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ACTION:	
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GEOLOGICAL, GEOCHEMICAL AND TRENCHING
REPORT
ON THE
SURELOCK # 1 - 12 MINERAL CLAIMS
SITUATED ON FRANCES CREEK
GOLDEN, M.D.

NTS 82K/9

Latitude: 50° 44' 30"
Longitude: 116° 25' 30"

STEPHEN B. BUTRECHUK

September, 1990

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,391
360

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GEOLOGICAL, GEOCHEMICAL AND TRENCHING REPORT
ON THE SURELOCK #1 - 12 MINERAL CLAIMS

SUMMARY

The Surelock #1-12 mineral claims, located on Frances Creek, were acquired by A. Louie in 1989. In July, 1990, Mountain Minerals optioned the property and completed a program of soil geochemistry, geological mapping and trenching during the periods June 27, 1990, to July 3, 1990, and August 2, 1990, to August 13, 1990.

Geological mapping, done at a scale of 1:5000, indicated the property to be underlain by carbonate rocks of the Mount Nelson Formation. Several barite occurrences was located along a north-northwest trending breccia zone. A total of 184 soil samples were collected and analyzed for barium. The majority of samples had values in excess of 1,000 ppm Ba with a few samples being in excess of 10,000 ppm Ba.

Four trenches were dug using a John Deere 450 backhoe. Two of the trenches did not penetrate the overburden; one trench contained only dolomite and one trench intersected the barite zone.

INTRODUCTION

The Surelock mineral claims, located on Frances Creek in southeastern B.C. (Figure 1), were staked by A. Louie of Invermere in the fall of 1989 to protect occurrences of barite within the Mount Nelson Formation. Mountain Minerals Co. Ltd. examined the property in 1990 and optioned the property. A program of soil geochemistry, geological mapping and trenching was completed on the property. The results of the work are described in this report.

LOCATION AND ACCESS

The Surelock property, consisting of 12 mineral claims, is located on Frances Creek in the Golden Mining District at:

Latitude: 50° 44' 30"
Longitude: 116° 25' 30"

In particular, the claims are located 6.4 km. southeast from Mr. Horeb and 7.5 km. by road along Frances Creek from the Westside logging road.

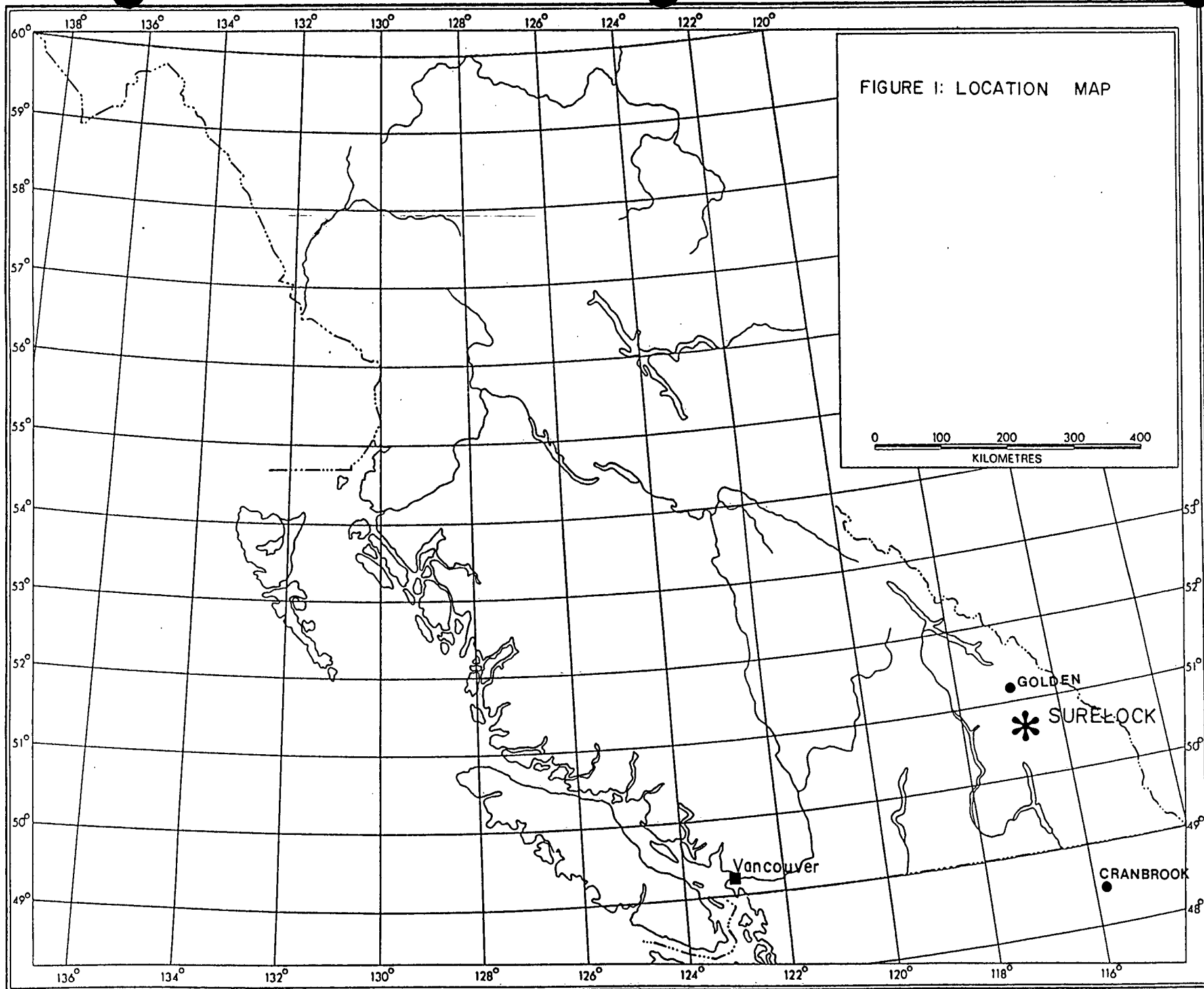
Access to the property is via the Westside road and Frances Creek logging roads, a distance of 50 km. from Invermere. These roads are well travelled logging roads with the exception of the last 6 km. along Frances Creek. Here the road is narrow with a few rough intervals. The property is also accessible by road from Brisco.

