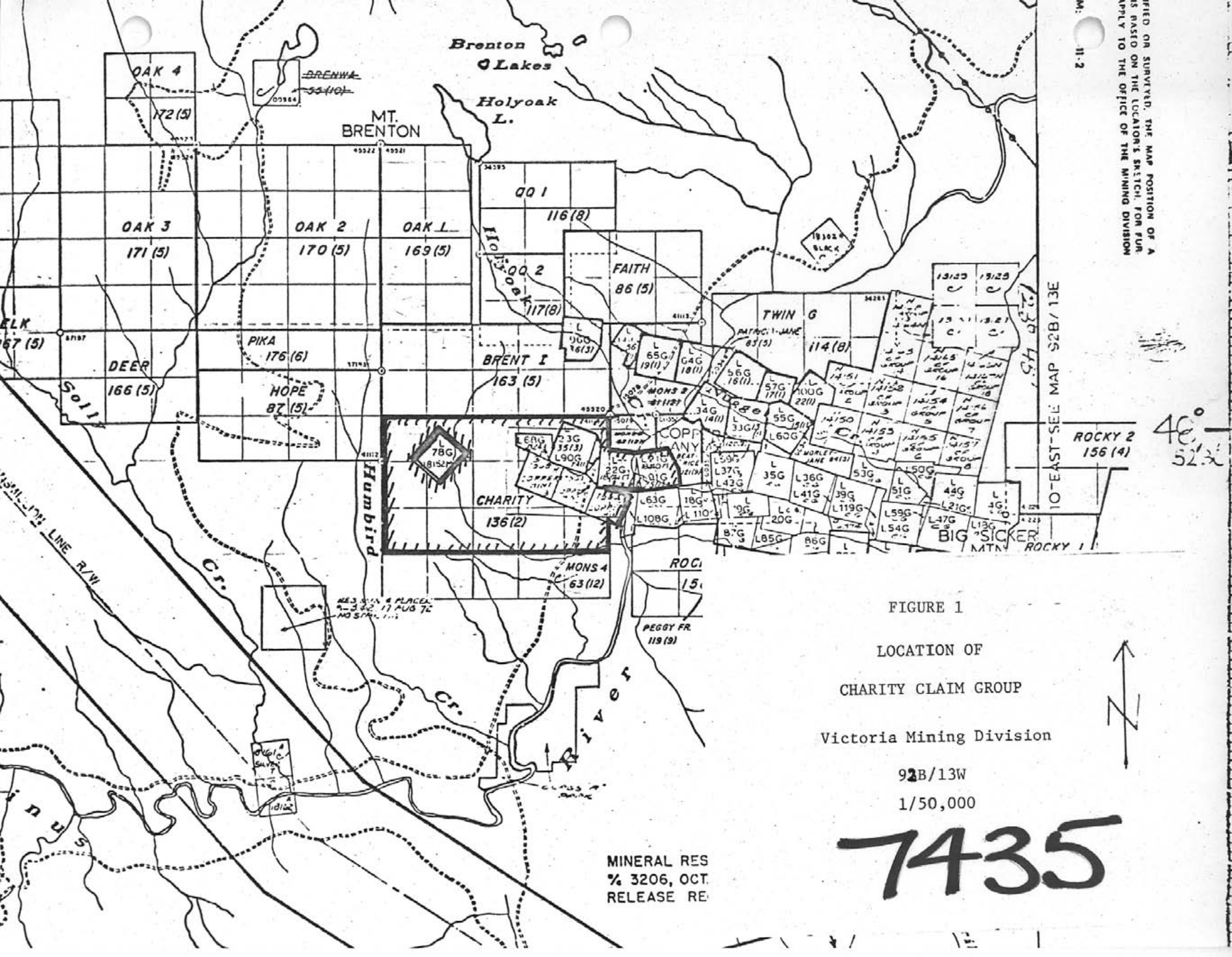


FIGURE 1

LOCATION OF
CHARITY CLAIM GROUP

Victoria Mining Division

92B/13W
1/50,000

7435

MINERAL RES
% 3206, OCT.
RELEASE RE

46°
52'

10-EAST-SEE MAP 92B/13E

ALL 3206 PLACES
- 3 22 17 AUG 74
NO SP... ..

west of the Twin J⁴ massive sulphide deposit and several copper and zinc showings are known on the Crown Granted claims since the late 1800's.⁵

