

4596

92L/10W
GEOCHEMICAL REPORT

(on work done in July 1973)

ON THE

GRIZZLY, LORENA, BEAVER and CLARKE MINERAL CLAIMS

NANAIMO M.D., B.C.

18 miles west of Port McNeill

Lat. $50^{\circ} 32' N.$ Long. $126^{\circ} 52' W.$

FOR

LORENA MINES LTD. (N.P.L.)

October 10, 1973

Vancouver, B.C.

L. Sookchoff, P.Eng.

Consulting Geologist

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 4596	MAP.....

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INTRODUCTION

During July 1973 a limited geochemical survey was done on the Beaver 2, Lorena 1 and Lorena 5 mineral claims owned by Lorena Mines Ltd. (N.P.L.). The survey was done by Darma Explorations Ltd. of Kamloops, B.C.

The object of the survey was to determine the feasibility of a geochemical survey to locate areas of significant sub-surface mineralization.

The topography on the northern part of the property is relatively gentle whereas the southern portion is relatively steep but not precipitous. Elevations vary from near sea level to the north to approximately 2000 feet to the south.

The property is underlain by granodiorite, Quatsino limestone and Karmutson basalt. Copper mineralization occurs in the basalt as fracture fillings, amygdaloidal fillings and disseminations of chalcopyrite mainly within the basalt.

SAMPLING AND ANALYTICAL DETAILS

The samples were taken from the B horizon at a depth of 12-16 inches from the surface. The soil is a brown forest to

podzolic soil with a well developed brown B horizon.

Samples were collected by personnel of Darma Explorations Ltd. using a mattock and placing the sample in a waterproof, bond paper soil sample bag , labelled as to grid location and forwarded to Kamloops Research and Assay Laboratory, Kamloops, B.C. for analysis.

The analytical techniques consisted of drying in a temperature controlled oven, screening to -80 mesh, splitting and selecting one - half gram of the sample for analysis.

The method of analysis for gold was initially a fire assay of the sample, dissolving it in aqua regia and determining gold values by atomic absorption. For the copper and silver the hot acid extraction and atomic absorption method was used.

RESULTS AND CONCLUSIONS

Because of the low number of samples, a statistical determination of the background value was vague. Anomalous

3.

values for copper were taken to be above 55 p.p.m.
and for silver above one p.p.m.

In area "A" intermittent copper anomalies were restricted to the eastern part of the limited survey with some anomalous value correlating with periodic anomalous silver zones on the western edge. As there is known chalcopyrite mineralization in the area, the copper anomaly could reflect chalcopyrite mineralization within the bedrock with a halo or zonal distribution of silver values.

Areas "B", "C" and "D" do not reflect areas of interest, although Area "D" with two of five anomalous values warrants additional coverage.

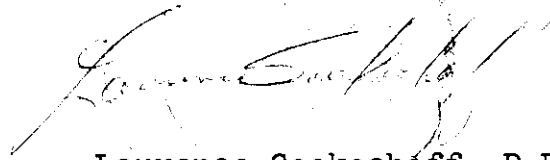
Numerous northwesterly and northeasterly trending faults and shear zones on the property present favourable structures for the deposition and control of mineralizing solutions.

The results of sampling over Area "A" indicate that part of a northwesterly mineral bearing structural zone may have been delineated.

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Thus the limited soil sampling program has been successful in providing information of areas of interest and that the method can be a useful exploration method for delineating areas of significant copper mineralization.

