

4868

GEOLOGICAL - GEOCHEMICAL REPORT

ON THE

R D CLAIMS

~~93E~~ | 13E

LOCATED: 60 MILES SOUTHWEST OF SMITHERS, B.C.

(54° 00' North; 127° 34' West)

OMINECA MINING DIVISION

BY

Department of
Mining and Geology
Bureau of Geology
NO. **4868** MAP

G. A. NOEL, (P. ENG.) GEOLOGIST

EL PASO MINING AND MILLING COMPANY

SEPTEMBER 8 - 18, 1973

Mining Recorder's Office
RECORDED
FEB - 5 1974
AT
SMITHERS, B.C.

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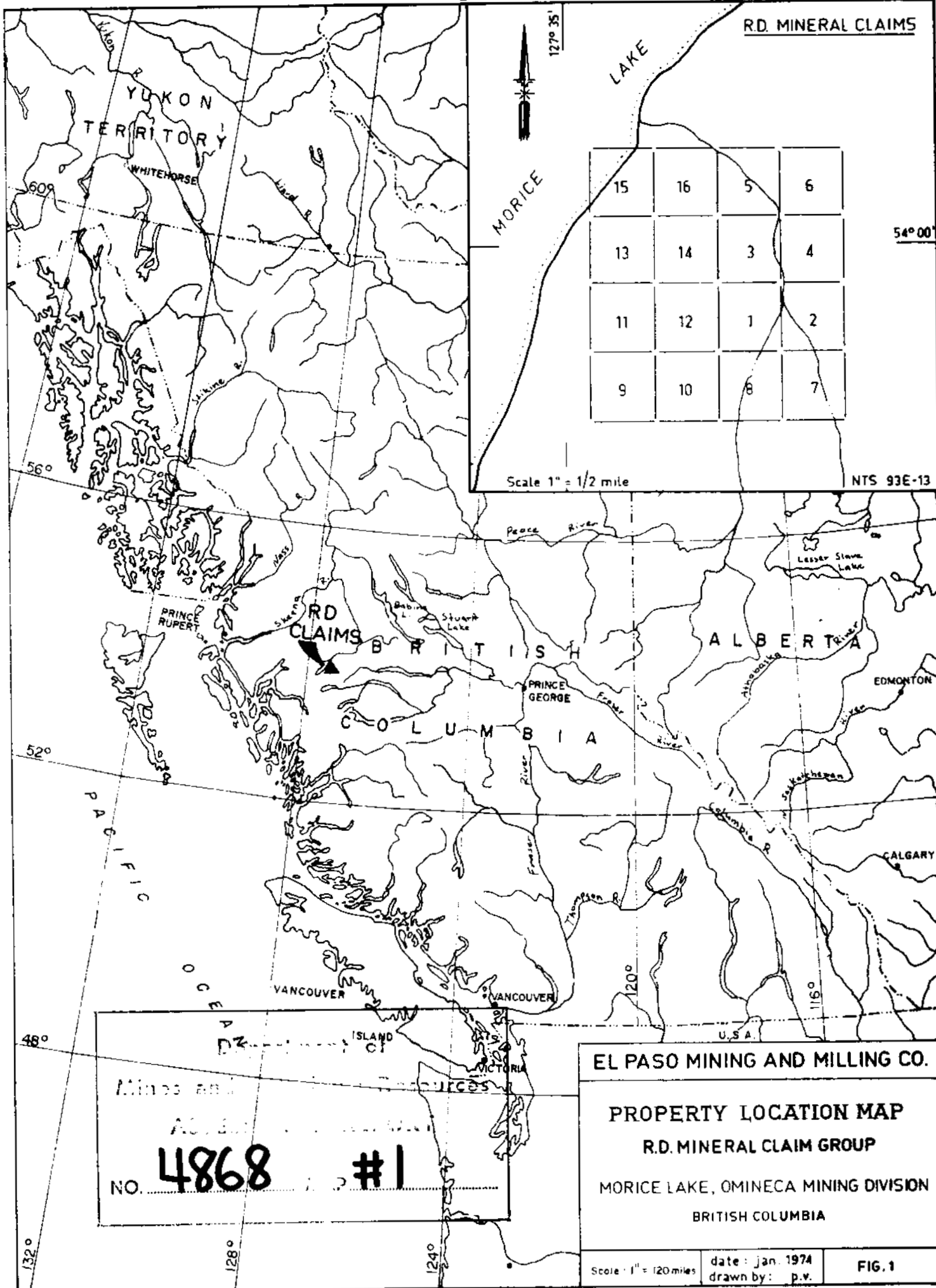
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SUMMARY

From September 8th to 18th, 1973, geological mapping and a geochemical soil survey were completed on RD 1, 2, 7 and 8 claims, which form part of the 16 claim RD Group, located 60 miles southwest of Smithers, B.C. The RD claims are underlain by volcanic rocks of the Hazelton Group which are intruded by a small granite plug, as well as by dykes and tongues of monzonite porphyry. A little copper mineralization occurs in fracture zones in the volcanics, generally near intrusive contacts. The geological mapping and soil survey indicate that the copper mineralization is generally weak, restricted and erratic in distribution. A molybdenum soil anomaly that deserves further work was outlined on RD #8 claim.



R.D. MINERAL CLAIMS

15	16	5	6
13	14	3	4
11	12	1	2
9	10	8	7

Scale 1" = 1/2 mile

NTS 93E-13

Mines and
 NO. **4868** #1

EL PASO MINING AND MILLING CO.

PROPERTY LOCATION MAP

R.D. MINERAL CLAIM GROUP

MORICE LAKE, OMINECA MINING DIVISION

BRITISH COLUMBIA

Scale 1" = 120 miles

date: Jan. 1974
drawn by: p.v.