PREVIOUS WORK

The first work on the present claim group dates from 1898 to 1903.⁵ During this period the area was extensively prospected and the various Crown Granted claims were located over copper and zinc showings. The main work in that period is summarized below:

- 1) A 310 foot tunnel-adit, with various smaller crosscuts and a raise, was driven on the Copper Canon claim on chalcopyrite-pyrite showings on the banks of the Chemainus River.
- 2) Two test pits and a 150 foot tunnel were driven on the Victoria claim; also on chalcopyrite-pyrite showings along the Chemainus River.
- 3) Various test pits and adits were located during this period on the Susan and Klondyke claims. No written record of this work remains.

Interest in the area died down after 1905 and the next major exploration work reported was done in 1965-1966 by Cominco.⁶ The work consisted of extensive IP surveys and geochemical soil sampling in a large area, part of which is now covered by the Hope claim and the western half of the Charity claim. Very detailed VLF-EM, seismic surveys, magnetometer survey, gravity surveys, soil sampling, and geological mapping were done by Mr. Whittles, P.Eng.⁷ mostly restricted on a small area in the eastern half of the Copper Canon claim, the Elmone Fraction and the Victoria claim.

In late January, 1979 UMEEX⁸ did VLF-EM and magnetometer surveys over the

⁴Stevenson, J., 1948, Twin J Mines, in Structure and Geology of Canadian Ore Deposits, CIM, p.88-93

⁵MMAR, 1898, 1903, Reports on Copper Canon, Victoria, Susan and Klondyke Claims

⁶Tikkansen, G.D., M.Sc., P.Eng., October 25, 1966, Geophysical Report on Induced Polarization and Soil Sampling on the TOT-RUM Claim Group, Victoria Mining Division, Cominco, CPOG, Assessment Report 936

⁷Whittles, J., P.Eng., 1971, 1973, 1977: Assessment Reports 3099 and 4624

⁸Assessment Report on Geophysical Surveys. Ground Magnetometer and VLF-EM on Charity Claim Group. by A. Pauwels. B.Sc., February 28, 1979

eastern part of the Charity claims.

GEOCHEMICAL SURVEYS

Line Placement

Lines were all traced by compass, marked with coloured flagging, and distances measured with a hip chain. Stations were marked every 25 meters. Distances on slopes were corrected to horizontal through measurements of the slope with a visual dip angle meter. The lines run N10°E and were spaced 100 meters apart. Lines 1E to 5W were emplaced in January, 1979 for geophysical surveys.⁸

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, silver, and zinc in the soil samples were analysed by Acme Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, 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.

Results

A total of 451 samples were collected and analysed for copper, lead, and zinc.

