

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 3107 MAP \_\_\_\_\_

GEOCHEMICAL REPORT

on

STRIKE - LORNA GROUP

Strike 1 - 6  
Strike Fr.; Strike Fr. 6, Strike Fr. 7  
Lorna 2, 4, 6; Lorna Fr. 22  
Nur 1 - 3; Nur 1 Fr.  
Spike 1 - 4

23 miles north of Princeton, B.C.

Lat.  $49^{\circ} 47' N$   
Long.  $120^{\circ} 33' W$

92 H / 15 E

by

CHARLES A. R. LAMMLE, P. Eng.

July 5, 1971

for

Adera Mining Limited &  
Plateau Metals Limited (NPL)

3107

C O N T E N T S

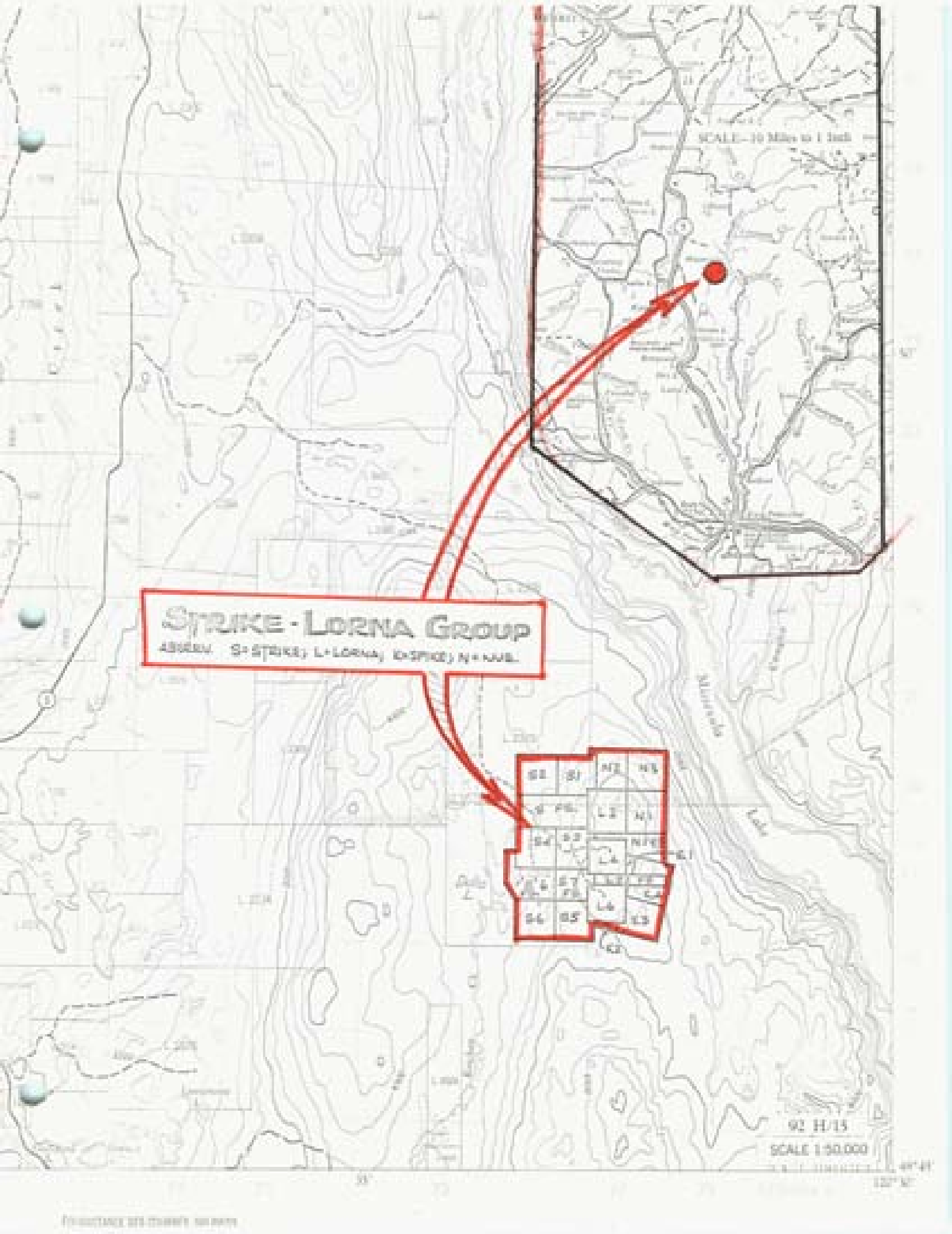
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APPENDIX 1    Distribution of Copper and Arsenic