PROPERTY

The Surelock #1-12 mineral claims (Figure 2) are owned by Arthur Louie of Invermere, B.C. and are currently under option to Mountain Minerals Co. Ltd. of Lethbridge, Alberta. The particulars of the claims are described as follows:

<u>Claims</u>	<u>Record No</u>	<u>Date Recorded</u>	<u>Date Due *</u>
Surelock #1	2065	September 21/89	September 21/97
Surelock #2	2066	" "	" "
Surelock #3	2067	" "	" "
Surelock #4	2068	" "	" "
Surelock #5	2069	September 26/89	September 26/97
Surelock #6	2070	" "	" "
Surelock #7	2071	September 29/89	September 29/97
Surelock #8	2072	" "	" "
Surelock #9	2073	October 2/89	October 2/97
Surelock #10	2074	" "	" "
Surelock #11	2075	October 6/89	October 6/97
Surelock #12	2076	" "	" "

* Pending acceptance of this report



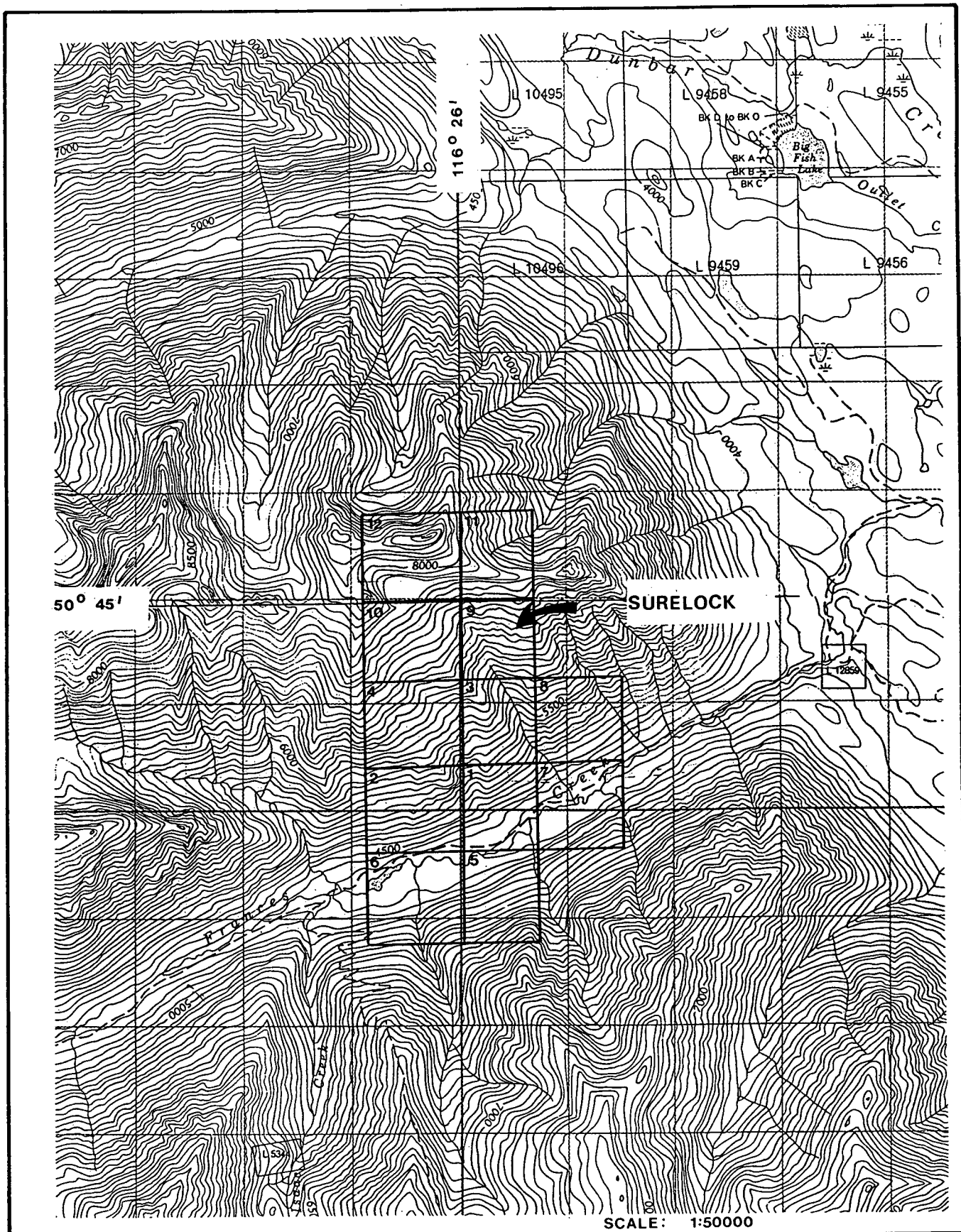


FIGURE 2: CLAIM MAP

GEOLOGY

Predominantly carbonate rocks of the Proterozoic Mount Nelson Formation underlie the Frances Creek area. Locally at the higher elevations small patches of Toby Conglomerate.

Mapping on the Surelock property, done at a scale of 1:5000, was restricted to a small area in the vicinity of known barite occurrences (Figure 3).

Gently dipping dolomite, argillaceous dolomite and minor shale of the Mount Nelson Formation underlie most of the area mapped. The dolomite is grey to orange-brown weathering, grey to cream or white, finely crystalline and thin to medium bedded. Locally the dolomite may have a bleached appearance. This bleaching is most obvious proximal to the barite.

Zones of pale greenish-grey argillaceous dolomite occur within the dolomite. Most of this material occurs proximal to known barite.

Along the western margin of the mapped area sandstone and grit of the Toby Formation are present. This unit is interpreted to be in fault contact with the Mount Nelson dolomite.

Bedding on the property is generally gentle with dips varying from 15 to 20 degrees both easterly and westerly. Locally, the bedding becomes very steep to vertical. This steepening of dip may be related to a possible fault structure that occupies the north-northwest trending creek valley in the centre of the map area. This same fault structure may have controlled the localization of barite on the property.

MINERALIZATION

Barite occurs at several localities within a north-northwest trending breccia zone, sub-parallel to a fault structure occupying a creek valley. These occurrences are present over a length of approximately 450 metres. The barite itself is present as cement surrounding dolomite fragments. It varies from 5 to 10% of the rock to greater than 90% of the rock by volume.

