

'81- # 135- # 8959

A GEOCHEMICAL REPORT
CONCERNING A SOIL SAMPLE
SURVEY

on the
REDCAP PROPERTY, CAP GROUP #1
consisting of
Cap #2, #4, #5, Goat #1 and DA Claims

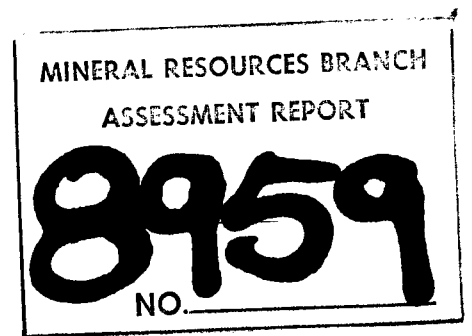
in the
ATLIN MINING DIVISION
NTS 104-K-11, 14
Lat. 58°45'N Long. 133°30'E

owned and operated by

OMNI RESOURCES INC.
900-475 Howe Street
Vancouver, B.C.
V6C 2B3

by

G.A. CLOUTHIER



February 1980

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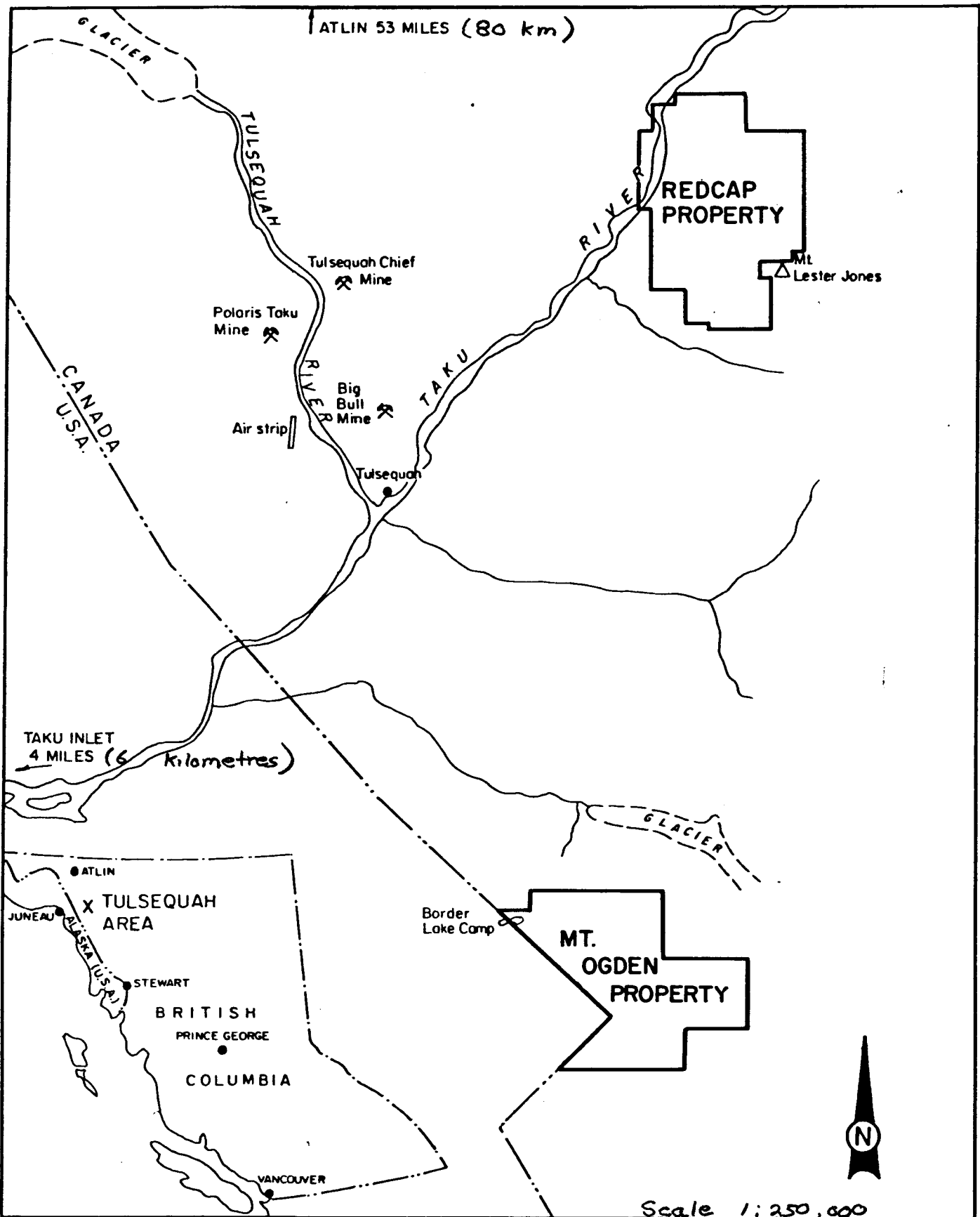
INTRODUCTION