Respectfully submitted,

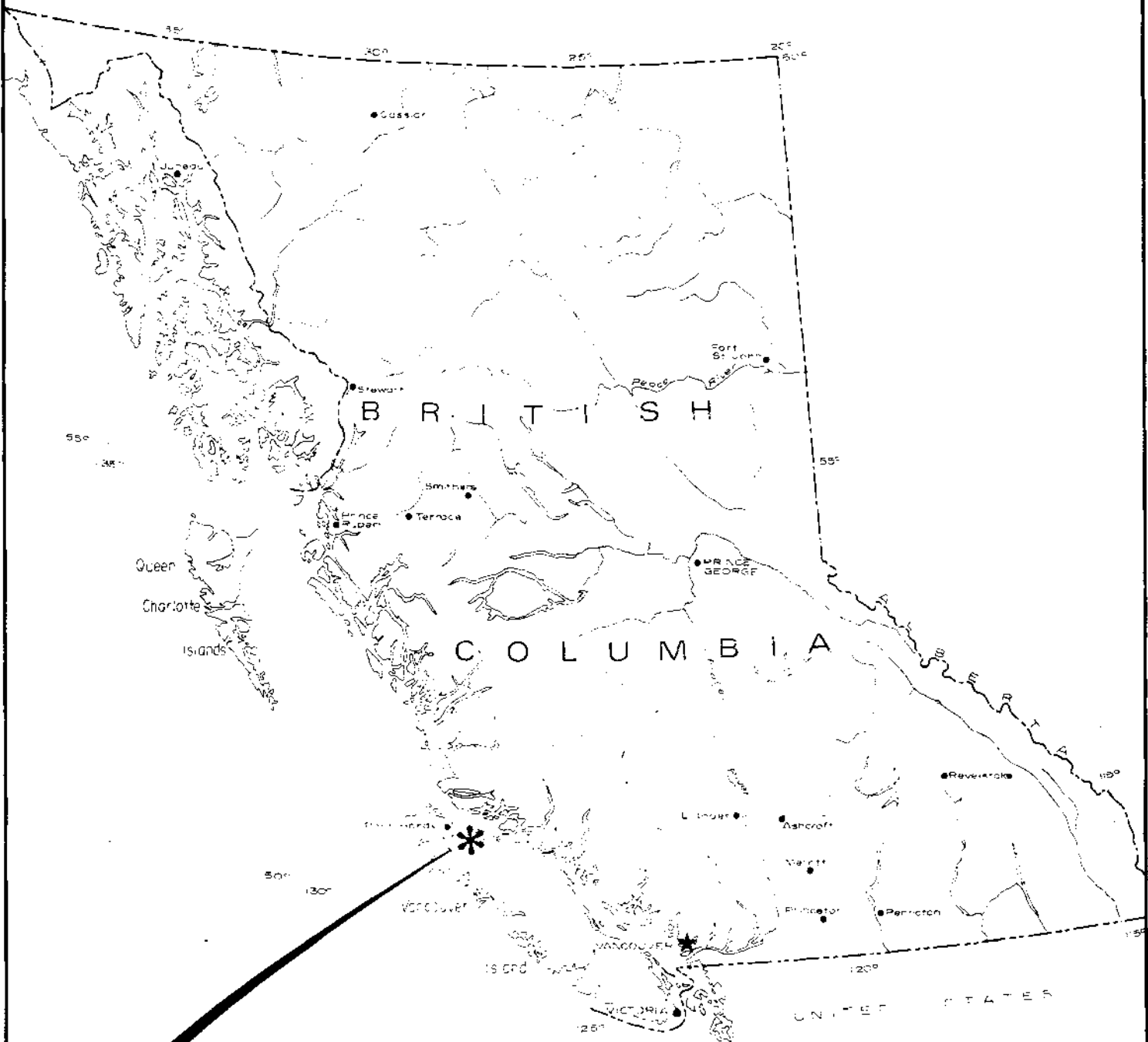


Laurence Sookochoff, P.Eng.
Consulting Geologist

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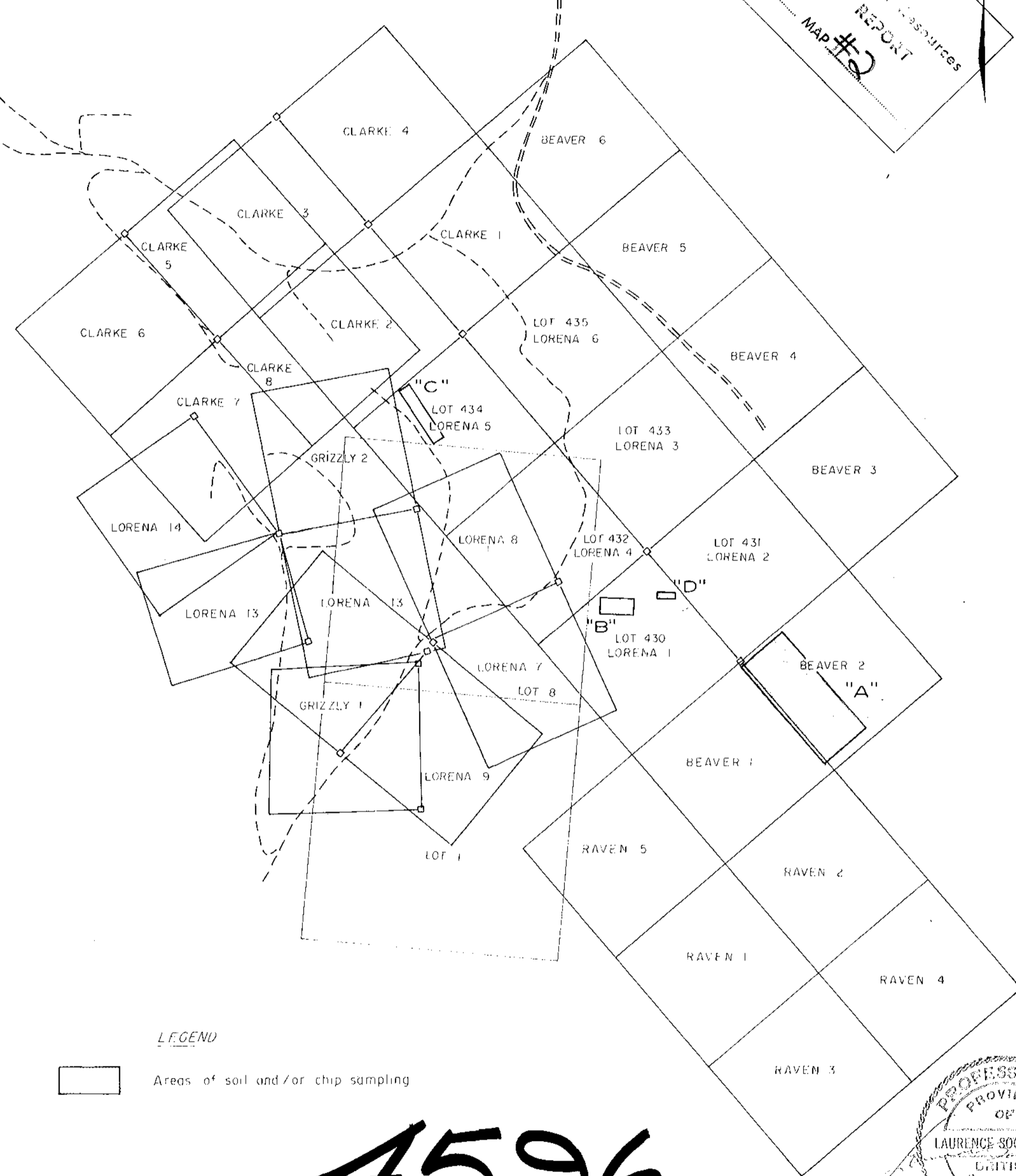
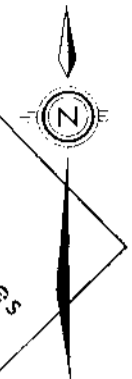
STATEMENT OF COSTS

Soil Sampling (contract)	\$ 514.50
Assaying and metallurgical work	581.00
Labour	120.00
Meals and accommodation	74.20
Report and maps	175.00
TOTAL	<u>\$1464.70</u>

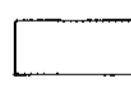


PROPERTY

<p>Department of Mines and Geology Resources</p> <p>ASSESSMENT REPORT</p> <p>NO. 4596 Mine #1</p>		<p>T.R. TOUGH & ASSOCIATES LTD.</p> <p>LORENA MINES LTD. (N.P.L.)</p> <p>LOCATION MAP</p> <p>SCALE 0 136 MI.</p> <p>DRAWN ALTAIR CHECKED: DATE: OCT., 1973</p>
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LEGEND

 Areas of soil and/or chip sampling

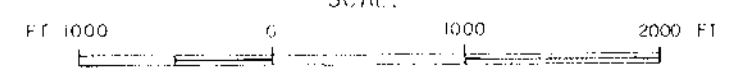
4596
M2



T. R. TOUGH & ASSOCIATES LTD.
LORENA MINES LTD. (N.P.L.)
GRIZZLY, LORENA, BEAVER & CLARKE CLAIMS
CLAIM MAP
SHOWING SAMPLED AREAS

NANAIMO, B.C.

SCALE



To accompany geochemical report by L. Sookchoff, P. Eng., on the Grizzly, Lorena, Beaver & Clarke claim group on Tsutan River, Nanaimo, B.C., dated October 10, 1973.



