

REPORT

ON

825152

GEOCHEMICAL WORK

"A" GROUP

MD 85 - 122, 313 - 324, MINING CLAIMS  
RECORD NUMBERS D-61840-67, H-63560-71

HART LAKE AREA  
CARIBOO MINING DIVISION, B. C.

MAP NOS. 93 A/5 and 93 A/12  
Latitude 52° 29' N, Longitude 121° 59' W

December 20, 1971

by

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for

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1710-1177 West Hastings Street  
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On work performed May 1 - July 30, 1971

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## SUMMARY

Geochemical and I. P. surveys and trenching were done on the "A" Group in 1971. This report is concerned with the geochemical survey.

Of 420 samples of the C soil horizon on the "A" Group and 110 samples of neighbouring groups, five per cent are greater than 70 ppm copper and are considered anomalous. Several of these "anomalies" are one-sample anomalies or are otherwise considered spurious; however, one thin, 3000-foot long anomaly remains untested.

An induced polarisation survey has ruled out the possibility that the anomaly is due to near-surface sulfide mineralization, hence it might be due to oxide mineralization, mineralized trains in glacial drift, or other causes.

## LOCATION

The "A" Group is located centred on latitude  $52^{\circ} 20'$  N and longitude  $121^{\circ} 59'$  W. Nearly all of the claims are on Map Sheet 93 A/5, at its western edge, but the northern tier is on Map Sheet 93 A/12. Access is via the McLeese Lake - Likely road, which passes through the "A" Group. The claims are 25 miles east of McLeese Lake.

## OWNERSHIP

The "A" Group (MD 85-112, 313-324,) is held by Dusty Mac Mines Ltd. (M.P.L.), on whose behalf this work was done. The claims were staked in 1971. MD 85-112 were recorded April 13, 1971, and MD 313-324 were recorded July 8, 1971.

### PHYSIOGRAPHY

Topography is rolling hills of a few hundred feet relief. Forest cover is jackpine, spruce, fir and alder.

Nearly all of the soil is podzol. Swamps and boggy organic areas are present in less than two per cent of the area.

### GEOLOGY

The area is entirely covered except for one outcrop of slightly brecciated Cache Creek argillite, about 90 feet long and 20 feet wide. This rock contains occasional very fine pyrite grains. Bedding strikes northwest and dips 90°.

The regional geologic fabric similarly strikes northwest, with younger units to the northeast and older to the southwest. About 10 miles to the west the Granite Mountain stock crops out, but the intervening area has an unbroken cover of glacial gravels.

### WORK PERFORMED

This report is concerned with geochemical sampling done on the "A" Group at various times during the period May 1 - July 31, 1971.

Concurrently geochemical sampling was done on several other claims in the region.

Also on the "A" Group 13 line-miles of induced polarization was done and twenty-one bulldozer trenches were dug.

GEOCHEMISTRY

Approximately 530 soil samples were taken at 200-foot intervals along lines spaced 400 and 800 feet apart. Out of these 420 are on the "A" Group and 110 from sites in proximity to the "A" Group where the lines extended off the claims. (These are shown in Drawing 2).

Samples were taken with a manual auger from depths of about one to three feet. The minus-80 mesh fraction was analysed for copper using the atomic absorption method by Crest Laboratories (B. C.) Ltd.

As a rule the samplers tried to sample the C horizon, although in some indeterminate cases material from the A or B horizon was probably sampled. Swamps and boggy areas were bypassed unless the C horizon could be reached.

The frequency distribution of results is presented in the table and in Drawing 3.

TABLE: Frequency Distribution of 530  
Copper Samples

Greater Than Value

<u>Value (ppm Cu)</u>	<u>Number</u>	<u>Percentage</u>
5	530	100
10	504	95.1
15	410	77.3
20	261	49.3
30	125	23.6
50	50	9.4
70	28	5.3
100	16	3.02
150	3	0.56
200	1	0.19
300	0	0.00

The frequency curve (Drawing 3) is offset to the right between 40 and 100 ppm Cu; thus samples running more than 70 and 100 ppm are taken to be anomalous (contoured in Drawing 2) and those between 50 and 70 ppm are considered questionable (not contoured).

Using these criteria 18 distinct anomalies of over 70 ppm Cu are present, 9 of which are one-sample anomalies, and 9 are drawn around 2 to 9 samples. A northwest-trending fabric has been empirically assumed, based on regional geology and the principal anomaly.

Forty of the high copper samples were also run for molybdenum. These values were mainly -2 and 3 ppm (Drawing 2), but three ranged up to 8, 13 and 57 ppm.

#### INTERPRETATION

The significance of these geochemical anomalies is not known; however, the central anomaly, which is 3000+ feet long, continues to be intriguing.