FIG. 1

INTRODUCTION

The RD 1 - 16 claims were staked and recorded in June 1972 by F. Onucki and M. Callaghan as agents for El Paso Mining and Milling Company, as a result of prospecting in the Morice Lake area. From September 8 - 18, 1973, two men completed initial geological and geochemical surveys on the claims, which are located 60 miles southwest of Smithers, B.C. The claims are reached from Smithers by helicopter although the Morice Lake road extends 45 miles southwest from Houston to the north end of Morice Lake, about 8 miles north of the RD claims. The property extends from 2600 feet elevation at Morice Lake to 4400 feet elevation on the northwest end of Redslide Mountain. RD 1 - 8 claims straddle a small creek that flows northerly down Redslide Mountain into the southeast side of Morice Lake. RD 9 - 16 claims adjoin RD 1 - 8 on the west to form a block four claims square. The terrain is fairly steep and well wooded with rock exposure limited to the creek canyons. The configuration and rough location of the claims are shown in Figure 1. The current work was limited to RD 1, 2, 7 and 8 claims, which generally lie between 3400 and 4400 feet in elevation.

FIELDWORK

From the No. 2 posts of RD 7 and 8, the initial grid line (O-N) was run 1200 feet to the west and 500 feet to the east - using compass and nylon chain control. The east and west extremities of the grid were determined by the steep west and east walls, respectively, of deeply incised creeks which converge northward and finally join about 2600 feet to the north. Grid lines were run east-west at 200-foot intervals for 2000 feet north of the O-N line and were designated 2N - 20N, respectively. Stations were marked at 100-foot intervals along each traverse line with the No. 2 post of RD 7 and 8 designated ON - OE; so that the stations run from O to 5E and from O to 16W. The grid thus covers about 2000 feet N-S by 2000 feet E-W with some gaps due to the difficult terrain. Soil samples and altimeter readings were taken on the 100-foot stations and the grid was also used for geological mapping control. To pick up most of the geology, a compass and tape traverse was run down the west fork of the creek and was tied to the grid at its southwest and northeast ends. The altimeter survey was corrected by taking readings on control stations at least three times per day. Six chip samples were cut from mineralized exposures along the west creek and were assayed for copper, silver and gold.

The soil samples were taken from the B-horizon wherever possible, using a mattock; however, samples could not be taken at some stations due to lack of soil (rocky alluvium) or to deep organic cover. Each soil sample was placed in a kraft envelope which was marked with the sample number and description as to type, character, texture, origin, soil horizon, color and depth. A total of 168 samples were collected and analysed for total copper and molybdenum by Min-En Laboratories Ltd., 705 West 15th Street, North Vancouver, B.C.

The analytical procedure used by Min-En Laboratories is as follows:

1. The sample is dried and sieved.
2. A one-gram portion of the -80 mesh fraction is allowed to react with two millilitres of concentrated nitric acid for one half hour.
3. Five millilitres of perchloric acid is added and the sample digested for five hours at 250° F.
4. The sample is diluted to 25 millilitres with distilled water and analysed by the atomic absorption method.

The analyses in parts per million copper and molybdenum have been plotted on separate maps at a scale of one inch to 200 feet.

GEOLOGY

The RD claims are underlain by volcanic rocks with some intercalated sedimentary rocks of the Hazelton Group of Lower to Middle Jurassic age. These volcanics, which include andesitic tuffs, breccias and flows, are intruded by plugs of red granite and monzonite porphyry. The volcanic rocks strike north to northwest and dip moderately to the east and northeast. The granite contact apparently extends northwesterly across the southwest corner of RD 8, westerly along the south boundary of RD 10 and northerly into RD 9 and RD 11 claims. Monzonite porphyry outcrops in small dykes or tongues in several places along the creek on RD 8.

Along and near the intrusive contacts, chalcopyrite and pyrite occur as fracture fillings and disseminations mainly in the volcanic rocks but also in places in narrow intrusive septa. All of the exposed mineralized sections were chip sampled and the best assay obtained was 1.54% copper and 0.68 oz Ag per ton over five feet. The geology, topography, sample locations and assays are shown on the Geology Map, RD Claims - DWG No. 93 E 13 - A1.

GEOCHEMICAL RESULTS

1. Molybdenum

The arithmetic mean of all of the molybdenum analyses is 20 ppm. The analyses are shown on a frequency histogram (Figure 2) and a cumulative percent frequency plot on log probability paper (Figure 3). On the latter curve, the background value at the 50 percentile is <2 ppm. A break in slope of this curve occurs at 25 ppm and this may be considered the threshold value. As a result, the anomalous limits for molybdenum were selected as follows:

25 - 50 ppm	Possibly anomalous
50 - 100 ppm	Probably anomalous
> 100 ppm	Definitely anomalous

These values were contoured on Map No. 93 E 13 - A2 with the "Possibly anomalous" range colored yellow, "Probably anomalous" colored orange and "Definitely anomalous" colored red.

A sinuous northeast-trending molybdenum anomaly is outlined on RD #8 claim. This anomaly, as defined by the >50 ppm contour, is at least 1500 feet long by 200-400 feet wide. The shape of the anomaly suggests that it may, at least in part,

EL PASO MINING AND MILLING CO. LTD.
R.D. MINERAL CLAIM GROUP
OMINECA, M.D. BRITISH COLUMBIA
HISTOGRAM OF MOLYBDENUM IN PPM.