ROCK FACE

100S	95S	90S	85S	80S	75S	70S	65S	60S	55S	50S	45S	40S	35S	30S	25S	20S	15S	10S	5S
.01	.01	.01	32,10,005	.01	.01	04,40	.01	08,41	.23,45	.02	.01	.01	.02	.01	.01	.01	04,30	.01	.01
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
.37,14,008	.01	.03	.01	.01	.03			.02	.03	.01	.01	.01	.10	12,32,015	.01	.04,03,01	.01	07,33,005	.02
○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○	○
								.01	.01	.02									
								○	○	○									

.22, 15, 015
○
C 50S - B

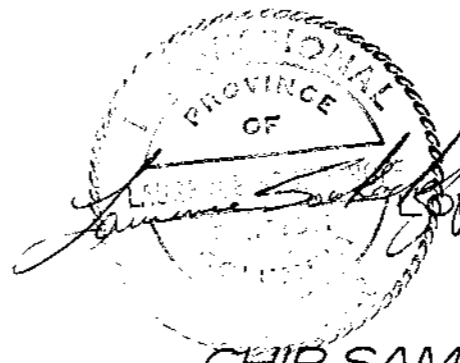
LINE 'A'
LINE 'B'
LINE 'C'

Rock Samples
From N.E. end of
Lorena No 1 M.C.

LEGEND

74/0.8 Cu p.p.m. / Ag p.p.m.

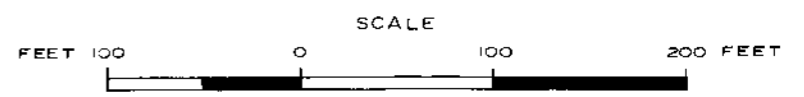
.07, .33, 005 % Cu , Ag oz / ton , Au oz / ton



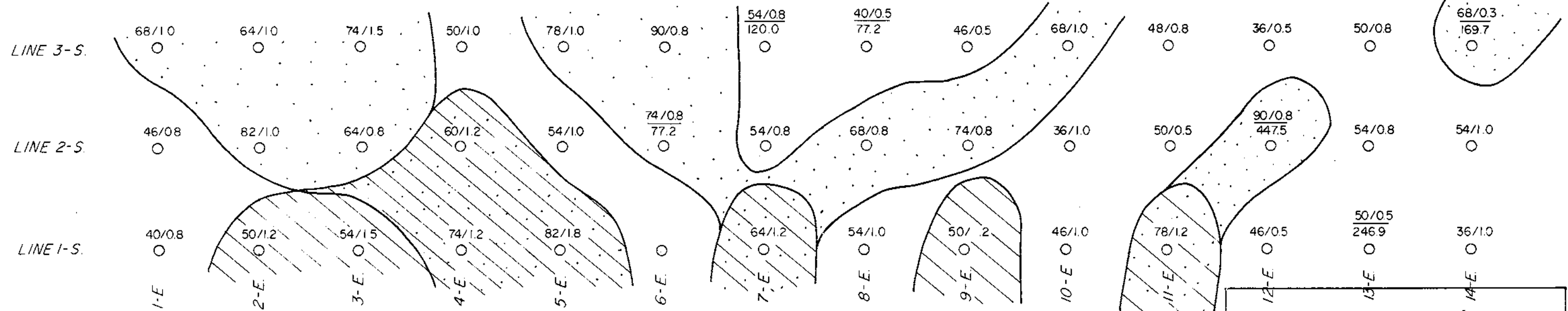
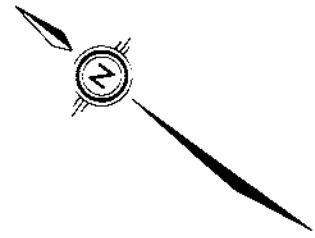
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AREA "B"

CHIP SAMPLE & GEOCHEMICAL RESULTS



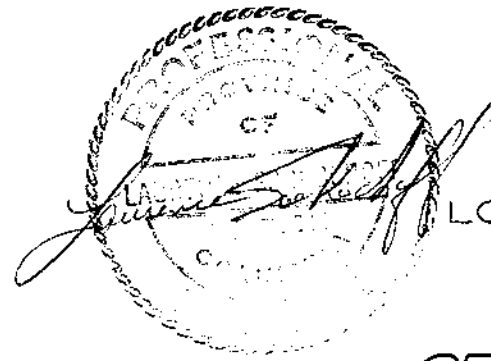
OCTOBER, 1973



LEGEND

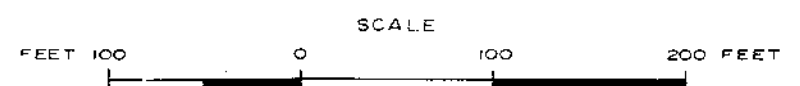
- | | |
|------------------------|------------------------------------|
| $\frac{54/0.8}{120.0}$ | Cu p.p.m. / Ag p.p.m.
Au p.p.b. |
| | Ag Anomaly |
| | Cu Anomaly |

