

ARIS SUMMARY SHEET

District Geologist, Prince George

Off Confidential: 89.06.03

ASSESSMENT REPORT 17747

MINING DIVISION: Cariboo

PROPERTY: Ques

LOCATION: LAT 52 44 00 LONG 121 51 00
UTM 10 5843009 577652
NTS 093A12W

CLAIM(S): Ques 1

OPERATOR(S): Brooks Res.

AUTHOR(S): McDougall, J.J.

REPORT YEAR: 1988, 29 Pages

COMMODITIES

SEARCHED FOR: Gold, Zinc

GEOLOGICAL

SUMMARY: The claims are entirely covered by overburden. The bedrock is believed to be volcanic and shale and/or argillite.

WORK

DONE: Geochemical

SOIL 161 sample(s) ;AU,AG,CU,ZN,SB,AS,PB

RELATED

REPORTS: 15096

LOG NO:	0816	RD.
ACTION:		
FILE NO:		

GEOCHEMICAL REPORT

ON

QUES. 1 MINERAL CLAIM

MAUD LAKE, QUESNEL AREA

CARIBOO M.D.

NTS 93A/12W

LAT. 52° 44'N LONG. 121° 51'W

BY:

James J. McDougall, P.Eng.
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Richmond, B.C.
V6Y 1H1

FILMED

FOR:

BROOKS RESOURCES LTD.
#405-889 West Pender Street
Vancouver, B.C.
V6C 3B2

Vancouver, B.C.

June 1, 1988

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,747

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1. INTRODUCTION:

This geochemical report is submitted as assessment work on the Ques 1 mineral claim, Quesnel Mining District, for the year ending June 6, 1988. It covers soil sampling supplemented by some rock chip geochemical sampling. The area involved was covered by wide spaced (recce) soil geochemical work several years ago (see references) and the present program is a detailed follow-up of local gold and base metal anomalies earlier indicated.

2. LOCATION AND ACCESS:

The property is located 35 km. S.E. of Quesnel, B.C., within the Cariboo Mining Division (Fig. 1). It is accessible via the Nyland Lake Logging Road from Quesnel, thence by the Maud Lake Logging Road which crosses the S.W. edge of the property east of Maud Lake (Fig. 2). The property is mostly tree covered (spruce, fir, poplar) with numerous bog areas. Outcrop is essentially non-existent--less than 0.01%. Overburden depths probably range from 50' meters in the lower flatter areas to several meters, or less, in the vicinity of small creeks or gulleys in the slightly rolling upland areas to the east. Elevations range from 3299 feet (1,006 meters) near Maud Lake to 3650 feet (1,113 meters) in the northeast. Several feet of

BROOKS RESOURCES LTD.
QUESI PROPERTY
LOCATION MAP

SCALE 200 0 200 KILOMETRES MILES

exploration Ltd.

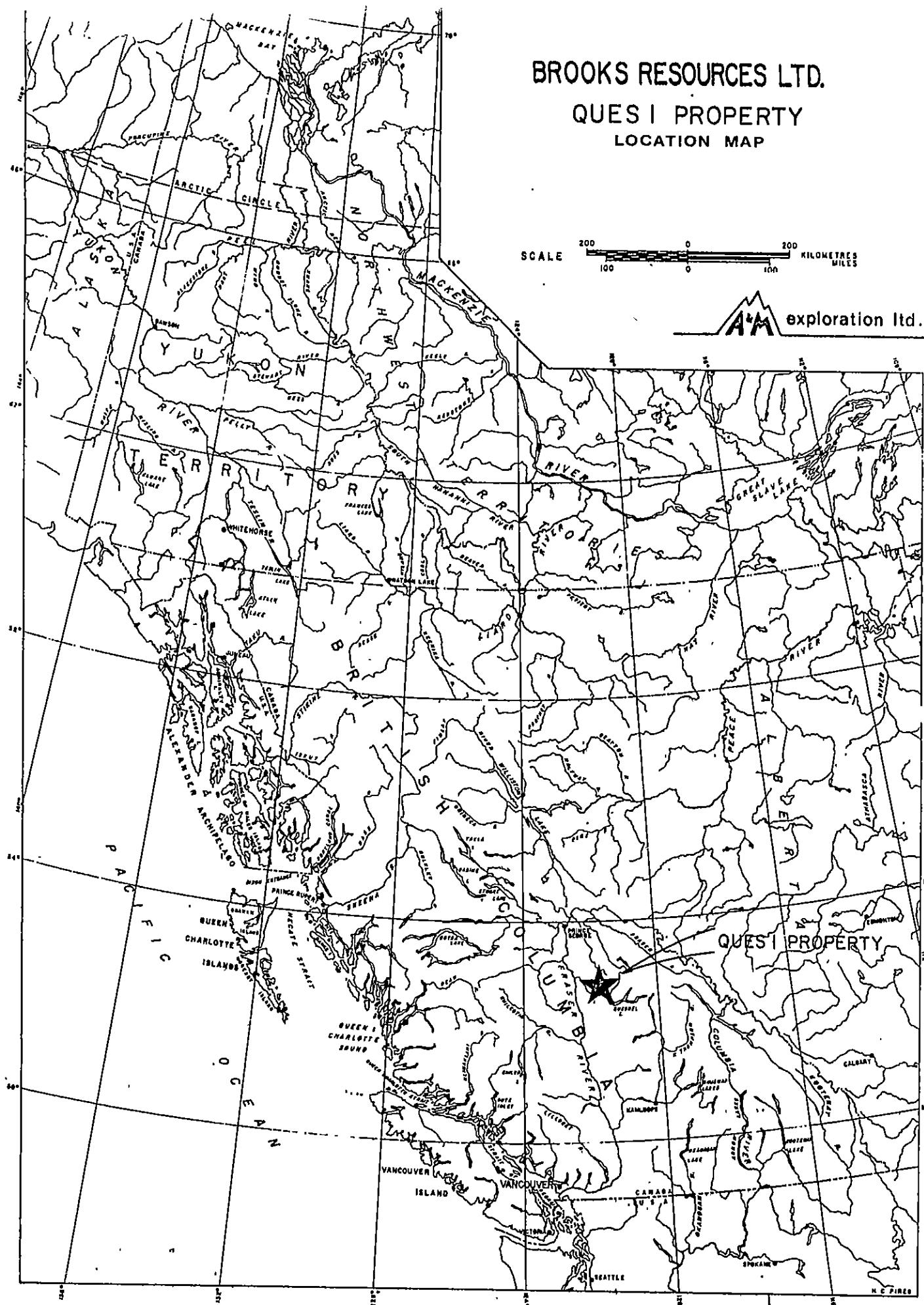
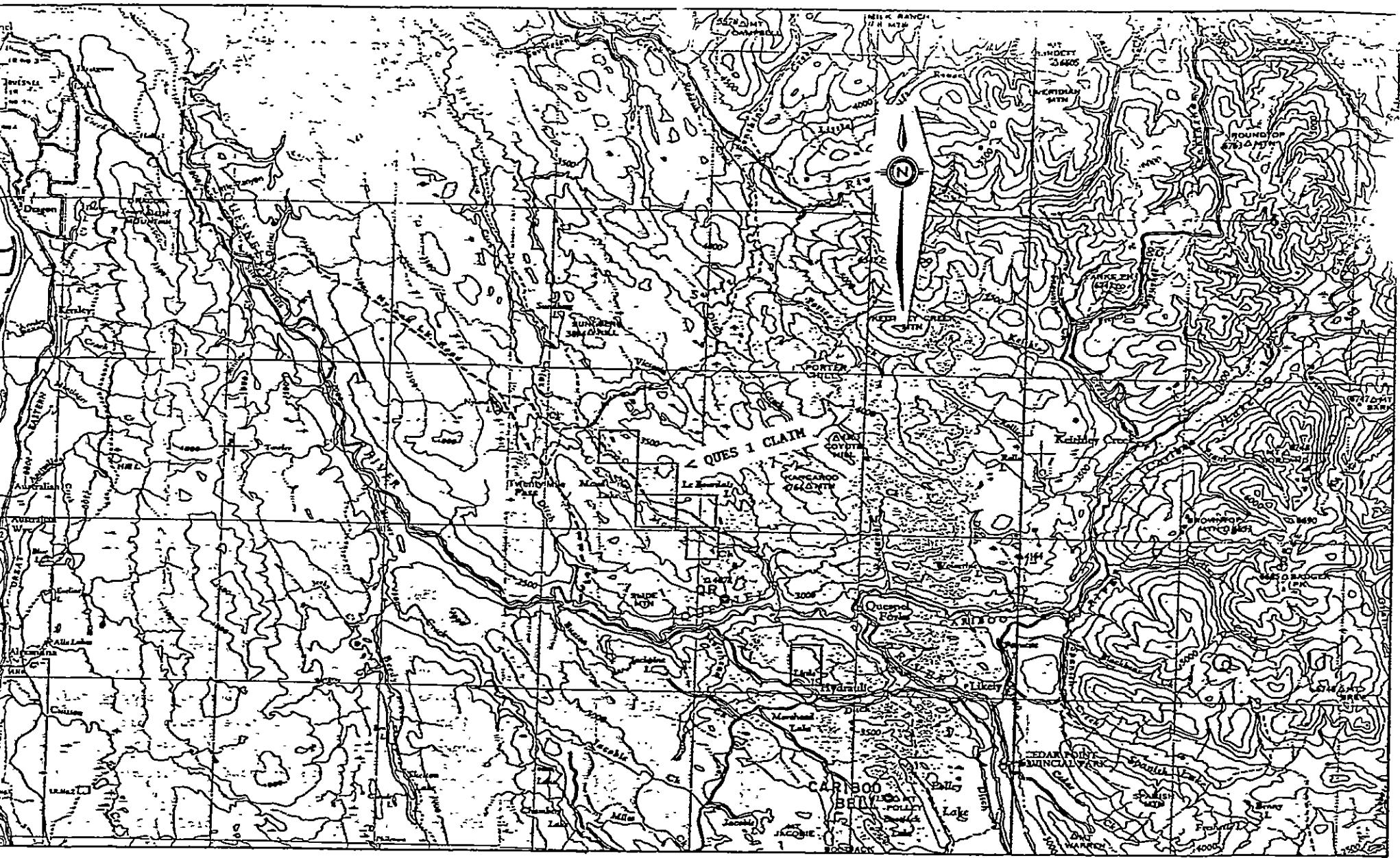


