

A REPORT ON THE GEOLOGY OF THE  
KOOTIS 1 CLAIM

N.T.S. 930/3W

Latitude:  $55^{\circ}05'41''$  North

Longitude:  $123^{\circ}23'47''$  East

CARIBOO MINING DIVISION

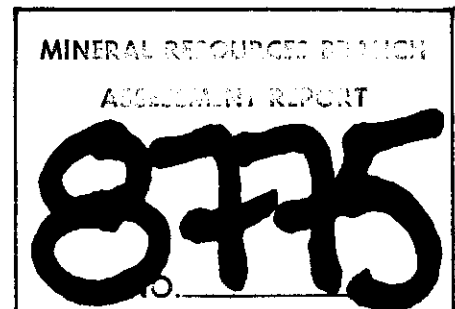
by

R.L. Faulkner B.Sc.

Owner: Denison Mines Limited

Operator: Denison Mines Limited

December 1980



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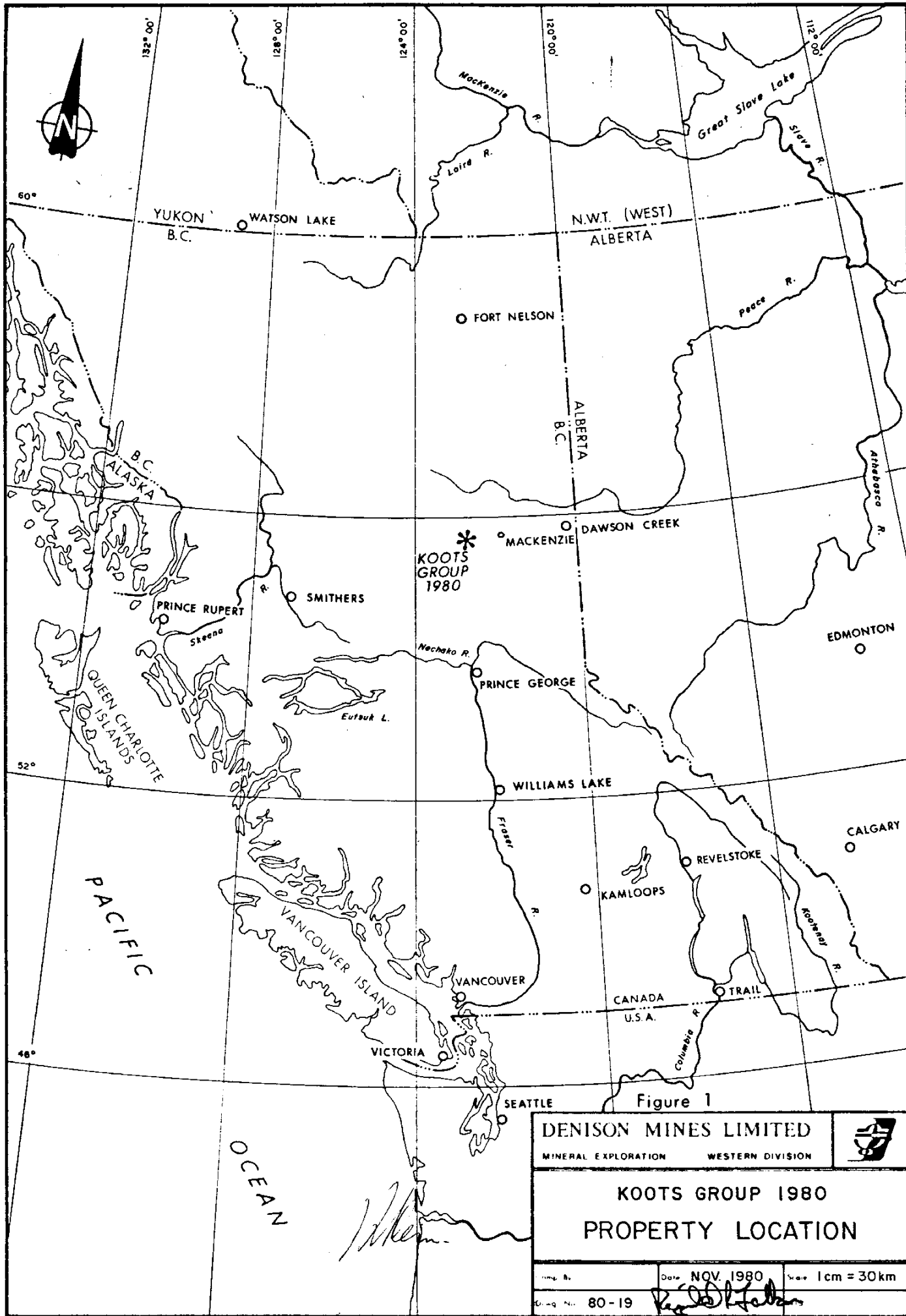



Figure 1

DENISON MINES LIMITED		
MINERAL EXPLORATION WESTERN DIVISION		
KOOTS GROUP 1980 PROPERTY LOCATION		
Map No.	Date: NOV. 1980	Scale: 1 cm = 30 km
Proj. No. 80-19	<i>Robert J. Hall</i>	

## I. INTRODUCTION

### 1. GENERAL

#### 1.1 History

Denison Mines Limited staked the Koots 1 Claim in 1980. No work prior to this staking has been documented

#### 1.2 Summary of Work Done

During the 1980 field season preliminary geological mapping at a scale of 1:10,000 was undertaken on the Koots 1 Claim and vicinity. Also, a geochemical soil sampling program comprised of 46 samples in conjunction with a magnetometer survey of 4.5 kilometres was done. The soil samples were analyzed for Mo, Cu, W, Sn, As, and Hg.

### 2. LOCATION AND ACCESS

Situated within the Wolverine Range between the Nation and Parsnip Rivers the Koots 1 Claim is 35 kilometres southwest of Mackenzie, British Columbia, Fig. 1. Access is by helicopter from Mackenzie or, by truck, along the Philips Creek logging road, 45 kilometres from Highway 97. This road comes to within 4 kilometres of the claim.

### 3. TOPOGRAPHY AND VEGETATION

The rolling hills and rounded mountains of the Wolverine Range rise from the undulating lowlands of the Interior Plateau. Elevations vary from 1000 metres in the low wetlands, through rolling hills to mountains of 2000 metres. The Koots 1 Claim lies between 1200 metres and 1600 metres, straddling one of the mountain ridges.

Vegetation is locally quite variable but characterized by white spruce, lodgepole pine and trembling aspen. Black spruce grows in low wetlands, with alpine fir at the higher, more exposed elevations. Cedars, birches, and alders occur on the slopes of the hills and mountains. Grasses, wild parsnip and oregon grape are found in the undergrowth and on open slopes.

## 4. CLAIMS: Figure 2

<u>Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Month of Record</u>
Koots 1	12	1917	June 1980

II. GEOLOGY

## 1. REGIONAL GEOLOGY

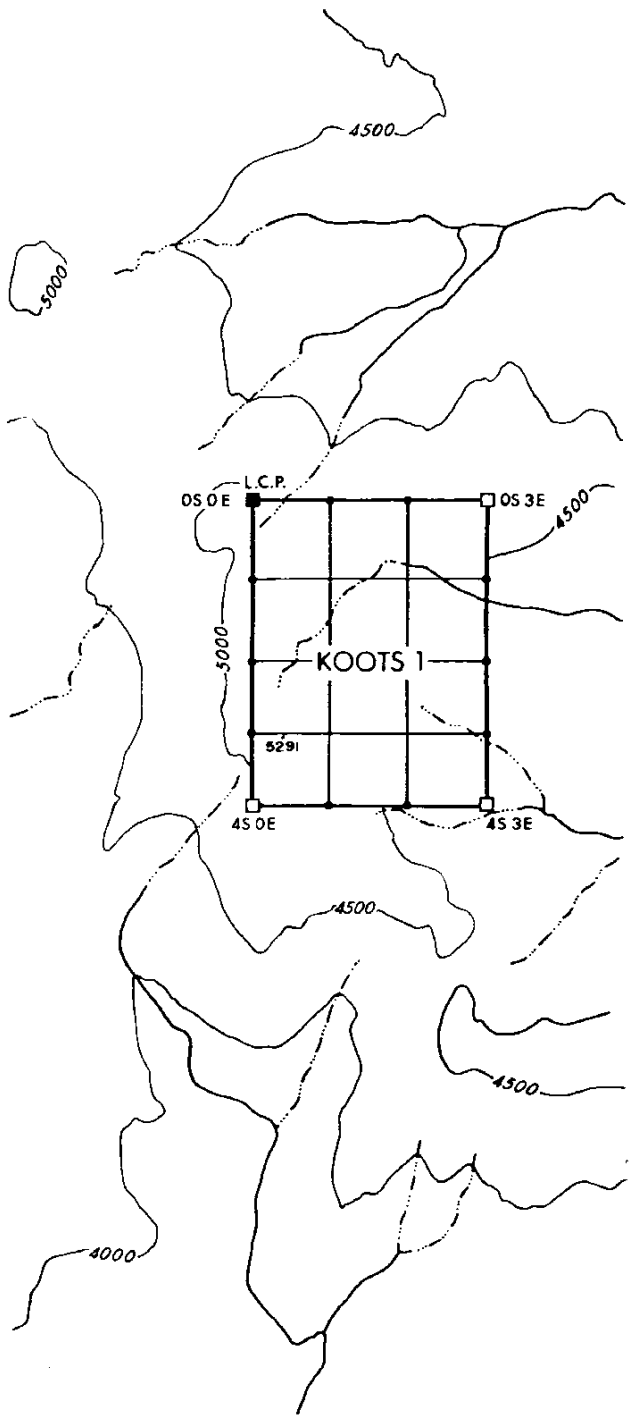
Wolverine Range is a northwesterly trending ridge of metamorphic and sedimentary rocks. The metamorphic rocks of the Wolverine Complex consist of quartz - mica schist, granitoid gneiss, granite - pegmatite amphibolite and pseudodiorite. Greenstone, argillite, limestone, slate and banded quartzite of the Carboniferous, Slide Mountain Group or the Cache Creek Group are interwoven with the metamorphic rocks. Minor intrusions of Cretaceous and/or Tertiary age occur, consisting of small stocks of coarse grained granitic and/or granodioritic material.