Location and Access

The property is located 80 kilometres NW of Juneau, Alaska and 90 kilometres outh of Atlin, B.C. The terrain is mountainous with elevations ranging from 25 metres ASL on the Taku River at the north end of the property to 2138 metres ASL on the peak of Mt. Lester Jones. Mt. Lester Jones is the most easterly of the Coast Range peaks and to the northeast the terrain become much more subdued. The access to the claims is by helicopter direct from Atlin or by fixed wing to the airstrip at Tulsequah 20 kilometres to the southwest and by helicopter from that point to the property. For the purposes of this program accommodations were provided for the crew and helicopter support with a Hughes 500D at Omni's Border Lake camp some 30 kilometres southwest of the work area.

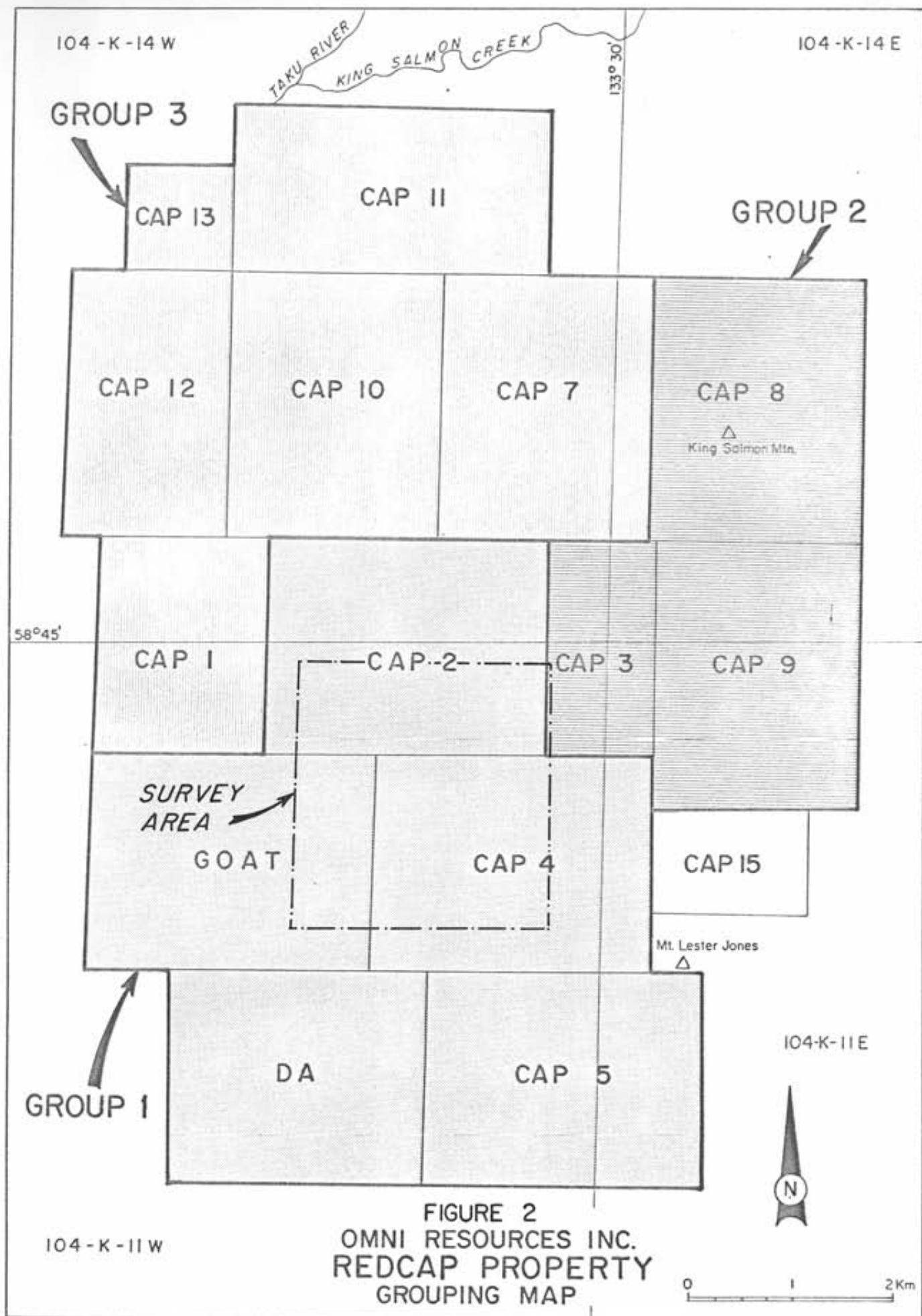
Property

The property consists of 16 mineral claims totalling some 243 units. The earliest references to the prospect area appear in the Minister of Mines Annual Reports in 1930 and 1931. At that time it is believed that the prospect was being evaluated for its highgrade gold potential in specific vein structures. Parts of the property are believed to have been worked by several parties since the 1930's. However little data is available in the public records. In 1971, A.R. Archer prepared assessment report #3670 which covers a program of 5 short diamond drill holes which were drilled



OMNI RESOURCES INC.
 PROPERTY MAP
 TULSEQUAH B.C. AREA

FIGURE 1



on the prospect that year. Under a grubstake agreement, Clifford McNeill acquired Goat #1 and DA #1 for Ernest Bergvinson, the president of Omni Resources Inc., in February of 1979. During the 1980 season Omni began an extensive program of prospecting and staking on the prospect and the original claims were transferred into Omni's name. The property has good potential as a porphyry copper deposit with very significant co-product values in gold, silver, and molybdenum.