FIGURE - I



N.T.S. 93 A, B

BUENA EXPLORATION LTD.

ACCESS MAP

QUES 1 CLAIM

FIGURE 2

SCALE
KILOMETRES MILES
250,000

snow is present during the winter months--late November to early April. Water is plentiful in the bog areas, and a small, south-centrally located lake would provide water for exploration should the bogs ever dry up.

3. PROPERTY AND OWNERSHIP:

The Ques 1 mineral claim, consisting of 20 MGS units (Rec. #4878) is owned by Brooks Resources Ltd. It adjoins the Maud property located to the immediate west (Fig. 3). which is related to the QR deposit located a short distance to the south (Fig. 3).

4. HISTORY AND DEVELOPMENT:

Previous work on the property consists of two relatively wide spaced soil geochemical surveys and spot IP, VLF geophysical tests, plus involvement in a regional air magnetic survey, the latter conducted due to proximity of the Placer-Dome QR gold deposit, the Maude gold prospect, and the location within the important Quesnel Trough which contains a number of important mineral deposits.

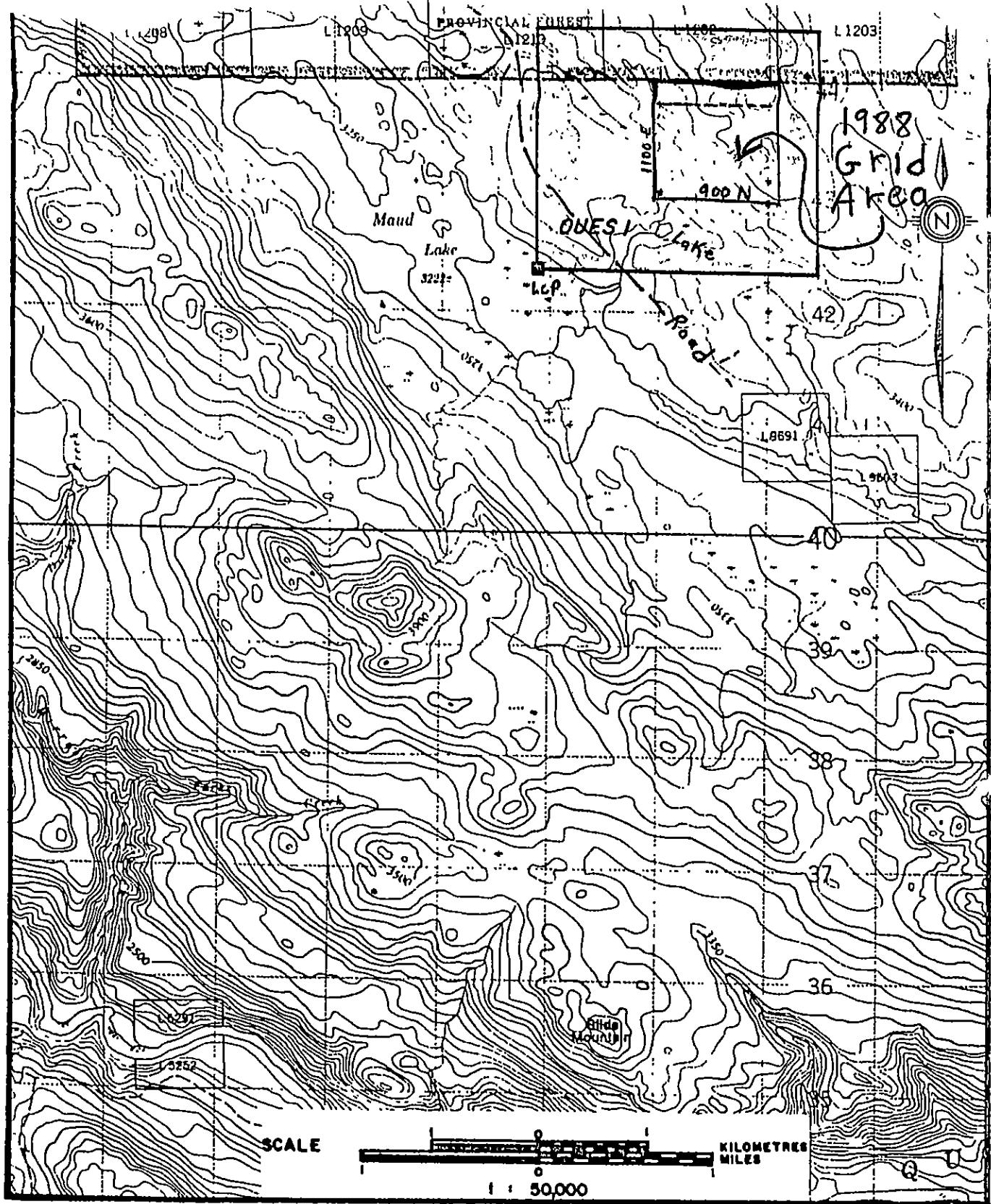
No trenching or drill testing has been carried out, although there is evidence of ancient pits, possibly testing for "high channel" placer deposits.

