

2241

GEOCHEMICAL REPORT

on the

JEAN CLAIM GROUPS I, II and III

(8 miles southwest of Chuchi Lake)

55° 124° S.W.

OMINECA MINING DIVISION

by

W.R. BACON, Ph.D., P.Eng.

February 15, 1970.

for

N.B.C. SYNDICATE

Work done between
July 12 - Oct. 28, 1969

INTRODUCTION

The Jean Claim Groups described in this report are situated eight miles southwest of Chuchi Lake at the headwaters of Jean Marie Creek. Access is normally by helicopter, either directly from Fort St. James, a distance of 50 miles, or from helicopter pads available along the shores of Chuchi and Tchentlo Lakes.

Figure I shows the claims with the outline of the claim groups listed below, as well as the general geology of the area.

<u>Claim Group</u>	<u>Claim Name</u>	<u>Record Numbers</u>	<u>Recording Date</u>
Jean I	Jean 1-14	71290-71303	April 15, 1969
	17-26	71306-71315	"
	27-37	79094-79104	Aug. 4, 1969
	39	79106	"
	41	79108	"
	43	79110	"
	45 Fr.	79218	Aug. 18, 1969
	46 Fr.	79219	"
	Jean II	Jean 38	79105
40		79107	"
42		79109	"
44		79111	"
55-74		79881-79900	Sept. 4, 1969
83-95		79909-79921	"
97		79923	"
99		79925	"
101		79927	"
Jean III	Jean 47-54	79873-79880	"
	75-82	79901-79908	"
	96	79922	"
	98	79924	"
	100	79926	"
	102-122	79928-79948	"

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#5- 3, 4, 5

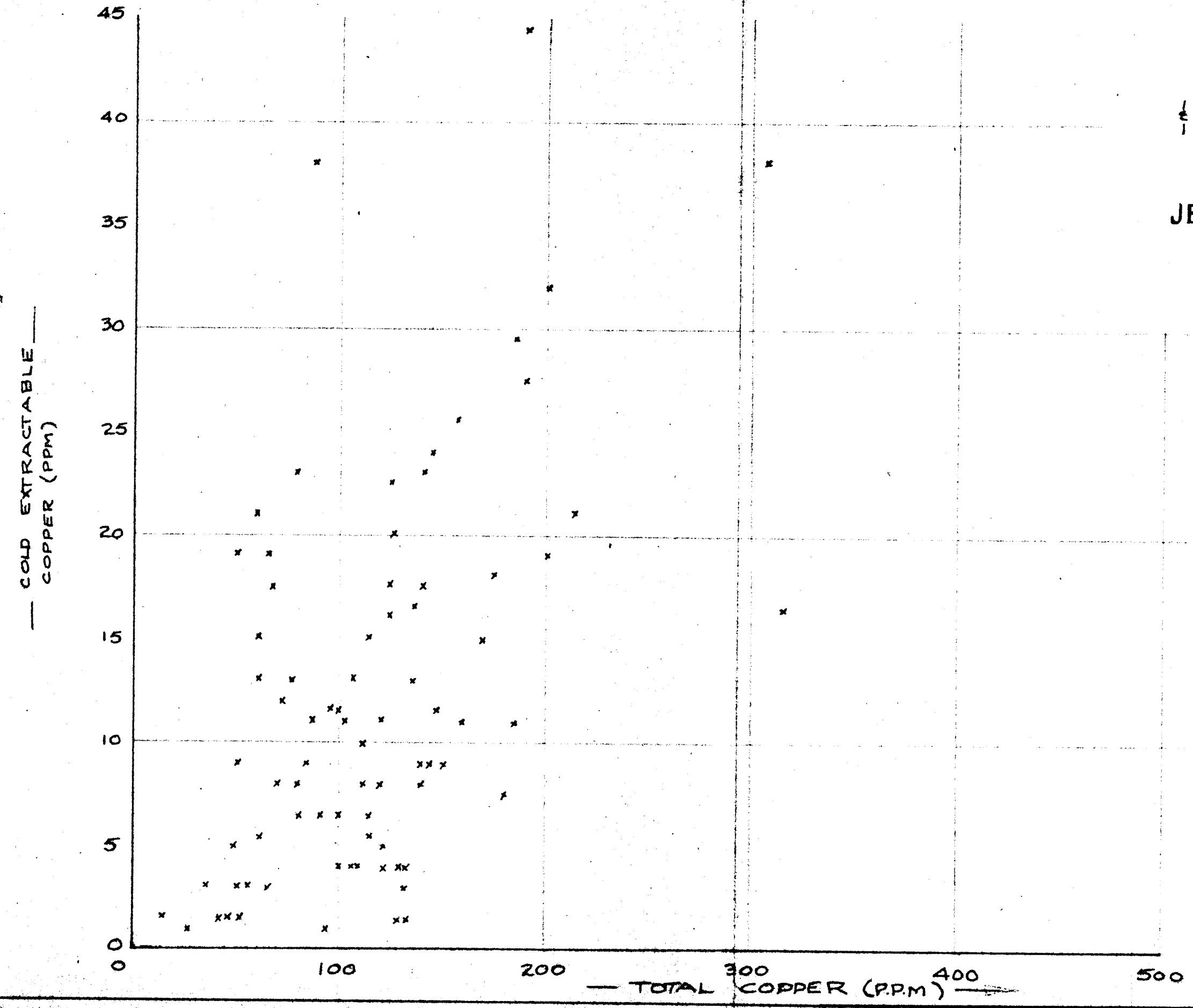
<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT</p> <p>NO. 2241 MAP</p>