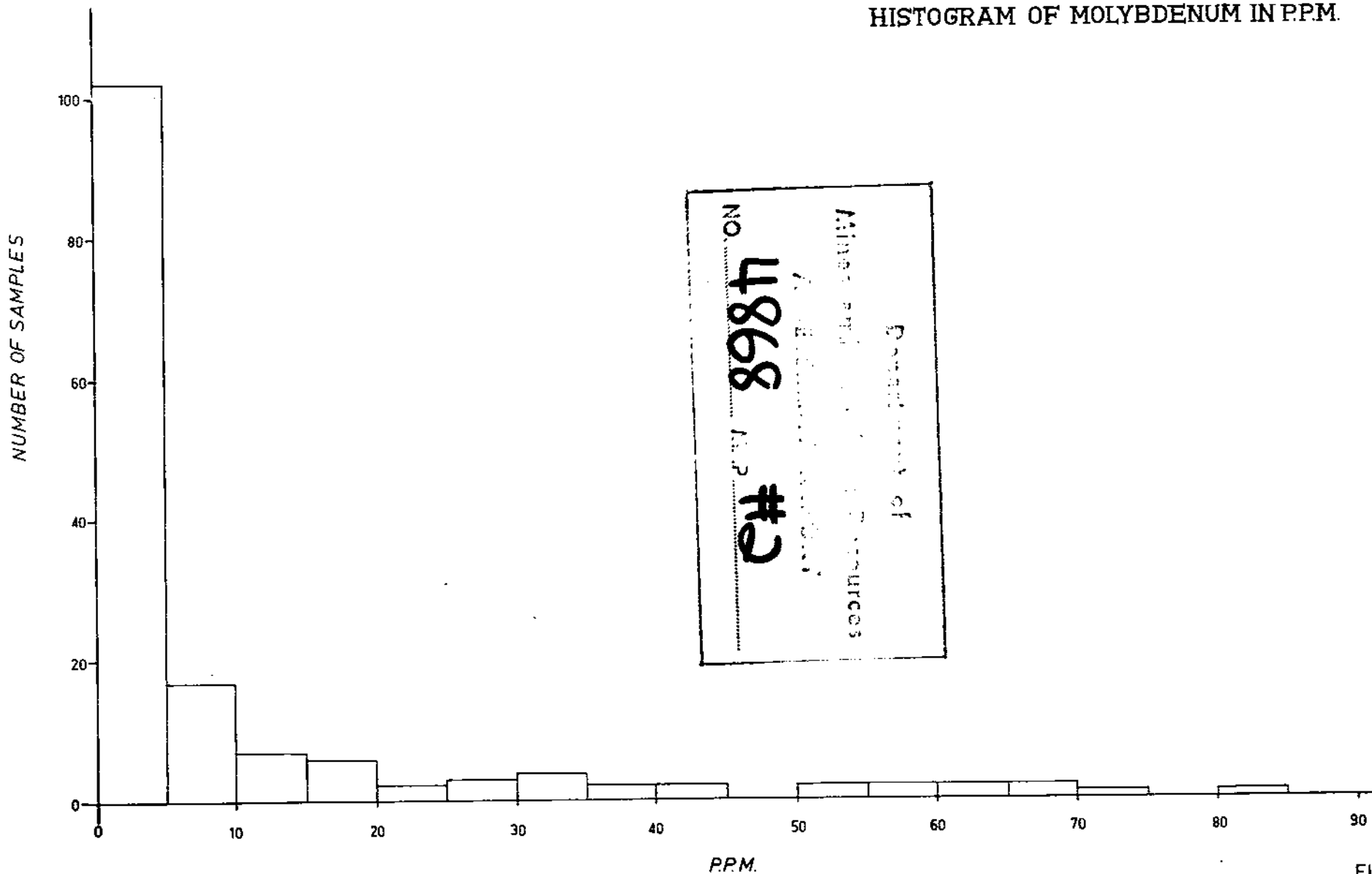
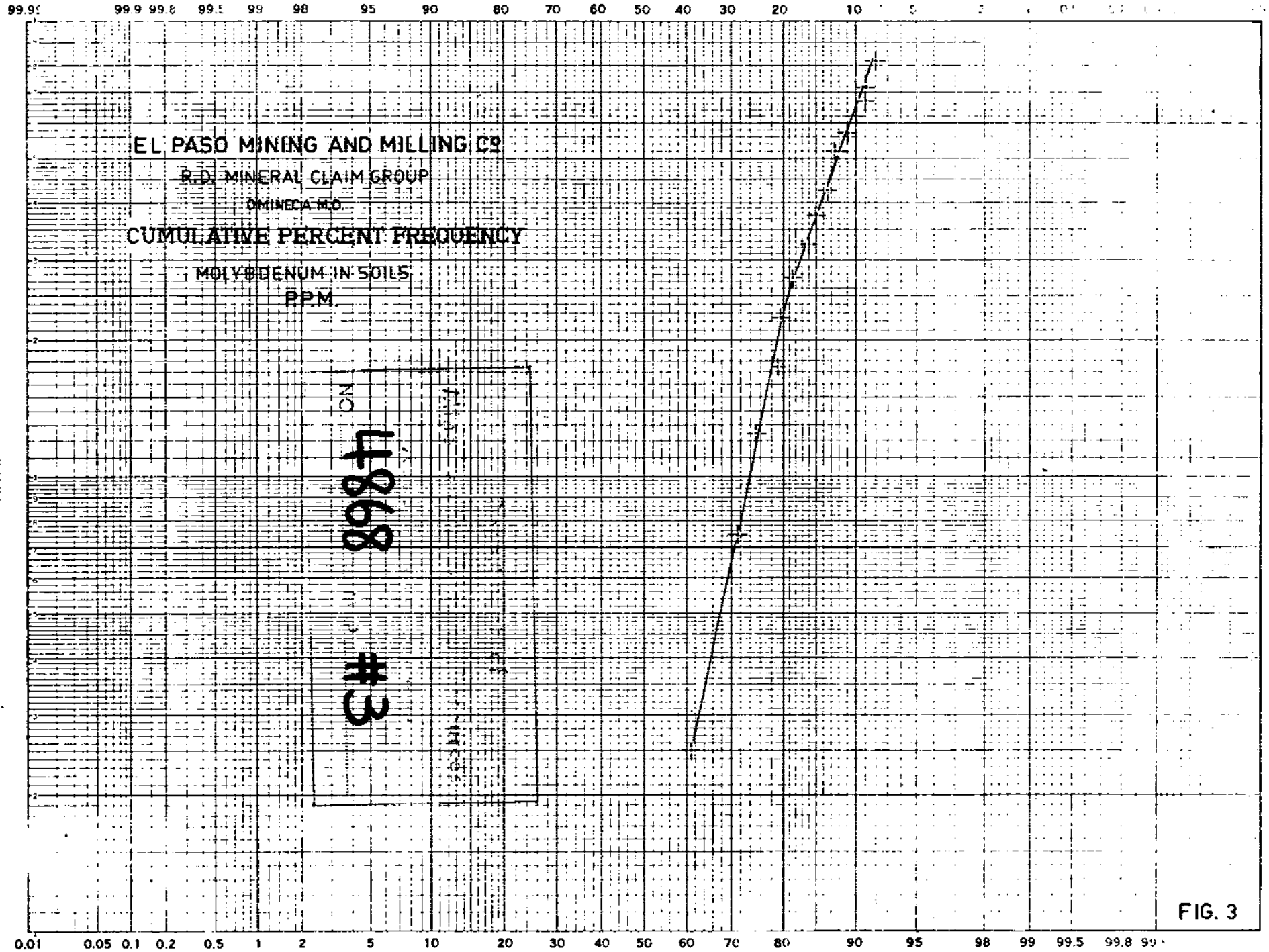