## 2. LOCAL GEOLOGY

2.1 Description

The Koots 1 Claim is underlain by a Cretaceous and/or Tertiary stock which intruded metamorphosed marine sediments of the Mississippian and/or Permian, Slide Mountain Group or Cache Creek Group. During emplacement, this granitic intrusion created a contact metamorphic gradient which decreases rapidly from the stock. In sharp contact with the stock, skarns, within a few tens of metres, grade to coarse then fine grained recrystallized limestone. In gradational contact with the stock, gneisses and schists, in a few metres, grade to pervasive phyllite and slate. Emplacement of the stock appears to be associated with a northeasterly trending fault system. Figure 3.

The main faulting of the areal rocks is a high angle normal fault set trending northeast - southwest. Three faults make up the set and cut the northwest corner, the centre, and the southeast corner of the property. In the northwest a transverse set of northerly



**LEGEND**

- Legal Corner Post
- Corner Post
- 450E Corner Post Identification Number
- Intermediate Post
- Outer Claim Boundary
- Inner Unit Boundary
- ~ Stream

L.C.P. Latitude 55°06'02"  
Longitude 123°23'47"

**SCALE**

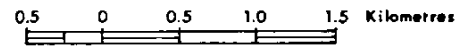


Figure 2

<b>DENISON MINES LIMITED</b>		
MINERAL EXPLORATION	WESTERN DIVISION	
<b>KOOTs 1980</b> Claim Location		
Comp. By: RLF	Date: DEC., 1980	Scale: 1:50,000
Draw. No.: 80-37	<i>Rec'd [Signature]</i>	930/3W

*Denison*

trending dip slip faults produce slump features. The same features exist in the southeast corner where they represent northeasterly trending dip slip faults.

Bedding strike/dip measurements express a basinal form.

The Cretaceous and/or Tertiary intrusion consists of granite and quartz monzonite. Texturally the granite is fine grained and granular. It is composed of 40% quartz, 40% orthoclase, 10 - 15% plagioclase, and 5% biotite and hornblende. The quartz monzonite contains 20% quartz, 65% combined feldspars and 15% biotite and hornblende. It is coarser grained than the granite.

Finer grained equivalents of both intrusive rocks occur as dykes, sills, and aplites in the stock and the surrounding metamorphosed sediments. In contrast, large crystals of quartz, feldspars, and micas occur in pods throughout the intrusives. Quartz veining and pods of quartz, centimetres in size, are found in the metamorphosed sediments and less frequently within the granitic material. The intrusive is well fractured and jointed with northeast as the preferred direction. Locally in the western segment of the stock the rocks are slightly porphyritic with a slight chloritic alteration.

Metallic mineralization is disseminated but pervasive throughout the stock. Magnetite, pyrrhotite and molybdenite are visible and have preferred occurrences. Molybdenite is rare and disseminated as flakes in the finer grained, light coloured granites and aplites. With increasing coarseness and biotite content, as in quartz monzonite, finely disseminated magnetite occurs as does pyrrhotite, though, to a lesser degree.

Epidote exists in veins and fracture fillings in the contact zone of the stock and metamorphosed sediments.

Calc - silicate skarns are in sharp contact with the stock, and in gradational contact with metasomatized shales. In both cases the contact skarn is fine grained, highly siliceous and light green. These skarns are from a few centimetres to metres thick and often



contain scattered, disseminated molybdenite occurrences. The outer skarn is generally dark green, highly crystalline, inhomogeneous and garnetiferous. Thicknesses range from a few centimetres to tens of metres. This type of skarn can contain massive sulphides and in one location has a five centimetre band of magnetite.

In sharp contact with the calc - silicate skarns are recrystallized limestones. They are generally coarse grained, dirty grey, banded, with the occasional carbonate vein, but no visible metallic mineralization. Bedding is visible but distorted. Thicknesses are generally in the order of tens of metres.

A gradational contact occurs between the stock and metamorphosed shales. The intrusive rocks become coarser grained with an increase in mafic content further into the contact zone. These rocks grade through slightly foliated gneisses into schists. This gradation or contact zone is only a few metres thick. Metasomatism seems to have effected the country rock for a few metres from the contact zone, giving rise to siliceous and micaceous skarn. From this point low grade pervasive metamorphism created phyllites and slates. Pyrrhotite and pyrite are visible as disseminations in the metamorphosed shales and increase in amount in the skarns.

## 2.2 Discussion

The metamorphosed sediments that exist on and around the Koots 1 Claim were laid down as interbedded limestones and fine grained clastic sediments during the Carboniferous Period. Tectonic activity during the Columbian Orogeny created local uplift, folding and emplacement of acid intrusives. In the study area, faulting controlled the emplacement of a two phase acid intrusion. The first of the two intrusive phases consisted of the emplacement of quartz monzonite. The resulting stock was in turn intruded by a fine grained granite. The magmatic and hydrothermal fluids of the second phase were controlled by faulting and fracturing of

the initial stock and the faulting, fracturing and bedding of the surrounding metamorphosed sediments.

Metasomatism produced calc - silicate skarns and the siliceous, micaceous skarns after shale. The metasomatic fluids were the element source for the genesis of skarns and deposition of metallic minerals. It is possible that these fluids also scavenged elements from the rocks through which they passed.

Pyrrhotite, sphalerite, molybdenite, scheelite, chalcopyrite, magnetite, and rarely galena have been deposited in the calc - silicate skarns. In the siliceous, micaceous skarns after shales, pyrrhotite was the recognizable sulphide mineral. To a lesser degree, pyrrhotite was also recognized in phyllites and slates. Magnetite and pyrrhotite were noted to occur in the quartz monzonites.

Sulphide and oxide mineral occurrences are located on the geology map Figure 3.

### III. GEOCHEMISTRY

#### 1. SAMPLING PROCEDURE

A geochemical soil sampling program consisting of 48 sample locations, numbers 80070041 to 80070088, was undertaken on the Koots 1 Claim in June 1980. Forty-six samples were taken from the apparent "B" soil horizon at an average depth of 18 centimetres. Three 1500 metre east - west lines 500 metres apart, with 100 metre stations, comprised the sampling grid. Two locations, 80070042 and 80070051, were not utilized as they were located on rock outcrop.

#### 2. ANALYTICAL TECHNIQUES

The samples, packaged in consecutively numbered kraft paper sample bags, were sent to Rossbacher Laboratory Limited in Burnaby, British Columbia for geochemical analysis. These samples were dried, sieved to minus 80 mesh and analyzed: for Mo and Cu, a 0.5 gram sample was digested with a 15:85 mixture of Nitric-Perchloric acid, the extract

was analyzed by atomic absorption spectroscopy; for W, a 1.0 gram sample was sintered with a carbonate flux and dissolved, the extract was reduced to Stannous Chloride using Potassium Thiocyanate and analyzed colorimetrically; for Sn, a 0.5 gram sample was sublimated by fusion with Ammonium Iodide, dissolved, then analyzed colorimetrically by use of Gallein; for As, a 0.25 gram sample was digested with Nitric-Perchloric acid, with As converted to arsine, which reacts with silver D.D.C., the solution was analyzed colorimetrically; for Hg, a 1.0 gram sample was digested with  $\text{HNO}_3$  and the extract analyzed by atomic absorption spectroscopy using a cold vapour generation technique.

The geochemical analysis results are tabled in Appendix I, and plotted in Appendix II.

### 3. DISCUSSION

A visual examination of the geochemical analysis results showed only point anomalies for three of the six elements. Copper (Cu) in sample number 90070078 at 374 ppm, Molybdenum (Mo) in sample number 80070082 at 76 ppm, and Arsenic (As) in sample number 90070081 at 44 ppm are the three point anomalies. Tungsten (W) appears to have a uniformly high population, while Mercury (Hg) has a wide range of results in which no single sample or group of samples stands out. Tin (Sn) on the other hand is quite uniform with all samples registering less than 2 ppm.

A simple statistical method was utilized to determine if anomalous populations have occurred. Cumulative percentage graphs were created on two cycle logarithmic probability paper for all the elements, with the exception of Sn. The uniformity of the Sn results is not conducive to the construction of cumulative graphs. For the other elements, the methodology was to determine the frequency of each numerical result, dividing that number by the total number of samples analyzed and a percentage determined. With the numerical results ranked in increasing value, their related percentages are consecutively added for cumulative