APPENDIX 2    Histogram Distribution of Copper and Arsenic

ATTACHMENTS

- #1* Property and Location Map 1                      faceplate
- 2* Copper Soil Geochemistry Map 2                      1"=400 (pocket)
- 3* Arsenic and Molybdenum Geochemistry Map 3                      (pocket)



SCALE - 10 Miles to 1 Inch

**STRIKE - LORNA Group**  
ASSEM. S-STRIKE; L-LORNA; D-SPICE; N-NUE.

01	02	N2	N1
S	L	L	N1
04	03	L	N1
06	07	L	08
04	05	L	03

02 H/15  
SCALE 1:50,000

49° 41'  
120° 32'

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Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 3107 MAP #1

SOIL GEOCHEMICAL REPORT

STRIKE - LORNA GROUP, 92 H 15

INTRODUCTION

During late June 1971, an exploratory program of geochemical sampling was carried out on the Strike - Lorna Group of Mineral Claims, 23 miles north of Princeton, B.C., owned jointly by Adera Mining Limited and Plateau Metals Limited (NPL), both of Vancouver. The sampling carried out by Impact Enterprises Ltd., Vancouver, entailed recharging old lines and collecting some 630 samples at 100' intervals along 13 separate lines totalling 11.8 miles. Analytical work for Cu, Mo and As was done by Chemex Labs Ltd., North Vancouver, B.C. This report, in addition to outlining the usual introductory data, will describe the sampling procedure, the soils, the analytical methods used, the results, and will offer interpretations and conclusions. The attached maps show the sample locations and their analyses.

PROPERTY (Location Map)

The property consists of the following 21 claims owned 50% by Adera Mining Limited and 50% by Plateau Metals Limited (NPL).

<u>CLAIM</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>	<u>REGISTERED OWNER</u>
Strike 1-4	(4) 15210-213	Sept. 21, 1973	Plateau
Strike 5-6	(2) 15214-215	Sept. 21, 1971	"
Strike Fr.	(1) 17517	May 26, 1974	"
Strike Fr. 6, 7	(2) 18263-264	July 4, 1972	"
Lorna Fr. 22	(1) 18278	July 4, 1972	"
Lorna 2, 4	(2) 15544-546	Nov. 30, 1973	"
Lorna 6	(1) 15548	Nov. 30, 1971	"
Nur 1 Fr.	(1) 31776	Aug. 3, 1971	Adera
Nur 1-3	(3) 31777-779	Aug. 3, 1971	"
Spike 1-4	(4) 25029-032	Aug. 23, 1971	"

These are arranged in a somewhat rectangular, northerly elongate, contiguous block between Missezula Lake and Duke Lake, which is a small lake at the headwaters of Ketchan Creek, about 23 airmiles north from Princeton, B.C. Access is 30 miles north from Princeton on B.C. Highway 5, thence easterly and southerly seven miles via old truck road to the property.

The area of the claims is gentle rolling hills of the Interior Plateau. Elevations range between 4100' and 4700'. Jack pine thickets and partly logged, scattered stands of fir characterize the vegetation.