Work Summary

A total of 43.45 km of grid lines were established with 50 metre picket intervals and 100 metre line spacing. Some 723 soil samples were collected where possible at grid stations. This work was carried out on portions of Goat #1, Cap #2 and Cap #4 (see figure 2)

DETAILED TECHNICAL DATA AND INTERPRETATION

Purpose

The purpose for conducting this soil sampling survey was to further define and evaluate the intensity and zonal distribution of copper, molybdenum and silver in a large area of pyritization and alteration.

Work Program

The survey area is located in a cirque with elevations ranging from 850 metres ASL in the valley floor to 1525 metres at the top of the ridge to the east and north of the grid. The terrain is generally steep but traversible on foot with rudimentary mountaineering skills. The lines were established using nylon chains and compasses. Slope corrections were made

with a slopometer. At each station a 60 cm lath was driven into the ground and clearly marked with the appropriate co-ordinates. Since much of the survey area is above treeline and vegetation is sparse, there is no real soil development. The samples collected consist of the clay and silt size residue of weathered bedrock. No samples were collected at some stations due to extensive snow cover or complete bedrock exposure.

The samples were collected in kraft paper bags, dried, and then shipped to Chemex Labs Ltd. in Vancouver. The samples were screened in the lab and the -80 mesh fraction was analyzed by routine atomic absorption techniques for copper, molybdenum and silver.