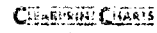
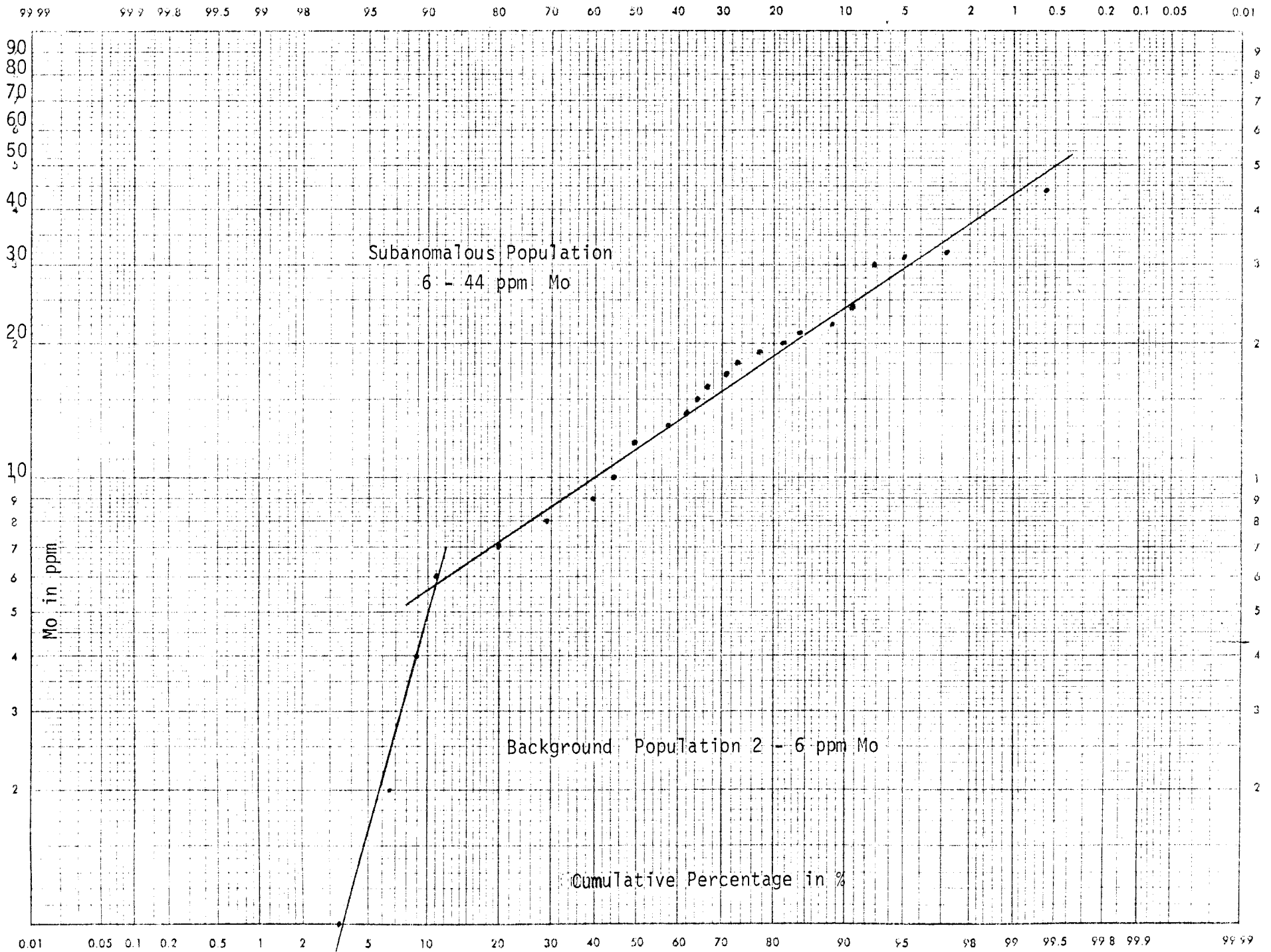


Fig. 4 Mo : Cumulative Percentage Graph.



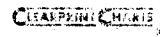
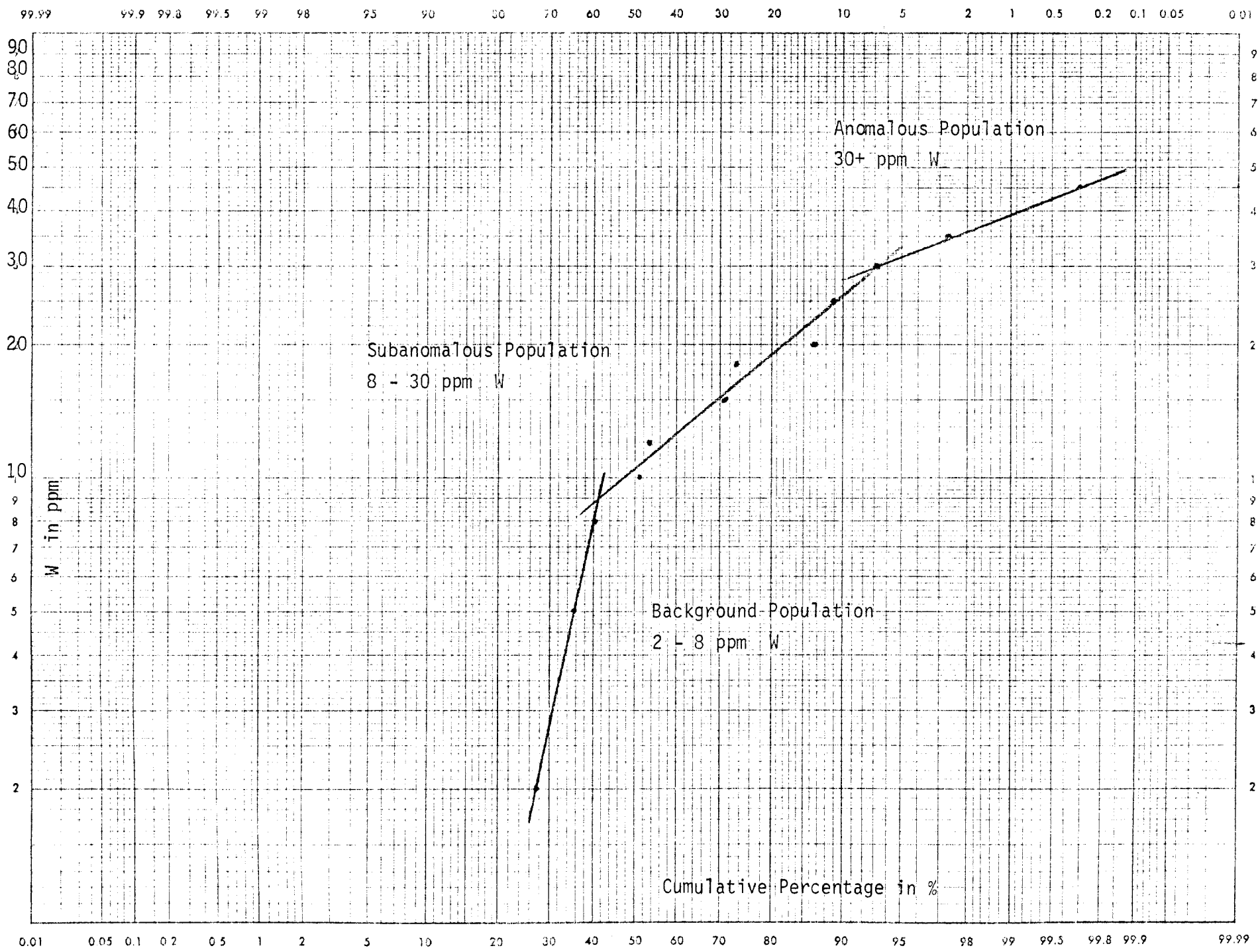


Fig. 5 W Cumulative Percentage Graph



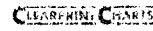
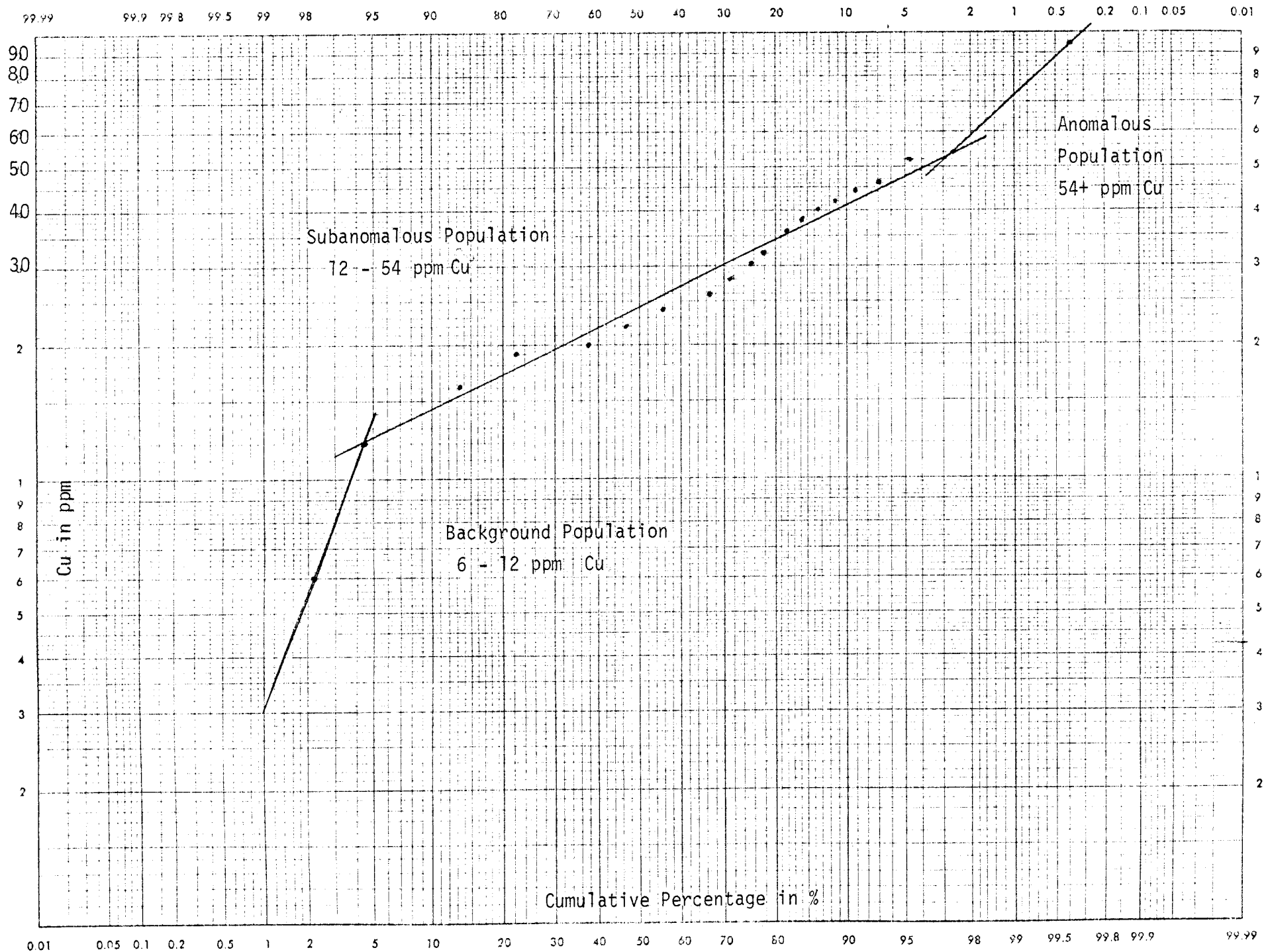