5. REGIONAL GEOLOGY:

The area of interest is underlain by a thick sequence of mainly Upper Triassic and Lower Jurassic volcaniclastic and sedimentary rocks that lie in a fault bounded structure termed the Quesnel Trough (Campbell and Tipper, 1970.) It is a northwesterly trending feature about 35 kilometres wide (Figure 4) which is flanked on the east by Proterozoic and Paleozoic strata of the Omineca geanticline and on the west by Upper Paleozoic rocks of the Pinchi geanticline. Intrusive rocks in the trough fall into two age groups: 1) Those grouped as 200 m.y. \pm include two types: (a) plutons and batholiths, such as the Takomkane batholith, which varies in composition from granodiorite to quartz diorite, and (1b) small alkalic stocks that are apparently coeval with enclosing volcanic rocks which vary in composition from syenite through diorite to pyroxenite; (2) plutons of 100 m.y. \pm age group which are primarily biotite quartz monzonite and granodiorite and are commonly porphyritic. One of the latter outcrops in the Quesnel River valley seven kilometres southwest of the claim area, and another unmapped intrusion lies about five kilometres northwest of Maud Lake.

6. PROPERTY GEOLOGY:

Because relief in the QUES 1 claim area is subdued, outcrops are essentially nonexistent. Most of the rock-types observed only in float appear to be phases of andesite and



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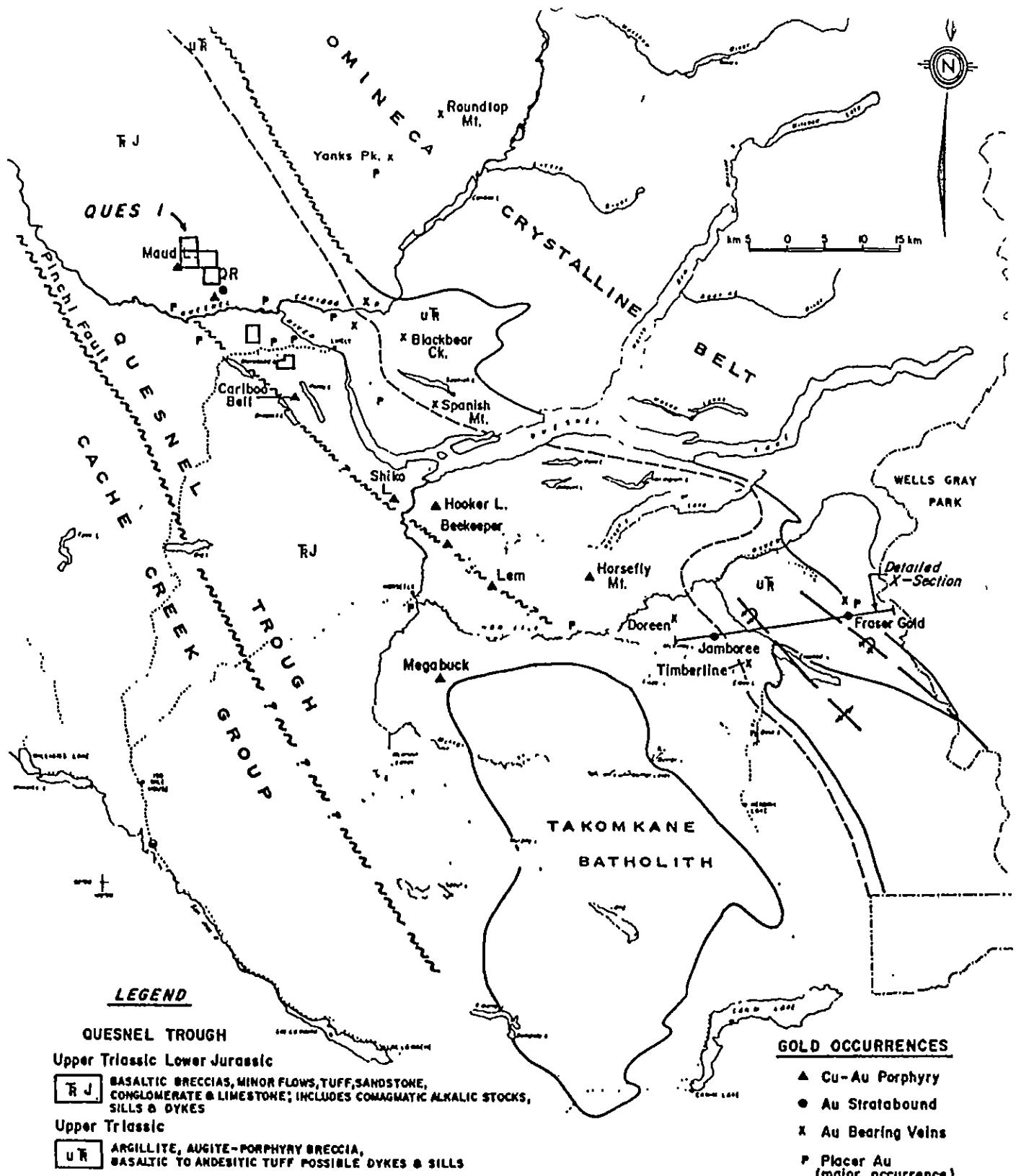
CLAIM MAP

QUES 1 CLAIM

Cariboo Mining Division - British Columbia

A·M Donald G. Allen
exploration ltd.