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NO. **4596** MAP #4

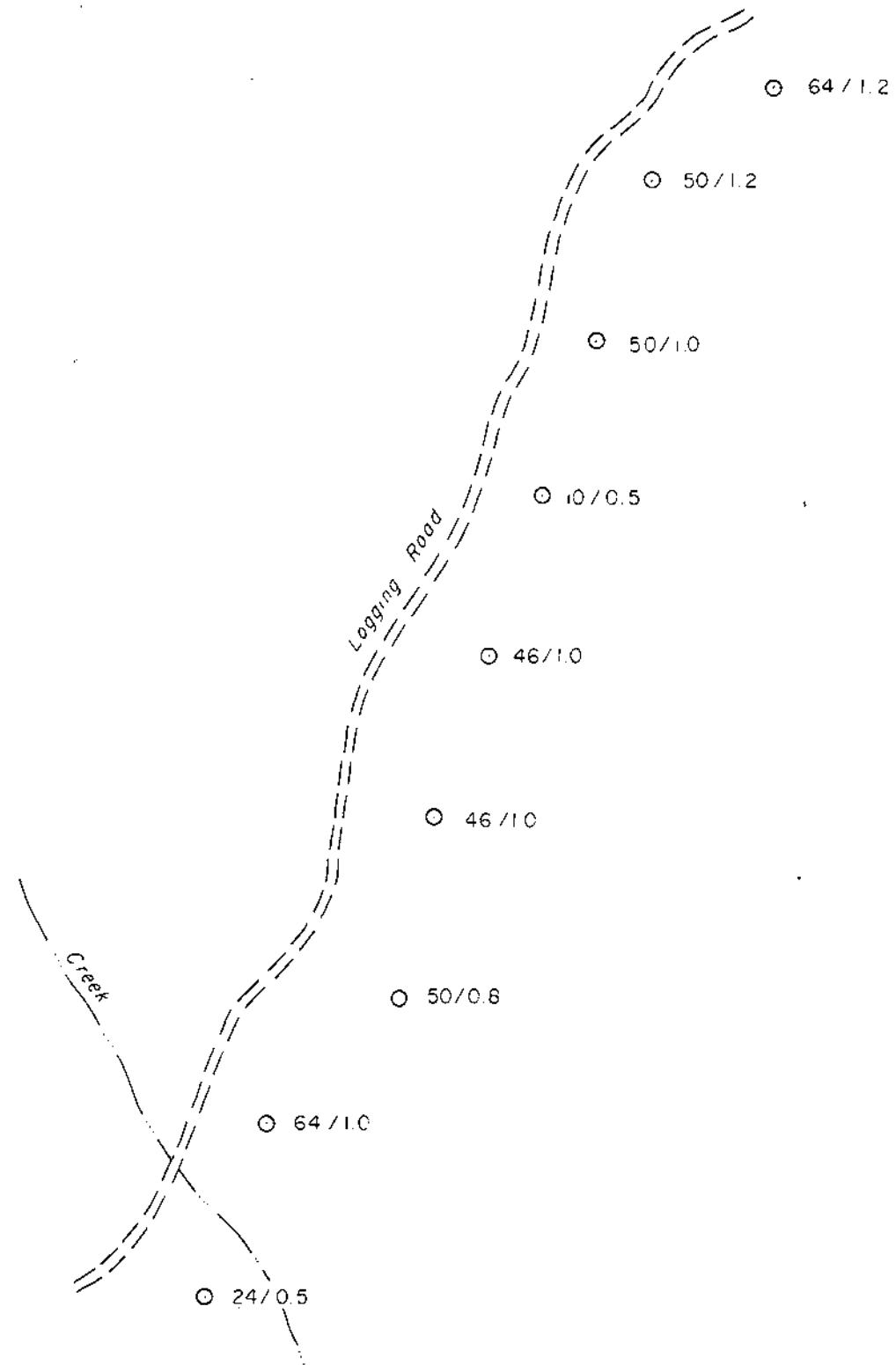


T.R. TOUGH & ASSOCIATES LTD
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AREA "A"

