

4458

GEOCHEMICAL REPORT ON THE
MAEFORD LAKE PROPERTIES
OF CREAM SILVER MINES LTD. (NPL)
CARIBOO MINING DIVISION, B.C.

December, 1972

Vancouver, B.C.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4458** MAP.....

4458

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GEOCHEMICAL REPORT ON THE
MAEFORD LAKE PROPERTIES
OF CREAM SILVER MINES LTD. (NPL),
CARIBOO MINING DIVISION, B.C.

INTRODUCTION

Cream Silver Mines Ltd. (NPL) owns a 75% interest in two separate groups of mineral claims north of Maeford Lake, 6 miles west from the end of the north arm of Quesnel Lake. A 25% interest is held in the claims by F. Lang and R. Hughes.

On the eight claims of the LAM claim group, a geochemical survey has been conducted. Due to encouraging results from this survey and associated prospecting and trenching, further ground was staked in 1972. Three thousand feet north of the LAM group the ZE and HE claim groups, each of 24 claims, were staked contiguously.

Lead-zinc mineralization is reported to have been exposed in trenches on the LAM claim group in bedded limestone formations.

The geochemical survey of the LAM claims was conducted by personnel of Cream Silver Mines Ltd. (NPL). The writer was asked by Mr. R. Hughes of Cream Silver Mines to report on the geochemical results obtained thus far and to correlate these results to data available from published geological

maps and from L. Miscovic, a prospector for Cream Silver Mines Ltd. (NPL). The author of this report has not visited the property.

LOCATION AND ACCESS

The LAM 1-8 claims are located in east-central British Columbia, north of Quesnel Lake and 12,000 feet north-northeast of Maeford Lake. The property is 70 miles ~~west~~^{east} of Quesnel and is located at:

52° 49'N; 120° 58'W.

Access is at present by helicopter. Logging roads are now within 8 miles of the property and are expected to reach the Maeford Lake area in the near future from the Little River, west of the property.

PHYSIOGRAPHY

The properties are located on a plateau in mountainous country. The elevations are generally around 5,000 feet with local elevations up to 5,500 feet. Steep ridges rise locally from the plateau.

Mountains in the surrounding area rise to well over 6,000 feet. The area is covered with sparse timber with many swampy areas.

Water for exploration purposes is readily available in all areas. The claim area drains to the westward and southward forming the headwaters of various tributaries of the Little River drainage system. The north flank of the HL and ZL claims drain northward into Cameron Creek.

The area has moderate precipitation, with snow and freezing conditions in the winter.

PROPERTY

All mineral claims are owned 75% by Cream Silver Mines Ltd. (NPL) and 25% jointly by F. Lang and R. Hughes. All claims are recorded in the Cariboo Mining Division.

Claim Numbers

LAM 1-8
HL 1-24
ZL 1-24

Record Numbers

63609-16E
not yet available
not yet available

The LAM group is 3,000 feet south of the contiguous HL and ZL claims. Several occurrences of lead-zinc mineralization are reported on the LAM claims.

HISTORY

The LAM group ground has previously been owned by Vanguard Explorations who first found lead-zinc mineralization in the claims area.

Diamond drilling on lead-zinc prospects is reported to have been conducted on properties in the area, however, thus far without economically significant results.

REGIONAL GEOLOGY

The area north of Quesnel Lake has been mapped by R.B. Campbell of the Geological Survey of Canada in 1961-62. The G.S.C. sheet for this area is Map 1-1963, Geology, Quesnel Lake (east half).

The geology in the Maeford Lake area is structurally complex and will need considerable further mapping to resolve air-photo features not noted on the G.S.C. map.

The reported geology shows the area to be underlain by an overturned anticline with a west-northwesterly strike and 70° northerly dip. The major exposure on this structure is composed of Lower Cambrian Cunningham Limestone overlain in areas by the lower Cambrian or later Yankee Belle Formation.

The Cunningham Limestone is composed of variously bedded dark gray and gray limestones, marble, with minor shale and argillite.

The Yankee Belle Formation in the Maeford Lake area is brown and green phyllite.