Interpretation

The area of investigation is underlain by volcanic rocks of the Triassic, Stuhini Formation (Souther 1971). These rocks have been intruded by a small granodiorite plug of probable Cretaceous age. The volcanic rocks near the contacts with the plug and up to one kilometre from it are heavily pyritized, silicified and fractured. Geological investigation of this area by the writer revealed minor secondary copper minerals such as malachite, cuprite, chalcocite, and native copper as well as molybdenite. The sampling results revealed a large and very strong anomaly in all three elements tested. Because such a large proportion of the samples were anomalous routine statistics were not very useful in establishing background, threshold and anomalous levels. From more extensive sampling in the area it can however, be stated that the values obtained along the southern edge of the study area are fairly representative of regional background.

The table below gives an empirically derived estimate of anomalous levels.

	Background	Possibly Anomalous	Anomalous	Very Anomalous
Copper	30-60 ppm	60-200 ppm	400-800 ppm	>800 ppm
Molybdenum	1-5 ppm	5-14 ppm	15-60 ppm	>60 ppm
Silver	.1-.3 ppm	.4-.9 ppm	1-3 ppm	>3 ppm

The molybdenum anomaly is elongate along a north-north-easterly direction and is some 1800 m in this direction by 1200 m at its widest point. Its boundaries are sharp and values are very uniform within it. Twenty-five samples within the anomaly exceed the limits of Chemex's analytical method at >250 ppm. It was initially thought that the elongate downslope extension of this anomaly to the southeast was transported but observations of mineralization in bedrock in this area indicate that the results are due to in situ mineralization.

The copper anomaly is somewhat larger than the molybdenum one. However it is more variable in intensity. It is approximately 2000 m. by 2000 m. and is not closed off completely to the east and northeast. It should be stated that grid lines had to be stopped to the east and northeast because of steep cliffs. The edge of the main grid in these directions more or less defines the ridge crest with drainages in the anomalous zones trending west to southwest. The copper anomaly overlaps almost all of the molybdenum anomaly and also extends further east and northeast. In a vertical sense it also extends further upslope. The highest values are greater than 4000 ppm.

The silver anomaly approximately corresponds to the upper northeasterly portion of the copper anomaly and is approximately 2000 m long along a northwesterly axis and

1000 m. wide. It is interesting to note that the silver anomaly does not extend downslope as far as those of copper and molybdenum, and that it peaks with 11 values of 20 ppm all along the east and northeast edges at the top of the ridge.

Conclusions

The size and intensity of the anomalies obtained in copper, molybdenum, and silver indicate a large area of significant mineralization. Because the relief on the survey area ranges from 850 m to 1525 m one is able to get some insight into both vertical and lateral zoning patterns. The geological data and the geochemistry both suggest that a large porphyry copper system underlies the survey area. The geochemistry reflects typical metal zoning in which molybdenum is central both in a vertical and in a lateral sense and that it is overlapped and surrounded by hemispheric zones of copper and then silver.

The Redcap property appears to contain a large porphyry copper-molybdenum with excellent co-product precious metal potential.



G.A. Clouthier

Exploration Manager



APPENDIX I

STATEMENT OF COSTS

STATEMENT OF COSTS

Helicopter

Hughes 500D 20 hours @ \$360.00/hr.	\$7,200.00
Fuel 20 hours X 22 gal/hour X \$4.00	<u>1,760.00</u>

\$8,960.00

Wages

G.A. Clouthier, Geologist 8 days @ \$140/day	1,120.00
Patrick Farley, Assistant 20 days @ \$65/day	1,300.00
John MacDonald, Assistant 20 days @ \$60/day	1,200.00
Doug Schmidt, Assistant 20 days @ \$60/day	1,200.00
Greg Schmidt, Assistant 20 days @ \$60/day	<u>1,200.00</u>
	6,020.00
Plus 15% Fringe	<u>903.00</u>