#### SOIL CHARACTER AND SAMPLING TECHNIQUE

For the most part, soils on the property have developed by podzolization of glacial till. This overburden and resulting soil is thinnest on the drainage divide between Summers and Allison Lake. Locally, underlying bedrock - east dipping volcanic flows sandwiched between argillite and graywacke on the west and andesitic tuff on the east, all intruded by trachytic syenite on the southeast - may influence the character of the developing soils.

The soil profile on the property is nowhere well developed. A juvenile "A" horizon is 2 to 4 inches thick generally, but locally near swamps, may be more than 2 feet deep. Immediately underlying "B" soils are uniform and brown resembling clays and sandy clays. The roots of the forest floor vegetation penetrate this horizon up to a foot generally. The horizon sampled in this survey was the brown soil at a general depth of 8-10 inches, which is several inches below the "A" horizon and near the bottom of the root zone. In outcrop areas samples were taken from shallower depths, but in wet swamps no sampling was attempted.

All samples were taken by hand from mattock holes, placed in water resistant craft paper envelopes made for the purpose labelled appropriately, and forwarded for Cu, Mo and As analyses to Chemex Labs Ltd., North Vancouver.

The samples were taken by myself and assistant R.W. Thompson.

#### ANALYTICAL PROCEDURE

Upon arrival at the laboratory the samples were dried in a warm air dryer, and then screened on 80 mesh stainless steel, the undersize being retained for analysis and the oversize being rejected. One-half gram portions were then digested in perchloric-nitric acid (3:1) and then diluted with demineralized water. Copper and molybdenum concentrations were determined by Tectron AA5 atomic absorption spectrophotometer.

Arsenic concentrations were determined by distilling arsine gas from the dissolved sample, combining the gas with silver-diethyl-dithio-carbamate in solution, and then optically comparing the colour of the resulting solutions with the colour of prepared standard solutions. Small amounts of arsenic in the complex change the colour of the solution from yellow to red.

#### RESULTS

The results of the survey are shown on Maps 2 and 3 (pocket) and in graphical form on the two appendices. The logarithmic probability plot (Appendix 1) theoretically should separate mixed log normally distributed data into separate populations, each population reporting as a separate straight line on the graph. Although overlap between populations is to be expected, the intersection of the individual

straight lines can be taken as population boundaries. Populations not distributed in perfect lognormal fashion might plot as gentle curves on which points of major inflection can be taken as population boundaries.

Copper Appendix 1 shows the Strike - Lorna soil-copper to consist of 3 populations: the lower 74% of the soils containing low background concentrations (with mode of 20 ppm, Appendix 2); an intermediate 8% of the samples to consist of a second intermediate background population (with mode 60 ppm, Appendix 2); and a third anomalous population consisting of the higher 12% of the samples.

Arsenic The appendices show arsenic in the soils to comprise a single population with mode of 2 ppm. This population is interpreted to be the background population. No arsenic anomaly exists on the property but there is a weak general increase in soil arsenic content at the northeast corner of the surveyed area where some pyrite is known to occur.

Molybdenum Molybdenum analyses showed essentially no soil molybdenum content, and there is no molybdenum anomaly on the property.

#### CONCLUSIONS

1. The lower 74% of the Strike - Lorna soils contain background copper concentrations between 5 and 45 ppm, with mode 20 ppm. This is an unusual and unexpected low population considering the area. However, soils in some mineralized areas such as Kennedy Mountain and



parts of Witches Brook Valley are known to have similar low populations. The soils of this population are probably glacially transported.

2. The intermediate 8% of the soils containing between 45 and 95 ppm copper with mode of 60 ppm, are considered to reflect the similarly trending copper-magnetite rich granitized breccia mapped in this area. The soil copper, however, is displaced somewhat downslope from the trace of the lithological unit.
3. The higher 12% of the copper soil concentrations are considered anomalous. Parts of the anomalous areas have been tested by previous geological-geophysical work and bulldozing and diamond drilling. Parts of the anomalous areas have not been tested in any way. Additional work will be necessary to permit further objective evaluation of these untested areas.
4. Neither arsenic nor molybdenum occur in anomalous amounts in the tested Strike - Lorna soils.