SCATTER PLOT
 COLD EXTRACTION
 & TOTAL COPPER

NBC SYNDICATE
 JEAN CLAIM GROUPS

FIGURE II

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 ASSESSMENT REPORT
 NO. 2241 MAP #2



The claims cover a region of moderate relief. Source areas of the creeks are flat and swampy. Much of the remainder of the claims are covered by apparently shallow, but extensive, glacial drift. In the western portion of the claim area, and for some considerable distance further west, there is a cover of boulder till. No outcrop is evident for two miles upstream in the large creek immediately west of the claim group and overburden may be well over 50 feet deep.

GEOCHEMICAL SURVEY

PURPOSE

Silt samples taken during routine prospecting gave no anomalous results when tested in the field for copper. However, laboratory determinations for total copper content returned anomalous results on two creeks.

A program of additional silt sampling, as well as soil sampling on a grid pattern, was carried out to investigate further the original anomalous results. As results were obtained, the program was extended to the northwest and more work is contemplated.

METHOD

Streams which gave anomalous results in initial sampling were resampled. As a result of the silt sampling, a grid pattern was laid out using the claim location lines as base lines. Location of soil samples was controlled by tape and compass lines.

Samples were taken at depths of 6 to 16 inches using a mattock or grub hoe to dig down to the buff brown 'B' soil horizon from which the sample was then scooped.

In several areas one or more locations were not in fact sampled due to swampy soil conditions. (As at 48W, 66N, Plate II)

A brownish or buff soil horizon was normally found within the depth range penetrated. In some instances, however, only grey gravelly till was encountered. If no better material was found in a nearby hole, then this was of necessity taken. These samples probably represent the 'C' horizon. They are a small minority and are not specifically identified on the geochemical map.

The samples were collected in Hi Wet Strength kraft paper bags 3½" x 6-1/8" in size. The bags were marked by an identifying number which was also marked on a piece of flagging tied to a nearby tree in the field.

Samples were shipped to base camp where they were dried and sifted through a 40 mesh sieve supplied by Hoskin Scientific, Montreal.

Sifted samples were forwarded to Chemex Labs Ltd., North Vancouver, for determination of total copper and molybdenum content. Hot acid extraction was used with colorimetric determination of molybdenum and atomic absorption determination of copper.

Copper and molybdenum results for the area shown on Plate II were processed by computer for statistical information. Results of this analysis are included in this report as Appendix A.

RESULTS AND INTERPRETATION

(A) SILT SAMPLING

Initial silt sampling failed to show anomalous copper when tested in the field by the rubeanic acid method. Check sampling was carried out and 81 samples were tested for cold extractable copper by Chemex Labs Ltd. using the Holman field test.

Figure II is a plot of these results as compared to total copper content. There is no apparent direct correlation.

These results indicate leaching of possible sulphide material has been inefficient. Mineralized float with chalcopyrite, but very little pyrite, indicates sulphides are in fact present.

Anomalous results are therefore thought to be due to detrital copper-bearing material rather than to ion exchange from leached material.

(B) SOIL SAMPLING

Copper

Geochemical results are plotted on Plates I, II and III. Data compiled on Plates I and III were contoured by visual inspection and values below 100 ppm copper were assumed to represent the background range. Values above 200 ppm copper are taken to be anomalous.

For Plate II statistical analyses were available (Appendix A). These results are contoured so that those below 60 ppm copper represent the background range. Values above 120 ppm may be considered anomalous