6,923.00

Camp Costs includes transportation, food,
fuel, radios, camp supplies and support

Field workers	88 days @ \$35/day	
Support Personnel	<u>25 days @ \$35/day</u>	
Total	113 days @ \$35/day	

3,955.00

Analysis and Sample Preparation

723 samples @ \$3.65/sample	2,638.00
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Fixed Wing

3 Beaver trips Atlin to Border Lake @ \$330.00/trip	990.00
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Drafting and Report Preparation

1,000.00

TOTAL	\$24,466.00
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APPENDIX II

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATION

Gerald A. Clouthier

I graduated from U.B.C. with a B.Sc. degree in Honors Geology in 1970. I have been employed continuously in base metal and coal exploration through the Western Hemisphere. During this time I've been involved in most phases of exploration, geology, geophysics and geochemistry. I am a Member of the CIMM and a Fellow of the Geological Association of Canada. I personally supervised the work covered in this report. I instructed Patrick Farley and John MacDonald in proper sampling and grid control techniques. Both these individuals have some background in this type of work and this survey was conducted by them in a conscientious and scientifically sound manner.

APPENDIX III

GEOCHEMICAL PROCEDURES

GEOCHEMICAL PROCEDURES

Cu, Pb, Zn, Ag, Cr:

1. Geochemical samples (soils, silts) are dried at 80°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to - 100 mesh.
2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO₄ and concentrated HNO₃. Digestion time = 2 hours.
3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
4. Detection limits using Techtron A.A.5 atomic absorption unit. Copper - 1 ppm, *Lead - 2 ppm, Zinc - 1 ppm, *Silver - 0.2 ppm, Chromium - 2 ppm. (* Pb & Ag are corrected for background absorption)
5. Elements present in concentrations below the detection limits are reported as one half the detection limit, ie. Ag - 0.1 ppm

U:

1.0 gms sample is digested with HClO₄ - HNO₃ acid for approximately 2 hours. An aliquot extracted with MIBK after the addition of Al(NO₃)₃ - TPAN solution and analyzed via conventional fluorimetric procedure.
Detection Limit: 0.5 ppm U.

Au:

5 gm samples ashed @800°C for one hour, digested with aqua regia to dryness - taken up in 25% HCl⁻, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPB

Ba:

A 0.20 gm sample is digested with a mixture of HF-HClO₄ - HNO₃ acids to dryness. The baked residue is leached with 25 ml of 10% HCl with NaCl added to reduce ionization effects in the A.A. flame. Analysis is by AAS using a N₂O - C₂H₂ gas mixture.