Fig. 6 Cu Cumulative Percentage Graph



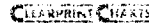


Fig. 7 Hg Cumulative Percentage Graph

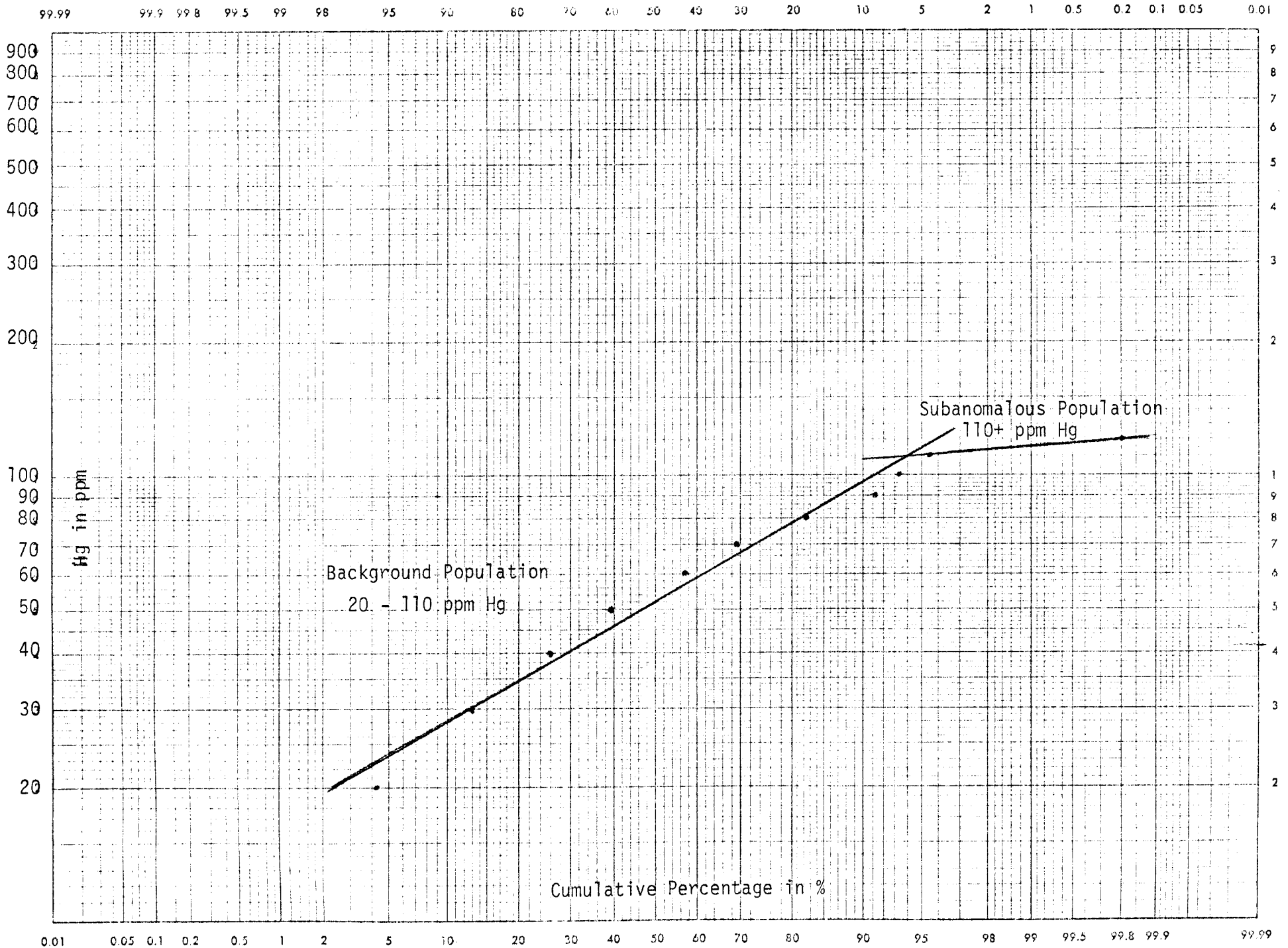
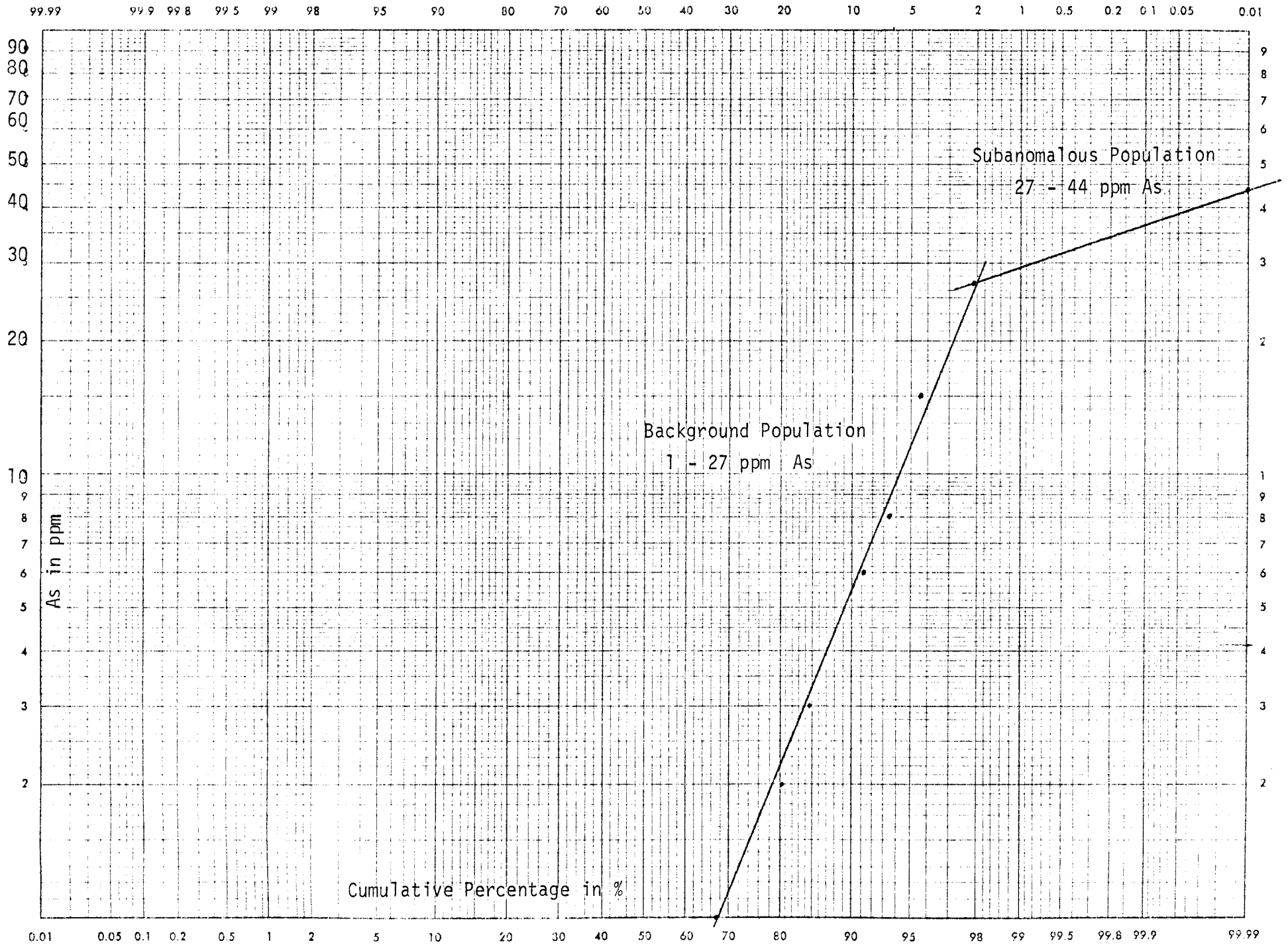


Fig. 8 As Cumulative Percentage Graph





percentages. For Mo and Cu, their highest value was removed from the manipulative process, being obviously anomalous.

The theory is that a monomodal distribution of concentrations of an element is log normal. That is, the distribution curve or histogram of concentration intervals for an element has a skewed form. In plotting this distribution on logarithmic paper, a straight line can be drawn through the points. Therefore, for each distribution made in a set of data, a straight line can be fitted and each line represents a population. These populations, dependent on their location on the graph, can be thought of as background, transitional or sub-anomalous, and anomalous.

The results of this statistical exercise show that Mo (Fig. 4) has a background population of 2-6 ppm Mo, a sub-anomalous population with a wide range of 6-44 ppm Mo and an anomaly of 76 ppm Mo. For W (Fig. 5) the background population is 2-8 ppm W, the sub-anomalous population is 8-30 ppm W, and the anomalous population is 30+ ppm W. Copper (Cu) (Fig. 6), has a background population of 6-12 ppm Cu, with a sub-anomalous population of 12-54 ppm Cu, and an anomalous population of 54+ ppm Cu. Mercury (Hg) (Fig. 7) has two populations as does Arsenic (As) (Fig. 8). The former has a background of 20-110 ppm Hg and a sub-anomalous population of 110-120 ppm Hg. The latter has a background range of 1-27 ppm As, and a sub-anomalous population of 27-44 ppm As.

#### IV. GEOPHYSICS

##### 1. SURVEY PROCEDURE

A McPhar M700 Flux Gate Magnetometer was used to conduct a 4.5 kilometre ground magnetic survey. The survey grid consisted of three lines 1,500 metres long, 500 metres apart, with 50 metre stations.

This magnetometer measures the vertical component of the earth's magnetic field, utilizing a flux gate element. The sensitivity of the instrument is 20 gammas per scale division on the 1,000 gamma range, with a readability of 5 gammas. Readings from 0 to  $\pm 100,000$  gammas in 5 ranges are possible.

to minimize the effect of the horizontal component of the earth's magnetic field when measuring the vertical component, the following procedure was used. At each station, the instrument was held level and in front of the body with the shoulders parallel to the direction of the earth's field. For each measurement, the general direction of the field was found by holding the instrument vertical, inducing a slight back and forth motion and noting the meter fluctuations. The body was rotated and the above action repeated. Where the meter fluctuations were at a minimum, the shoulders were assumed to be parallel to the horizontal field vector minimizing that component's effect.