Respectfully submitted:

*Chas. A. R. Lammle*

CHARLES A.R. LAMMLE, P. Eng.



ITEMIZED STATEMENT OF EXPENDITURES INCURRED

Strike - Lorna Group, 1971

Sampling

Lammle 8 days @ \$55.00	=	\$440.00	
Thompson 8 days @ \$20.00	=	160.00	\$ 600.00

Analysis

Chemex Labs 630 samples @ \$2.45			1,543.50
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Maps

Altair			5.42
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Typing & Xerox

25.00

Report

Lammle 2 days @ \$75.00	=	150.00	
Thompson 3 days @ \$20.00	=	60.00	210.00

Meals 16 man days @ \$7.00			112.00
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Transportation			<u>50.00</u>
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TOTAL EXPENDITURES INCURRED			<u>\$2,545.92</u>
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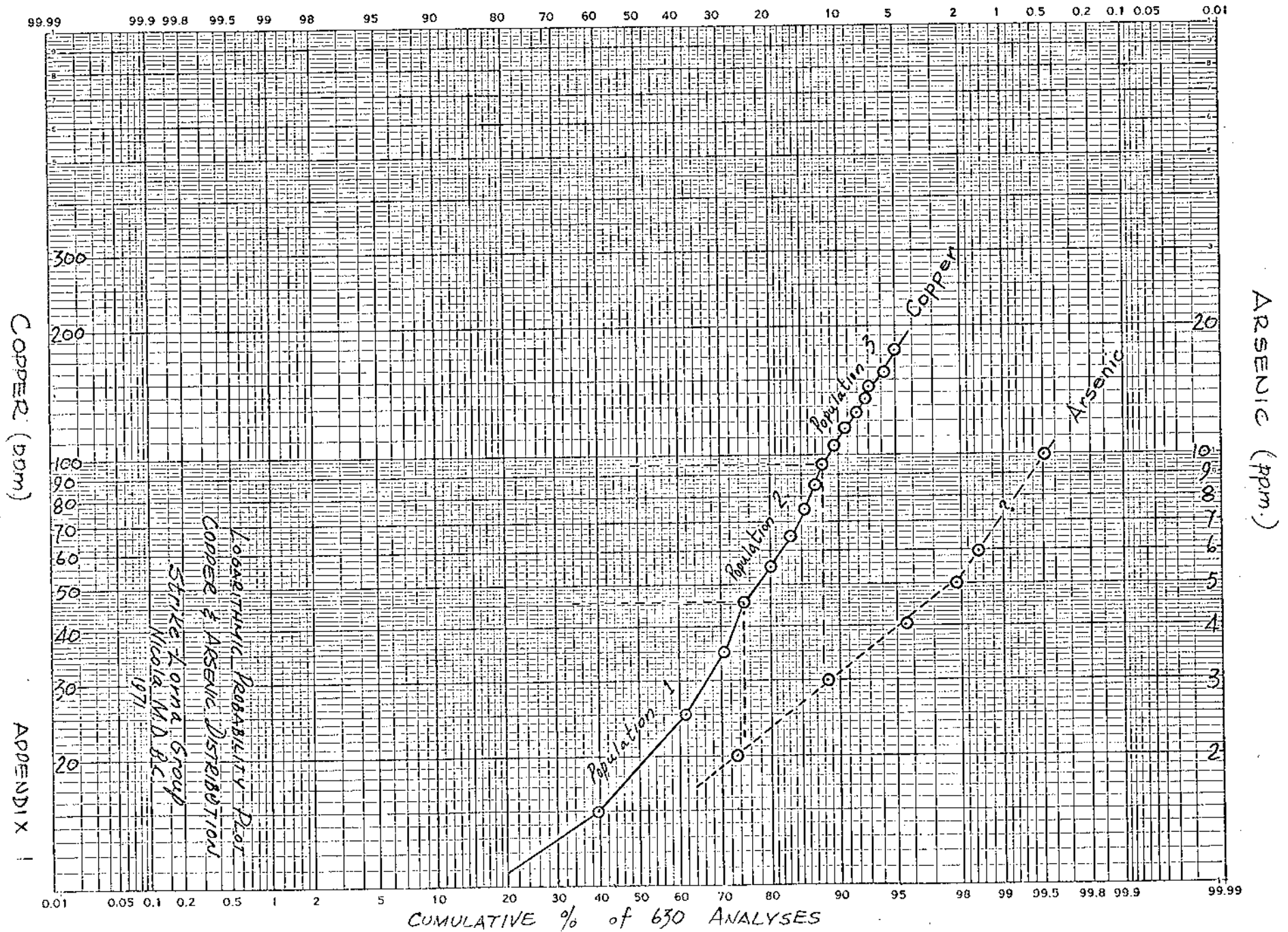
*Chas. A. R. Lammle*  
 CHARLES A. R. LAMMLE, P. Eng.