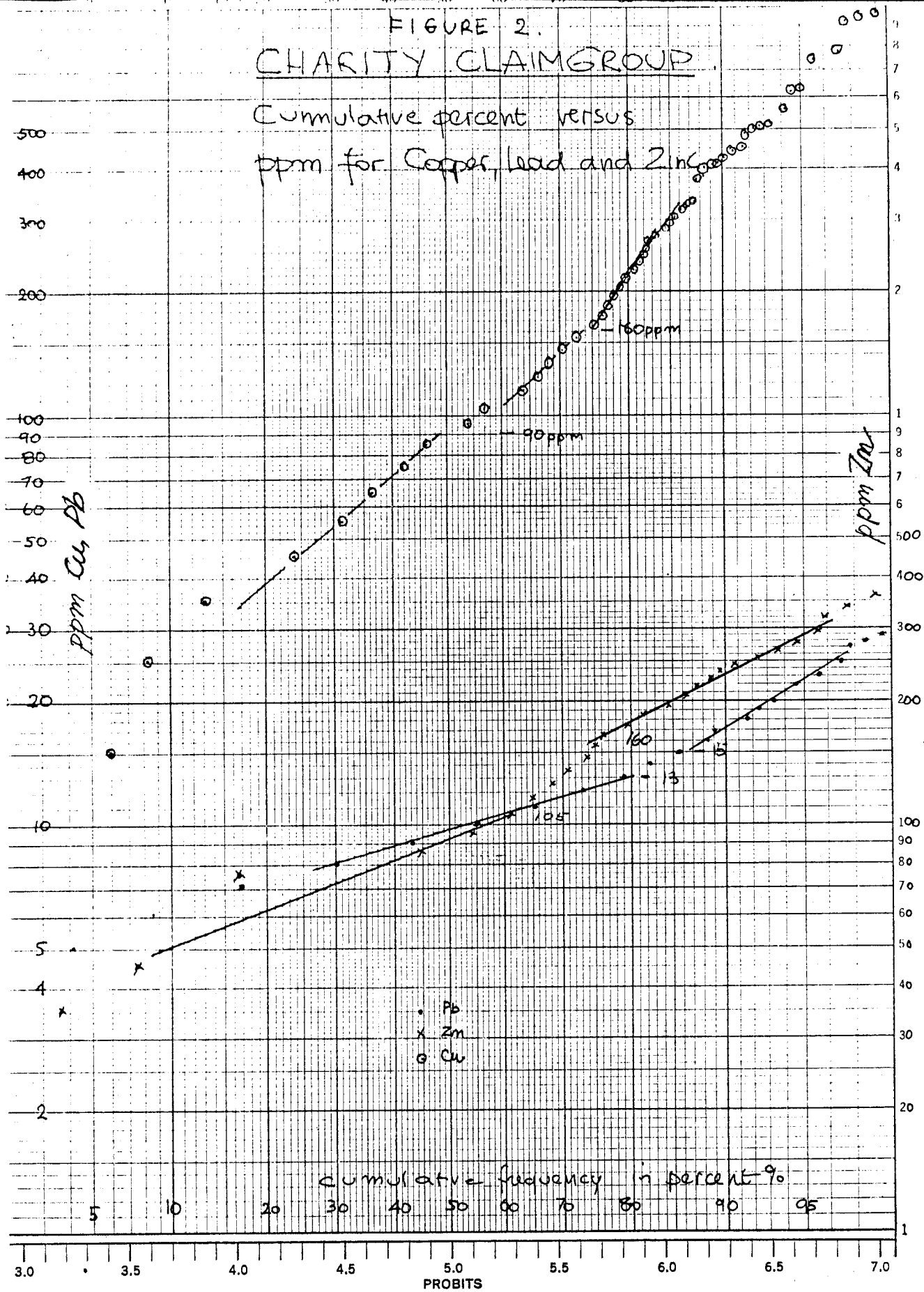
Graphs of the cumulative frequency versus copper, lead, and zinc contents were prepared and are illustrated in Figure 2. The graphs show the following lognormally distributed populations of values.

	Population I	Overlap	Population II	Population III
Copper	0-90 ppm	90-160 ppm	160-400 ppm	>400 ppm?
Lead	0-13 ppm	13-15 ppm	>16 ppm	--
Zinc	0-105 ppm	105-160 ppm	>160 ppm	--

FIGURE 2.

CHARITY CLAIMGROUP

Cumulative percent versus
ppm for Copper, lead and Zn



The first population for all three metals is thought to represent normal background contents in bedrock. The second and third populations are considered anomalous and thought to represent base metal mineralization, or high backgrounds.

The results for copper and zinc show largely coinciding areal distribution of values of the higher populations. The largest clusters of these values occur along lines 0 to 4W. This area is almost flat and situated at the foot of the steep slopes of Mount Brenton. Smaller clusters occur also on the slopes.

The results for lead show the values of the second population largely to be concentrated from lines 12 to 20E north of the baseline. The values coincide with higher values for copper and zinc. Other areas with higher copper and zinc values in the soils show only a few scattered lead highs.

CONCLUSIONS AND RECOMMENDATIONS

Soil sampling for copper, lead, and zinc on the Charity claim group showed large areas with anomalous copper and zinc. Lead results are anomalous only over part of the anomalous copper and zinc areas. The location of high copper/zinc values on the break-in slope on the foot of Mount Brenton strongly suggests that the values originate from upslope through groundwater dispersion along the slope and precipitation at the break-in slope.

It is recommended to

- geologically map and prospect the area to ascertain the origin of the higher metal values
- do profile sampling with a backhoe on selected parts of the high copper and zinc values occurring from line 0 to 4W.