Late Mesozoic intrusive activity emplaced granitic rocks into the Cunningham Limestone in the western part of the area. An occurrence of intrusives is also reported on the northwestern part of the HL claims associated with metamorphic rocks of the Proterozoic Kaza Group.

PROPERTY GEOLOGY

The LAM group is underlain by rocks of the Cunningham Limestone. The southwestern corner of the claim group is underlain by a narrow east-westerly oriented section of the Yankee Belle Formation which cuts across the ground directly south of the claims. The attitude of the Cunningham Limestone in the claim area is reported by L. Miskovic to be generally northeasterly striking with 40-60° southeasterly dips.

Between the two claim blocks a thin belt of intrusive has been mapped. This belt is at least 1000 feet wide, and 10,000 feet long in an east-westerly direction. This intrusive does not outcrop over any significant area of either claim group.

Scattered and discontinuous lead-zinc mineralization has been exposed on the LAM group along the base of a prominent limestone bluff that strikes north-easterly across the property.

Samples taken from showings in this belt have returned assays of over 20% lead with varying zinc (up to 2.8%) and silver (up to 1.25 oz/ton) in grab samples taken by L. Miskovic.

Specimens of rock from trenches show white limestone, with varying amounts of bedding and stringer oriented milky quartz, carrying erratically dispersed veins of galena-sphalerite mineralization. The showings thus far discovered are widely dispersed with much overburden and some unmineralized outcrop between the various showings.

Dark grey limestones of the Cunningham Limestone are generally mineralized with disseminated pyrrhotite.

The HL and ZL claims were staked on the closest available open ground to the LAM group in July, 1972 by L. Miskovic.

No mineralization has been located on these claims to date, but brief observations during staking indicate the claims to be generally underlain by Cunningham Limestone with Kaza Group metamorphics outcropping in the northeastern corner of the claim group. A small occurrence of intrusive, thought to be the source of quartz veins in the metamorphics, was noted on claim HL 16.

GEOCHEMICAL SURVEY

Samples were collected along east-west grid lines rechainned and reflagged from an earlier grid of Vanguard Explorations over the property. The lines are 400 feet apart with stations every

200 feet along the lines. Samples were taken at all possible stations at the foot of the precipitous bluff that traverses the property.

FIELD PROCEDURES

Soil samples were collected using a mountaineering pick. All samples were taken from 10-12 inches depth and placed in Kraft soil sample bags. This work was done by, or under the direction of L. Miskovic of Cream Silver Mines Ltd. (NPL).

ANALYSIS

All samples were sent to Chemex Labs Ltd., 212 Brookside Ave., North Vancouver, B. C. for quantitative analysis of Pb, Zn, and Ag ppm content. The analysis was conducted utilising atomic absorption methods.

RESULTS

A total of 143 samples have been analysed for lead, zinc and silver. Cumulative frequency distribution plots for lead and zinc results are included with this report.

Zinc values range from 22 ppm to 2480 ppm. The graph plot breaks indicate a background value of 85 ppm zinc and all samples $>$ 204 ppm to be anomalous. The statistically very high anomalous 2.5% are those 4 samples of $>$ 950 ppm.

Lead values range 14-826 ppm. The graph indicates a background of 33 ppm and that all samples over 43 ppm are anomalous. The very highly anomalous 2.5% of the lead population are those 4 samples over 71 ppm.

Results for silver were negative, one sample reached 1 ppm, 9 samples 0.5 ppm, the rest were all < 0.5 ppm.

INTERPRETATION

A well developed zinc anomaly has formed on claims IAM 5 and 7. Very high anomalous values are surrounded by a halo of anomalous and mixed values. It appears that the anomaly follows the structural trend to the northeast however a northwesterly component to the anomaly requires more detailed definition prior to further interpretation.

This anomaly is notably north and west of the mineral showing on these claims, in an area of overburden and "unmineralized outcrop". The anomaly is about 600 feet in diameter with northeastward and northwestward "extensions".

Two samples define another structure parallel anomaly in the northeast quadrant of IAM 2, also an area of reported mineralization.