Figure 3



QUESNEL GOLD BELT

TECTONIC FEATURES AND GOLD OCCURRENCES

After Saleken and Simpson (1984)

FIGURE 4

basalt with varied textures. Of these, porphyritic augite-andesite phases predominate. Results of regional mapping, conducted in 1986 by the B.C. Ministry of Energy, Mines and Petroleum Resources, however, indicate that the claim area is probably underlain by argillaceous sedimentary rocks. (A. Panteleyev, 1987 personal communication). The general low magnetic relief of the area also suggests the presence of sedimentary rocks.

The main rock types in the immediate area as described by Campbell (1978) are as follows:

Unit TR Ja - (Norian and (?) Younger) - basaltic tuff and breccia, generally fine-grained; argillite, flows, chert.

Unit TR Jb - (Norian and (?) Younger) - augite porphyry basalt breccia, minor flow, tuff and tuffaceous argillite, local andesitic basalt,

Several sub-outcrops within the claim boundaries suggest bedrock consists of interlayered basalt and argillite.

7. MINERALIZATION:

Mineralization noted, mostly as float, consists of quartz and pyritic, slightly silicified basalt. Most basalt noted contained fine grained, ubiquitous pyrite. Earlier geochemical soil testing (Fig. 5) revealed contiguous values of up to 280 ppb gold within or adjacent to larger zinc (plus geophysical) anomalies.

8. GEOCHEMICAL SURVEY:

The present geochemical survey consisted of the collection of 161 soil samples in 2 areas adjacent to earlier indicated anomalous gold-bearing zones (Fig. 5). A few rock chip samples were taken.

The samples were collected on hipchain-compass controlled grid lines tied into, but independent of, two earlier grids. Collection consisted of "B" horizon samples to 0.2 m depth. Care was taken to identify bog or gully samples as the possibility of high level placer deposits existing in this area cannot be ignored and with this in mind, several heavy metal determinations were made.

Samples were collected in standard paper soil bags and subjected to historically proven assay procedures on countless samples by Min En Labs of North Vancouver (Appendix). Geochemical gold was run on all samples (fire-AA) as was six element I.C.P. testing for probable silver, antimony, arsenic, copper, lead and zinc associates.

9. GEOCHEMICAL RESULTS:

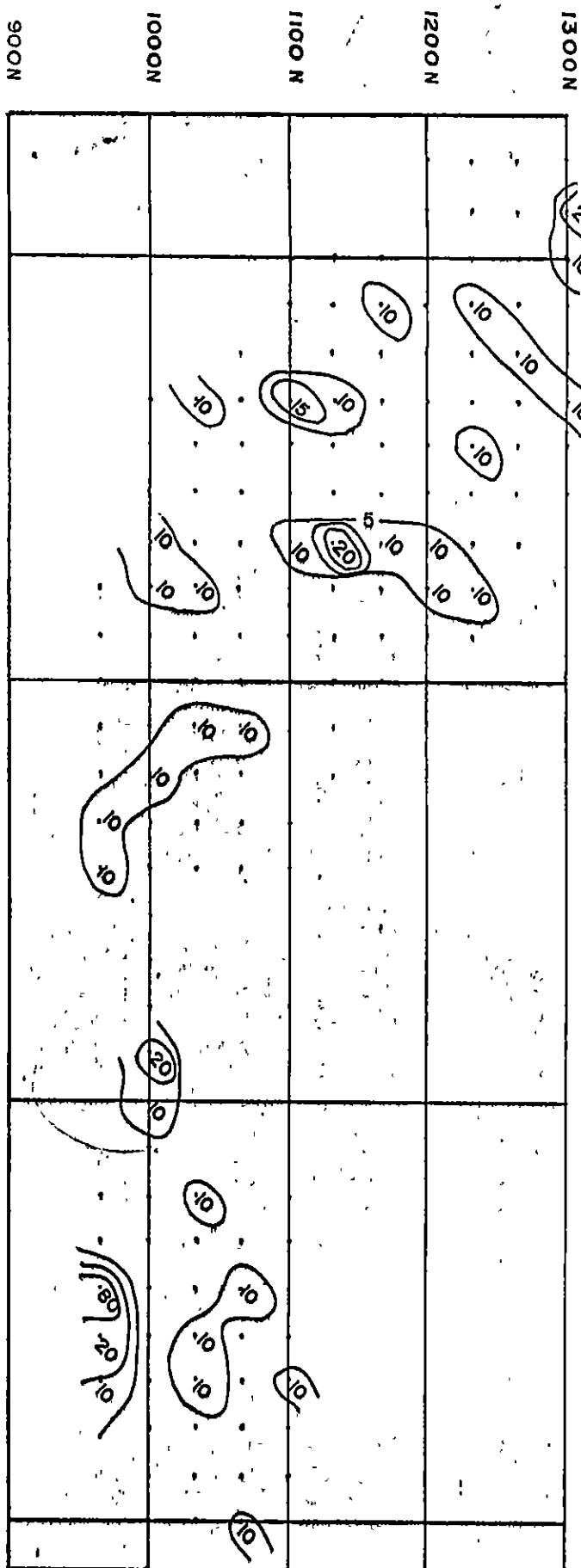
Min En analytical results are shown in Table 1 (Soils) and Table 2 (Rockchips)--Appendix A and B respectively.

Meaningfull gold (Au) results are plotted on Fig. 5, silver (Ag) on Fig. 6, antimony (Sb) on Fig. 7, arsenic (As) on Fig. 8, copper (Cu) on Fig. 9, and zinc (Zn) on Fig. 10, and lead on Fig.11. Sample locations are shown in the total on Fig. 12.

The following anomalous thresholds for Gold, Silver, Copper and Zinc were selected by inspection as a result of earlier wide - spaced sampling of the same area by Allen (1984, 1987), and the current survey provided Antimony, Arsenic, and Lead in addition..