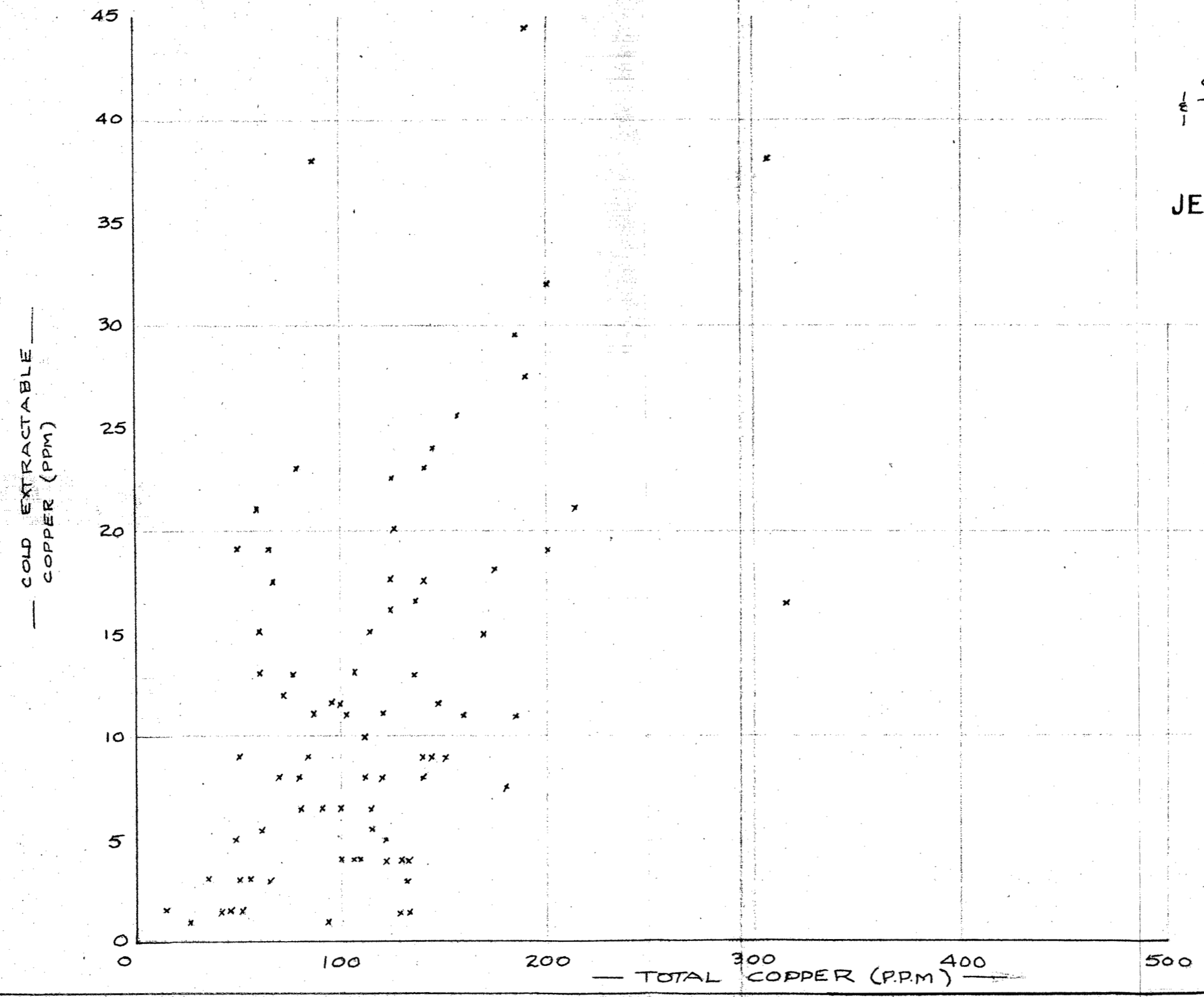
SCATTER PLOT
COLD EXTRACTION
TOTAL COPPER

NBC SYNDICATE
JEAN CLAIM GROUPS

FIGURE II

Department of
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ASSESSMENT REPORT

NO. **2241** MAP **#2**



but, as indicated by the contours, these are rather isolated. Overburden is more extensive and probably deeper in this area.

The anomalies outlined on Plate I are considered important. They are stronger, more extensive and more sharply delineated than others on the property. Presence of float on claim Jean 34 indicates a possible source of sulphide mineralization.

Anomalies on Plate III show results of limited exploration near the source of a small creek which gave total copper values ranging from 133 ppm to 655 ppm copper in silt samples. Soil sample anomalies are strong but apparently of rather limited extent.

Results of soil sampling in the area depicted on Plate II show weak anomalies. Values are relatively low and sporadic and areas outlined are somewhat amorphous.

Molybdenum

For the areas shown on Plates I and III sample determinations for molybdenum show good correlation with those of copper. Generally, the areas covered coincide closely. Background for molybdenum values is probably 5 ppm or less but due to widespread values between 5 and 20 ppm, no contours are plotted except for 20 ppm. Values above this level may be considered anomalous.

Plate II shows widespread low molybdenum values. These tend to outline an area on claims Jean 104 and 115 which is much the same shape as the nearby copper anomaly but is located uphill from it.

These widespread values are relatively low and may be due to deeper overburden.

The lack of good copper values may indicate the area has molybdenum mineralization with a much lower copper ratio than that indicated on other parts of the property.

CONCLUSION

Copper and molybdenum values obtained in silt and soil sampling amply justify further work on the claims in question.