In conducting the magnetic survey, station 5N OE was used as the base station at which the earth's field was cancelled by adjusting the instrument to read zero. In doing so, all the readings were taken relative to that station and the more sensitive scales with the associated greater reading accuracy of the instrument were used. By referring back to this base station on closure of the traverse, a check on the accuracy of the survey and diurnal variations were obtained.

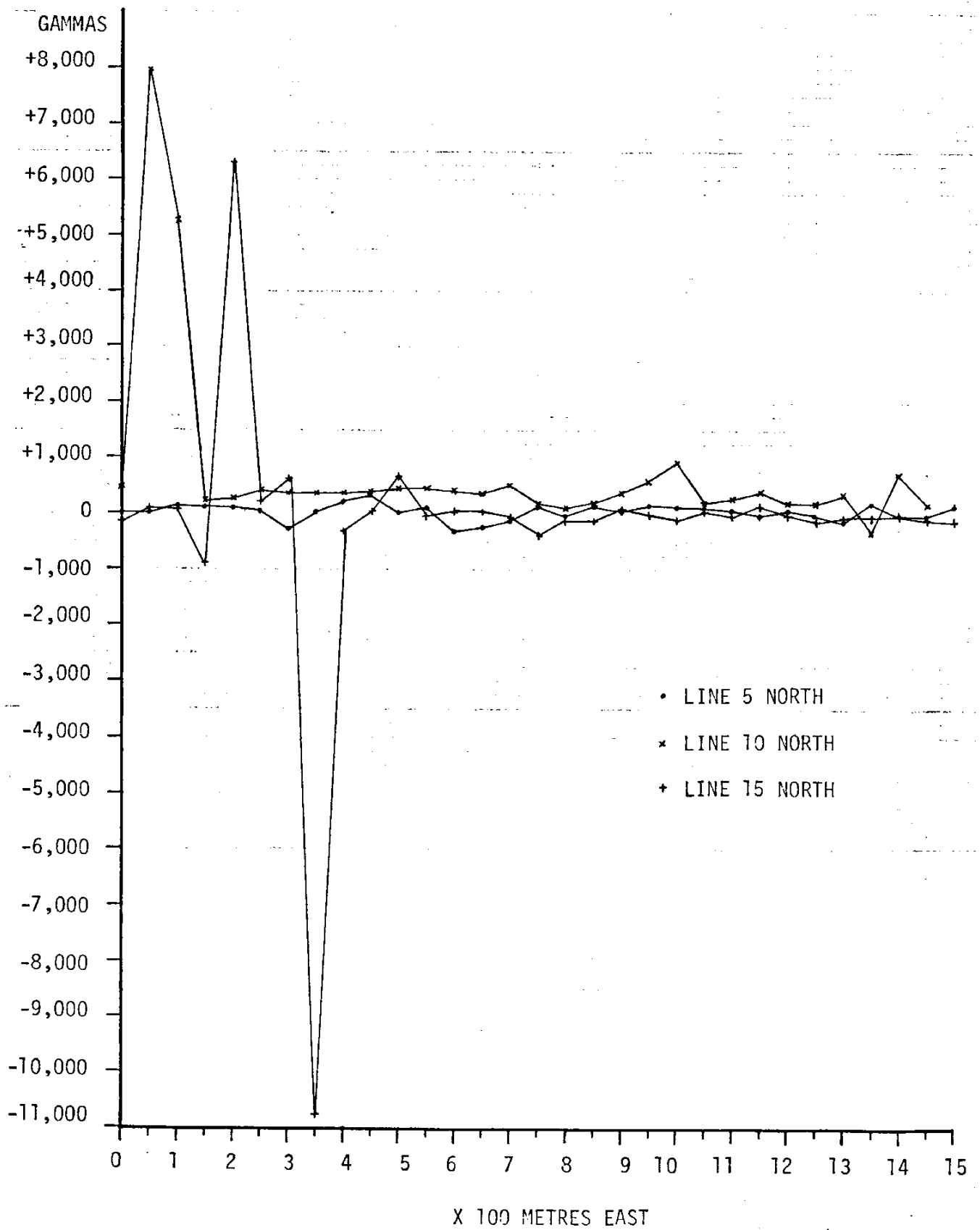
No corrections have been made to the data obtained.

## 2. DISCUSSION

The recorded data of the magnetometer survey are plotted as profiles for lines 5 North, 10 North, and 15 North, Figure 9. On this plot, three peaks are noted. One peak occurs on line 10 North at station 50 metres east with a reading of +7,900 gammas. On the same peak, station 100 metres east has a reading of +5,250 gammas. Line 15 North has two peaks, one at station 200 metres east with a reading of +6,300 gammas and the other at station 350 metres east where a reading of -10,750 gammas occurs. Line 5 North, with a range of readings from +325 gammas to -290 gammas, shows stability and may be interpreted as being background. The other readings on lines 10 North and 15 North show only very minor peaks and appear to be quite homogeneous.

FIGURE 9

MAGNETOMETER DATA PROFILES FOR  
LINES 5 NORTH, 10 NORTH, 15 NORTH



The locations of the four major anomalous values are marked with asterisks for the high positive values and by a star for the very low negative value. Contouring is not practical with the lines separated by 500 metres. Even so, a northeast-southwest trend is visible in Figure 10.

#### V. SUMMARY AND CONCLUSIONS

A two phase acid intrusion has been emplaced in interbedded metamorphosed limestones and fine grained clastic sediments. Pervasive low grade metamorphism is expressed by recrystallized limestone, slates and phyllites. Within contact of the stock, metasomatism has created calc-silicate and siliceous, micaceous skarns.

These skarns host interesting sulphide mineralization in the form of molybdenite, galena and sphalerite with associated scheelite. Molybdenite has also been noted as disseminations within the fine grained granites and aplites.

Northeast-southwest structural trends figure prominently in the occurrence of the acid stock and the control of the mineralizing episode.

The geochemical soil sampling program developed anomalous values in soils, Mo one 76 ppm sample, W two 35 ppm samples and one 45 ppm sample, and Cu with 94 ppm and 374 ppm samples. No trends were noted.

The geophysical survey shows a northeast-southwest trend in the northwest corner of the property. This may be an important structural feature which occurs at depth.

The area in which the Koots 1 claim lies is important as a potential Mo, W, Cu zone. This is shown by the number of metal occurrences noted on and around the property.

The key to this area is the unravelling of the structure, as it reflects the emplacement of the intrusives and the metallic minerals. Calc-silicate skarns contain Mo, W, Cu minerals in greater quantities than other rocks in the area. In a larger sense, these skarns and related minerals may be only the upper expression of a deeper mineral system. If not, the skarns are potentially the host for economic mineral deposits.

## VI. RECOMMENDATIONS

The following program is recommended for the 1981 field season:

1. Line cutting (flagged lines), consisting of 25 lines, 2,500 metres long, and 125 metres apart, with 50 metre stations. A total of 62.5 kilometres to be cut.
2. A geochemical soil sampling survey over 17 lines to fill in the 1980 soil sampling grid. Total number of samples to be taken and analyzed for Mo, W, Cu, Pb, Zn are 510.
3. A magnetometer survey over the new grid for a total of 62.5 kilometres.
4. Geological mapping at a scale of 1:10,000.
5. Prospecting.

Such a program will help in understanding the metallic mineral occurrences and facilitate the locating of ore grade mineralization.

Respectfully submitted,



Reginald L. Faulkner  
Geologist  
Denison Mines Limited



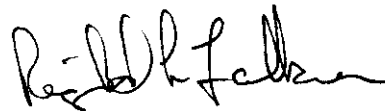
VII. ITEMIZED COST STATEMENT - May 26, 1980 to June 4, 1980

Wages: Geologist	- 9 days @ \$120.00/day	\$1,080.00
Field Assistant	- 9 days @ \$ 80.00/day	720.00
Food: Two men	- 9 days @ \$ 15.00/manday	270.00
Transportation: Northern Mountain Helicopters Limited Bell 206B		
	- 1.2 hours @ \$350.00/hour	420.00
	- 1.2 hours, 23.0 gallons/hour @ \$1.20/gallon	33.12
Equipment Rental: McPhar M700 Flux Gate Magnetometer		
	- 9 days @ \$ 12.00/day	108.00
Geochemical Analysis: 46 samples		
	- Hg @ \$3.50/sample	161.00
	- As @ \$2.25/sample	103.50
	- W @ \$2.25/sample	103.50
	- Mo, Cu 2 elements @ \$1.90/sample	87.40
	- Preparation @ \$0.30/sample	<u>13.80</u>
	TOTAL:	<u>\$3,132.00</u>

VIII. STATEMENT OF QUALIFICATIONS

I, Reginald L. Faulkner, Geologist, with business address in Vancouver, British Columbia, and residential address in North Vancouver, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1974 with a B.Sc., returned in 1977 completing a geological program in 1979 for a combined Geology, Physical Geography degree.
2. From 1970 to 1979, I have been engaged in various aspects of mineral exploration in British Columbia, Alberta, Yukon and the North West Territories. From 1979 to present, I have actively participated in mineral exploration in British Columbia as a Geologist with Riocanex Limited and Denison Mines Limited.
3. I personally participated in the field work on the Koots 1 Claim and I have compiled the data resulting from this work.



Reginald L. Faulkner

APPENDIX I



# Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,  
BURNABY, B. C.  
CANADA  
TELEPHONE: 299-6910

## DENISON MINES LTD. CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 80156-2

INVOICE NO.