The lower barite zone occurs between 2 + 00 N to 3 + 50 N along the baseline. Here the barite is approximately 5 metres wide and confined within two parallel faults. Nowhere has the eastern margin of the breccia zone been observed. Within the dolomite adjacent to the western edge of the breccia zone, narrow stringers of barite are present.

The middle zone, located at 6 + 25 N, appears to be approximately 50 metres to 100 metres wide (east-west direction) and may be a stratabound breccia zone within the shallow dipping dolomite beds. This zone has not, as yet, been adequately defined.

GEOCHEMISTRY

A soil geochemical survey was completed in the vicinity of the barite occurrences (Figure 4). An 800 metre long baseline orientated at an azimuth of 315° was flagged and slope corrected. Cross-lines were turned

off at 50 metre intervals. Measurements were made using topofil. Samples were collected from the "B" horizon at 25 metre intervals along lines spaced 50 metres apart. These samples were placed in kraft paper bags, dried and shipped to International Plasma Laboratory Ltd. (IPL) in Vancouver, B.C. Here the samples were analyzed for barium using ICP techniques. Results are presented in Appendix I.

Values for barite ranged from 765 to greater than 10,000 ppm. Anomalous values are considered to be those greater than or equal to 1,500 ppm. Anomalous values west of the baseline reflect the presence of mineralization or mineralized float. There is a poorly defined linear trend that can be equated to observed barite in outcrop. More westerly anomalous values are not readily explained as there is no recognizable source of barite. Anomalous values east of the baseline may be attributed to barite in place. Minor showings of barite to occur upslope from these values.

TRENCHING

Four trenches were dug using a John Deere 450 backhoe in an attempt to extend the barite in the lower showing in a southerly direction (Figure 5). A total of 270.5 cubic metres were excavated. Only two of the four trenches attained bedrock and only one trench intersected the barite zone. Five metres of barite were intersected in the trench located at 2+ 10 N.

CONCLUSIONS

Geological mapping and soil geochemistry have delineated a discontinuous zone of barite mineralization in excess of 400 metres in length. This zone may consist of a single barite body or several parallel to sub-parallel lenses of barite that have probably been localized along a fault or series of faults.

Further work is required to more accurately define the size and distribution of the barite.