FOOTNOTE

Results obtained from the early part of this geochemical survey were sufficiently encouraging to warrant linecutting and a limited IP survey. Results of this IP survey are submitted separately in the "Report on an Induced Polarization Survey Jean Claim Group" by Seigel Associates Ltd. dated October 28, 1969. For convenience, the extent of the linecutting is indicated on Plates I and II of this report and the costs are incorporated herein. (see Assess. Rpt 2242)

TABLE OF EXPENDITURES

GEOCHEMICAL SURVEY

W.G. Bacon, Geologist	July 12-15, 19-24 Aug. 29	\$286.00
J.P. Stevenson, Assistant	July 12-15, 19-24, Aug. 25	165.00
J.D. Clarke, Assistant	Aug. 25	15.00
Tom Oly, F. Deitrich - Contract between Aug. 23 and Sept. 18		543.75
Camp Supply allowance - 23 man-days @ \$4/day		92.00
Chemex Labs Ltd., North Vancouver		<u>1,565.13</u>
	<u>Total</u>	\$2,666.88

LINECUTTING

Tom Oly, F. Deitrich - Contract between Aug. 23 and Sept. 18 \$1,544.80

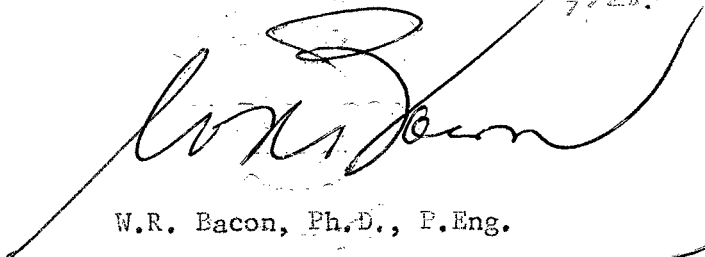
IP Survey

Seigel Associates - See separate report
"Induced Polarization Survey on
Jean Claim Groups" dated Oct. 28, 1969 3,935.80

Northern Mountain Airlines invoices for July 12, 15, 18,
28, August 23, 30, Sept. 18, 22 3,517.00

Total Applied Expenditures \$11,664.48

~~3935.80~~
7728.68


W.R. Bacon, Ph.D., P.Eng.

STATI 15:46 VAN WE 10/01/69

Certificate # 6592 to 6601

PPM COPPER

S T A T I S T I C A L P R O P E R T I E S

NUMBER OF VALUES = 379
ARITHMETIC MEAN = 73.9367
RANGE = 2695 (2700 - 5)
VARIANCE = 30738.6
STANDARD DEVIATION = 175.324
95 PER CENT CONFIDENCE LIMITS= -276.712 TO 424.585

F R E Q U E N C Y D I S T R I B U T I O N

FROM	UP TO BUT NOT INCLUDING	FREQUENCY	PER CENT FREQUENCY	CUM PER CENT FREQUENCY
0	20	19	5.01	5.01
20	40	144	37.99	43.01
40	60	117	30.87	73.88
60	80	35	9.23	83.11
80	100	21	5.54	88.65
100	120	11	2.90	91.56
120	140	6	1.58	93.14
140	160	3	.79	93.93
160	180	2	.53	94.46
180	- 2700 -	21	5.54	100.00

USED 13.83 UNITS
OLD
OLD FILE NAME--PLOT

READY.

SYSTEM
NEW SYSTEM NAME--FORTRAN
READY.

N. B. C. Syndicate

Certificate# 6592 to 6601

MOLYBDENUM

STATISTICAL PROPERTIES

NUMBER OF VALUES = 379
 ARITHMETIC MEAN = 17.3298
 RANGE = 230 (230 - 0)
 VARIANCE = 1004.
 STANDARD DEVIATION = 31.6859
 95 PER CENT CONFIDENCE LIMITS = -46.0421 TO 80.7017

FREQUENCY DISTRIBUTION

FROM	UP TO BUT NOT INCLUDING	FREQUENCY	PER CENT FREQUENCY	CUM PER CENT FREQUENCY
0	5	163	43.01	43.01
5	10	67	17.68	60.69
10	15	41	10.82	71.50
15	20	18	4.75	76.25
20	25	16	4.22	80.47
25	30	9	2.37	82.85
30	35	15	3.96	86.81
35	40	7	1.85	88.65
40	45	6	1.58	90.24
45	- 230 -	37	9.76	100.00

USED 14.00 UNITS
 ST-SYSTEM
 NEW SYSTEM NAME--FORTRAN
 READY.

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N. B. C. SYNDICATE

000000
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112W 56N

Molybdenum

PPM

0 - 10 = .