<u>ELEMENT</u>	<u>THRESHOLD VALUES</u>	<u>PEAK VALUES IN ANOMALOUS AREAS</u>	
		<u>1984</u>	<u>1988</u>
Gold	10 ppb	20 - 280 ppb	80 ppb
Silver	0.6 ppm	0.8 - 2.4 ppm	3.5 ppm
Copper	100 ppm	120 - 300 ppm	273 ppm
Zinc	150 ppm	156 - 400 ppm	346 ppm
Antimony	10 ppm	---	19 ppm
Arsenic	30 ppm	20 - 28 ppm	62 ppm
Lead	30 ppm	---	37 ppm

1988 values in anomalous areas were slightly higher than those of 1984 for arsenic and silver and were similar for those of copper and zinc. Gold averages were similar, but spot highs lessor. Copper and zinc anomalies shown by 1988 work suggest a distinct northeasterly alignment (probably reflecting a northeasterly



CONTOURS
Au

- 0 - 5 not contoured
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 40
- 40 - 80

1800 E

2100 E

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**QUES I MINING CLAIM
CARIBOO MINING DIVISION**

SOIL GEOCHEMICAL SURVEY

Au (ppb) CONTOURS

Date: June/88

FIGURE 5

SCALE

0 33 66 100 (approx.) 7000

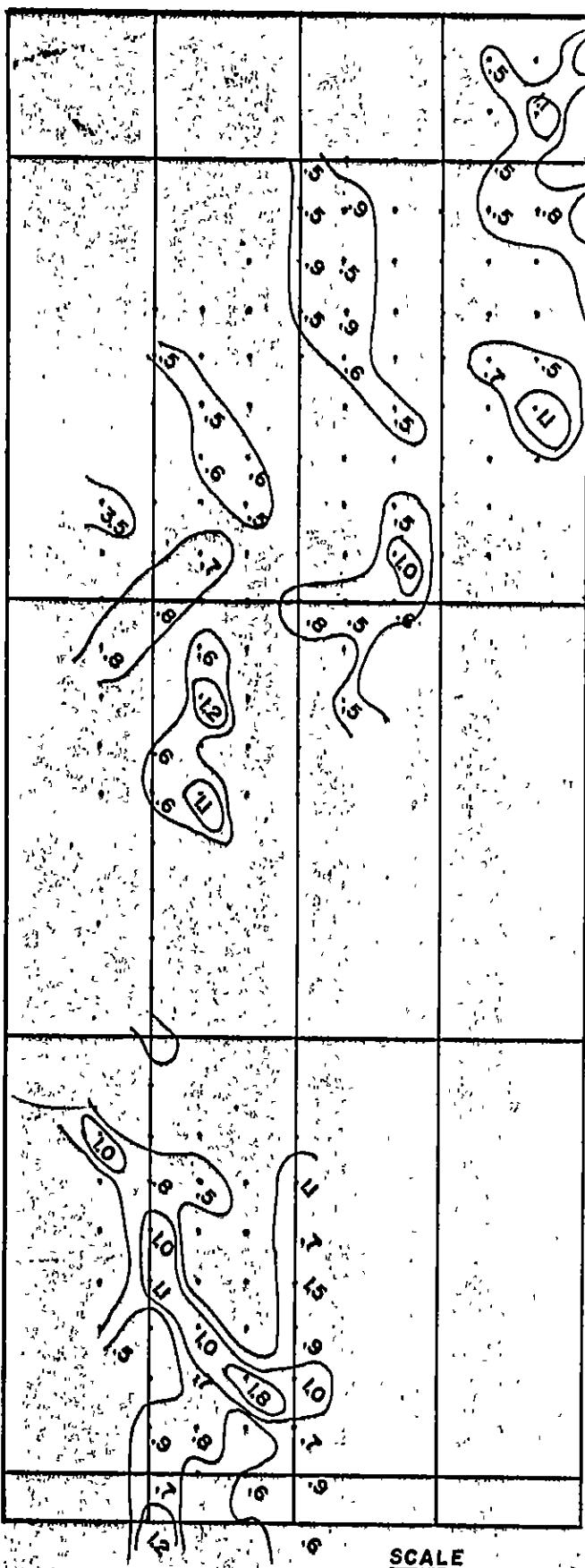
9000

10000

11000

12000

13000



1100 E

1200 E

1300 E

1400 E

2100 E



CONTOURS

Ag

0 - .5 not contoured

.5 - 1.0

1.0 - 2.0

BROOKS RESOURCES LTD.

QUES I MINING CLAIM
CARIBOO MINING DIVISION

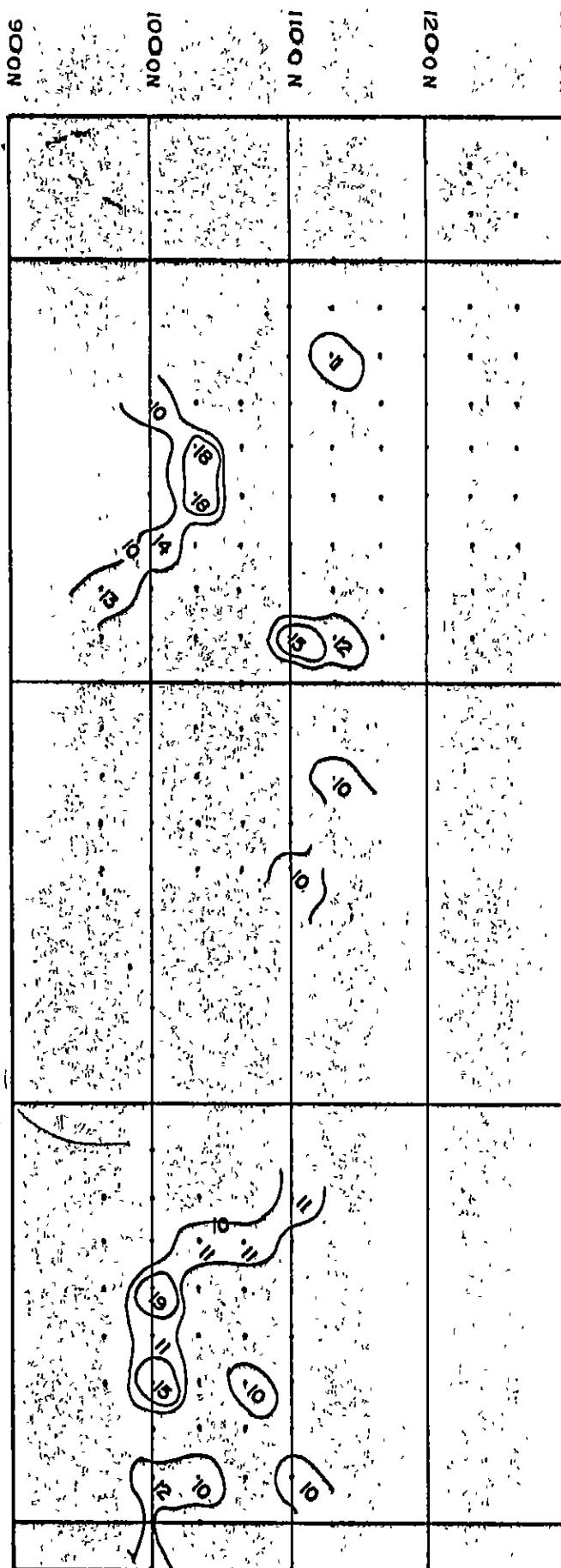
SOIL GEOCHEMICAL SURVEY
Ag (ppm) CONTOURS

Date: June / 88

FIGURE 6

SCALE

0 33 66 100 (approx.) 7000



CONTOURS
Sb
 0 - 10 not contoured
 10 - 15
 15 - 20

1800 E

2100 E

BROOKS RESOURCES LTD.