FIG. 2



P.P.M.

-8-

FIG. 3

wrap around the outer shell of the granite plug. Although no molybdenum mineralization was seen during the geological mapping, the prospectors reported specks of molybdenite in the granite near the south boundary of RD #8 claim .

2. Copper

The arithmetic mean of all of the copper values is 23.4 ppm. These values are shown on a frequency histogram (Figure 4) and a cumulative percent frequency plot on log probability paper (Figure 5). On the latter curve the background value at the 50 percentile is 13 ppm. Breaks in the slope of this curve occur at 15 ppm and 35 ppm. copper. The lower inflection point may result from two populations or sources and may represent the threshold value for the soils derived from volcanic rocks. The upper break may thus be the threshold value for soils over the intrusives. The upper value has been used to give the following anomalous limits:

- 35 - 70 ppm. copper - Possibly anomalous
- 70 - 140 ppm. copper - Probably anomalous
- > 140 ppm copper - Definitely anomalous.

These values were contoured on Map 93 E 13 - A3 with the "Possibly anomalous" range colored in yellow, "Probably anomalous" colored in orange and "Definitely anomalous" in red. Several small scattered copper anomalies are outlined on this map. The irregular anomaly centered about 16N - 10W, at the north end of RD #8 claim, apparently coincides with one of the better mineralized fracture zones which seem to trend north to northeast. The small weak soil anomalies in the eastern part of RD #8 claim are also apparently related to copper mineralization in the fractured volcanics. The rather intense, though small, anomaly on the

EL PASO MINING AND MILLING CO. LTD.

R.D. MINERAL CLAIM GROUP

OMINECA, M.D. BRITISH COLUMBIA

HISTOGRAM OF COPPER IN P.P.M.

