6429

CANADIAN SUPERIOR EXPLORATION LIMITED

GEOCHEMICAL REPORT

'77-#324-#6429

ON THE

GROUSE MOUNTAIN GM CLAIMS

October 10, 1977

NTS 93 L/10 E

CANADIAN SUPERIOR EXPLORATION LIMITED

GEOCHEMICAL REPORT

ON THE

GROUSE MOUNTAIN GM CLAIMS

NTS 93 L/10 E

LOCATION: Long: 126° 43' Lat: 54° 33'

CLAIM NAME: GM

WORK PERIOD: September 5 - 13 1977

John Baker, B.Sc.
Smithers, British Columbia
October 10, 1977

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ILLUSTRATIONS

INTRODUCTION

The GM 12 unit claim is situated on Grouse Mountain 12 miles North of Houston, B.C., and was staked in 1976 by Canadian Superior Exploration Limited. A soil sampling program, described in this report, was undertaken in September 1977 covering the majority of Canadian Superior's claim in the area East of Coppermine Lake.

SUMMARY

Grouse Mountain has a long history of exploration for copper and zinc sulphides localized along Northeasterly trending structures around the shores of and West from Coppermine Lake. Clustering of showings and interpretation of a regional structural intersection indicated a possible focus for mineralization East of the lake in an area of poor rock exposure.

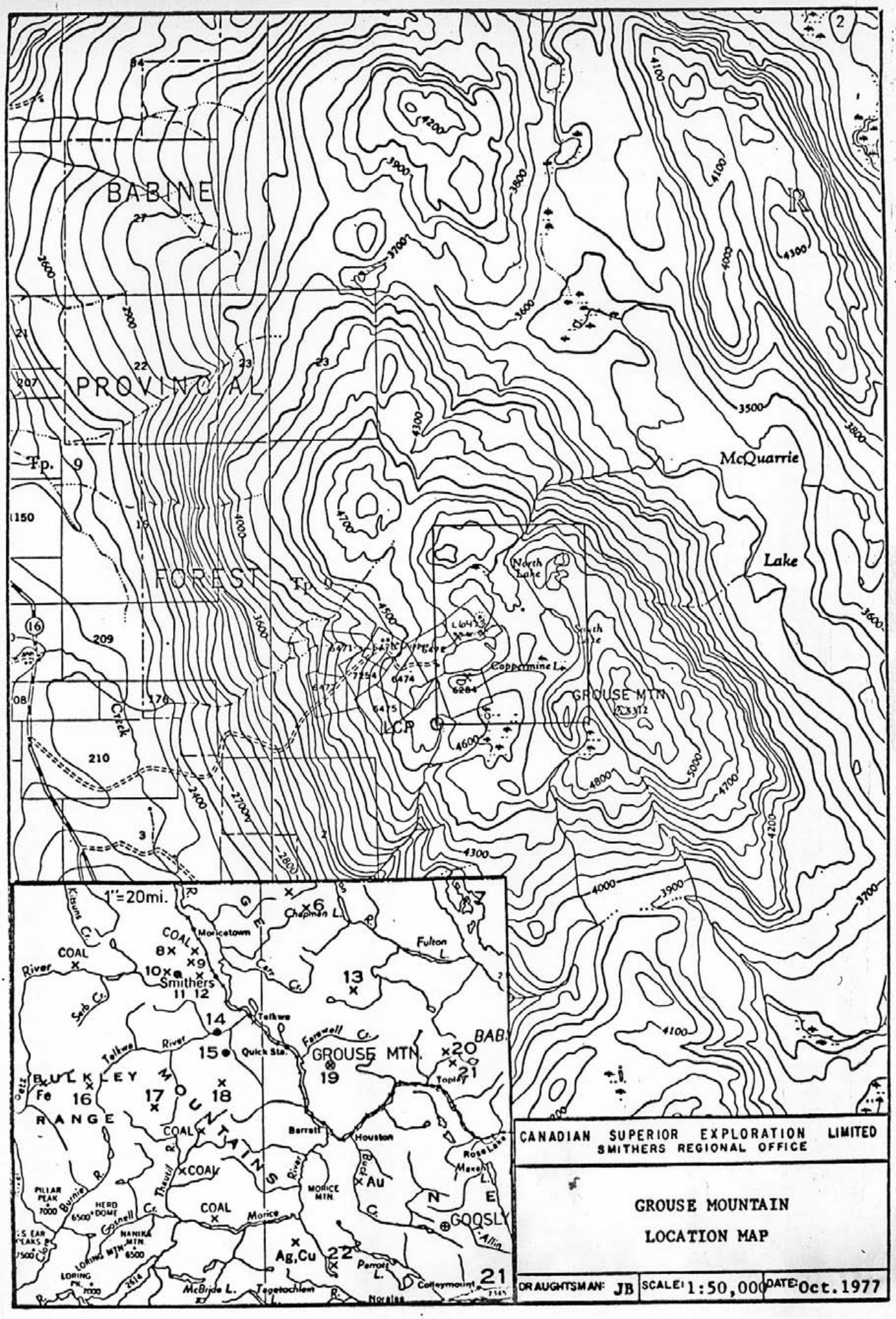
Soil sampling has indicated three strong zinc/minor copper/minor silver anomalies of which two are associated with known showings.