QUES 1 MINING CLAIM
CARIBOO MINING DIVISION

SOIL GEOCHEMICAL SURVEY
Sb (ppm) **CONTOURS**

Date: June/88

FIGURE 7

SCALE

0 33 66 100 (approx.) 7000
m



1100E

1200E

1500E

1800E

2100E

CONTOURS

As

0 - 30 not contoured

30 - 40

40 - 50

50 - 60

60 - 70

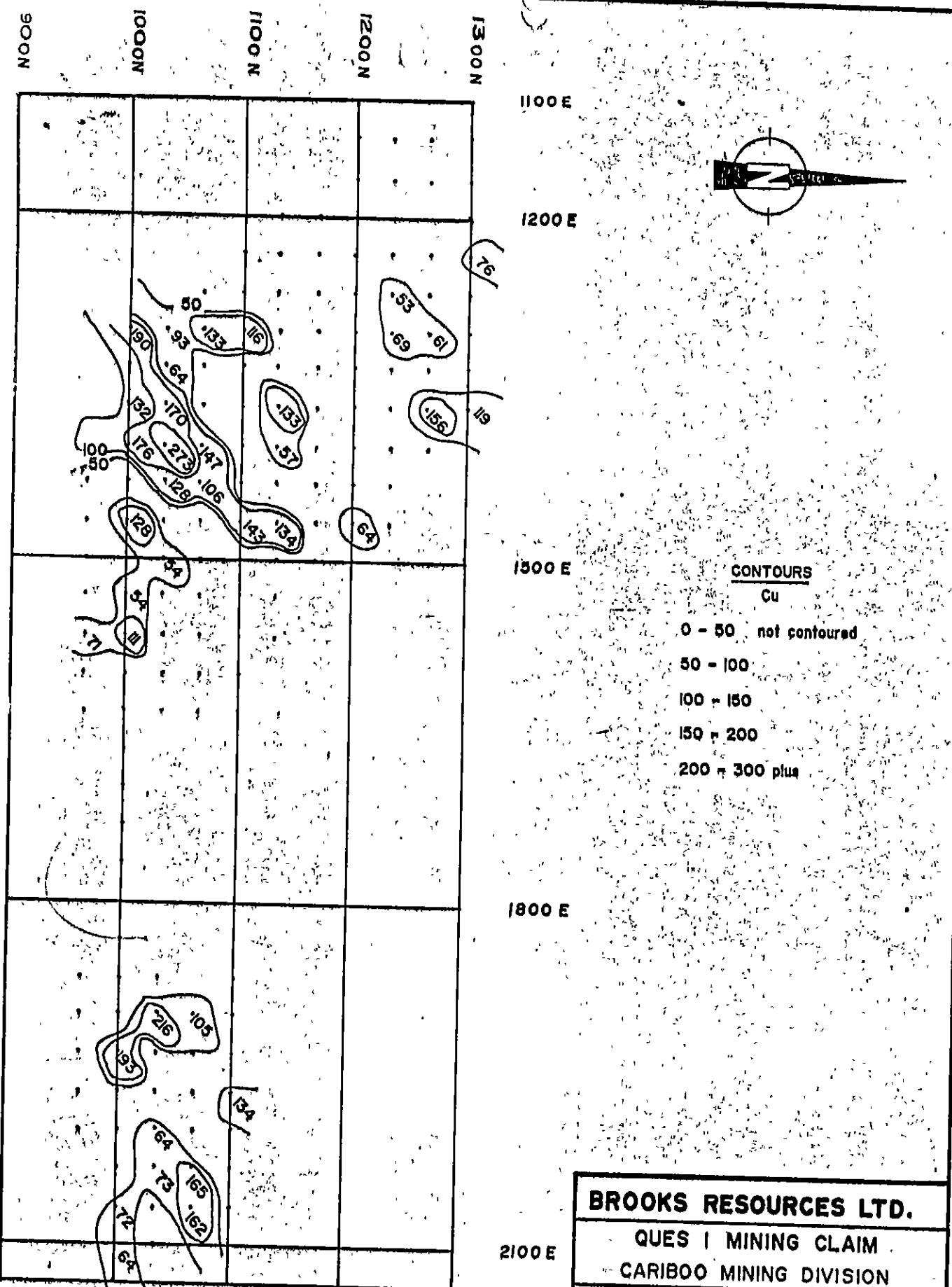
SCALE
0 33 66 100 (approx.) 7000
m

BROOKS RESOURCES LTD.**QUES I MINING CLAIM****CARIBOO MINING DIVISION****SOIL GEOCHEMICAL SURVEY**

As (ppm) CONTOURS

Date: June / 88

FIGURE 8



BROOKS RESOURCES LTD.

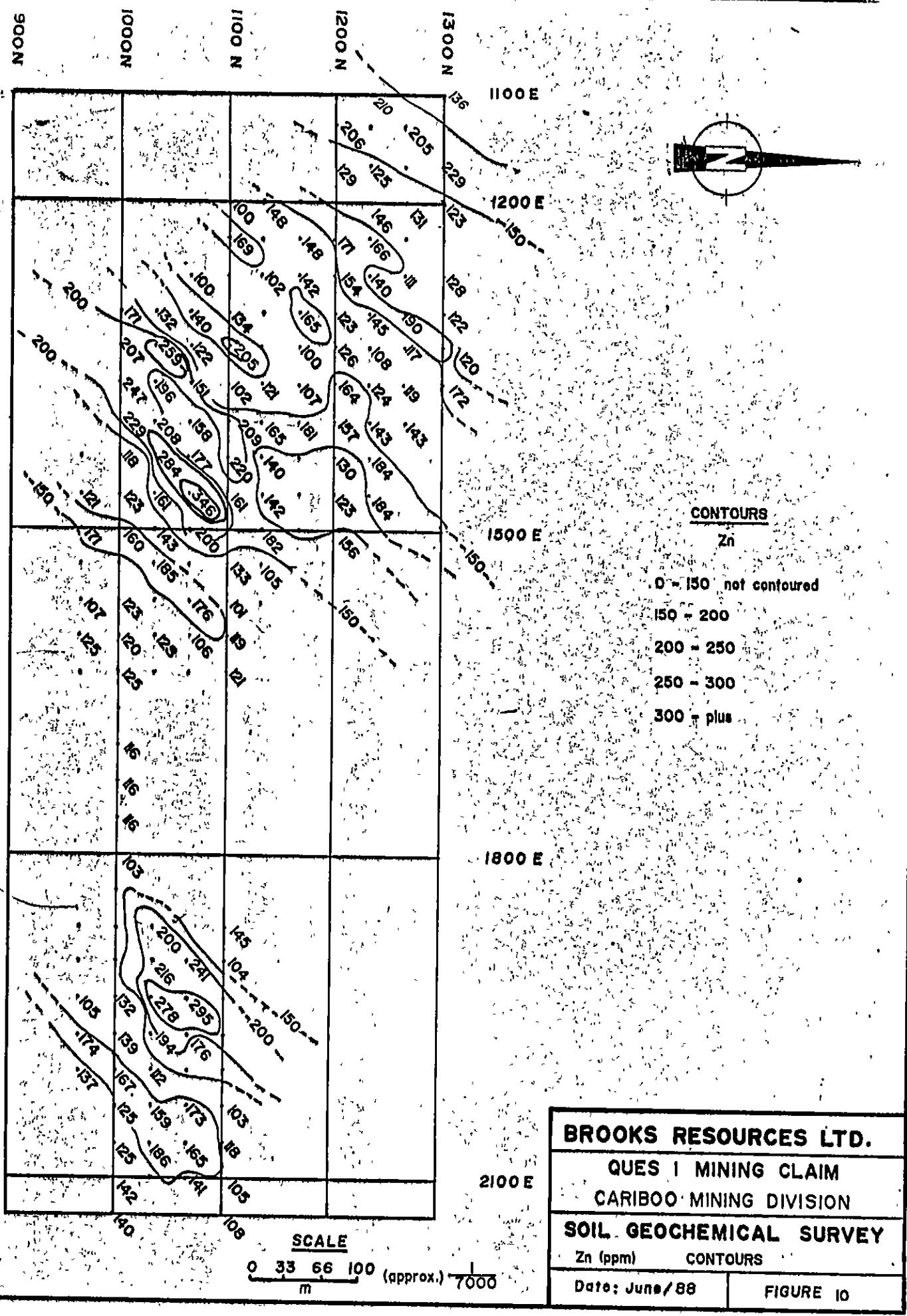
**QUES I MINING CLAIM
CARIBOO MINING DIVISION**