Samples between the two anomalies were not collected due to the steep nature of the terrain.

Both of the zinc anomalies are coincidental with lead anomalies. Lead values are much lower than those for zinc but the anomalies are well defined and the lesser mobility of lead must be considered.

The lead anomaly on LAM 2 is directly coincidental with the zinc anomaly. The anomaly on LAM 5 and 7 is generally coincidental with some shift northward noticeable on the western portion of the lead anomaly. The lead anomaly appears to extend extensively into LAM 8, where no samples have been taken. Again this anomaly is north and west of the thus far known mineralization.

A weak lead anomaly has developed in the northeast corner of LAM 1, coincident with intermediate zinc values.

Silver values are of too low value to be interpretable. The one sample of 1 ppm is coincidental with the highest lead value, other determinable silver results show no pattern in their distribution.

CONCLUSIONS

Concurrent lead and zinc anomalies have developed in the soil sample survey.

The apparent trend of these anomalies is parallel to the reported stratigraphic trend of the limestone on the claims.

The large anomaly on LAM 5 and 7 is not coincident with known galena-sphalerite showings, nor is it downslope from the known showings.

Cunningham Limestone similar to the mineralized material on the LAM group is believed to outcrop on the HL and ZL claim groups.

Lead-zinc mineralization is known to be extensively scattered through the general area of the properties and there is a history of work on such showings.

It is concluded that a significant lead-zinc geochemical anomaly has been located in a favourable geological location on the LAM claims. Mineralization has been exposed in hand trenches close to geochemically anomalous areas. The LAM claims should be further investigated to determine the grade and dimension of mineralization indicated by work thus far performed; concomitant reconnaissance surveys, with detailed geological mapping should be conducted on the HL and ZL claim groups.

A two staged exploration program on all of the claims, the second stage being dependent on the results of the first, is recommended.

RECOMMENDATIONS

The following two phased exploration program is recommended for the LAM, HL and ZL claims in the Maeford Lake area:

PHASE I

1. Conduct detailed geological mapping over all claims.	\$4,000
2. Detailed (100' x 200') geochemical sampling of LAM claim group.	1,500
3. Reconnaissance (200' x 400') geochemical sampling of ZL and HL claim groups.	4,800
4. Electromagnetic (horizontal loop) survey over general geochemically anomalous areas.	5,000
5. Prospecting and trenching for a systematic sampling program.	3,000
6. Administration, overhead and supervision.	3,000
7. Contingencies.	<u>2,100</u>
	\$23,100

Two months field time consideration for Phase I.

PHASE II

Dependent on the results of Phase I and on advice of a consultant consideration should be made for additional expenditures.

PHASE II

1. Six miles of access road from the Little River.	\$ 6,000
2. Bulldozer trenching of anomalies and mineralized areas.	2,000
3. Detailed deep profile Induced Polarization over selected areas with particular attention to self potential factors.	4,000
4. Diamond drilling using BQ wireline in a series of holes to test correlated anomalies, 3000 feet at \$12.00/foot.	36,000
5. Administration, supervision and engineering.	5,000
6. Contingencies.	<u>5,500</u>
	\$58,500

TOTAL OF PHASE I AND PHASE II

\$81,600

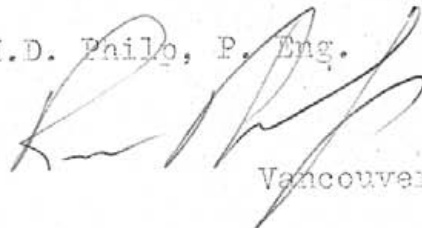
Respectfully submitted by:



David P. Taylor, Geologist

Endorsed by:

R.H.D. Paile, P. Eng.



Vancouver, B. C.