CONCLUSIONS AND RECOMMENDATIONS

Two of the anomalies, along the Northwest shore of Coppermine Lake, and East of North Lake are related to showings probably too small to be of economic significance. Copper geochemical results support this view however high zinc values are more extensive than the showings would indicate. The third anomaly Southeast of Coppermine Lake is open to the Southwest, has no known associated mineralization, and requires further investigation.

Additional soil sampling, detail prospecting, and geomorphological evaluation of the third anomaly is proposed, to be followed by trial EM and/or I.P. Surveys in the event of favourable results.

Re-evaluation of the Eureka showings on the North shore of Coppermine Lake will be undertaken in view of the large size of the zinc anomaly.



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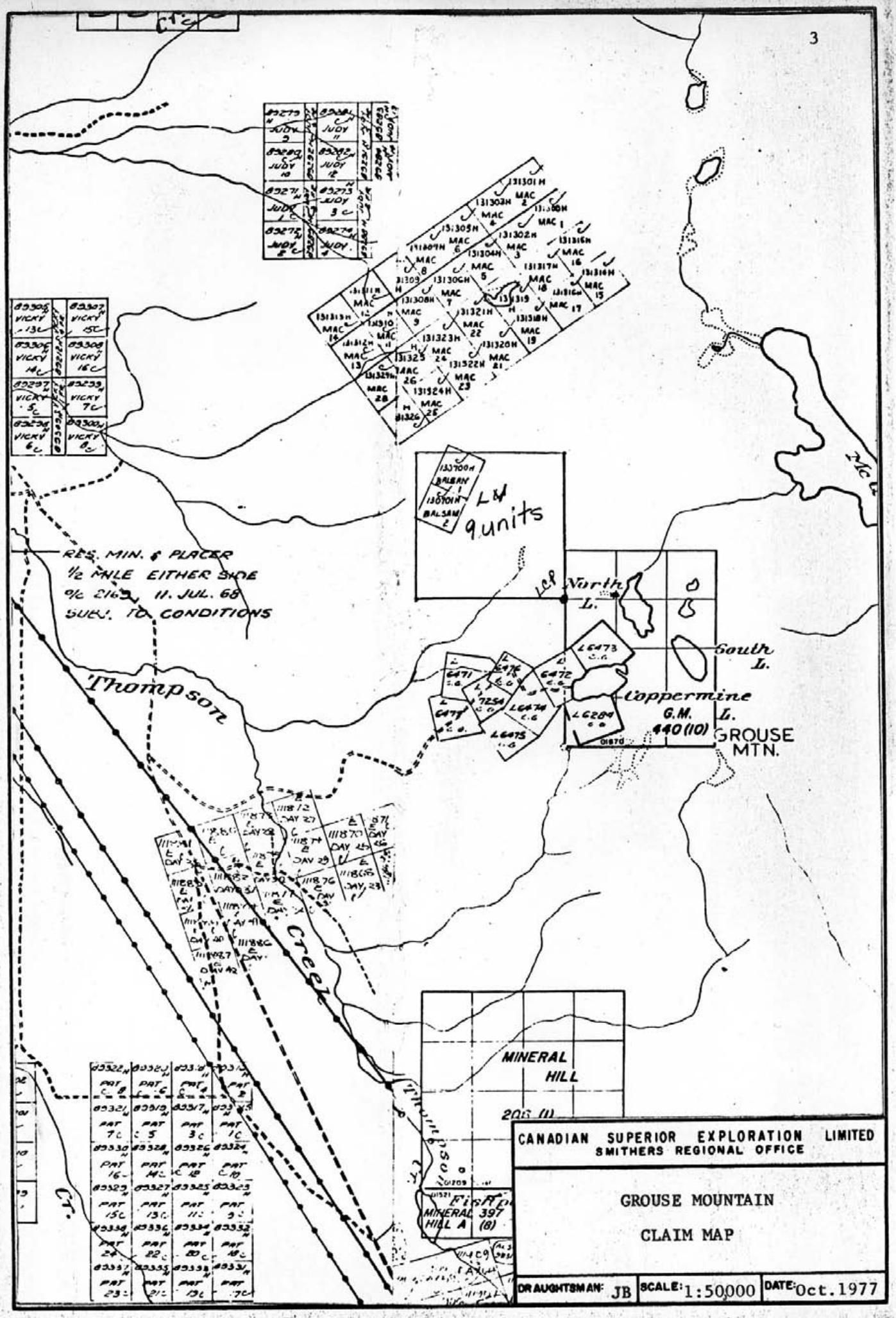
GROUSE MOUNTAIN
LOCATION MAP