Stephen B. Butrenchuk

Report by STEPHEN B. BUTRECHUK

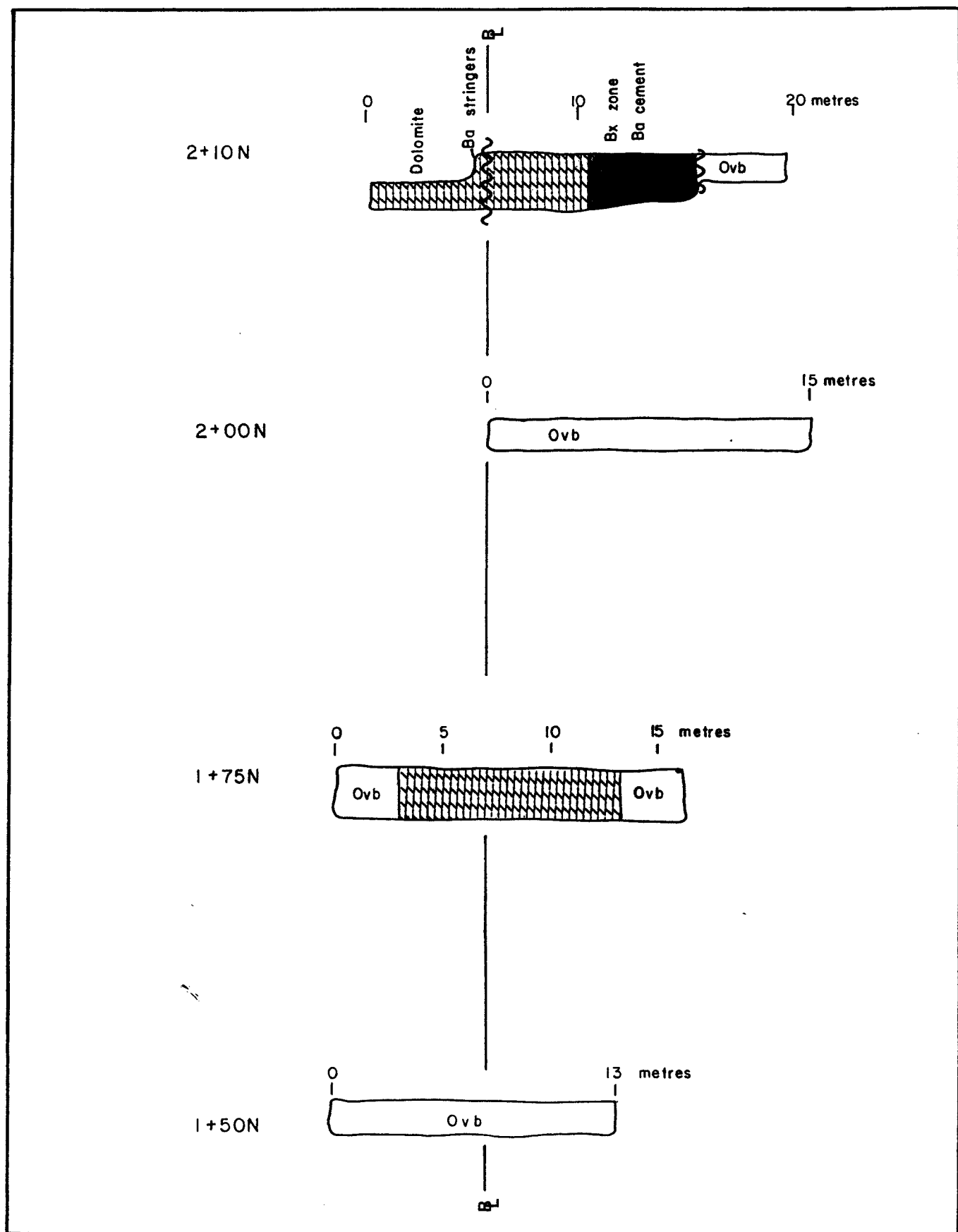


FIGURE 5: TRENCH GEOLOGY

STATEMENT OF EXPENDITURES

SALARIES

S. Butrenchuk - Exploration Manager 15 days @ \$240/day	\$ 3,600	
R. A. Ryziuk - Contractor 15 days @ \$200/day	3,000	
A. Louie - Prospector 14 days @ \$120/day	<u>1,680</u>	8,280

GEOCHEMICAL ANALYSES

184 samples @ \$8.55/sample	1,573
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BACKHOE

54 hours @ \$50/hr.	2,700
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EXPENSES

Gas, Food, Hotel	<u>1,335</u>
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13,888

STATEMENT OF QUALIFICATIONS

I, Stephen B. Butrenchuk, of 34 Temple Crescent West, Lethbridge, Alberta, do hereby certify that:

1. I am the Exploration Manager for Mountain Minerals Co. Ltd. of Lethbridge, Alberta.
2. I am a graduate of the University of Manitoba with a B.Sc. in geology (1966) and a M.Sc. in geology (1970).
3. I have been practising my profession in British Columbia and Yukon since graduation.
4. I am a fellow of the Geological Association of Canada and a member of the Society for Mining, Metallurgy and Exploration, Inc.
5. This report is based upon knowledge of the Surelock property gained from supervision of exploration work on the property.