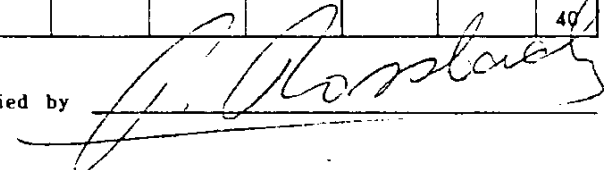
DATE ANALYSED JUNE, 1980

PROJECT R. FIDUKNER

TO: BOX 11575  
650 W. GEORGIA ST.  
VANCOUVER, B.C. V6B 4N7

No.	Sample	pH	Mo	Cu	W	Sn	PPM As	PPB Hg					No.
01	80070080		15	20	20	<2	15	30					01
02	81		31	24	20	<2	44	50					02
03	82		76	24	20	<2	27	50					03
04	83		44	16	20	<2	2	30					04
05	84		16	26	30	<2	8	70					05
06	85		17	16	45	<2	6	30					06
07	86		20	20	15	<2	1	40					07
08	87		19	22	12	<2	2	50					08
09	80070088		7	18	<2	<2	6	50					09
10													10
11													11
12													12
13													13
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Certified by



# Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

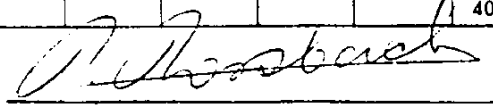
2225 S. SPRINGER AVE.,  
BURNABY, B. C.  
CANADA  
TELEPHONE: 299-6910

## DENISON MINES LTD. CERTIFICATE OF ANALYSIS

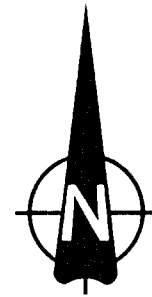
TO: BOX 11575  
650 W. GEORGIA ST.  
VANCOUVER, B.C. V6B 4N7

CERTIFICATE NO. 80156-1  
INVOICE NO.  
DATE ANALYSED JUNE 1980  
PROJECT R. FAULKNER

No.	Sample	pH	Mo	Cu	W	Sn	PPB As	PPB Hg					No.
01	80070041		22	18	2	<2	3	80					01
02	42		M	155	1M6	-	-	-					02
03	43		9	22		<2	2	60					03
04	44		13	28	<2	<2	2	120					04
05	45		19	22	5	<2	2	80					05
06	46		22	52	5	<2	6	70					06
07	47		9	18	10	<2	2	40					07
08	48		9	16	25	<2	3	70					08
09	49		1	36	2	<2	1	60					09
10	80070050		10	20	<2	<2	1	70					10
11	51												11
12	52		12	20	15	<2	1	70					12
13	53		4	6	18	<2	1	30					13
14	54		32	18	35	<2	1	90					14
15	55		24	20	2	<2	1	70					15
16	56		14	54	15	<2	1	110					16
17	57		8	26	2	<2	1	60					17
18	58		7	24	<2	<2	1	80					18
19	59		6	20	10	<2	1	90					19
20	80070060		9	26	5	<2	1	90					20
21	61		7	24	15	<2	1	50					21
22	62		7	12	35	<2	1	40					22
23	63		8	36	5	<2	1	80					23
24	64		21	42	2	<2	1	60					24
25	65		8	32	8	<2	1	40					25
26	66		13	40	8	<2	1	60					26
27	67		10	30	15	<2	1	90					27
28	68		9	16	20	<2	1	80					28
29	69		17	30	15	<2	1	60					29
30	80070070		30	26	15	<2	1	60					30
31	71		20	28	15	<2	1	50					31
32	72		13	54	20	<2	1	40					32
33	73		12	44	2	<2	1	60					33
34	74		8	22	10	<2	1	40					34
35	75		1	20	<2	<2	1	100					35
36	76		2	38	<2	<2	1	120					36
37	77		13	26	10	<2	1	80					37
38	78		14	374	30	<2	1	20					38
39	80070079		18	46	10	<2	1	20					39
40													40

Certified by 

APPENDIX II



**LEGEND**

Cretaceous or Tertiary

- 3 4 4 Granite; a, aplite.
- 3 Quartz monzonite.

Carboniferous

Mississippian or Permian

Slide Mountain Group or Cache Creek Group

- 1 2 2 Limestone, recrystallized, skarns.
- 1 Slates, phyllites.

Geological boundary (defined, assumed)

Bedding, tops known (inclined)

Fault (defined, assumed)

Fault (inclined)

Joint (inclined)

★ Metallic Mineral Occurrences

Location: Host; Mineral(s).

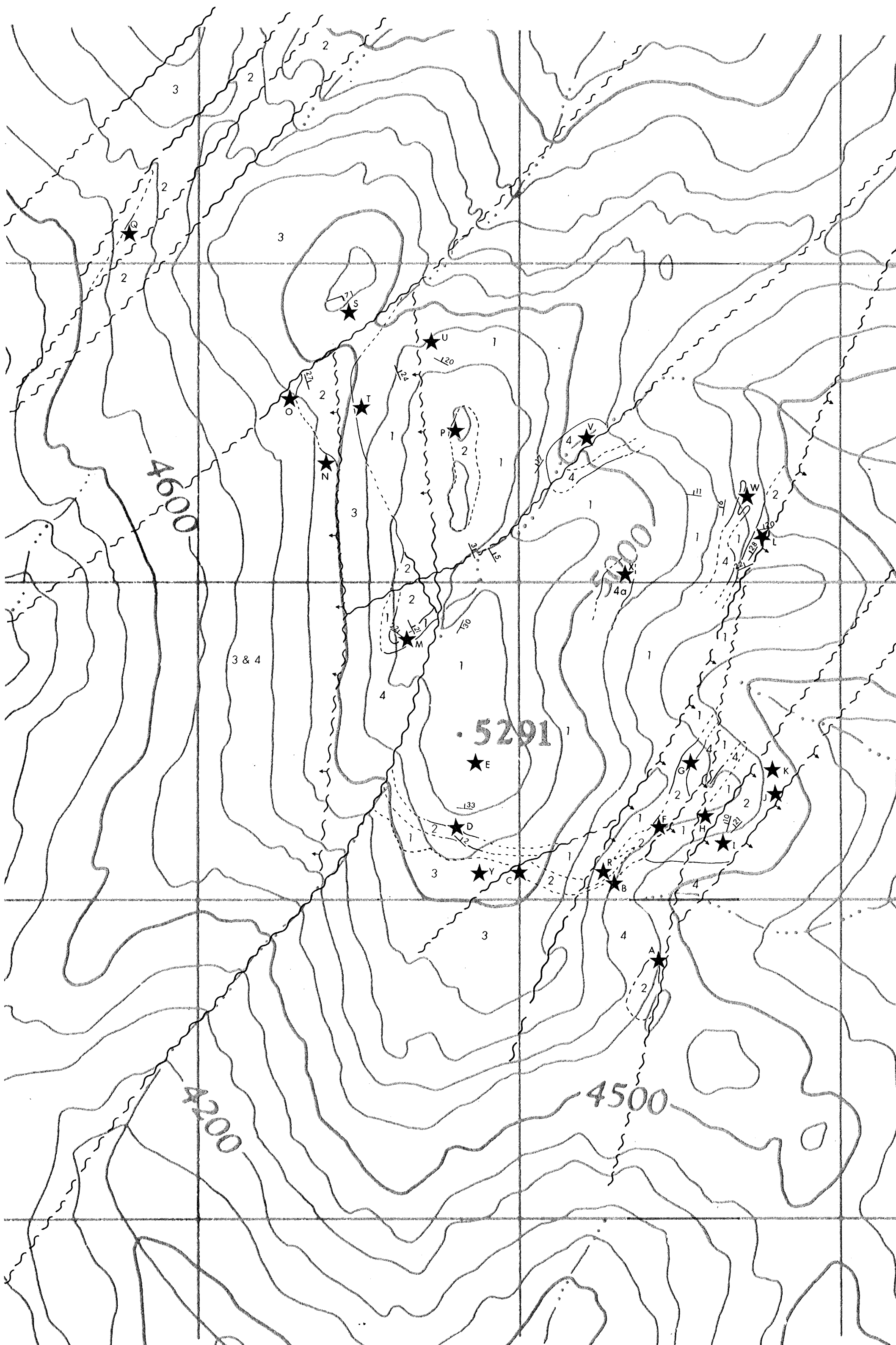
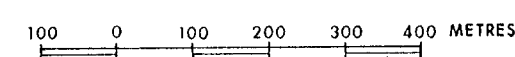
- A: Skarn; MØ.
- B: Phyllite, silicified; MØ.
- C: Skarn; MØ.
- D: Skarn; MØ.
- E: Phyllite, silicified; MØ.
- F: Skarn; MØ.
- G: Skarn; MX, MØ.
- : Granite; MØ.
- H: Skarn; PR, HX, MØ.
- I: Skarn; MØ.
- : Aplite; MØ.
- J: Skarn; PR.
- K: Skarn; MØ.
- L: Skarn; GX.
- M: Skarn; PR, HX, CP, MX, MØ, SL, SH.
- N: Skarn; MØ.
- O: Skarn; PR, MG, MX, MØ.
- P: Skarn; PR.
- Q: Skarn; PY, MØ.
- R: Phyllite; PR.
- S: Quartz Monzonite; PR.
- T: Phyllite, silicified; PR.
- U: Aplite; MØ.
- V: Granite; MØ.
- W: Granite; MØ.
- X: Aplite (Alaskite); MØ.
- Y: Quartz Monzonite, pegmatitic; MØ.