December, 1972

CERTIFICATION

I, David Pelham Taylor, of Vancouver, B. C.,
do hereby certify that:

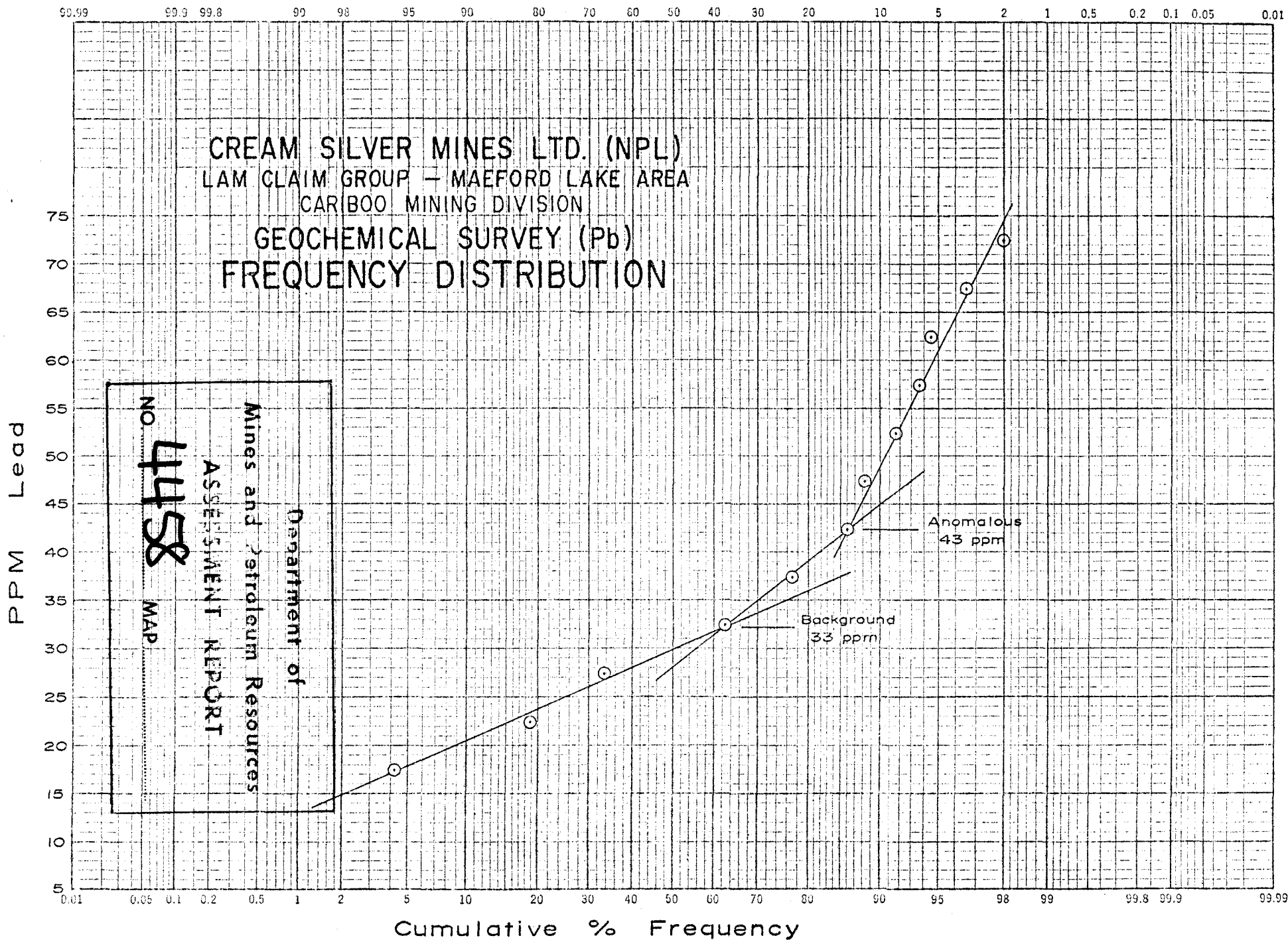
1. I am an exploration geologist residing at 2097 West 6th Avenue, Vancouver, B.C.
2. I am a graduate of the Royal School of Mines, London University, M.Sc., D.I.C. (Mineral Exploration) 1971.
3. I have practiced as an exploration geologist in B. C. for four years.
4. I have not visited the properties subject of this report, but have written it at the request of Mr. R. Hughes of Cream Silver Mines Ltd. (NPL) who states that full disclosure of data was made available to me.