Stephen B. Butrenchuk

STEPHEN B. BUTRECHUK

APPENDIX 1
BARITE GEOCHEMISTRY

R E P O R T S U M M A R Y

Report:[9000587 R]

A N A L Y T I C A L R E P O R T

=====

Origin

Inception Date:[Jul 10, 1990]

Client:[281 | Mountain Minerals Co. Ltd.]
Contact:[Mr. Steve Butrenchuk]
Project:[0 | Surelock]
Amount/Type:[183 | Soil -Rock Reject Stored 3 Mon]
[-Soil Reject Discarded]

Analytical Requisition

Geochemical:[Ba]
Assay:[None] ICP:[0]
Comments:[PO=20756]

Delivery Information

Reporting Date:[Jul 26, 1990]

Principal Destination (Hardcopy,Fascimile,Invoice)

Company:[Mountain Minerals Co. Ltd.]
Address:[714 - 5th Avenue S.]
City/Province:[Lethbridge, Alberta]
Country/Postal:[Canada T1J 3Z6]
Attention:[Mr. Steve Butrenchuk]
Facsimile:[(403)328-9110]

Secondary Destination (Hardcopy)

Company:[]
Address:[]
City/Province:[]
Country/Postal:[]
Attention:[]
Facsimile:[]

5 data pages in this report.

Approved by: _____

B.C. Certified Assayers

IPL CODE: 900726-13:19:37

Report: 9000587 R Mountain Minerals Co. Ltd.

Project: Surelock

Page 1 of 5

Sample Name	Type	Ba ppm
00+00N BL	Soil	1519
00+50N BL	Soil	1332
01+00N BL	Soil	2554
01+50N BL	Soil	2820
02+00N BL	Soil	1668
02+50N BL	Soil	1336
03+00N BL	Soil	1305
03+50N BL	Soil	1043
04+00N BL	Soil	2005
04+50N BL	Soil	1230
05+00N BL	Soil	1379
05+50N BL	Soil	1947
06+00N BL	Soil	1166
06+50N BL	Soil	1019
07+00N BL	Soil	1418
07+50N BL	Soil	1926
08+00N BL	Soil	1235
00+00N 00+25E	Soil	983
00+00N 00+50E	Soil	1256
00+00N 00+75E	Soil	1350
00+00N 01+00E	Soil	1090
00+00N 01+25E	Soil	1371
00+00N 01+50E	Soil	1170
00+00N 01+75E	Soil	1222
00+00N 02+00E	Soil	991
00+00N 02+25E	Soil	1054
00+00N 02+50E	Soil	849
00+00N 02+75E	Soil	1799
00+00N 03+00E	Soil	1495
00+50N 00+25E	Soil	916
00+50N 00+50E	Soil	955
00+50N 00+75E	Soil	1088
00+50N 01+00E	Soil	1295
00+50N 01+25E	Soil	1975
00+50N 01+50E	Soil	1563
00+50N 01+75E	Soil	1847
00+50N 02+00E	Soil	1319
00+50N 02+25E	Soil	968
00+50N 02+50E	Soil	897

Minimum Detection 10

Maximum Detection 10000

Method Geo

-- = Not Analysed unr = Not Requested ins = Insufficient Sample

Report: 9000587 R Mountain Minerals Co. Ltd.

Project: Surelock

Page 2 of 5

Sample Name	Type	Ba ppm
00+50N 02+75E	Soil	1100
00+50N 03+00E	Soil	1021
00+50N 00+25W	Soil	3318
00+50N 00+50W	Soil	1012
00+50N 00+75W	Soil	1305
00+50N 01+00W	Soil	1567
00+50N 01+25W	Soil	1110
00+50N 01+50W	Soil	1353
01+00N 00+25E	Soil	1078
01+00N 00+50E	Soil	1117
01+00N 00+75E	Soil	1223
01+00N 01+00E	Soil	1584
01+00N 01+25E	Soil	1284
01+00N 01+50E	Soil	1273
01+00N 01+75E	Soil	1529
01+00N 02+00E	Soil	966
01+00N 00+25W	Soil	4327
01+00N 00+50W	Soil	2935
01+00N 00+75W	Soil	1139
01+00N 01+00W	Soil	1772
01+50N 00+25E	Soil	935
01+50N 00+50E	Soil	985
01+50N 01+00E	Soil	1667
01+50N 01+25E	Soil	3049
01+50N 01+50E	Soil	2061
01+50N 01+75E	Soil	1478
01+50N 01+75E (A)	Soil	1270
01+50N 02+00E	Soil	1712
01+50N 00+25W	Soil	1345
01+50N 00+50W	Soil	3801
01+50N 00+75W	Soil	3231
01+50N 01+00W	Soil	4830
02+00N 00+25E	Soil	2391
02+00N 00+50E	Soil	1269
02+00N 00+75E	Soil	1363
02+00N 01+00E	Soil	1901
02+00N 01+25E	Soil	1524
02+00N 01+50E	Soil	1880
02+00N 01+75E	Soil	2771

Minimum Detection 10

Maximum Detection 10000

Method Geo

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Report: 9000587 R Mountain Minerals Co. Ltd.