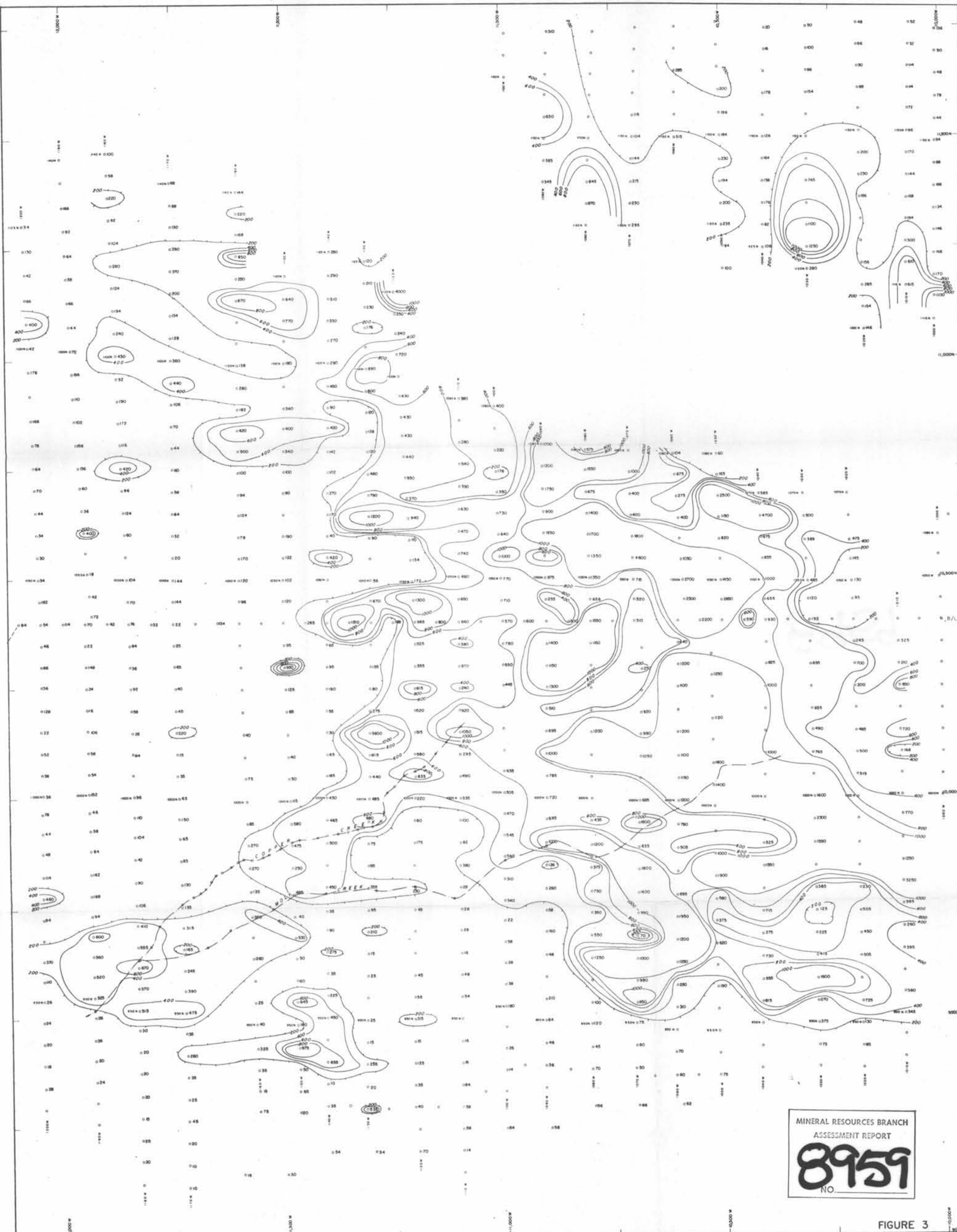
APPENDIX IV

REFERENCES

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Souther, J.G., GSC Memoir 362 Geology and Mineral Deposits
of the Tulsequah Map-Area, British Columbia, 1971.

Archer, A.R. Report on Diamond Drilling Program Mike 1-32
Claims - Mt. Lester Jones Area, Assessment Report
#3670, 1972.