**ABBREVIATIONS**

- |                        |                       |
|------------------------|-----------------------|
| CP, chalcopyrite       | MX, malachite/azurite |
| GX, galena/sphalerite  | PR, pyrrhotite        |
| HX, hematite/magnetite | PY, pyrite            |
| MG, magnetite          | SH, scheelite         |
| MØ, molybdenite        | SL, sphalerite        |

Contour Interval 100 feet

**SCALE**



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

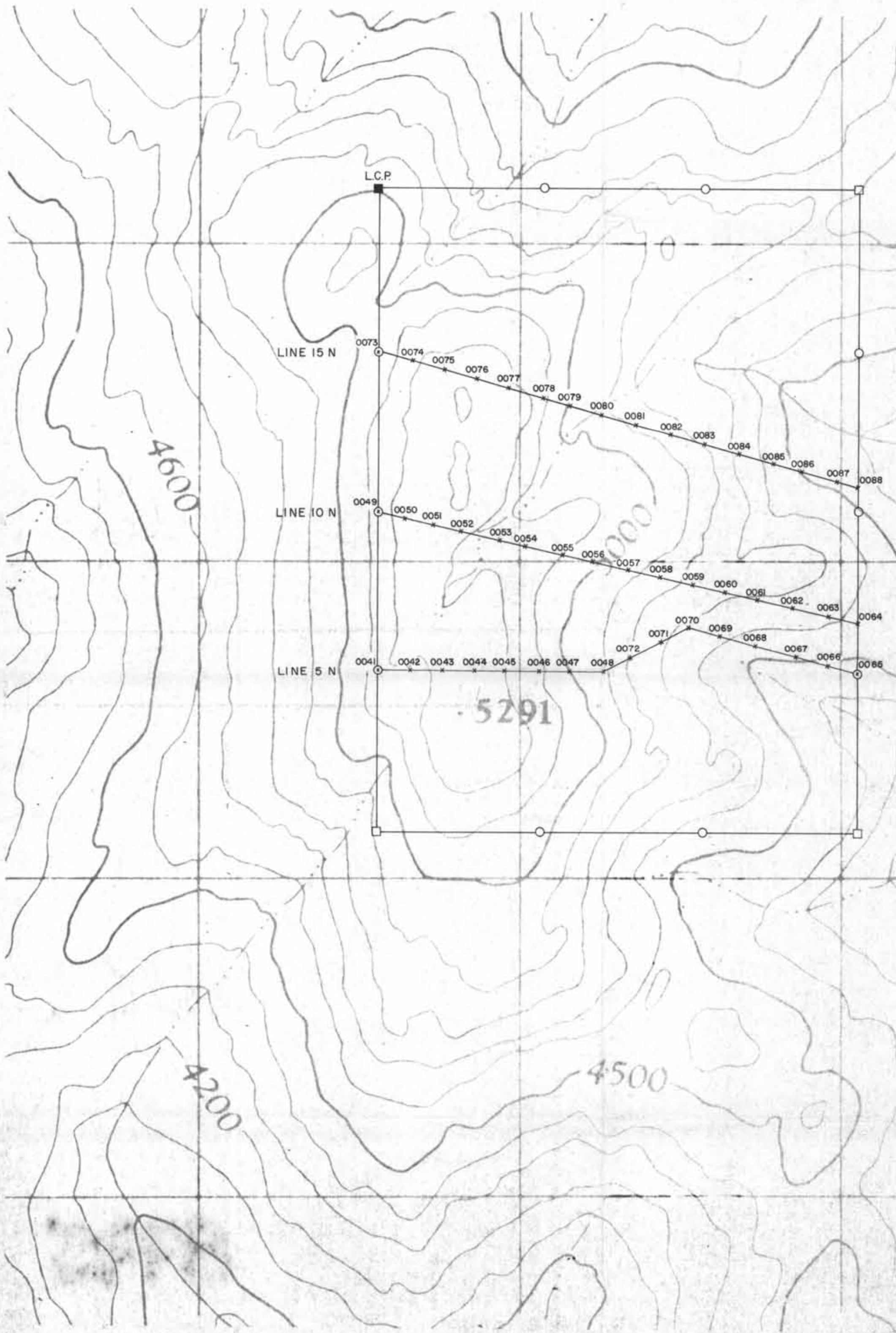
NO. \_\_\_\_\_

*R. Faulkner*

Figure 3

<b>DENISON MINES LIMITED</b>		
MINERAL EXPLORATION	WESTERN DIVISION	
<b>KOOTS 1 CLAIM 1980</b>		
<b>Geology Map</b>		
Comp. By: R. FAULKNER	Date: DEC., 1980	Scale: 1:10,000
Dwg. No. 80-38	<i>R. Faulkner</i> 230/3W	





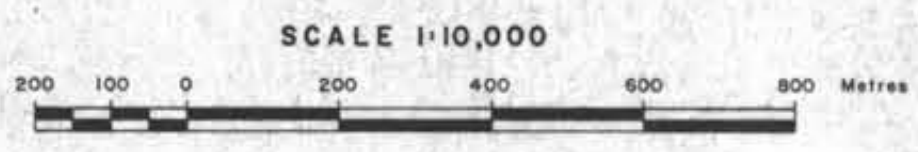
**LEGEND**

- . . . Legal Corner Post
- . . . Corner Post
- . . . Intermediate Post
- . . . Claim Boundary
- \*— . . . Soil Sample Locations
- (8007)0058 . . . Soil Sample Number
  
- Contour Interval . . . . . 100 Feet
- L.C.P. Latitude . . . . . 56°06'41"
- L.C.P. Longitude . . . . . 123°23'47"

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**8775**  
NO.

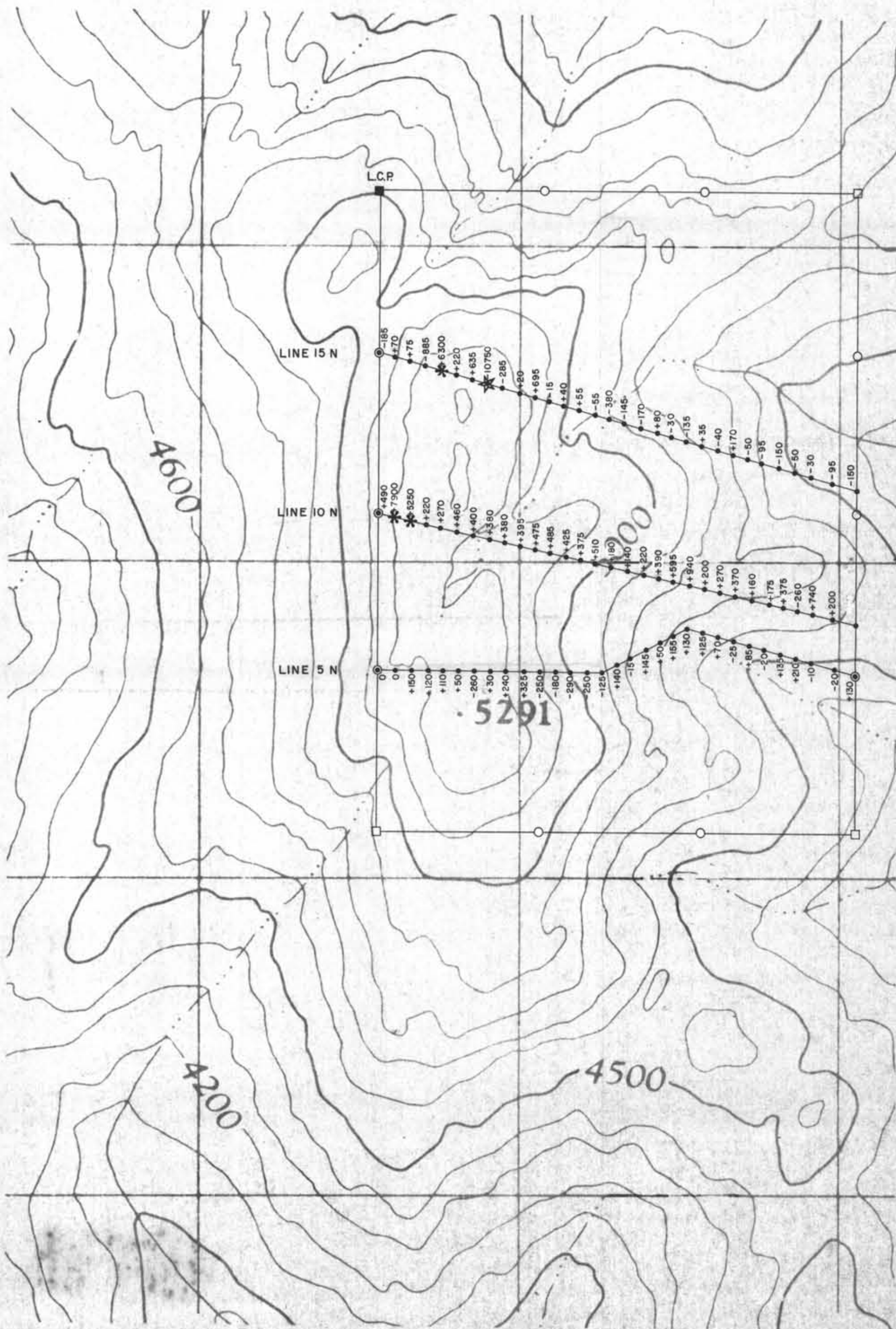
Appendix II (i)

DENISON MINES LIMITED		
MINERAL EXPLORATION - WESTERN DIVISION		
<b>KOOTS CLAIM 1980</b>		
<b>SOIL SAMPLE LOCATIONS</b>		
Scale: R.L.E.	Date: DEC. 1980	Scale: 1:10,000
Drawn: 80-32	By: <i>Rogers</i>	930/3W



*McKin*





**LEGEND**

- Legal Corner Post
- Corner Post
- Intermediate Post
- Claim Boundary
- Magnometer Survey Stations
- 10,+750 Reading in Gammas
  
- Contour Interval . . . . . 100 Feet
- L.C.P. Latitude . . . . . 55°06'41"
- L.C.P. Longitude . . . . . 123°23'47"

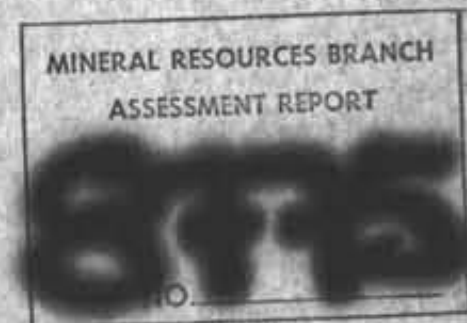
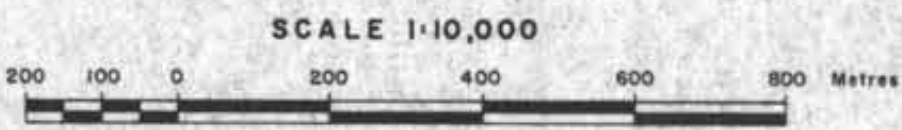