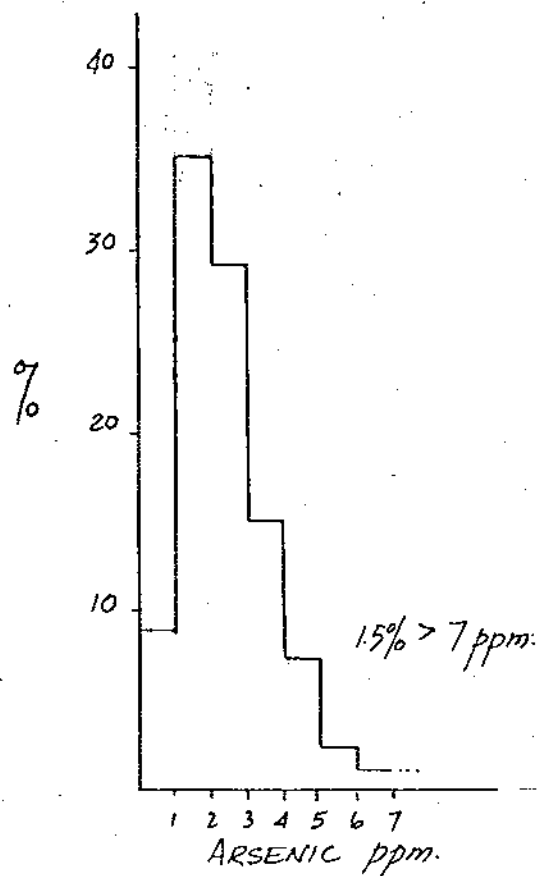
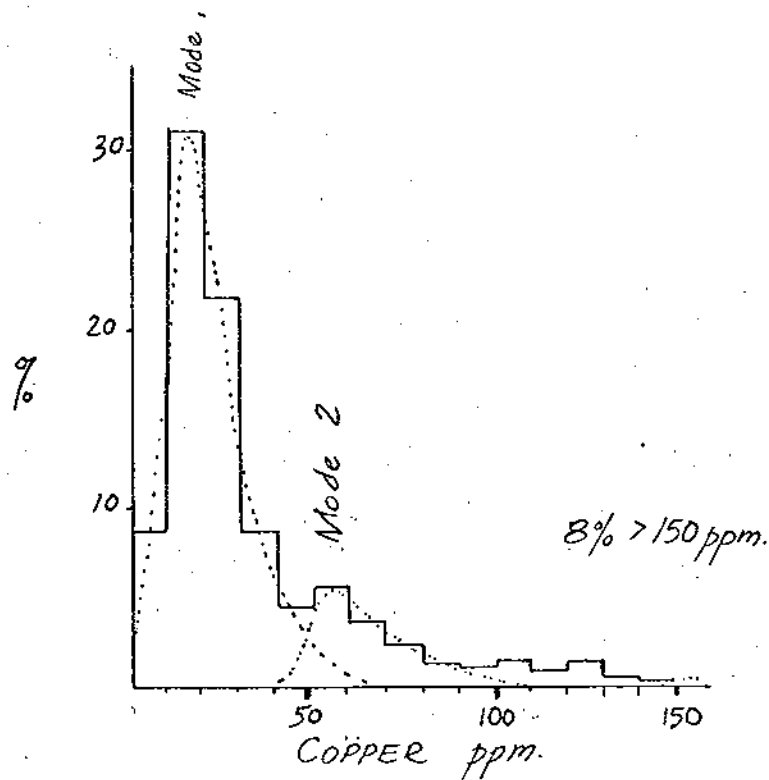
Declared before me at the City  
 of Vancouver, in the  
 Province of British Columbia, this 6  
 day of July 1971, A.D.