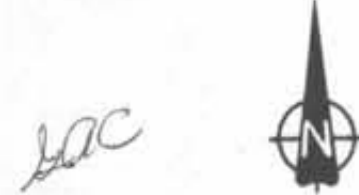


LEGEND

0 ppm
200
400
600
800
1000
1000+

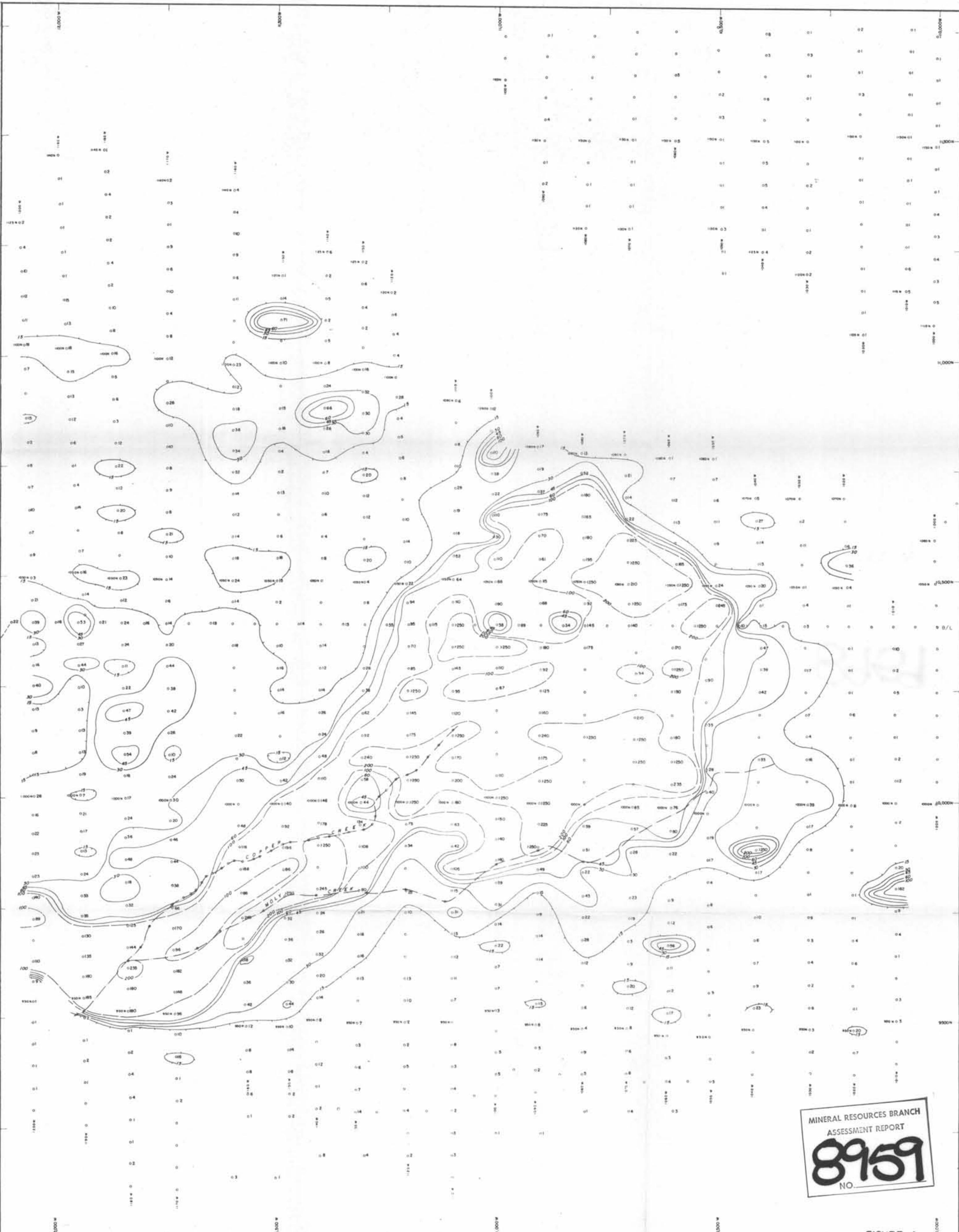
SYMBOLS

○ Sample location



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
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NO.

FIGURE 3
OMNI RESOURCES INC.
REDCAP PROPERTY
Cu GEOCHEMISTRY
SCALE 1:5000
0 100 200 300 400 500 METERS
0 100 200 300 400 FEET



MINERAL RESOURCES BRANCH
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FIGURE 4