10 - 20 = *

>20 = A

112W 112N

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..... . .....  
..... ..* ..... ..  
..... ** ..... ..  
..... **A* ..... ..  
.....* ..... ..  
..... .....  
.....AAA* ..... A* .....  
.....AAA**A* ..... AA .....  
.....*AAAA** ..... AA** .....  
.....*AAAA ..... AAA* .....  
.....*AAAA ..... AAA* .....  
A* .....* .....****A* .....AA .....  
** .....*A***** .....AAAA .....  
.....AAAA**AA***** .....AAAA .....  
AAAA .....*A* .....*AAA**AAAAAAAA* .....AAAA .....  
AAAAAA .....AAAA* .....*AAA* .....AAAAAA* .....AAAA .....  
AAAAAA .....AAA** .....AAAA* .....AAAAAA* .....AAAA .....  
A *** .....AAA .....**AAAA**AAAA* .....A***A .....  
A *** .....*A .....*AA** .....*AA**AAAA* .....AA .....  
** .....AAA .....*A* .....*A .....*A* .....AAAAAA .....AAA .....  
.....**A* .....*A* .....*** .....* .....*A* .....*AAA .....  
.....*** .....AAA .....* .....AA* .....* .....AAA .....AAA .....  
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* .....*AAAA* .....* .....AAAA .....  
* .....* .....* .....* .....* .....* .....  
** .....AAAA .....AAAAA* .....
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44W 56N
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000000

44W 112N
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000000

000000
000000
112W 56N

N. B. C. SYNDICATE

000000
000000
112W 112N

Molybdenum
PPM

0 - 5 = .
5 - 10 = *
>10 = A

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.....*.....  A  .....
.....***.....  *  .....
*****.....  .*A*.....
**.....      *AA*.....
*.....      .AAAA.....
.  .....      *A*.....
.  .....
.  .AAA.*A*.....  AA.....
.....
.....AAAAAA.....  AA.....
.....  .....*.....**  A.AAAAAAAAAA*****  AAAAA*..
.....  .....*A*.....AAAAAA*.AAAAAA*AAAA*.AAAA*AAAA..
.....  .....A.....*AAAA*.AAAAAA*.*AA***AA*AAAA..
AA*.....  .....***A.....***AAAAAA*.AAA*..
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AAAAAAAAAA*...  *.A***.*..
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A*.*AAAA*
AA.....  AAAAAAA  AAAAAAA**