DRAUGHTSMAN: JB	SCALE: 1:50,000	DATE: Oct. 1977


L4 9units
RES. MIN. & PLACER
½ MILE EITHER SIDE
O/C 2163, 11. JUL. 68
SUBJ. TO CONDITIONS
North L.
South L.
Copper mine G.M. 440 (10)
GROUSE MTN.
Thompson
Creek
MINERAL HILL
206 (1)
FIRST MINERAL HILL A 397 (8)
CANADIAN SUPERIOR EXPLORATION LIMITED
SMITHERS REGIONAL OFFICE
GROUSE MOUNTAIN
CLAIM MAP
DRAUGHTSMAN: JB
SCALE: 1:50000
DATE: Oct. 1977

ACCESS AND PHYSICAL FEATURES

Coppermine Lake lies just below timberline on the 4800' plateau, summit of Grouse Mountain, a domical feature along the Eastern margin of the Bulkley Valley.

Within the grid area relief is gentle and patches of dense stunted spruce are relieved by irregular meadows.

Access is via Highway 16 Southeast from Smithers, thence by 3 miles of 4 wheel drive road to Coppermine Lake.

HISTORY

In 1914 prospectors discovered the Copper Crown, Ruby, Lakeview, Schorn and Eureka copper and zinc sulphide showings near Coppermine Lake. In 1915 Cassiar Crown Company sank a shaft 56' deep on the Copper Crown and advanced a crosscut 1000' without encounting appreciable mineralization. Activity was then directed to the Ruby showing where a lens of mixed sulphide was traced several hundred feet from a short adit crosscut on the 4540' level. No mineralization comparable to that on surface was found. In 1926 further underground work linked the Ruby and Copper Crown, and short adits were driven on several other showings in the vicinity.

The area lay dormant until 1951 when Copper Ridge Mines dewatered and sampled the underground workings and carried out 5000' of Ax diamond drilling on the Copper Crown/Ruby zone before suspending the program.

More recently in 1973 N. Church of the B.C. Department of Mines mapped the local geology as described in GEM 1973.

GEOLOGY

The Coppermine Lake area as mapped by Church (GEM 1973) is underlain by Hazelton (Jurassic) greywacke, minor interbedded shale and thin bands of andesitic tuff, with a gentle dip to the South. This sedimentary unit is overlain by andesitic tuff and appears to pass laterally into andesite tuff breccia.

Two structural trends are prominent; a Northerly direction invaded by bladed feldspar porphyry dikes and an Easterly trend controlling the mineralization.