Any interpretation has to account for the following points:

1. Some of the copper anomalies coincide with swamps, and may be due to biochemical concentration of copper in organic (A horizon) material; however, this is not a one-to-one correlation.
2. Experience suggests that the samples returning 8+ ppm Mo are significantly anomalous and that Mo is less easily concentrated biochemically.
3. An I.P. survey was conducted over the area and obtained no response.
4. Bulldozer trenches 8 - 16 feet deep exposed only glacial drift. In one trench a small cobble of azurite-bearing granite was found which assayed 1.43 per cent copper and 2.0 oz. of silver.

Thus the current alternative hypotheses on the significance of the central anomaly are:

1. It derives from copper oxide mineralization in underlying bedrock;
2. It is secondary and derives from already dispersed mineralization in the glacial drift;
3. It is biogenetic, derived from organic concentration of copper;
4. It derives from a bed in the Cache Creek, for example a dark shale, which may have higher than usual geochemical background.

DECLARATION OF COSTS

I hereby declare that the following accurately represents the cost of geochemical work performed on the "A" Group:

Wages and Salaries

M. Martin, Prospector, 30 days, May 1-30, 1971 @ \$750/month	\$ 750	
E. Buck, Prospector, 30 days, May 1-30, 1971 @ \$750/month	750	
C. Stevens, Sampler, 15 days, July 15-30, 1971 @ \$650/month	325	
S. Leja, Helper, 15 days, July 15-30, 1971 @ \$15/day	<u>225</u>	\$2,050

Field Expenses

Lodging @ \$30/man-month	90	
Board @ \$5/man-day	450	
Vehicle @ \$15/day	<u>675</u>	1,215

Analyses

420 Cu @ \$1.00	420	
40 Pb @ .50	<u>20</u>	480

Supervision

Andrew E. Nevin, P. Eng., May 28-29, June 14-15 June 20, July 16, 1971 4 1/2 days @ \$175/day	705	
Reports	<u>50</u>	<u>755</u>