Project: Surelock

Page 3 of 5

Sample Name	Type	Ba ppm
02+00N 02+00E	Soil	1297
02+00N 00+25W	Soil	1213
02+00N 00+50W	Soil	1334
02+00N 00+75W	Soil	1979
02+00N 01+00W	Soil	2487
02+50N 00+25E	Soil	1198
02+50N 00+50E	Soil	1068
02+50N 00+75E	Soil	1286
02+50N 01+00E	Soil	1832
02+50N 01+25E	Soil	1886
02+50N 01+50E	Soil	1464
02+50N 01+75E	Soil	2107
02+50N 02+00E	Soil	2502
02+50N 00+75W	Soil	4069
02+50N 01+00W	Soil	1585
02+50N 02+25W	Soil	1593
02+50N 02+50W	Soil	1136
03+00N 00+25E	Soil	888
03+00N 00+50E	Soil	1181
03+00N 00+75E	Soil	1162
03+00N 01+00E	Soil	1621
03+00N 00+25W	Soil	881
03+00N 00+50W	Soil	1807
03+00N 00+75W	Soil	1380
03+00N 01+00W	Soil	1206
03+50N 00+25E	Soil	965
03+50N 00+50E	Soil	1169
03+50N 00+75E	Soil	1763
03+50N 01+00E	Soil	1563
03+50N 00+25W	Soil	1092
03+50N 00+50W	Soil	1509
03+50N 00+75W	Soil	2475
03+50N 01+00W	Soil	1404
04+00N 00+25W	Soil	1223
04+00N 00+50W	Soil	1798
04+00N 00+75W	Soil	3186
04+00N 01+00W	Soil	2886
04+00N 01+25W	Soil	2767
04+00N 01+50W	Soil	8205

Minimum Detection 10

Maximum Detection 10000

Method Geo

-- = Not Analysed unr = Not Requested ins = Insufficient Sample

Report: 9000587 R Mountain Minerals Co. Ltd.

Project: Surelock

Page 4 of 5

Sample Name	Type	Ba ppm
04+00N 01+75W	Soil	1768
04+00N 02+00W	Soil	1140
04+50N 00+25W	Soil	1329
04+50N 00+50W	Soil	1343
04+50N 00+75W	Soil	>10000
04+50N 01+00W	Soil	2873
04+50N 01+25W	Soil	1903
04+50N 01+50W	Soil	1925
04+50N 01+75W	Soil	1734
04+50N 02+00W (?)	Soil	1369
05+00N 00+25W	Soil	1325
05+00N 00+50W	Soil	1433
05+00N 00+75W	Soil	2619
05+00N 01+00W	Soil	2961
05+00N 01+25W	Soil	2551
05+00N 01+50W	Soil	1576
05+00N 01+75W	Soil	2623
05+00N 02+00W	Soil	3242
05+50N 00+25W	Soil	1277
05+50N 00+50W	Soil	958
05+50N 00+75W	Soil	>10000
05+50N 01+00W	Soil	2481
05+50N 01+25W	Soil	9455
05+50N 01+50W	Soil	2691
05+50N 01+75W	Soil	1749
05+50N 02+00W	Soil	1637
06+00N 00+25W	Soil	948
06+00N 00+50W	Soil	1071
06+00N 00+75W	Soil	1625
06+00N 01+00W	Soil	>10000
06+00N 01+25W	Soil	>10000
06+00N 01+50W	Soil	1329
06+00N 01+75W	Soil	1487
06+00N 02+00W	Soil	1373
06+50N 00+25W	Soil	780
06+50N 00+50W	Soil	920
06+50N 00+75W	Soil	1489
06+50N 01+00W	Soil	895
06+50N 01+25W	Soil	884

Minimum Detection 10

Maximum Detection 10000

Method Geo

-- = Not Analysed unr = Not Requested ins = Insufficient Sample

Report: 9000587 R Mountain Minerals Co. Ltd.