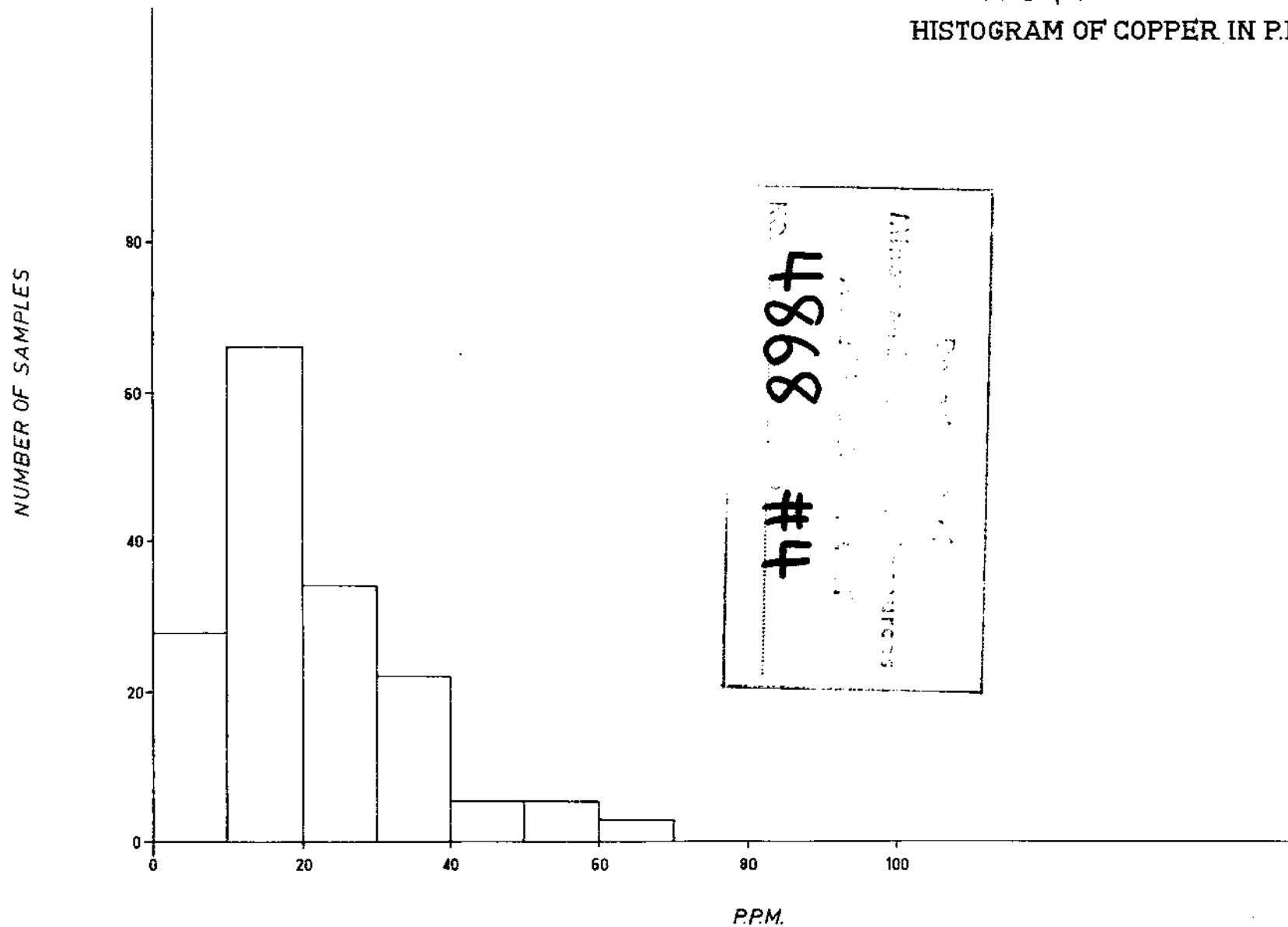
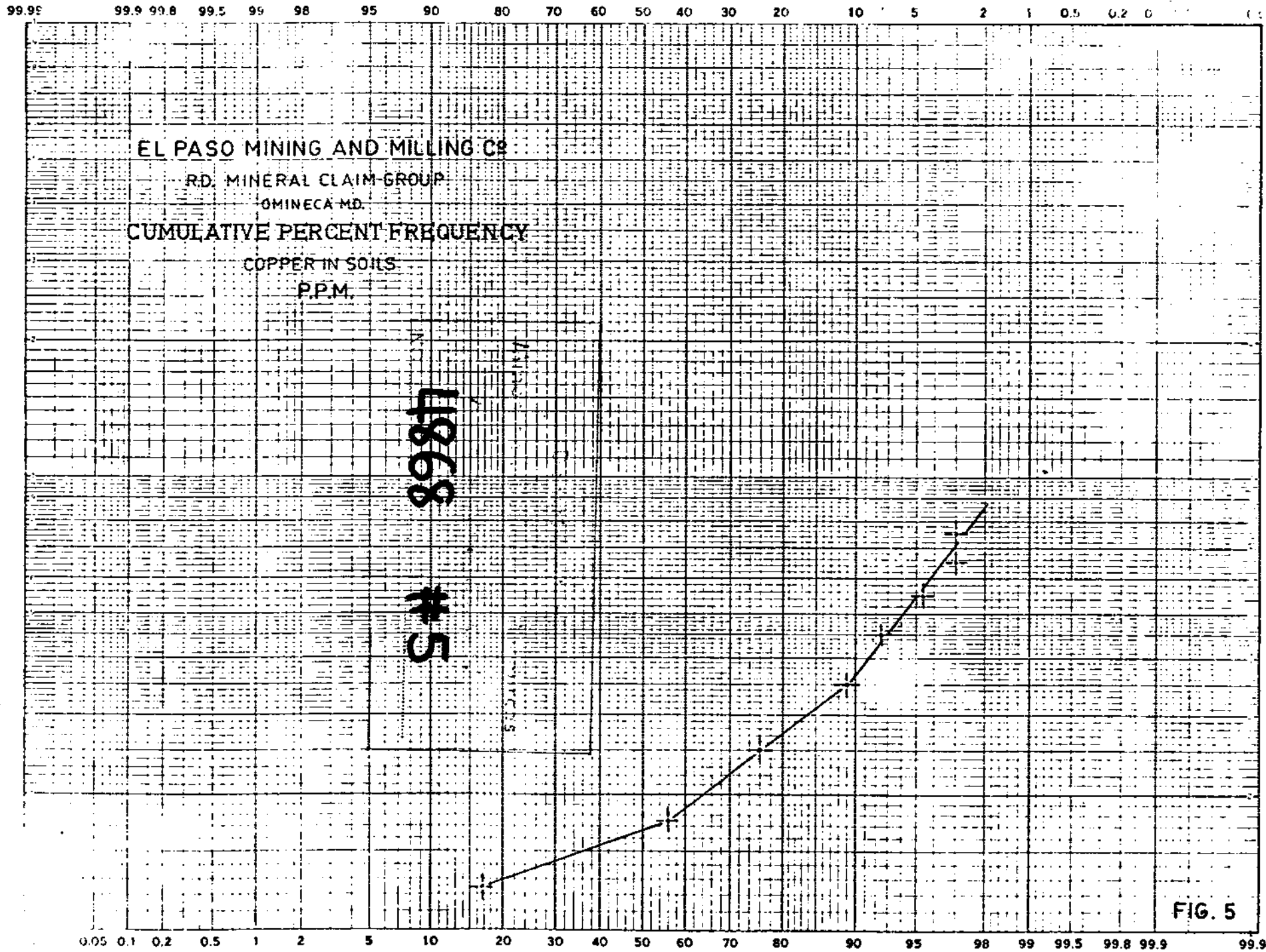


FIG. 4




western edge of RD #8 claim may be spurious, in that it is largely based on one reading. Unfortunately, there are no outcrops in this area which may overlie the granitic-volcanic contact.


CONCLUSIONS

The copper mineralization on the RD Claims is restricted to narrow north to northeast trending fracture and shear zones in Hazelton volcanics, generally near their contact with tongues or dykes of intrusive rock. From the results of the geological mapping and the geochemical soil survey, the copper mineralization appears to be too scattered and weak to be of further interest.

The molybdenum soil anomaly deserves further attention and should be more completely delineated by further soil sampling to the south in conjunction with detailed geological mapping.