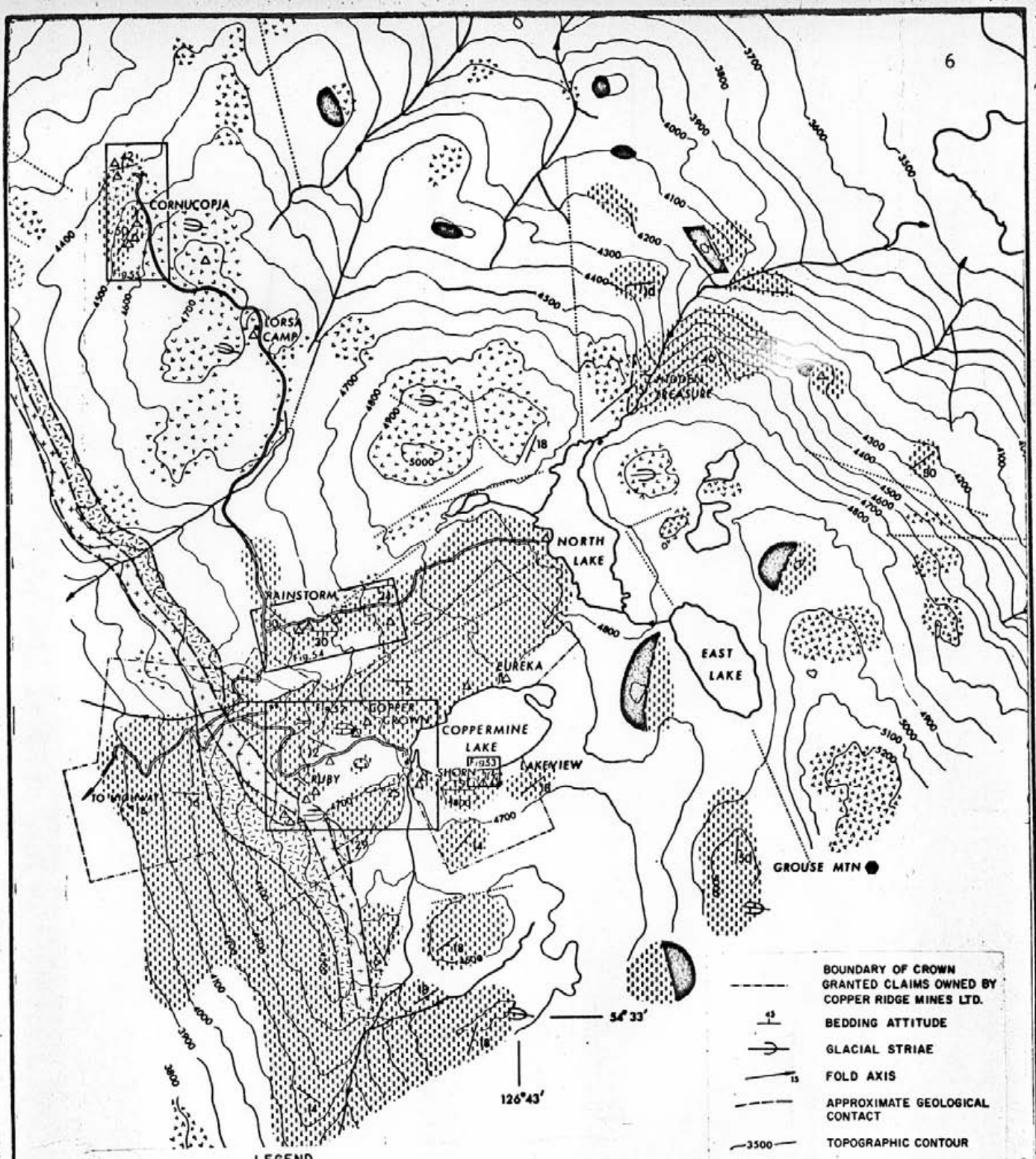
Mineralization on the Ruby and Copper Crown, and Schorn and Lakeview area consists largely of massive sphalerite and/or chalcopyrite in lenticular and stringer like bodies distributed over an aggregate width of less than 50 feet controlled by tension fracture zones. The Eureka and Rainstorm zones consist of pyrite/chalcopyrite/sphalerite mineralization with quartz gangue in brecciated fault zones.

GEOCHEMICAL SURVEY

Soil samples were taken by means of an auger at 200' intervals along flagged compass lines 400' apart and analysed for total copper, zinc and silver by Acme Analytical Laboratories in Burnaby. Standard analytical procedures involving atomic absorption techniques were employed.

The area sampled is covered by a relatively thin (< 20') mantle of glacial till with a well developed B horizon generally less than 1' below surface. Background values for zinc, copper, and silver are 175 ppm, 20 ppm, and 0.4 ppm with anomalous conditions established at 300 ppm, 50 ppm, and 1 ppm respectively.

Zinc is obviously the dominant metal although coincident copper and very weak silver signatures are present with each Zinc anomaly.