Respectfully submitted,



A. Pauwels

APPENDIX I

STATEMENT OF EXPENDITURES

Line Placement and Soil Sampling

R. Turna,	March 16, 17, 1979 - 2 days @ \$81.20/day	\$ 162.40
D. Sketchley,	March 16, 17, 1979 - 2 days @ \$81.44/day	\$ 162.88
F. Thrane	March 18-25, April 4, 6-8, 1979, 12 days @ \$56.24/day	\$ 674.88

Supervision, Report, Interpretation, Drafting

A. Pauwels,	March 15, 16, 26, April 3, 30, 1979, 5 days @ \$147.00/day	\$ 735.00
F. Thrane,	April 24, 1979 - 1 day @ \$ 56.24/day	\$ 56.24

Food and lodging - 18 days @ \$16/day \$ 288.00

Analysis (by Acme Analytical Laboratories Ltd., 852 East Hastings Street, Vancouver, B.C. V6A 1R6) -
451 samples analyzed for Cu, Pb, Zn @ \$2.17/sample \$ 978.67

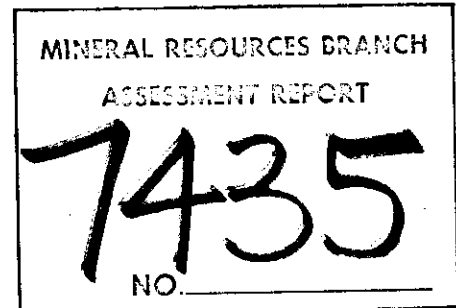
Transportation - truck, 7 days @ \$40/day/including gas \$ 280.00

Miscellaneous - typing, office supplies \$ 100.00

Survey supplies - flagging, thread, soil sample bags \$ 75.00

TOTAL \$3,513.07*

*The total amount slightly exceeds the amount declared on "Statement of Exploration and Development" filed on May 11, 1979 in Victoria, B.C. Not all expenditures were exactly known at that time.