Project: Surelock

Page 5 of 5

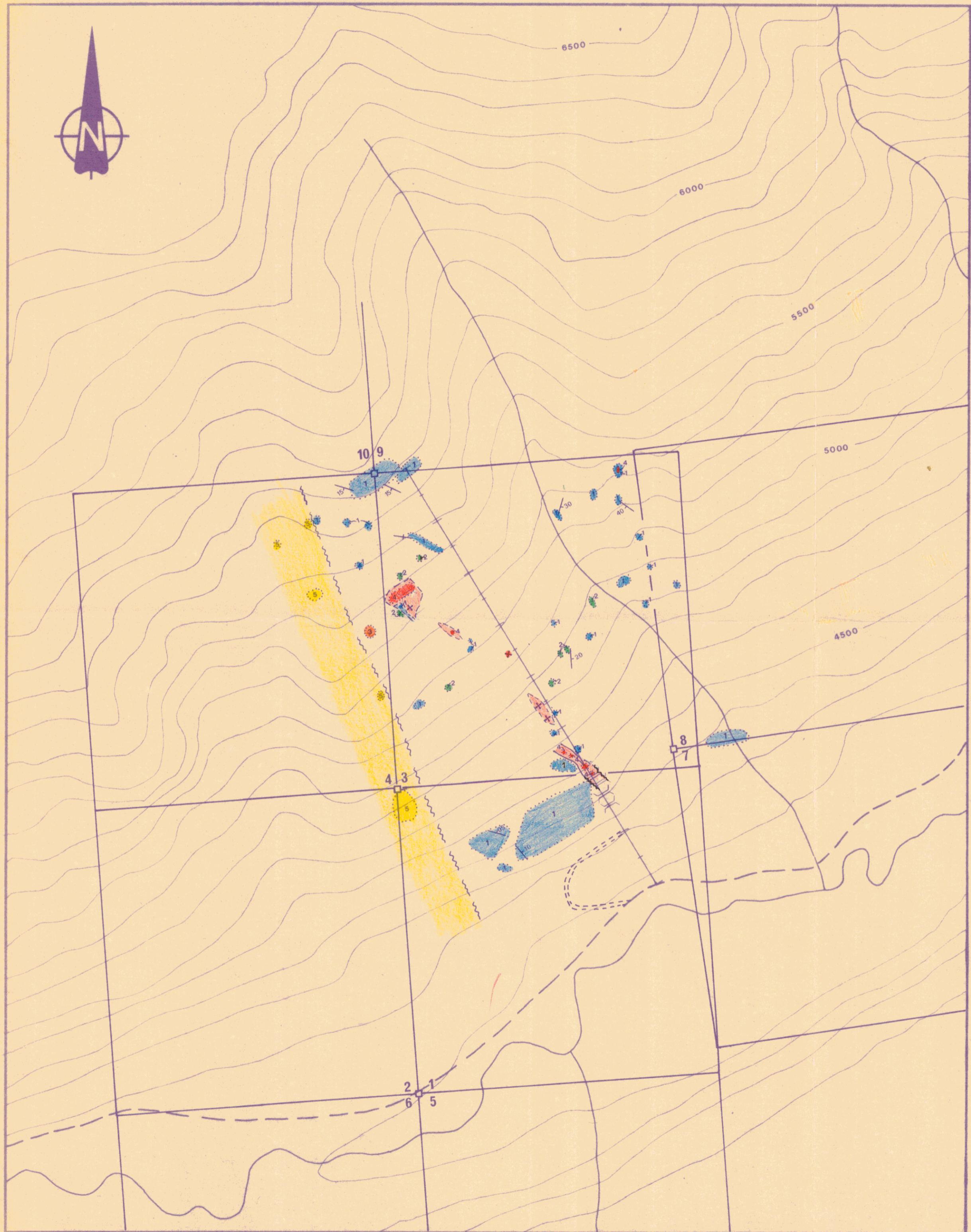
Sample Name	Type	Ba ppm
06+50N 01+50W	Soil	900
06+50N 01+75W	Soil	1037
06+50N 02+00W	Soil	893
07+00N 00+25W	Soil	1000
07+00N 00+50W	Soil	988
07+00N 00+75W	Soil	780
07+00N 01+00W	Soil	838
07+00N 01+25W	Soil	791
07+00N 01+50W	Soil	1171
07+00N 01+75W	Soil	906
07+00N 02+00W	Soil	1226
07+50N 00+25W	Soil	968
07+50N 00+50W	Soil	907
07+50N 00+75W	Soil	2125
07+50N 01+00W	Soil	765
07+50N 01+25W	Soil	984
07+50N 01+50W	Soil	1293
07+50N 01+75W	Soil	963
07+50N 02+00W	Soil	961
08+00N 00+25W	Soil	2531
08+00N 00+50W	Soil	2297
08+00N 00+75W	Soil	1033
08+00N 01+00W	Soil	873
08+00N 01+25W	Soil	841
08+00N 01+50W	Soil	837
08+00N 01+75W	Soil	821
08+00N 02+00W	Soil	954

Minimum Detection 10

Maximum Detection 10000

Method Geo

-- = Not Analysed unr = Not Requested ins = Insufficient Sample



LEGEND

TOBY FORMATION

5 Sandstone, grit

MOUNT NELSON FORMATION

4 Barite

3 Shale, dolomitic shale

2 Dolomite, argillaceous

1 Dolomite

SYMBOLS

- Outcrop
- /// Bedding (inclined, vertical)
- - - Fault (known, approximate)
- ≡ Trench
- ⊕ Claim post
- × Mineralized small outcrop
- - - Trail
- /// Geological contact (known, approximate)

GEOLOGICAL BRANCH ASSESSMENT REPORT

20,391
60

0 100 200 300 METRES

MOUNTAIN MINERALS CO., LTD.