LEGEND

BEDDED ROCKS

- SEDIMENTARY ROCKS, MAINLY GREYWACKE WITH SOME INTERCALATED TUFF AND BRECCIA
- VOLCANIC ROCKS, MAINLY TUFF AND TUFF BRECCIA WITH SOME LAVA

IGNEOUS INTRUSIONS

- TABLET FELDSPAR PORPHYRY (CONTACTS ARE PARTLY INTERPOLATED)
- BLADED FELDSPAR PORPHYRY (CONTACTS ARE PARTLY INTERPOLATED
- BIOTITE FELDSPAR PORPHYRY

SYMBOLS

- BUILDING
- MINERALIZATION

0 2000 4000 FEET

0 500 1000 METRES

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SMITHERS REGIONAL OFFICE

GEOLOGY OF THE GROUSE MOUNTAIN AREA
(by B. N. Church)

DRAUGHTSMAN:	SCALE:	DATE: Oct. 1977

GEOCHEMICAL SURVEY - Continued

Essentially three main anomalous areas have emerged. Anomaly A along the Northeastern shore of Coppermine Lake defined by the 300 ppm zinc contour exhibits three Northeast trending peaks up to 5500 ppm zinc also reflected in a more restricted 1400 ppm copper anomaly.

The Eureka showings which consist of two short adits driven by early prospectors on narrow chalcopyrite/sphalerite quartz fracture zones correlate with anomaly peaks and probably cause the geochemical response.

Anomaly B South of Coppermine Lake consists of two Northwesterly elongate features with peak values $>$ 1000 ppm zinc, coincident 145 ppm copper and 5.2 ppm silver in an area generally devoid of outcrop. Detail prospecting is required to determine the probable cause of this anomaly, on addition to further soil sampling to delimit high zinc values.

Anomaly C on the Eastern shore of North Lake with zinc values in excess of 100 ppm and very weak coincident copper and silver response may, in view of Easterly glacial transport, reflect a source beneath North Lake however a small chalcopyrite/sphalerite vein within the anomaly suggests this type of mineralization as the probable cause.

Several other small anomalies have emerged however their size indicates lower priority and no immediate followup is planned.

John Baker B.Sc.

COST STATEMENT

In support of an Avidavit on Application to Record Work on the GM Claim, Omineca Mining Division.

Costs incurred in soil geochemical survey September 5 - 13, 1977.

		Costs
Geochemical Analyses:	256 samples @ 2.25/sample	$576.00
Field Supplies (flagging, sample bags etc.)		$ 25.00
Transportation		$ 50.00
Salaries:	F.J.Hemelspeck, 7 days @ $60/day	$455.00
(Sampler)	B. Tompson, 6 days @ $50/day	$300.00
	G. Stock, geologist 1 day @ $60	$ 60.00
	J. Baker, geologist 1 day @ $60	$ 60.00
	Total	$1526.00

CERTIFICATE

I, John F. Baker, of the Town of Smithers do hereby certify that:

1. I am a geologist resident at Seymour Lake Road, Smithers.

2. I hold a B.Sc. degree in geology from the University of B.C. (1971).

3. I have been employed in the mining industry since 1965 and currently hold the position of Northern BC Exploration Manager for Canadian Superior Exploration Limited.