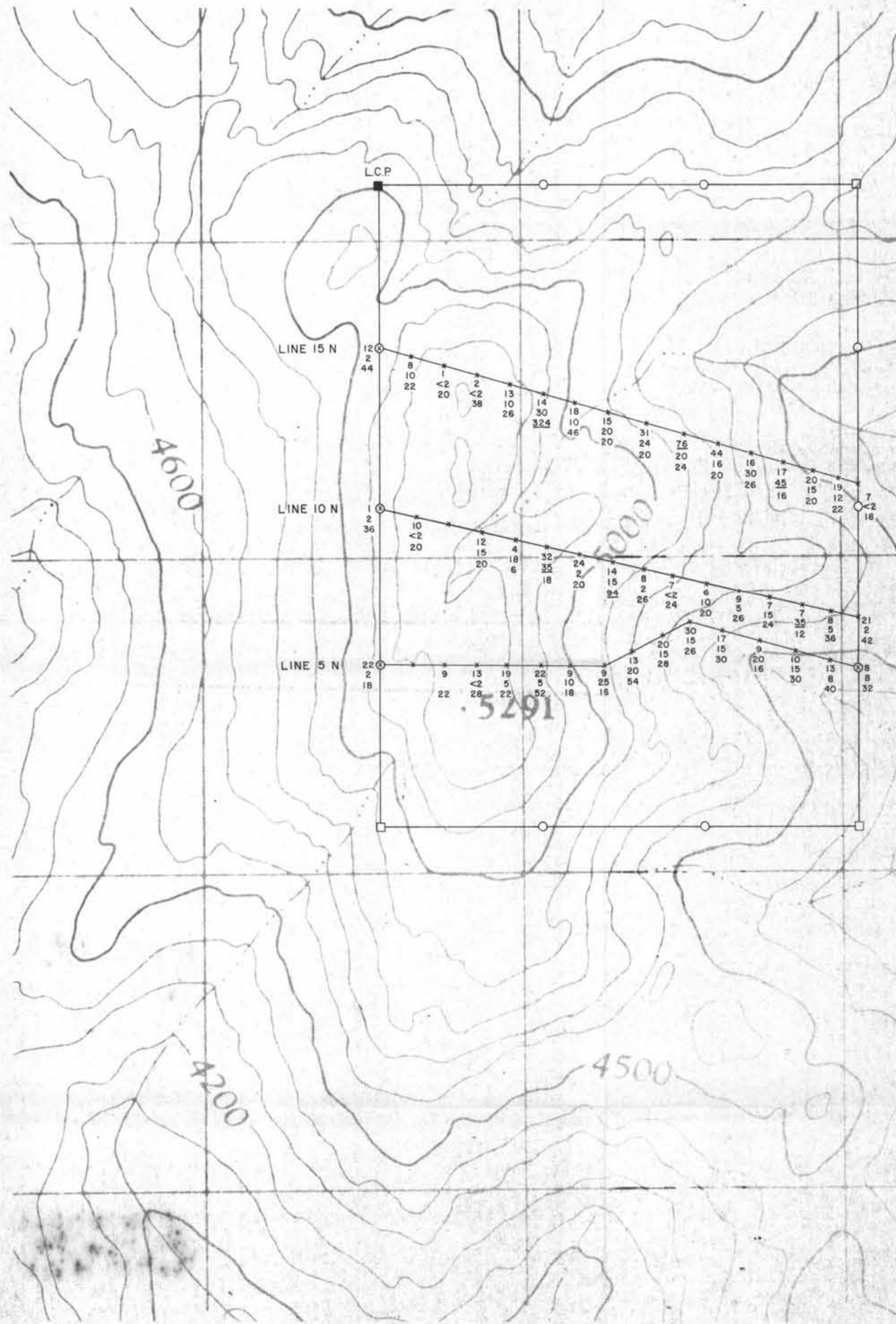
Figure 10



DENISON MINES LIMITED		
MINERAL EXPLORATION	WESTERN DIVISION	
<b>KOOTS CLAIM 1980</b> <b>MAGNOMETER SURVEY READINGS</b> <b>IN GAMMAS</b>		
Comp. By	R.L.F.	Date
Drawn No	80-44	DEC. 1980
		Scale
		1:10,000
		Sheet No.
		930/3W

*R.L.F.*





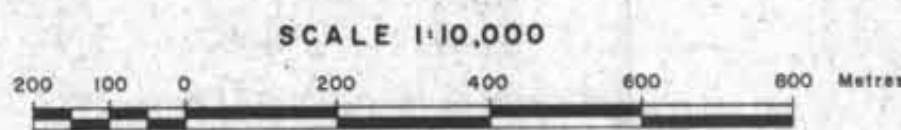
**LEGEND**

- Legal Corner Post
- Corner Post
- Intermediate Post
- Claim Boundary
- Soil Sample Locations
- 32 Mo Soil Sample Analysis
- 35 W Results in ppm
- 18 Cu
- 37 Anomalous Values
- Contour Interval . . . . . 100 Feet
- L.C.P. Latitude . . . . . 55°06'41"
- L.C.P. Longitude . . . . . 123°23'47"

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**675**  
NO.

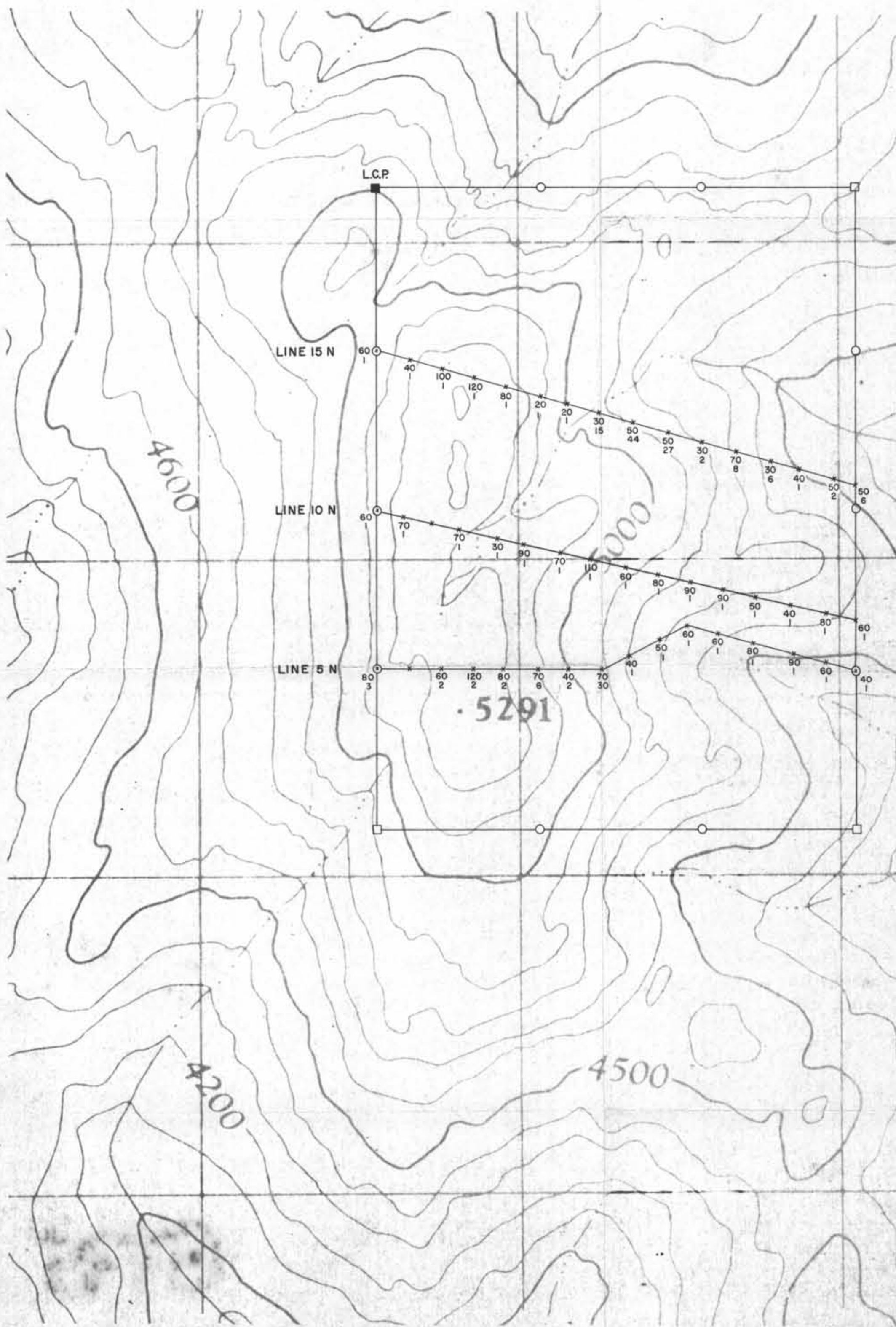
Appendix II (ii)

DENISON MINES LIMITED			
MINERAL EXPLORATION		WESTERN DIVISION	
<b>KOOTS CLAIM 1980</b>			
<b>SOIL SAMPLE ANALYSIS RESULTS</b>			
<b>FOR Mo, W, Cu IN ppm</b>			
Cont. No.	R.L.F.	Date	Scale
80-45		DEC. 1980	1:10,000
		Drawn by	930/3W



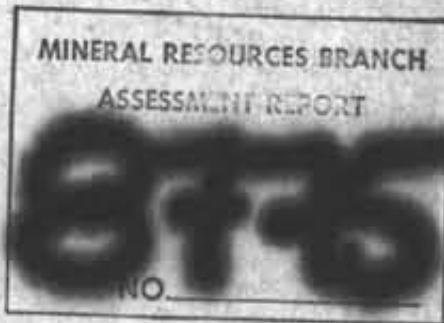
*McKin*





**LEGEND**

- Legal Corner Post
- Corner Post
- Intermediate Post
- Claim Boundary
- Soil Sample Locations
- 60 Hg Soil Sample Analysis Results in ppm
- 1 As
  
- Contour Interval . . . . . 100 Feet
- L.C.P. Latitude . . . . . 55°06'41"
- L.C.P. Longitude . . . . . 123°23'47"



Appendix II (iii)

DENISON MINES LIMITED			
MINERAL EXPLORATION		WESTERN DIVISION	
<b>KOOTS CLAIM 1980</b>			
<b>SOIL SAMPLE ANALYSIS RESULTS</b>			
<b>FOR Hg, As IN ppm</b>			
Comp. No.	RL.F.	Date	Scale
80-46		DEC. 1980	1 : 10,000
		By	930 / 3W

SCALE 1:10,000



*W. Min.*