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44W 56N
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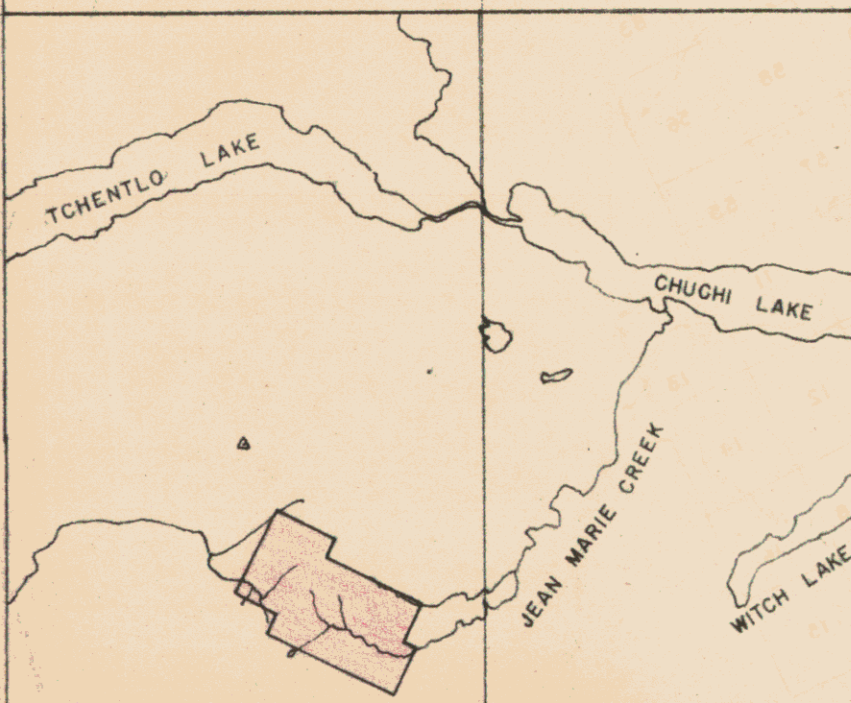
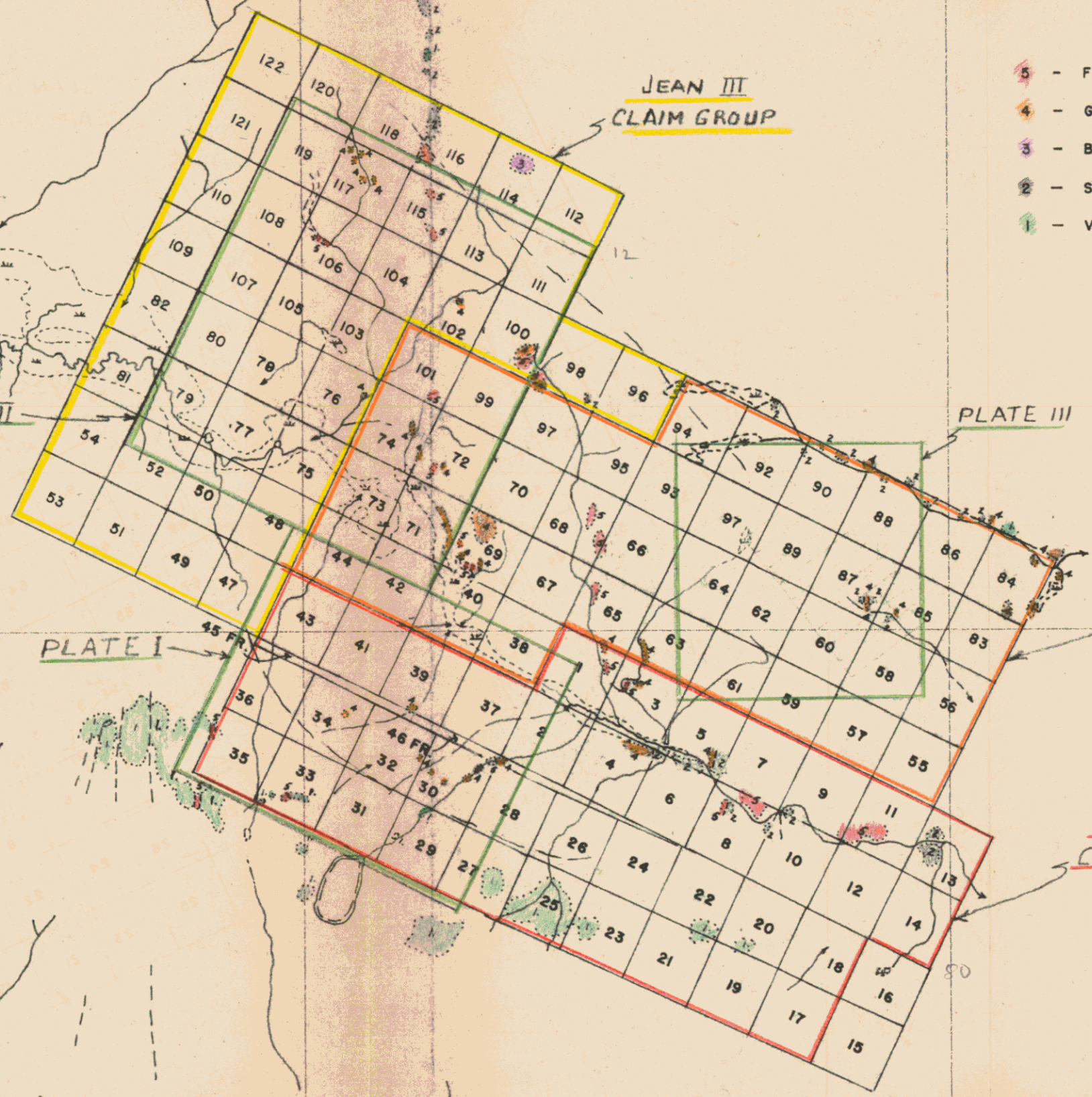
44W 112N
000000
000000

APPENDIX 'A'

LEGEND

- 5 - FELDSPAR PORPHYRY
- 4 - GRANODIORITE
- 3 - BASIC INTRUSIVE
- 2 - SEDIMENTS - GREYWACKE ARGILLITE
- 1 - VOLCANICS - BASIC FLOWS, MINOR RHYOLITE