G. A. Noel, P. Eng.

January 29, 1974



A P P E N D I X A - 1

SOIL ANALYSES

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As	Mn	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
300000	64	16					•					•				
01	98	10					•					•				
02	198	46					•					•				
03	7	14					•					•				
04	8	14					•					•				
05	4	10					•					•				
06	3	7					•					•				
07	3	22					•					•				
08	4	24					•					•				
09	9	17					•					•				
10	6	15					•					•				
11	3	10					•					•				
12	4	18					•					•				
13	3	14					•					•				
14	29	16					•					•				
15	26	17					•					•				
16	5	19					•					•				
17	3	22					•					•				
18	1	9					•					•				
19	1	8					•					•				
20	4	9					•					•				
21	83	43					•					•				
22	5	30					•					•				
23	17	12					•					•				
24	13	23					•					•				
25	7	17					•					•				
26	9	28					•					•				
27	7	10					•					•				
28	15	21					•					•				
300029	98	13					•					•				

CERTIFIED BY *Gilbert V. Harrison*

COMPANY El Paso Mining
 PROJECT No.: RD Grp

GEOCHEMICAL ANALYSIS DATA SHEET
 MIN - EN Laboratories Ltd.

File No. 529
 DATE: Sept 28
1973.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
300030	68	39					•					•				
31	18	26					•					•				
32	53	33					•					•				
33	17	21					•					•				
34	14	17					•					•				
35	73	36					•					•				
36	57	64					•					•				
37	21	21					•					•				
38	112	23					•					•				
39	27	21					•					•				
40	4	21					•					•				
41	4	25					•					•				
42	4	16					•					•				
43	3	16					•					•				
44	4	16					•					•				
45	3	21					•					•				
46	2	13					•					•				
47	3	19					•					•				
48	3	13					•					•				
49	3	11					•					•				
50	22	18					•					•				
51	39	17					•					•				
52	55	21					•					•				
53	130	27					•					•				
54	175	67					•					•				
55	113	35					•					•				
56	64	23					•					•				
57	116	30					•					•				
58	172	26					•					•				
300059	18	13					•					•				

CERTIFIED BY Jillbut V. Hennionille

COMPAN

El Paso Mining

GEOCHEMICAL ANALYSIS DATA SHEET

No. 529

PROJECT No.:

RD Grp

MIN - EN Laboratories Ltd.

DATE: Sept 28

1973.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
300060	59	33													
61	34	11													
62	106	15													
63	3	8													
64	3	15													
65	2	13													
66	2	12													
67	1	10													
68	2	9													
69	3	14													
70	2	8													
71	1	4													
72	1	6													
73	12	7													
74	66	43													
75	34	29													
76	15	21													
77	144	112													
78	35	29													
79	3	32													
80	133	38													
81	18	35													
82	2	12													
83	2	16													
84	2	19													
85	2	22													
86	2	12													
87	1	7													
88	1	11													
300089	2	18													

CERTIFIED BY

Albert V. Hemmick

COMPAN

El Paso Mining

GEOCHEMICAL ANALYSIS DATA SHEET

File No. 529

PROJECT No.:

RD Grp

MIN - EN Laboratories Ltd.

DATE: Sept 28

1973.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
300090	2	8														
91	2	19														
92	3	13														
93	2	9														
94	2	33														
95	4	22														
96	3	39														
97	3	18														
98	2	11														
99	4	24														
100	4	12														
01	2	38														
02	2	41														
03	2	11														
04	1	8														
05	2	34														
06	8	17														
07	4	33														
08	4	27														
09	3	21														
10	3	18														
11	1	6														
12	1	4														
13	2	22														
14	2	17														
15	6	53														
16	3	13														
17	31	92														
18	2	15														
300119	7	55														

CERTIFIED BY

Gilbert V. Hernandez

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm			
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
81	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
300120	7	28					.					.			
21	10	56					.					.			
22	8	37					.					.			
23	10	43					.					.			
24	3	14					.					.			
25	3	25					.					.			
26	3	26					.					.			
27	2	10					.					.			
28	2	10					.					.			
29	3	18					.					.			
30	15	84					.					.			
31	4	18					.					.			
32	5	20					.					.			
33	10	31					.					.			
34	4	59					.					.			
35	41	100					.					.			
36	36	37					.					.			
37	1	19					.					.			
38	1	8					.					.			
39	2	12					.					.			
40	2	18					.					.			
41	2	13					.					.			
42	1	13					.					.			
43	2	14					.					.			
44	2	13					.					.			
45	3	40					.					.			
46	1	18					.					.			
47	1	10					.					.			
48	3	38					.					.			
300149	2	27					.					.			

COMPAN. El Paso Mining

GEOCHEMICAL ANALYSIS DATA SHEET

File No. 529

PROJECT No.: RD Grp

MIN - EN Laboratories Ltd.

DATE: Sept 28

1973.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm				
6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
300150	9	15														
51	4	12														
52	42	930														
53	16	17														
54	94	38														
55	4	20														
56	3	12														
57	3	38														
58	13	66														
59	3	19														
60	5	33														
61	3	32														
62	2	10														
63	4	27														
64	1	5														
65	1	3														
66	1	12														
300167	5	51														
	3346	3906														
	168	167														
	19.92	23.39														

- 19 -

CERTIFIED BY Gilbert V. Hernandez

A P P E N D I X A - 2

ROCK ANALYSES



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA
 TELEPHONE: 985-0648
 AREA CODE: 604

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: El Paso Mining and Milling Company
 #500 - 885 Dunsmuir St.,
 Vancouver, B.C.

ATTN: Mr. Noel

RECEIVED

OCT 3 1973

El Paso Mining & Milling Co.