SOIL GEOCHEMICAL SURVEY

Cu (ppm) CONTOURS

Date: June / 88

FIGURE X9



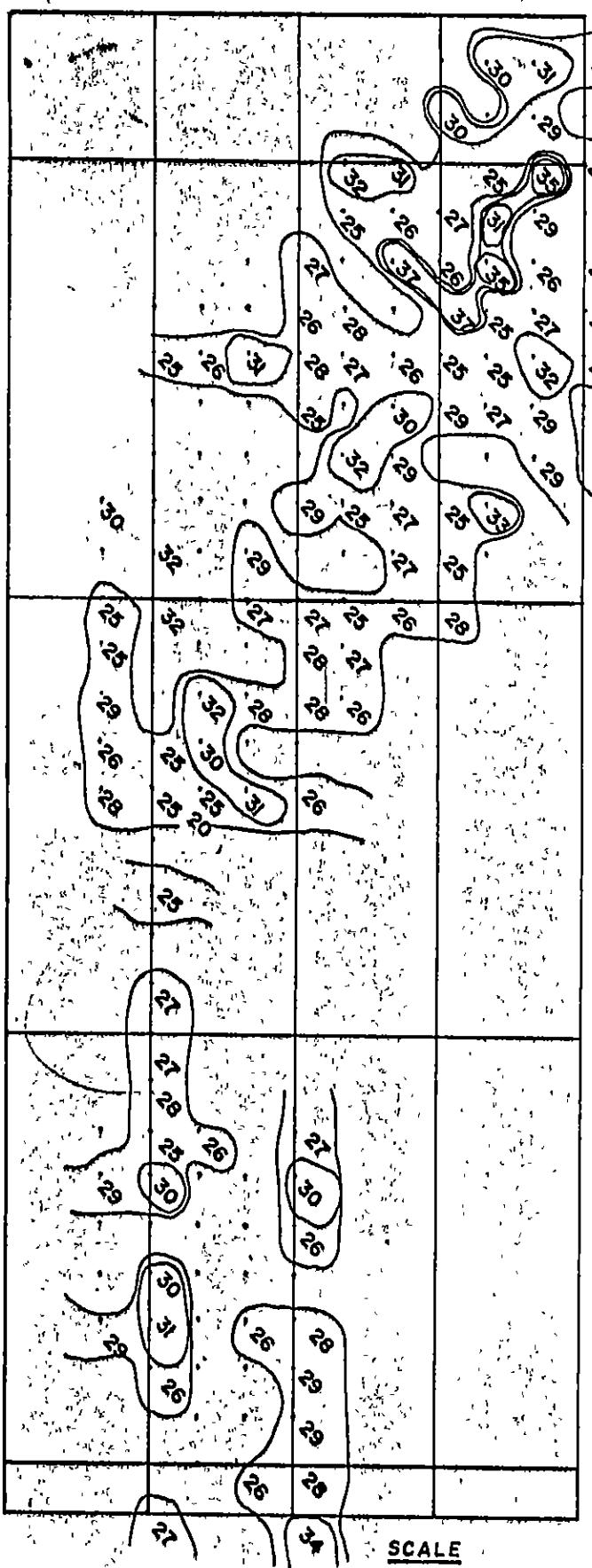
900N

1000N

1100N

1200N

1300N



SCALE

0 33 66 100 (approx.) 7000
m

1100E

1200E

1300E

1400E

2100E

CONTOURS

Pb

0 - 20 not contoured

20 - 30

30 - 40

BROOKS RESOURCES LTD.

QUES 1 MINING CLAIM

CARIBOO MINING DIVISION

SOIL GEOCHEMICAL SURVEY

Pb (ppm) CONTOURS

Date: June/88

FIGURE II

200 N

300 N

400 N

500 N

600 N

1100 N				
1200 N				
1300 N				
1400 N				
1500 N				

1100 E

1200 E

1300 E

1400 E

1500 E



BROOKS RESOURCES LTD.

QUESI MINING CLAIM
CARIBOO MINING DIVISIONSOIL GEOCHEMICAL SURVEY
SAMPLE LOCATIONS

Date: June/88.

FIGURE 12

BDS/JRB

50 100 150

SCALE

0 33 66 100 (approx.) 7000 m

trending "lobe" shown by earlier smaller scale map plots) and locate boundaries more precisely. Gold, silver and arsenic anomalies are less well defined due in part to reduced populations.

10. CONCLUSIONS:

Copper, zinc, silver, and gold supplemented by arsenic in soils seem to best outline distinctly anomalous geochemical values with local trends at variance with that of the overall anomalous geophysical trends. Rock chip analysis added little of value, possibly because sub-outcrop exposures represent only a minute fraction of underlying bedrock. Further detailed sampling is required to establish locally anomalous trends in the area prior to trenching or drilling.