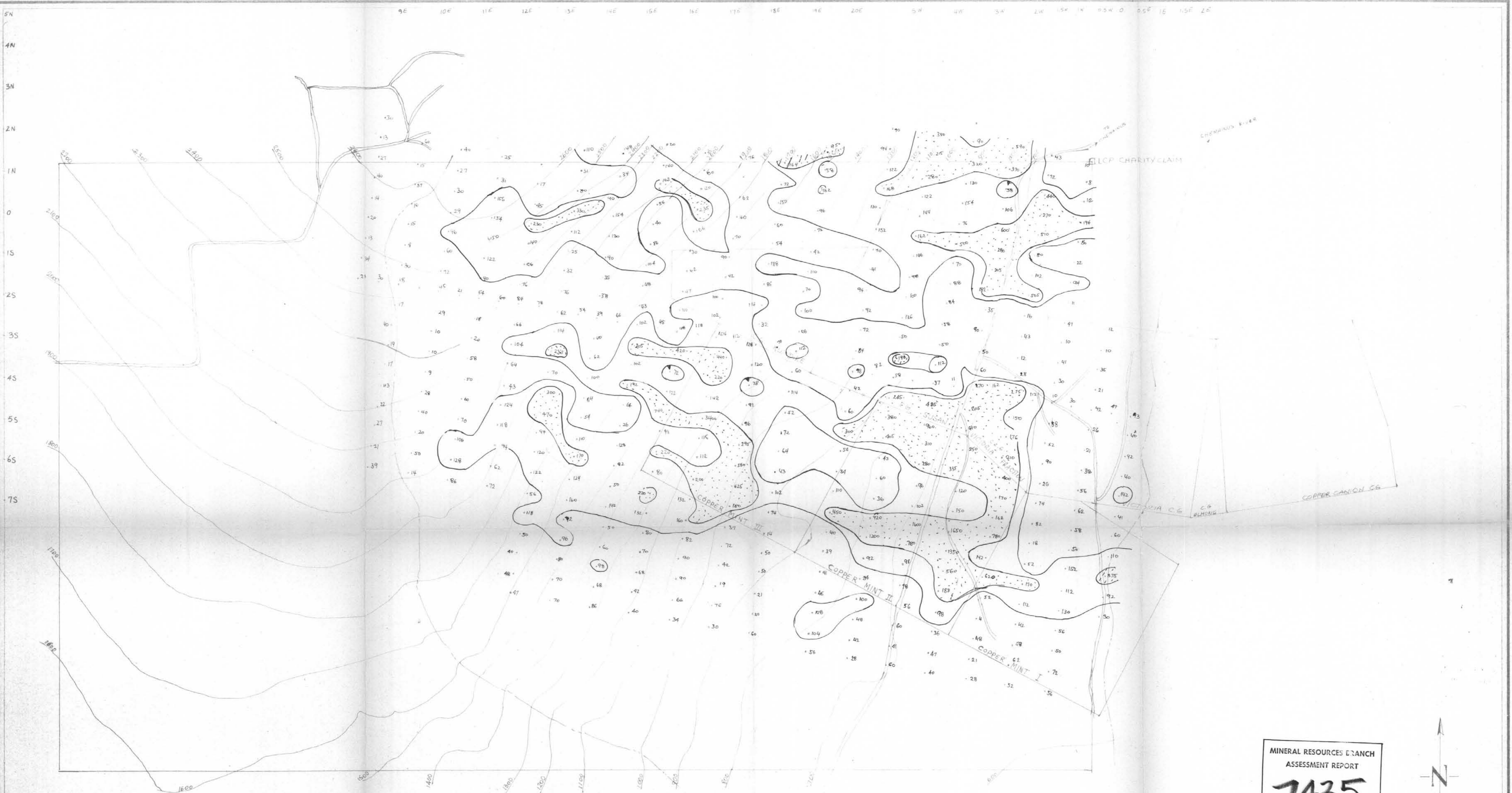


APPENDIX II

AUTHOR'S QUALIFICATIONS

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

- 1) I am a graduate of the 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).



- LEGEND**
- Legal Cornerpost
 - claim boundary
 - C.G. Crown granted claim
 - 1500 Elevation contour in feet, Enlarged from Topographic map 92.B.13.W 1/50,000
 - 220 Soil sample site, value in ppm
 - Streams & Rivers
 - Logging roads
 - Contours at 90 and 160 ppm Cu
 - > 160 ppm Cu

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
7435
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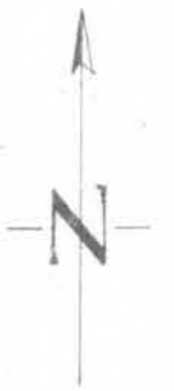