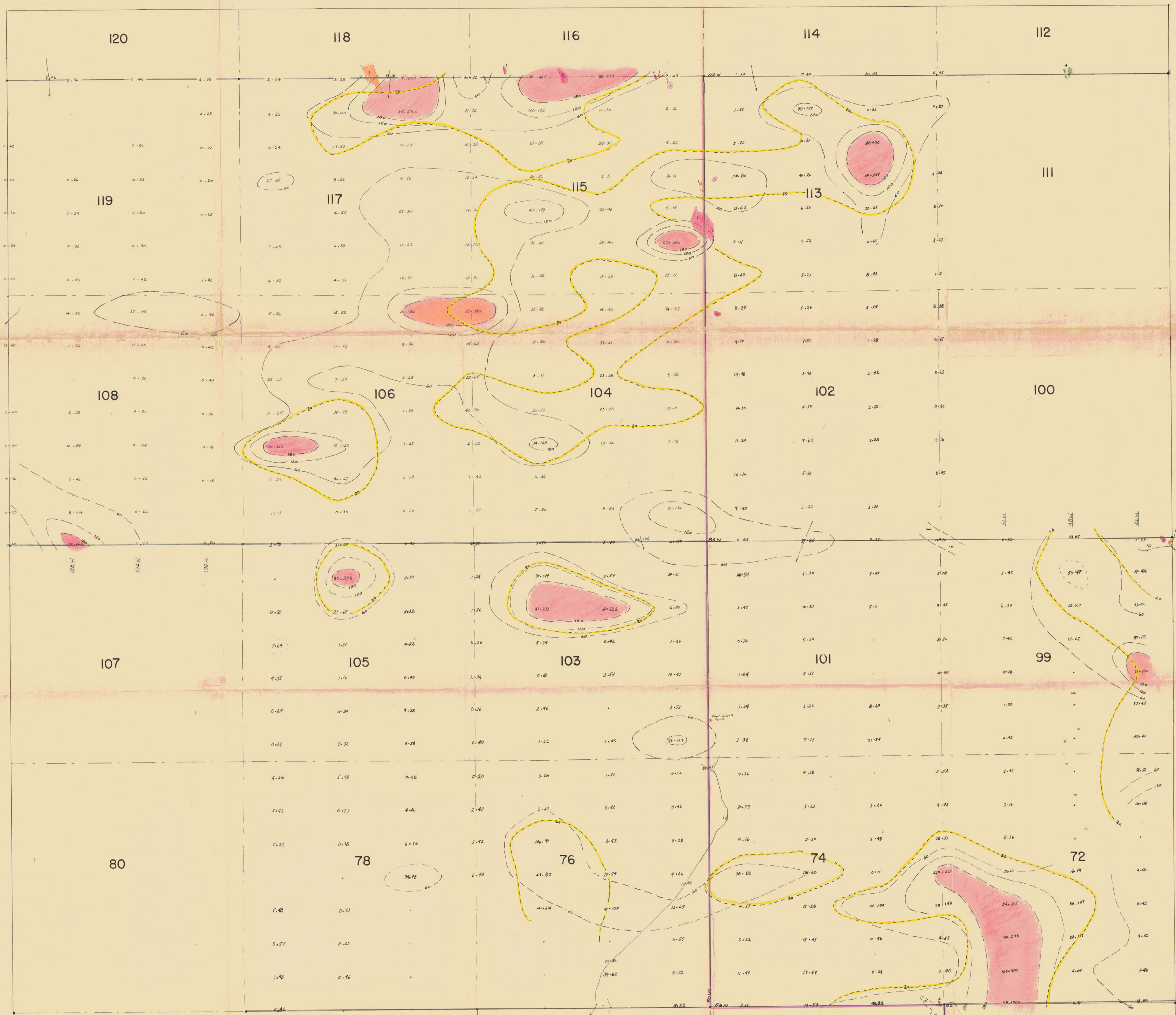
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ASSESSMENT REPORT
NO. **2241** MAP #1



NBC. SYNDICATE
JEAN CLAIM GROUPS
93/N-2
GENERAL GEOLOGY
SCALE 1" = 1/2 MILE (APPROX.) JULY 1969

55° 00' 124° 45'

FIGURE 1



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ASSESSMENT REPORT
NO. 2241 MAP #04

- LEGEND**
- VOLCANICS
 - PINK FINE-GRAINED FELDSPAR PORPHYRY
 - GREY FELDSPAR PORPHYRY
 - GRANDIORITE
 - 9-16 SOIL SAMPLE, TOTAL Mo-Cu PPM
 - 19-50 SILT SAMPLE, TOTAL Mo-Cu PPM, ON CREEK
 - - - CUT PICKET LINE
 - - - CLAIM LINE, POST
 - SWAMP
 - - - IP SURVEY LINE
 - 20 PPM Mo

TO ACCOMPANY GEOCHEMICAL REPORT
BY W.H. BACON P. ENL.
ON THE
JEAN I II & III CLAIM GROUPS
JEAN MARIE CREEK
OMINECA MINING DIVISION
DATED FEB 6 1976

NBC SYNDICATE
JEAN CLAIM GROUPS
GEOCHEMICAL SURVEY
AND
OUTCROP DISTRIBUTION
SCALE 1"=200' SEPT 1969

2241

JEAN 92

JEAN 90

JEAN 93

JEAN 91

JEAN 88

JEAN 89

JEAN 87

JEAN 64

JEAN 62

JEAN 63

JEAN 61

JEAN 58

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2241 MAP #5

LEGEND

- 4 - GREY FELDSPAR PORPHYRY
- 3 - GRANODIORITE
- 2 - VOLCANICS
- 1 - SEDIMENTS
- 52-9 - SOIL SAMPLE, TOTAL Cu · Mo PPM
- 350 - SILT SAMPLE, TOTAL Cu PPM
- CLAIM LINE, POST
- 20- PPM Mo