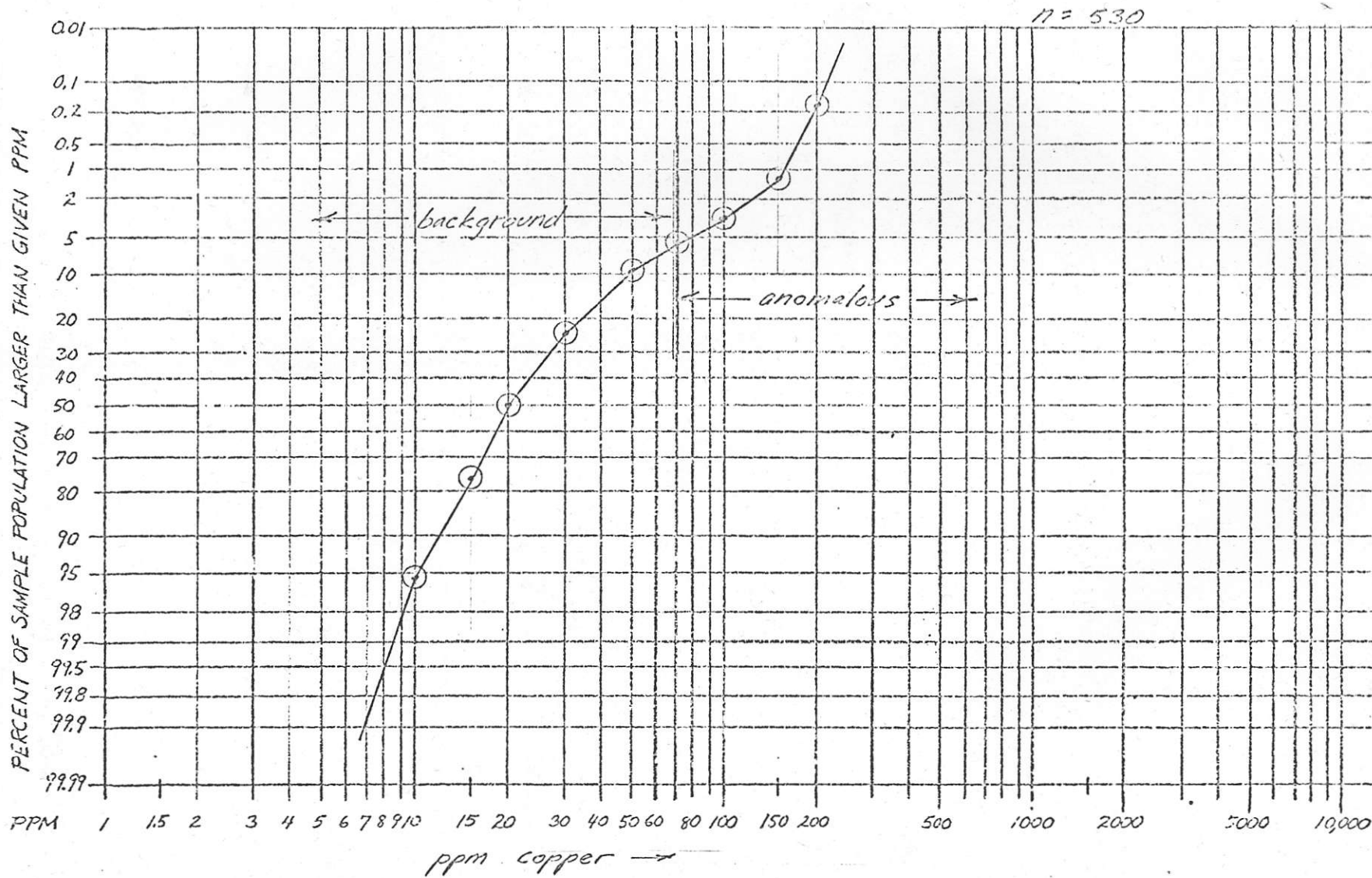
TOTAL \$4,500

Respectfully submitted

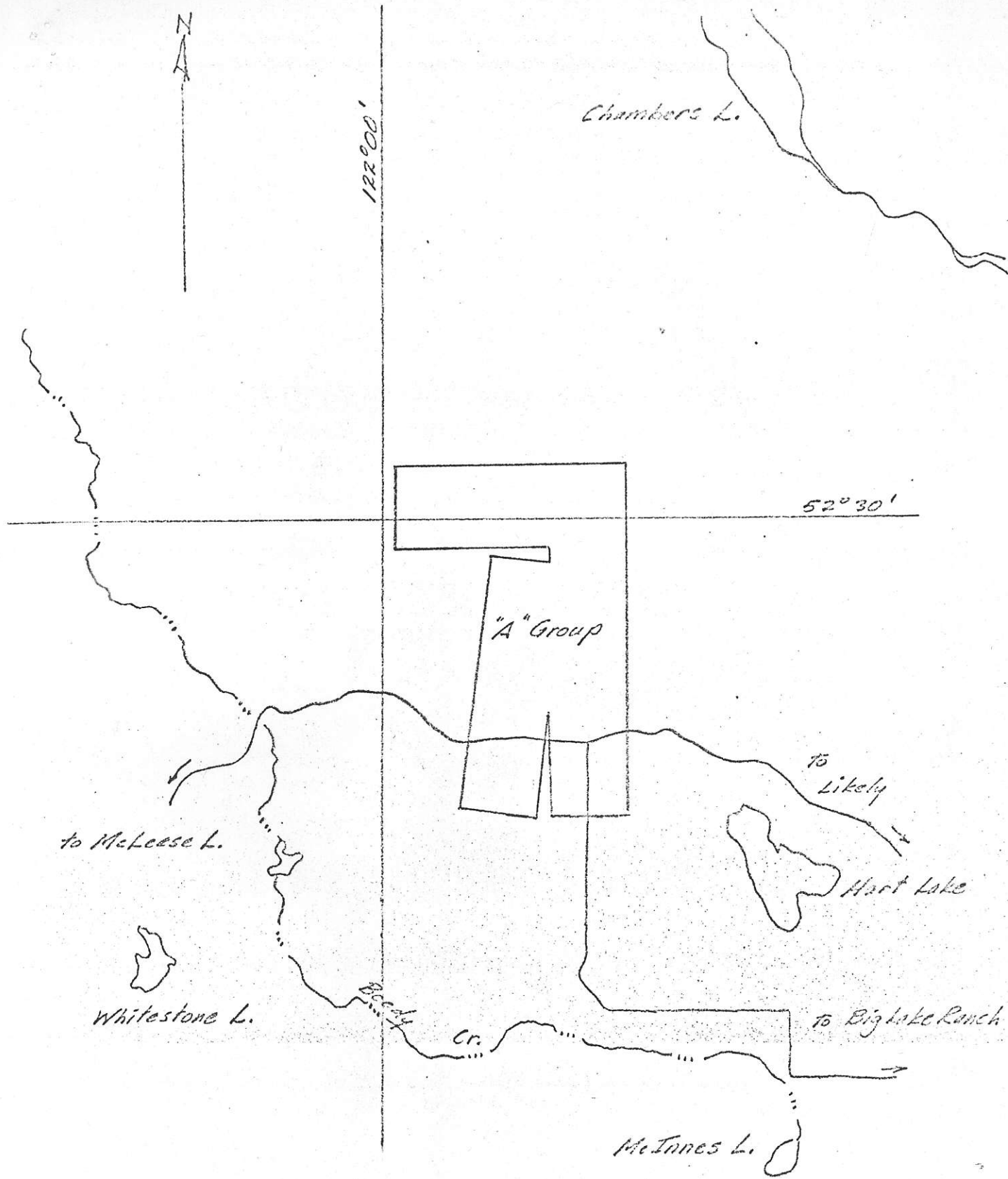
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Drawing 3. - "A" Group, Cumulative frequency diagram of geochemical results



Drawing 1.- "A" Group, Location Map  
 Scale 1:63,360

A.E.N. 12/20/71