*Jean Turner*  
 A Commissioner for taking Affidavits within British Columbia  
 A Notary Public in and for the Province of British Columbia

Sub-mining Recorder



HISTOGRAM DISTRIBUTION OF  
 COPPER & ARSENIC  
 Strike - Lorna Gp, Nicola N/D, B.C.  
 1971





# INVOICE

CHEMEX LABS LTD. 212 BROOKSBANK AVE., NORTH VANCOUVER, B.C. TELEPHONE 985-0643

Impact Enterprises  
600 - 789 W. Pender St.,  
Vancouver, B. C.

DATE June 25/71  
INVOICE NO. 5204  
CERTIFICATE NO. 14454 to 14462  
ATTN: Mr. Lammle

ITEM	DESCRIPTION	SUB-TOTAL	TOTAL
332	Analyzed for Copper, Molybdenum & Arsenic @ \$2.25	\$747.00	
332	Prepared @ \$0.20	66.40	
			813.40



# INVOICE

CHEMEX LABS LTD. 212 BROOKSBANK AVE., NORTH VANCOUVER, B.C. TELEPHONE 985-0643

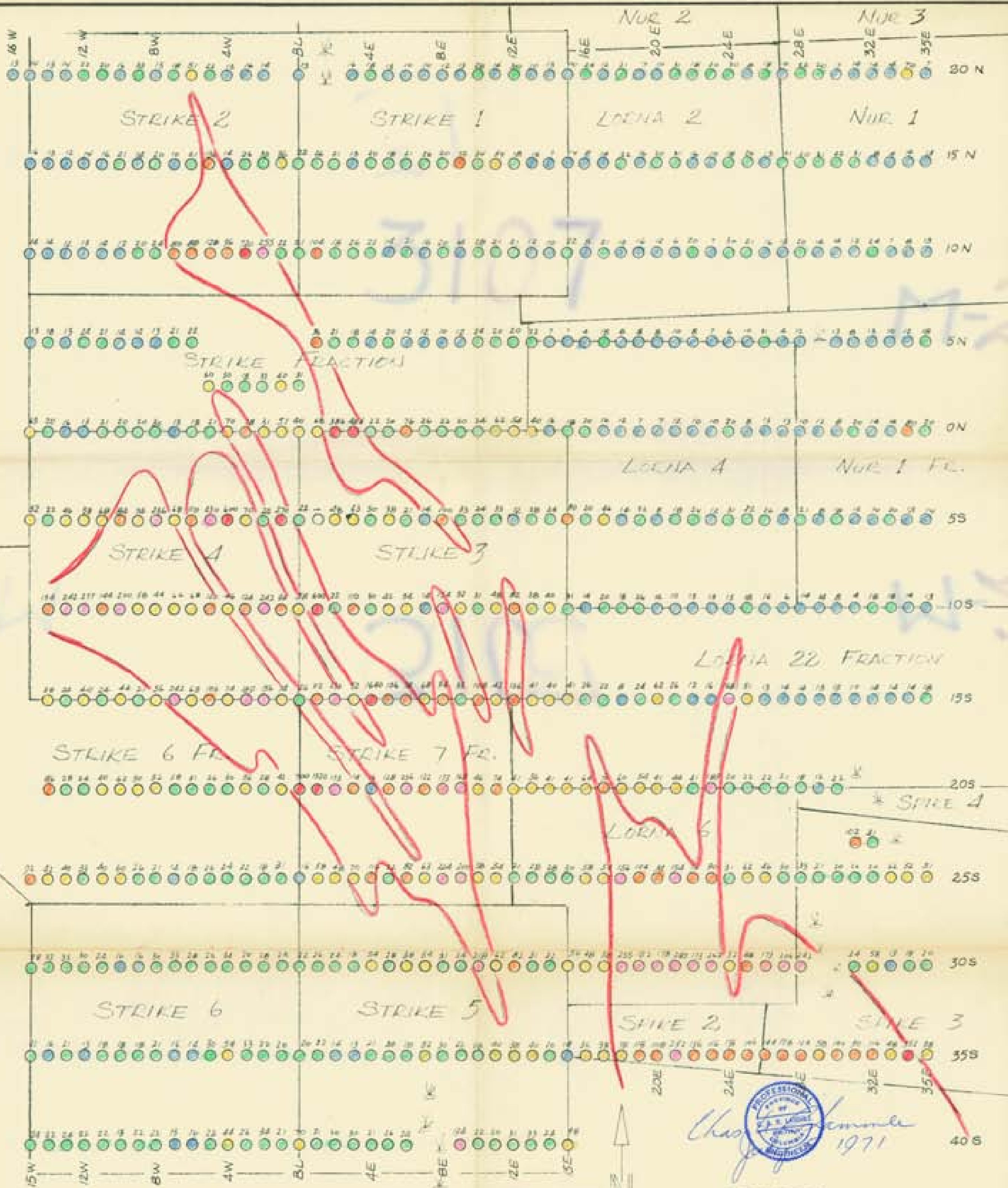
Impact Enterprises  
600 - 789 W. Pender St.,  
Vancouver., B. C.

DATE June 29/71  
INVOICE NO. 5243  
CERTIFICATE NO. 14513 to 14520  
ATTN: Mr. Lammle

ITEM	DESCRIPTION	SUB-TOTAL	TOTAL
298	Analyzed for Copper, Molybdenum & Arsenic @ \$2.25	\$670.50	
298	Prepared @ \$0.20	59.60	
			\$730.10

*Sampling Impact Enterprises \$600  
R Lammle*

TERMS - NET 30 DAYS



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Legend  
Cu ppm  
 ● > 300  
 ● 151 - 300  
 ● 71 - 150  
 ● 36 - 70  
 ● 16 - 35  
 ● < 17