Cu ppm · Mo ppm
117 · 19

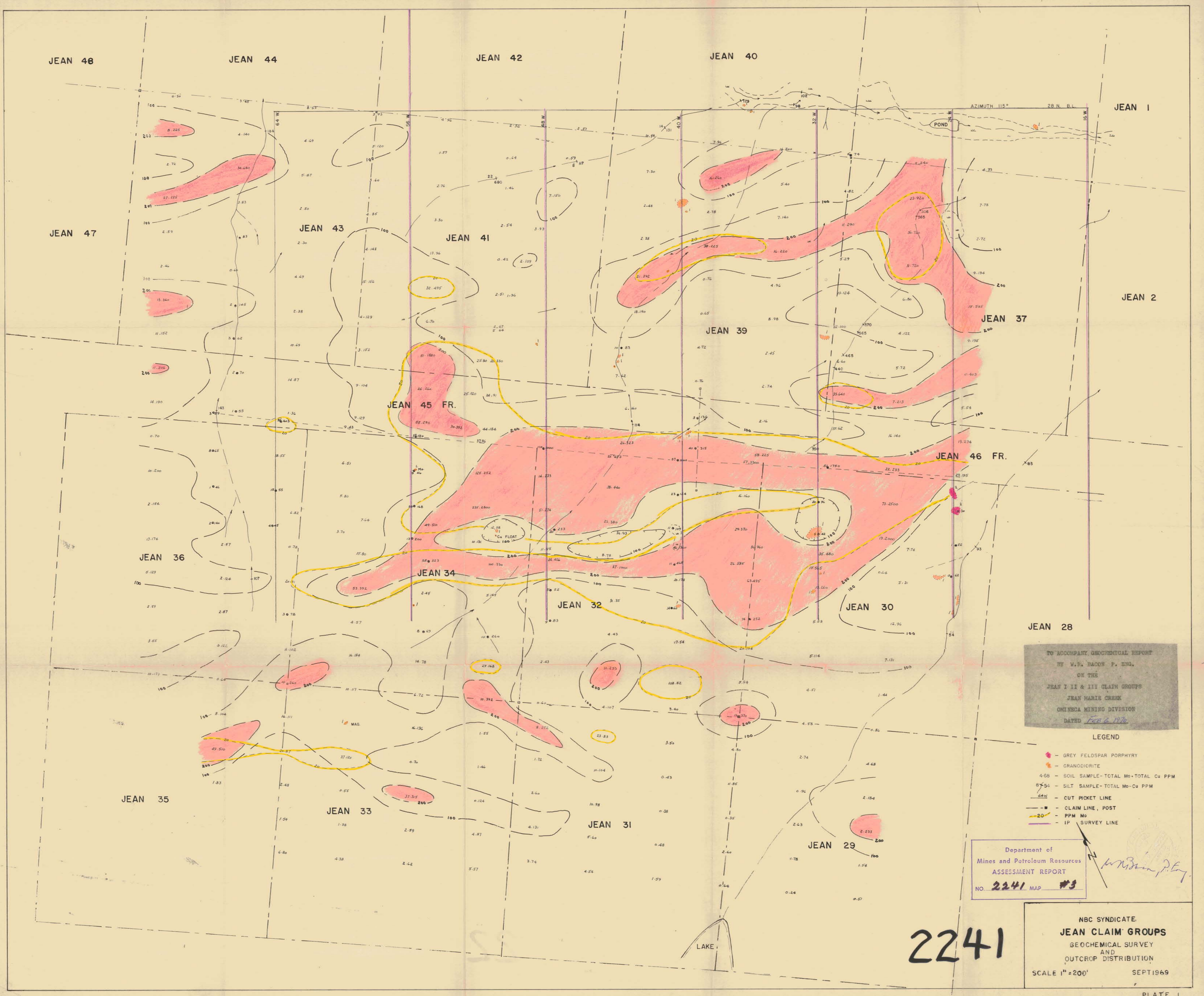
2241



W.R. Bacon P. Eng.

TO ACCOMPANY GEOCHEMICAL REPORT
BY W.R. BACON P. ENG.
ON THE
JEAN I, II & III CLAIM GROUPS
JEAN MARIE CREEK
ONTARIO MINING DIVISION
DATED 1968

NBC. SYNDICATE
JEAN CLAIM GROUPS
93/N-2
GEOCHEMICAL SURVEY
TOTAL COPPER-MOLYBDENUM PPM
SCALE 1" = 200'
JULY 1969



TO ACCOMPANY GEOCHEMICAL REPORT
 BY W.F. BACON, P. ENG.
 ON THE
 JEAN I II & III CLAIM GROUPS
 JEAN MARIE CREEK
 OMBEKA MINING DIVISION
 DATED FEB 6 1970

- LEGEND
- - GREY FELDSPAR PORPHYRY
 - - GRANODIORITE
 - 4-68 - SOIL SAMPLE - TOTAL Mo - TOTAL Cu PPM
 - 87-54 - SILT SAMPLE - TOTAL Mo - Cu PPM
 - - CUT PICKET LINE
 - - CLAIM LINE, POST
 - - PPM Mo
 - - IP SURVEY LINE

Department of
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 ASSESSMENT REPORT
 NO. **2241** MAP #3

2241

NBC SYNDICATE
JEAN CLAIM GROUPS
 GEOCHEMICAL SURVEY
 AND
 OUTCROP DISTRIBUTION
 SCALE 1" = 200' SEPT 1969