11. REFERENCES:

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pp. 15 - 20.
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Electromagnetic and Magnetometer Survey on Three
Blocks within the Quesnel Basin Area, B.C.
- Simpson, R. and Saleken, L.W. (1983). Cariboo Bell Deposit in
G.A.C.-M.A.C. Field Trip No. 4, Guidebook, pp. 13-
21.
- Troup, A.G. (1984). Report on the Victoria Creek Gold Prospect
in Titan Resources Ltd. Statement of Material
Facts, dated May 23, 1984.

12 STATEMENT OF QUALIFICATIONS

This is to certify that the May, 1988 geochemical investigation of the Ques 1 Mineral Claim was done under my supervision and guidance.

Numerous earlier assessment reports, in all categories, have been submitted under my name during my 36 years as a Professional Geologist.

Qualified help included; Mr. Wymer and Mr. Materi, both of whom have also worked under my guidance on at least four similar projects during the last 10 years, and Mr. Harlow who has been involved in similar work for at least 20 years.



James J. McDougall, P. Eng.

J.J. McDougall & Associates Ltd.
7720 Sunnydene Road
Richmond, B.C.
V6Y 1H1

June 1, 1988

Appendix A

SAMPLING PROCEDURES

A flagged grid was established to provide the best intersection of the structural lithological, and glacial trend. Soil samples were collected at 33 meter intervals along and between and in selected portions of Lines 900 - 1300N, 1100E-2200E.

A shovel was used to sample the B horizon at depths of 20-30 centimeters. Approximately 1/2 to 1 kilogram of soil is placed in a Kraft paper bag and allowed to dry at ambient temerpature prior to shipment to the laboratory.

ANALYTICAL PROCEDURES

Samples were sent to Min En Labs, British Columbia, for sample preparation and gold analyses. Soil samples were oven dried at 80° then desiccated and sieved to -80 mesh. Rock samples are crushed and pulverized to -100 mesh. Gold was determined by geochemical methods involving fusion and chemical extraction. The remaining six elements were subjected to standard ICP analysis.

Table 1 (c'td)

COMPANY: J.J.MCDONAGH & ASSOCIATES

PROJECT NO:

ATTENTION: J.J.MCDONAGH

MIN-EN LABS ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604) 980-5814 DR (604) 988-4524

(ACT:F31) PAGE

FILE NO: B-5837

(VALUES IN PPM)	AG	AS	CU	PB	SB	ZN	AU-PPB	TYPE	SOIL GEOCHEM	DATE: JUNE 3, 1984
5633-L12E 1166N	.4	4	26	31	1	92	5			
5632-L12E 1233N	.5	17	28	25	1	146	5			
5631-L12E 1266N	.3	2	17	35	1	131	5			
5626A-L12E 1300N	.2	11	45	26	6	123	10			
59-L12N 1133E	.2	14	11	23	1	206	5			
58-L12N 1166E	.3	22	15	30	3	129	5			
60-L12N 1233E	.3	13	13	27	1	171	5			
61-L12N 1266E	.1	9	18	26	1	154	5			
62-L12N 1300E	.4	19	48	37	2	123	5			
63-L12N 1333E	.4	23	41	25	2	126	5			
64-L12N 1366E	.3	17	14	29	1	164	5			
65-L12N 1400E	.4	18	17	20	1	157	10			
66-L12N 1433E	.3	16	26	25	1	130	10			
67-L12N 1466E	.2	9	64	25	3	123	5			
68-L12N 1500E	.3	5	49	28	4	156	5			
71-L1233N 1100E	.4	3	31	22	5	210	5			
70-L1233N 1133E	.5	19	49	30	2	74	5			
69-L1233N 1166E	.4	11	22	23	1	125	5			
72-L1233N 1233E	.5	22	43	31	3	166	10			
73-L1233N 1266E	.4	7	53	35	1	140	5			
74-L1233N 1300E	.2	23	69	25	1	145	5			
75-L1233N 1333E	.7	20	25	25	3	108	10			
76-L1233N 1366E	.4	16	14	27	3	124	5			
77-L1233N 1400E	.4	17	40	24	1	143	5			
78-L1233N 1433E	.2	22	31	33	4	189	10			
79-L1233N 1466E	.3	17	24	24	2	184	5			
80-L1266N 1133E	.2	2	31	31	6	205	5			
81-L1266N 1166E	1.1	28	14	29	1	82	5			
82-L1266N 1233E	.8	23	15	29	1	94	5			
83-L1266N 1266E	.3	27	35	26	4	111	10			
84-L1266N 1300E	.2	7	61	27	5	190	5			
85-L1266N 1333E	.5	25	27	32	1	117	5			
86-L1266N 1366E	.1	29	156	29	1	119	5			
87-L1266N 1400E	.1	20	24	29	3	143	5			
88-L13N 1100E	.3	18	11	19	2	136	5			
89-L13N 1133E	.7	44	15	28	4	96	5			
90-L13N 1166E	.2	24	31	27	1	120	5			
91-L13N 1366E	.4	9	119	24	3	172	5			
6930-L13N 1166E	.1	8	19	22	2	229	23			
27-L13N 1233E	1.8	34	76	25	1	78	5			
28-L13N 1266E	.3	28	25	27	3	128	5			
29-L13N 1300E	.7	29	16	27	1	122	10			

(PPM) L21E-10† L10N-14‡ FLOAT CH

	75N	50E	IPS
AG	.2	3	5
AS	.23	26	13
CU	.46	78	50
PB	.2	6	10
SB	.2	3	9

Table 2 - Rock Chip Analyses

APPENDIX B

ZN	41	52	75
AU-PPB	5	5	5

APPENDIX C

COST STATEMENT
(ITEMIZED)
(MAY 16 - 22/88)

WAGES:SUPERVISION Report Preparation (May 18, 19, 22)

James J. McDougall, P. Eng.

	20 hours @ \$40.00 per hour	= \$800.00
Report	10 hours @ \$40.00 per hour	= 400.00
	Office Overhead, Typing,	= 250.00
	photocopies, etc.	

SOIL SAMPLING (May 18-24/88)

James Wymer	9 days @ \$100.00	= \$ 900.00
M. Materi	9 days @ \$100.00	= \$ 900.00

ROCK CHIP, HEAVY METALS

S. Harlow	1 day @ \$125.00	= \$ 125.00
-----------	------------------	-------------

EXPENSES:

Transportation -

Jeep Rental (J.D.O	1796km @ .20/km	= 359.20
Truck Rental (J.M.)	1400mi @ .25/mi	= 350.00
Jeep Expense (Gas, etc.)		= 190.69
Truck Expenses (Gas, etc.)		= 282.00
S. Harlow		100.00

Lodging-

J. Donaldson - receipts	= 634.69
J. J. McDougall - receipts	= 494.27

ASSAYS:

= 1832.25

REPORT PREPARATION, DRAUGHTING:

Drafting (Brad's Drafting \$508.50
M. Matiri 1 1/2 days @ \$100.00 per day \$150.00) = 658.50

\$8,276.60