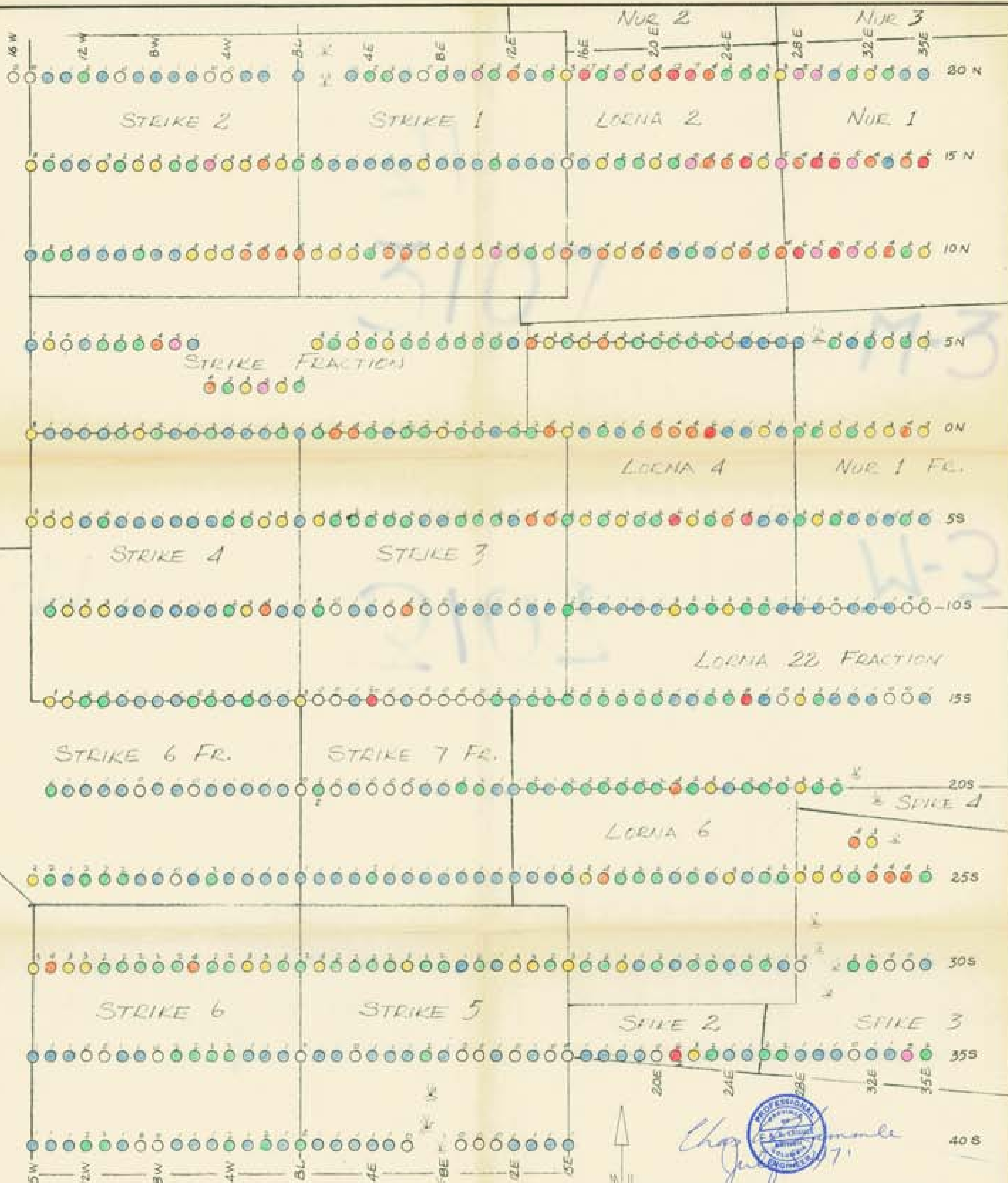
3107

COPPER  
SOIL GEOCHEMISTRY  
STRIKE-LORNA GP  
NICOLA MD, B.C.  
1" = 400'

Chap. Lemaire  
1971

is preliminary report entitled "Soil Geochemistry Report  
Strike-Lorna Group, Nicola M.D., B.C." dated  
July 5, 1971 by C.A.G. Lemaire, Ph.D.

M-2  
MAP 2



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Legend  
As ppm  
 ● >5  
 ● 5  
 ● 4  
 ● 3  
 ● 2  
 ● 1  
 As -  
 Mo -

3107

Chapman  
July 71  
 ARSENIC & MOLYBDENUM  
SOIL GEOCHEMISTRY  
STRIKE-LORNA GP  
NICOLA M.D., B.C.  
1" = 400'

M-3  
MAP 3

NOTE: At each sample site where no figure for Molybdenum is shown, James Lake reported analytical results of 2000 ppm

In accompanying report entitled "Soil Geochemistry Report  
Strike-Lorna Group, Nicola M.D., B.C." dated  
July 5, 1971 by C.A.R. Lamont, P.Eng.