Figure No. 3

CHARITY CLAIM GROUP
CHARITY, KLONDIKE, VICTORIA, VICTORIAFRANCON
BELMONT FRACTION, COPPERMINT 1 & 2 CLAIMS

Copper
in B' Soil Horizon

Scale: 1/5,000 NTS 92.B.13.W
0 50 100 150 200 meters

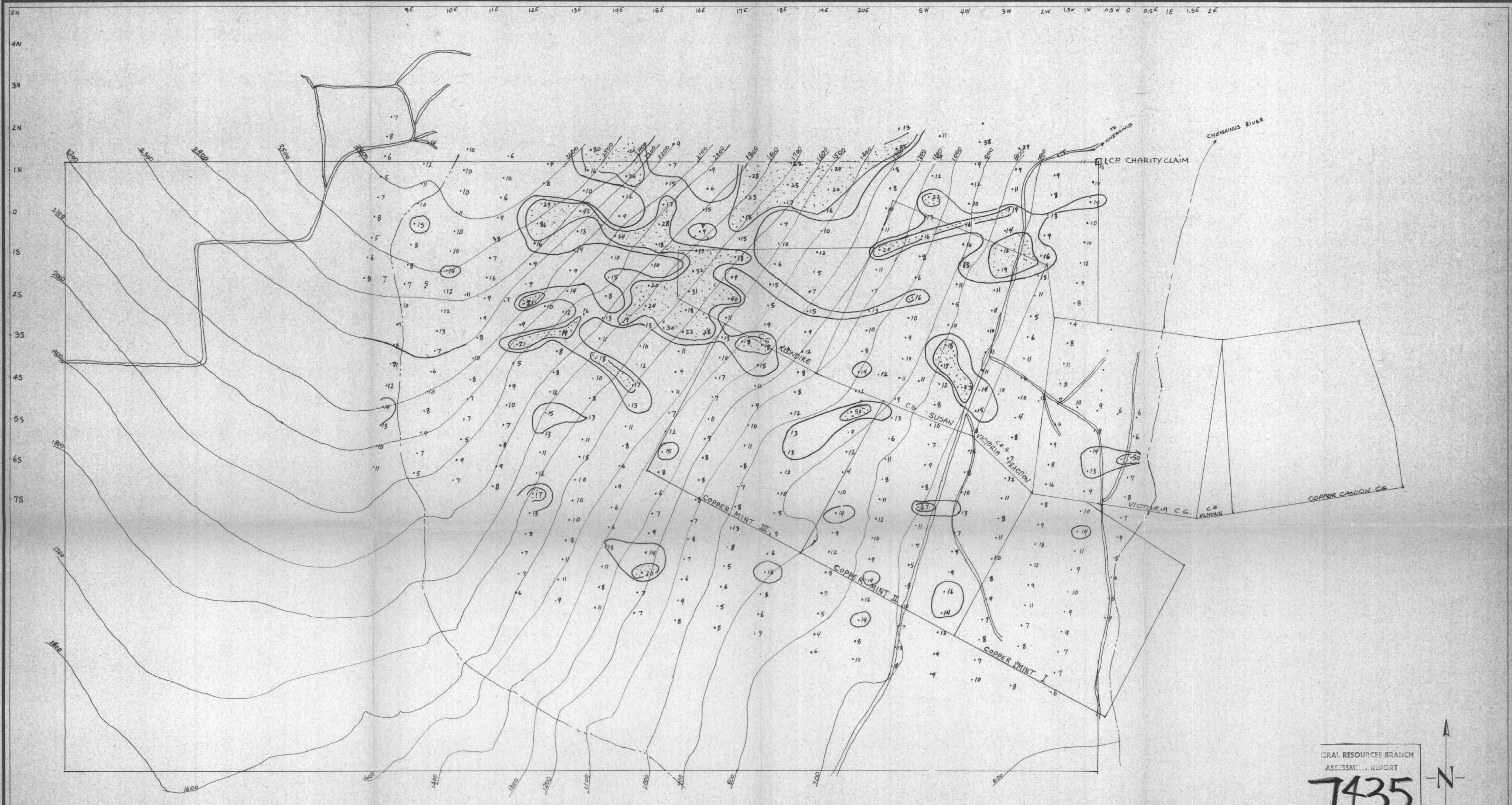
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DRAWN BY: GS, AP
DATE: May 1979
SURVEYED BY: GS, AP, SA

DWG. No.

A. Powell

To Accompany Assessment Report on Geochemical Soil Sampling for Copper, Lead and Zinc, Charity Claimgroup by A. Powell, B.Sc. May 4, 1979



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 NO.

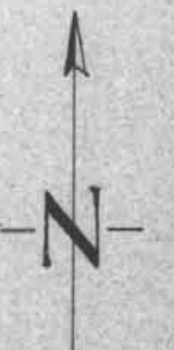


Figure No. 24

- LEGEND**
- Legal Cornerpost
 - claim boundary
 - C.G. Crown granted claim
 - 1500 Elevation contour in feet, Enlarged from Topographic map 98.B13W 1/50,000
 - Soil sample site, value in ppm
 - Stream & Rivers
 - Logging roads
 - Contours at 13 and 16 ppm