CERTIFICATE NO. 22631
 INVOICE NO. 10592
 RECEIVED Sept. 20/73
 ANALYSED Sept. 29/73

SAMPLE NO. :	Width	% Copper	% MoS ₂	% Zinc	Oz/Ton Silver	Oz/Ton Gold	% Cadmium
EP 2162	6'	0.48	0.003		0.23	<0.003	
2163	6'	0.02			0.04	<0.003	
2164	5'	1.54			0.68	0.019	
2165	5'	0.14			0.06	<0.003	
2166	6'	0.07			0.03	<0.003	
2167	5'	0.17			0.03	<0.003	

A P P E N D I X "B"

STATEMENT OF COSTS

STATEMENT OF COSTS

(SEPTEMBER 8 - 18/73 - 11 DAYS)

SALARIES:

G. NOEL - 11 days @ \$1,980/month = \$ 726.00

J. TOUGH - 11 days @ 40/day = 440.00

TOTAL.....\$ 1,166.00

MEALS AND ACCOMODATION

2 men for 11 days @ \$6.00/man/day = 132.00

ANALYSES

SOIL - 168 samples @ \$1.65 each =\$ 277.20

ROCK - 5 samples @ \$ 8.40

- 1 sample @ \$ 11.75 = 53.75..... 330.95

TRANSPORTATION

Helicopter move-in and move-out..... 471.60

REPORT PREPARATION 150.00

TOTAL \$ 2,250.55

155

A P P E N D I X "C"

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

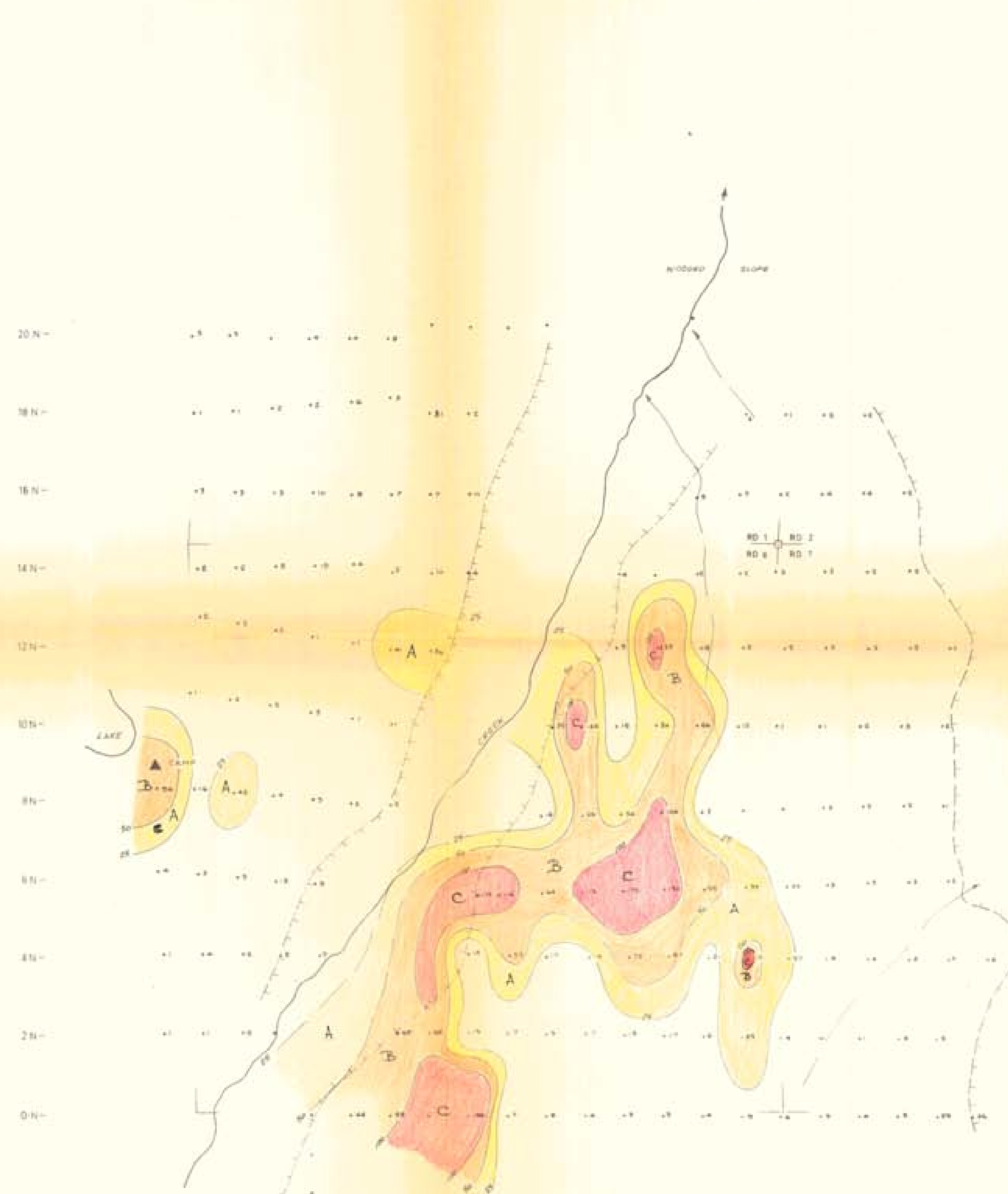
The fieldwork for this report was done under the supervision of G. A. Noel, whose qualifications are outlined below:

G. A. NOEL: P. Eng., (Geological Engineer) Manager of Canadian Exploration for El Paso Mining and Milling Company, Vancouver, B.C.

Completed B.A. Science (Geology) at University of British Columbia in 1950 and M. A. Science (Geology) at University of Toronto in 1951; employed by Kennco Exploration (Canada) Ltd., from May 1951 through March 1956 as a field geologist in B. C. and Yukon Territory, under the supervision of J. S. Scott; employed by Utah Construction and Mining Co., from March 1956 through September 1969 in B. C. and Alaska mineral exploration as a project geologist, acting district geologist and senior project geologist under L. C. Clark, W. Bourret, H. G. Peacock and E. S. Rugg; employed by El Paso Mining and Milling Company in Vancouver, B.C., since October 1970.