GEOCHEMICAL RESULTS



OCTOBER, 1973



LEGEND

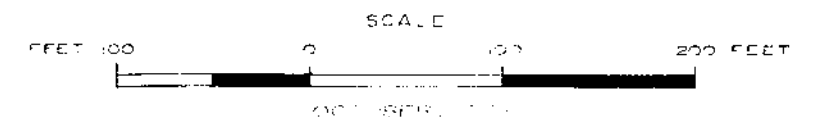
74/0.8 - Cu ppm. / Ag ppm

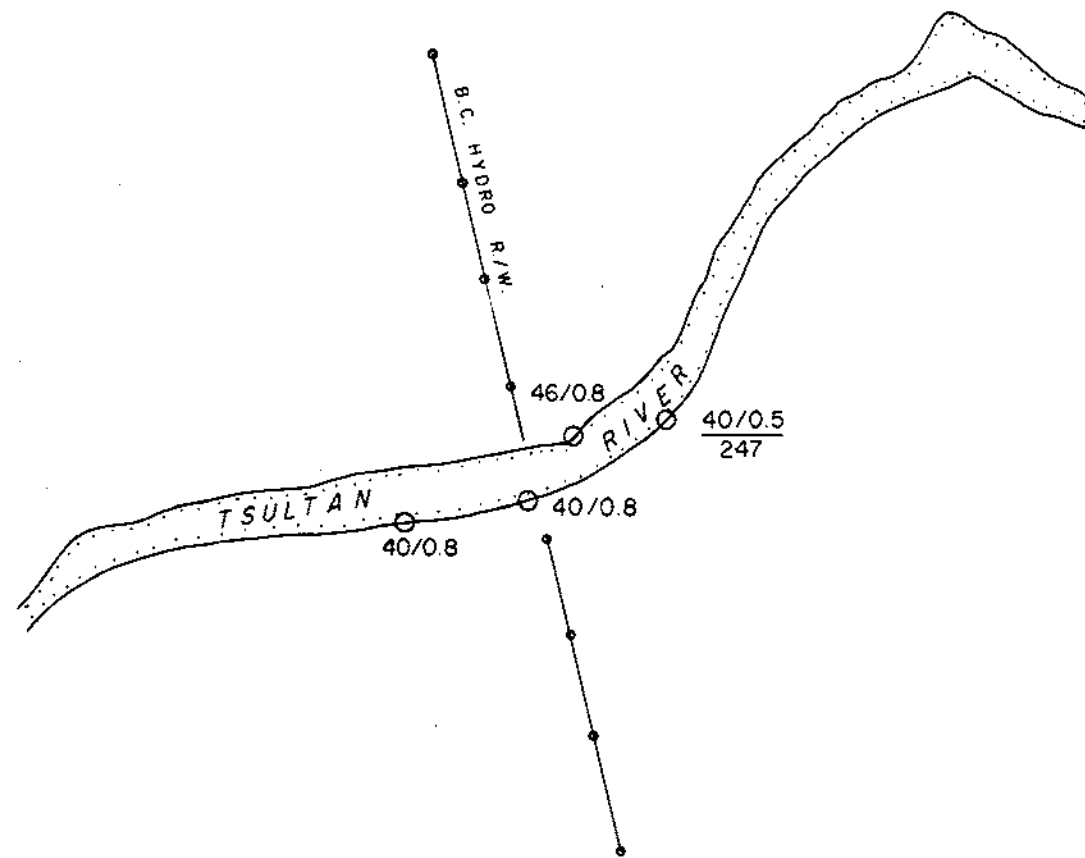
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ASSESSMENT REPORT
NO. 4596 #5



TR TOUGH & ASSOCIATES LTD.
LORENA MINES LTD. (N.P.L.)
AREA "C"

GEOCHEMICAL RESULTS





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Mines and Technical Services
NO. **4596** A.P. #6

T.R. TOUGH & ASSOCIATES LTD.

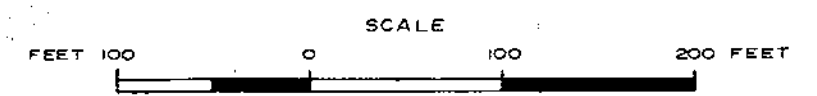
LORENA MINES LTD. (N.P.L.)

AREA "D"

Loisene Seefelt
GEOCHEMICAL RESULTS

LEGEND

$\frac{74}{0.8}$ - $\frac{\text{Cu ppm.}}{\text{Ag ppm.}}$
 $\frac{77.2}{}$ - $\frac{\text{Au ppb.}}{\text{}}$



OCTOBER, 1973