4. I personally supervised all work programs on the Grouse Mountain property during 1977.

John F. Baker

October 10, 1977

Scale

FEET 400 0 400 800 1200

METERS 100 0 100 200 300

To Accompany Geochemical Report on the GM claims, Omineca Mining District

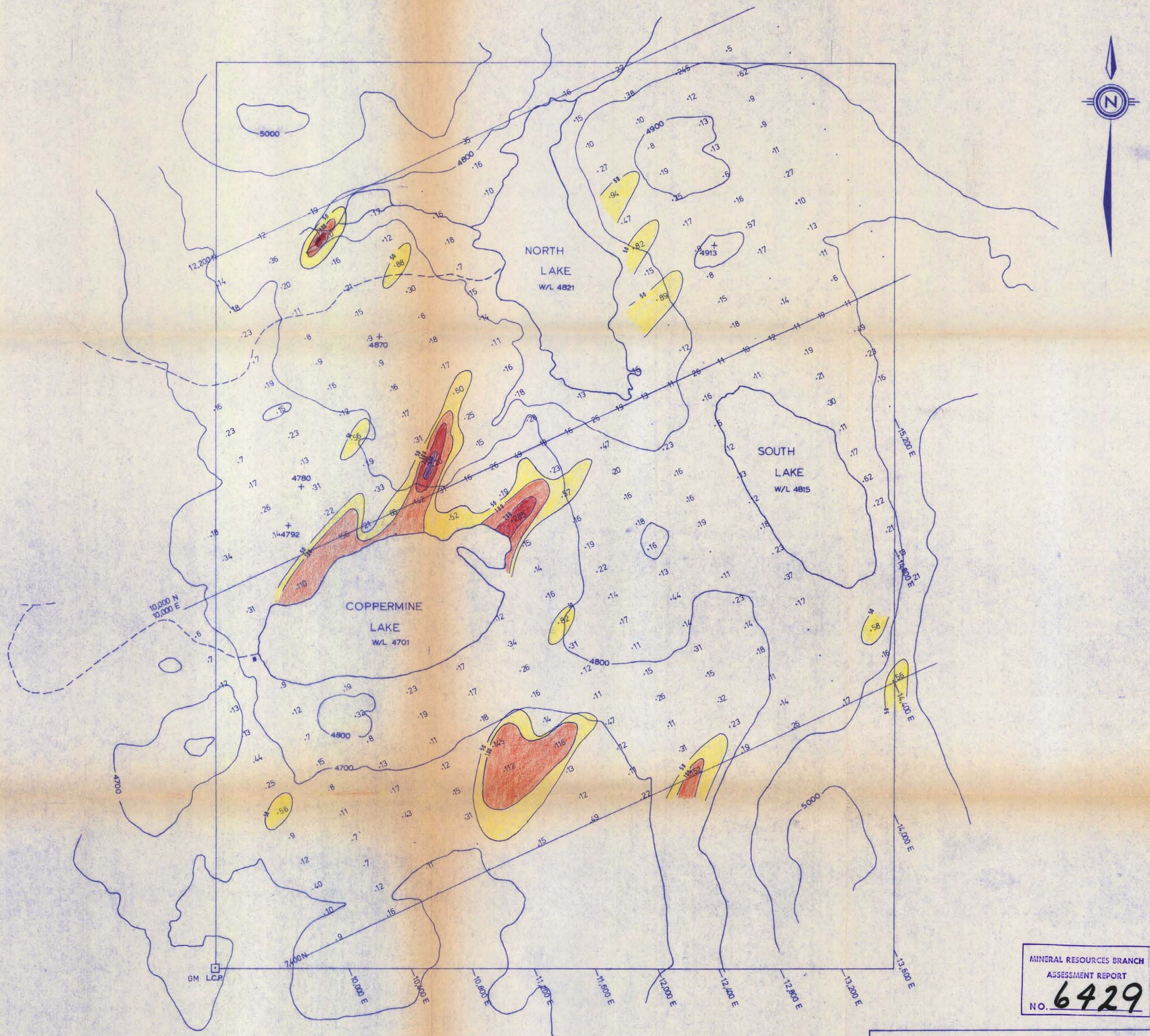
by J.Baker B.Sc. October 10, 1977

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6429

CANADIAN SUPERIOR EXPLORATION LTD.
SMITHERS REGIONAL OFFICE

GROUSE MOUNTAIN PROJECT
SOIL GEOCHEMISTRY
SILVER (PPM)

NTS: 93 L/10 E	SCALE: 1 inch = 400 feet	DATE: October 1977



Scale

FEET 400 0 400 800 1200

METERS 100 0 100 200 300

To Accompany Geochemical Report on the GM claims, Omineca Mining District
by J. Baker B.Sc. October 10, 1977

CANADIAN SUPERIOR EXPLORATION LTD.
SMITHERS REGIONAL OFFICE

GROUSE MOUNTAIN PROJECT
SOIL GEOCHEMISTRY
COPPER (PPM)

NTS: 93 L/10 E	SCALE: 1 inch = 400 feet	DATE: October 1977

NORTH LAKE
W/L 4821

SOUTH LAKE
W/L 4815

COPPERMINE LAKE
W/L 4701

N

Scale

FEET 400 0 400 800 1200

METERS 100 0 100 200 300

To Accompany Geochemical Report on the GM claims, Omineca Mining District

by J. Baker B.Sc. October 10, 1977

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6429

CANADIAN SUPERIOR EXPLORATION LTD.
SMITHERS REGIONAL OFFICE

GROUSE MOUNTAIN PROJECT
SOIL GEOCHEMISTRY
ZINC (PPM)

NTS: 93 L/10 E	SCALE: 1 inch = 400 feet	DATE: October 1977