JKM

3/10



LEGEND

A	POSSIBLY ANOMALOUS	25-50 PPM
B	PROBABLY ANOMALOUS	50-100 PPM
C	DEFINITELY ANOMALOUS	> 100 PPM

Department of
 Mines and Petroleum Resources
 ANNUAL REPORT
 NO. 4868 M.P. #7

EL PASO MINING AND MILLING COMPANY DEL NORTE MINING GROUP			
GEOCHEMICAL SURVEY MOLYBDENUM IN PPM R.D. MINERAL CLAIM GROUP MORICE LAKE B.C., OMINEDA MINING DIVISION BRITISH COLUMBIA			
Drawn by: PV	Date: Jan. 1974	Scale: 1" = 200'	
Traced by:	Date:		
Checked: Date:	Second: Date:	Drawing no.	
		93-E-13-A2	

4868 M7

4868



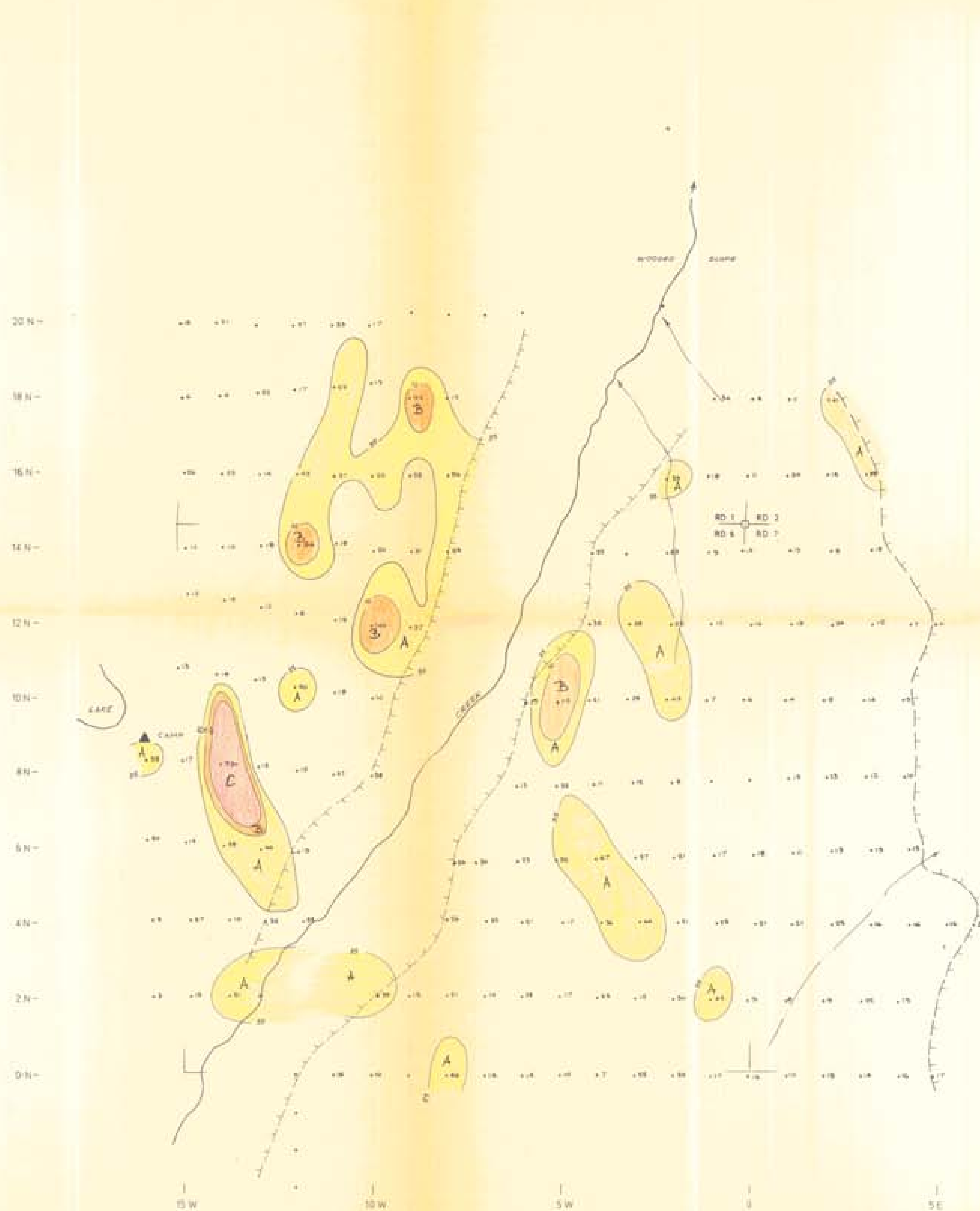
- LEGEND**
- A ANDESITE
 - B MONZONITE PORPHYRY
 - C GRANITE, RED COARSE GRAINED
 - SULPHIDES - PYRITE, CHALCOPYRITE
- SAMPLE $\frac{\% \text{ Cu } / \text{ oz/ton Ag }}{\text{ft}}$

Department of
 Mines and Technical Surveys
 ACTUATION REPORT
 NO. 4868 #6

EL PASO MINING AND MILLING COMPANY DEL NORTE MINING GROUP			
GEOLOGY			
R.D. MINERAL CLAIM GROUP HORICE LAKE BC., OMINICA MINING DIVISION BRITISH COLUMBIA			
Drawn by: P.V.	Date: Jan 1914	Scale: 1" = 500'	
Traced by:	Date:		
Executed: Date:	Revised: Date:	Drawing no.:	93-E-13-A1

4868 M6

4868 M6



LEGEND

A	POSSIBLY ANOMALOUS	35 - 70 PPM
B	PROBABLY ANOMALOUS	70 - 140 PPM
C	DEFINITELY ANOMALOUS	> 140 PPM

Department of
Mines and Metallurgical Resources
ASSESSMENT REPORT
NO. **4868** MAP #8

EL PASO MINING AND MILLING COMPANY DEL NORTE MINING GROUP			
GEOCHEMICAL SURVEY COPPER IN PPM R.D. MINERAL CLAIM GROUP MORICE LAKE BC., OMINECA MINING DIVISION BRITISH COLUMBIA			
Drawn by: JF	Date: Jan 1984	Scale: 1" = 200'	
Traced by:	Date:		
Record: G4	Site: G4	Record: G4	Site: G4
			Drawing no. 93-E-13-A3

4868 MB