CHARITY CLAIM GROUP
 CHARITY, KLONDYKE, VICTORIA, VICTORIA FRACTION
 & ELKHORN FRACTION, COPPERMINT CLAIMS

Pb
 in 'B' Soil Horizon

Scale: $\frac{1}{5,000}$
 NTS 92-B-13-W

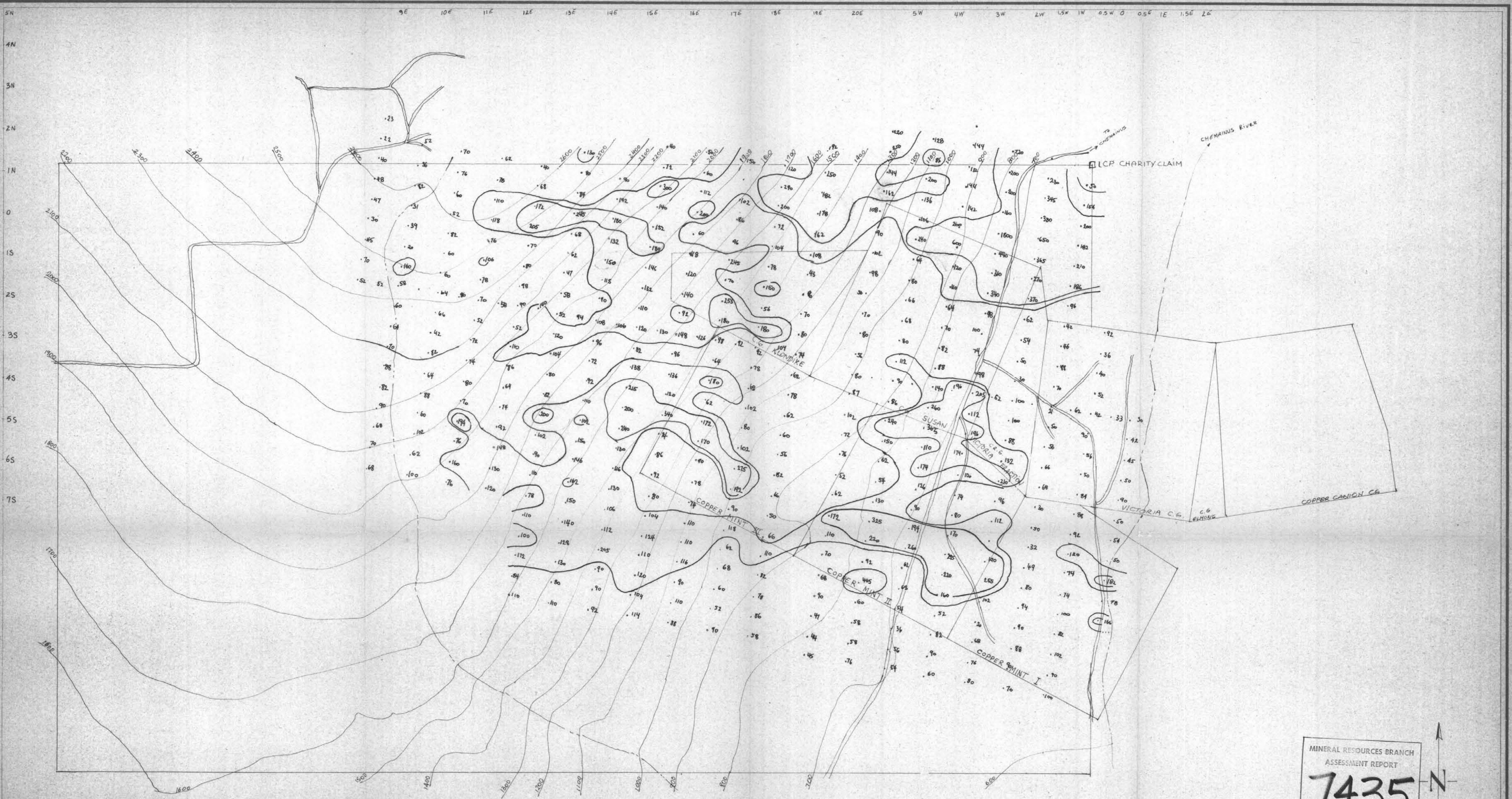
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DRAWN BY: GS, AP
 DATE: May 1979
 SURVEYED BY: PJ, BS, RT, CS

DWG. No.

A. Powell

To Accompany Assessment Report on Geochemical Soil Sampling for Copper, Lead and Zinc, Charity Claimgroup by A. Powell B.Sc. May 7 1979



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7435
NO.

Figure No 5

CHARITY CLAIM GROUP
CHARITY, KLONDIKE, VICTORIA, VICTORIA TRACTION
& BELONG TRACTION, COPPER MINT 1-3 CLAIMS
Zinc
in 'B' Soil Horizon

Scale: 1/5,000
NTS 42.B-13.W
0 50 100 150 200 METERS

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DRAWN BY: BS, AP
DATE: May 1979
SURVEYED BY: FI, PS, MC, CA. DWG. No.

- LEGEND**
- Legal Cornerpost
 - claim boundary
 - C.G. Crown granted claim
 - 1500 Elevation contour in feet, Enlarged from Topographic map 98.B.13.W 1/50,000.
 - 220 Soil sample site, value in ppm
 - Stream & Rivers
 - Logging roads
 - Contours at 105 and 160ppm

A. Powell

To Accompany "Assessment Report on Geochemical Soil Sampling for Copper, Lead and Zinc, Charity Claim group" by A. Powell B.Sc. May 4, 1979