SCALE: 1 : 5000	APPROVED BY:	DRAWN BY SBB
DATE: AUG., 1990		REVISED

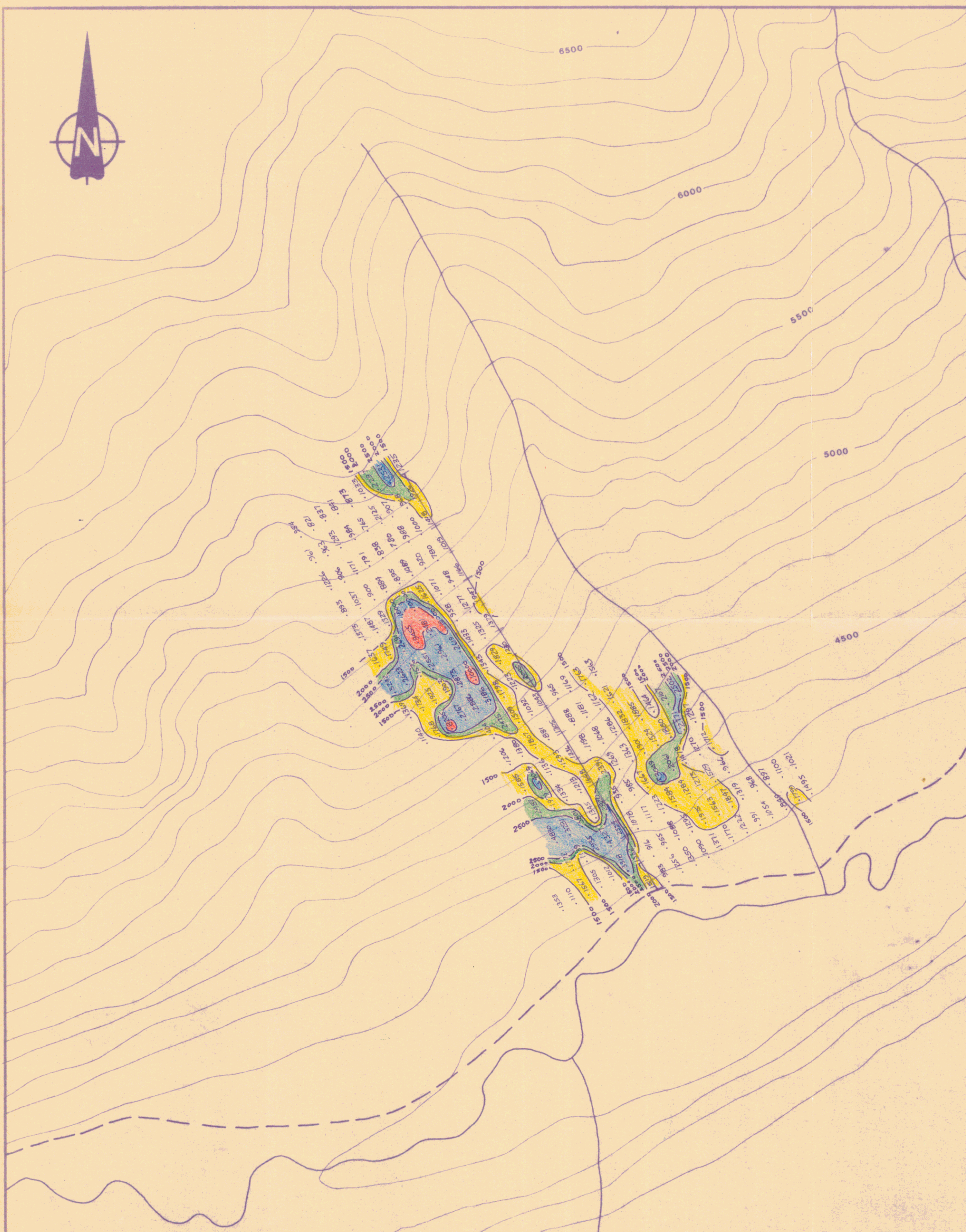
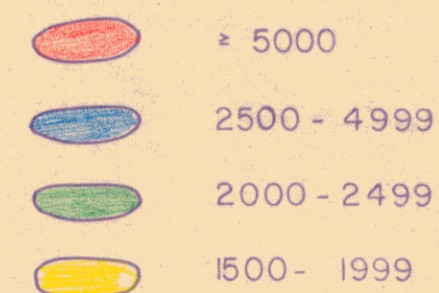
GEOLOGY MAP

SURELOCK

DRAWING NUMBER
3



BARITE IN PPM



GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,391
60

0 100 200 300 METRES

MOUNTAIN MINERALS CO., LTD.

SCALE: 1: 5000	APPROVED BY:	DRAWN BY: SBB
DATE: AUG, 1990		REVISED

BARITE GEOCHEMISTRY

SURELOCK

DRAWING NUMBER
4