LEGEND

0	10
15	20
30	40
50	60
80	100
120	150
200	300
400	600
1000	2000

SYMBOLS
 o Sample location

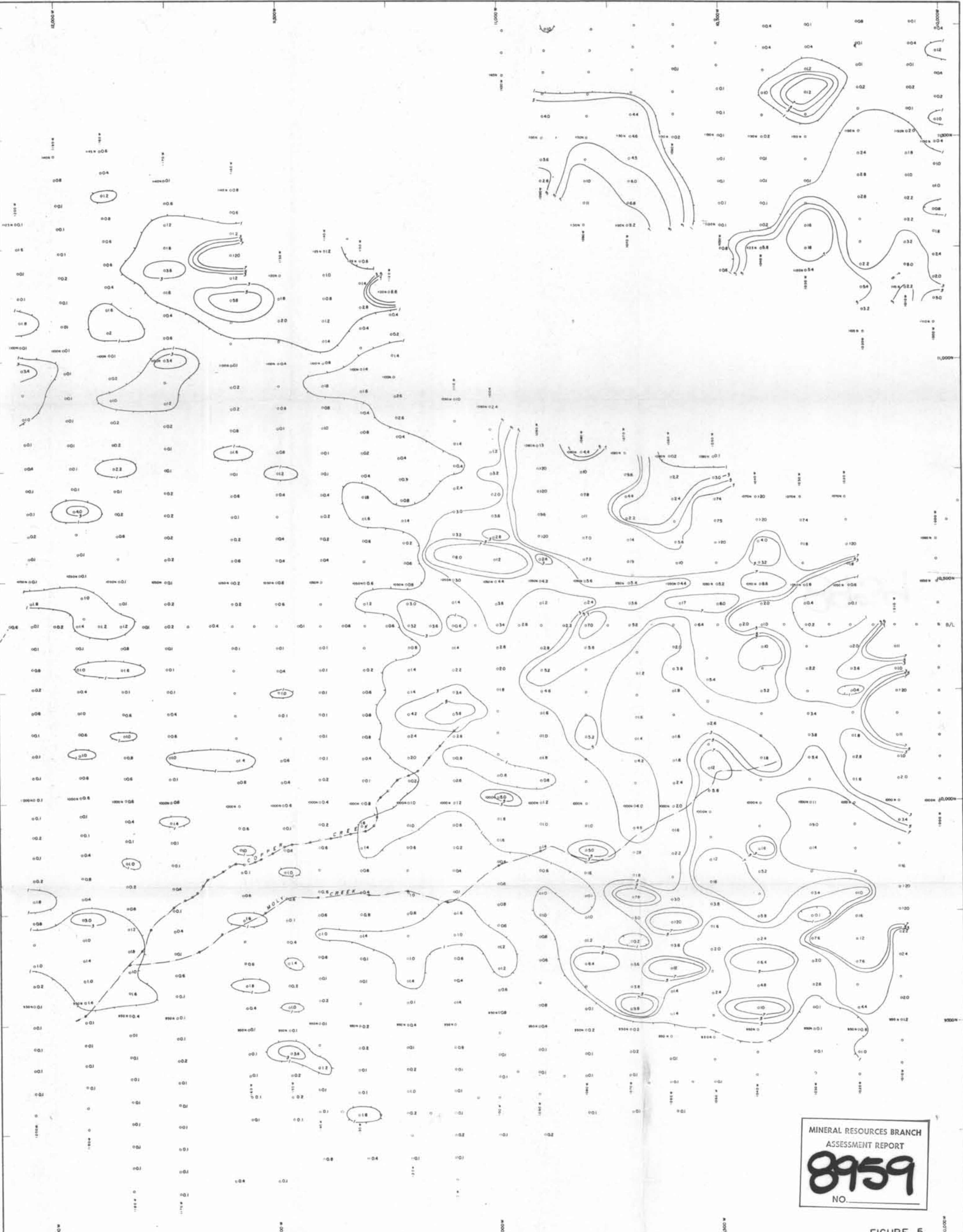
RLC



OMNI RESOURCES INC.
 REDCAP PROPERTY
 Mo GEOCHEMISTRY

SCALE 1:5000

0 10 20 30 40 50 METERS
 0 20 40 60 80 FEET



LEGEND

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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SYMBOLS
 ○ Sample location

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FIGURE 5

OMNI RESOURCES INC.

REDCAP PROPERTY
 Ag GEOCHEMISTRY

SCALE 1:5000



bac