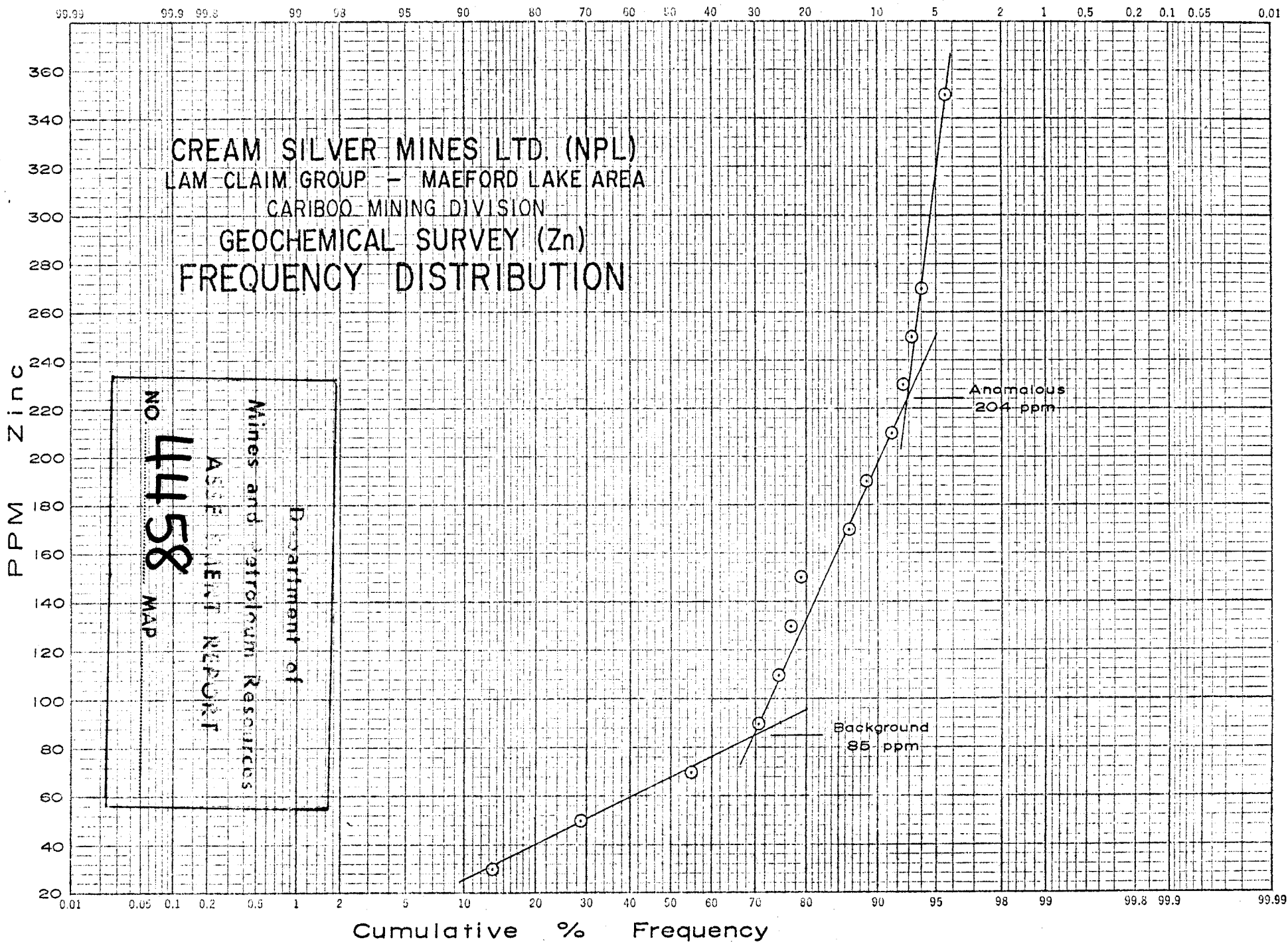


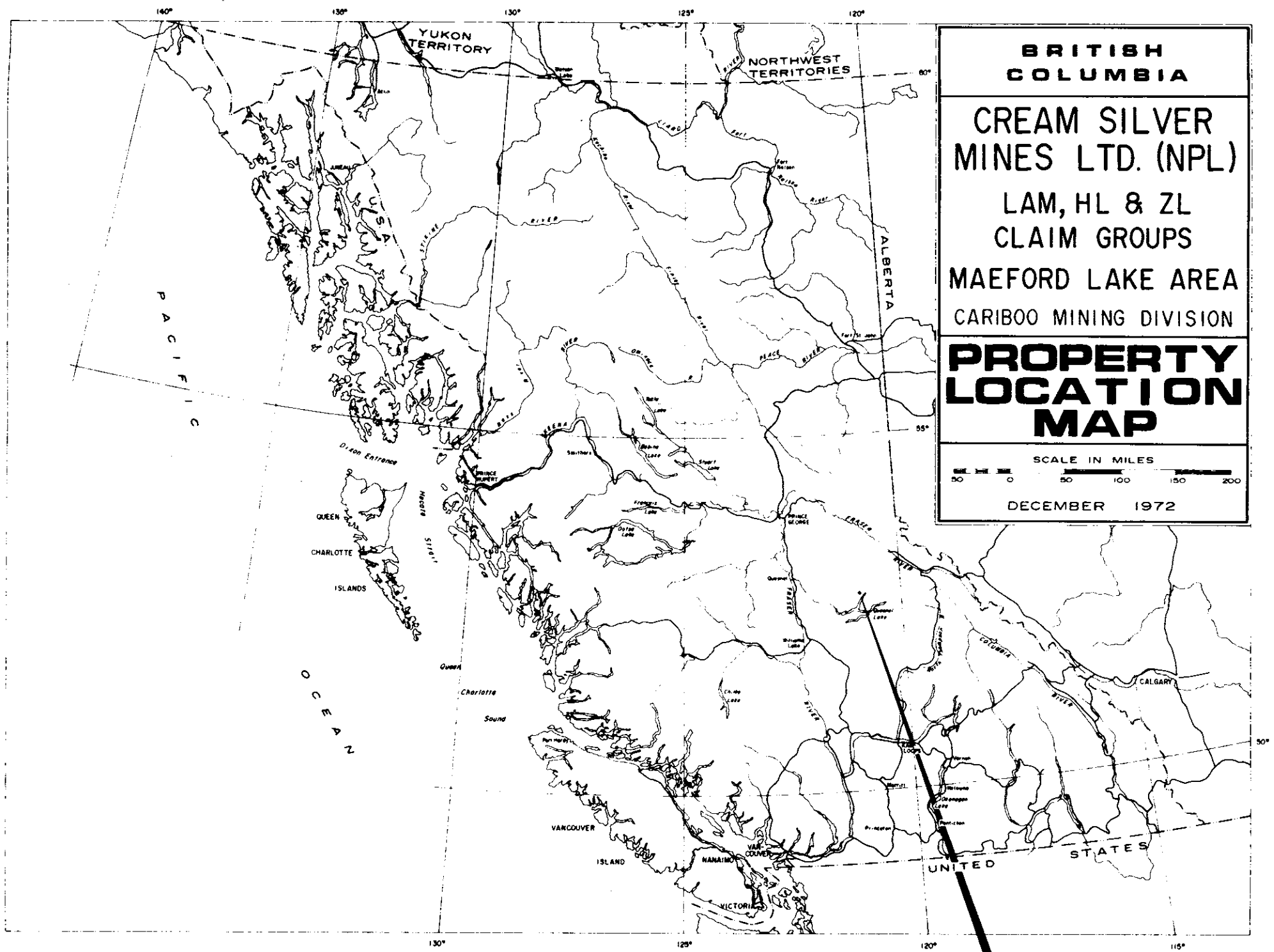
David P. Taylor, M.Sc., D.I.C.

December, 1972

Vancouver, B. C.







BRITISH COLUMBIA

CREAM SILVER MINES LTD. (NPL)

LAM, HL & ZL CLAIM GROUPS

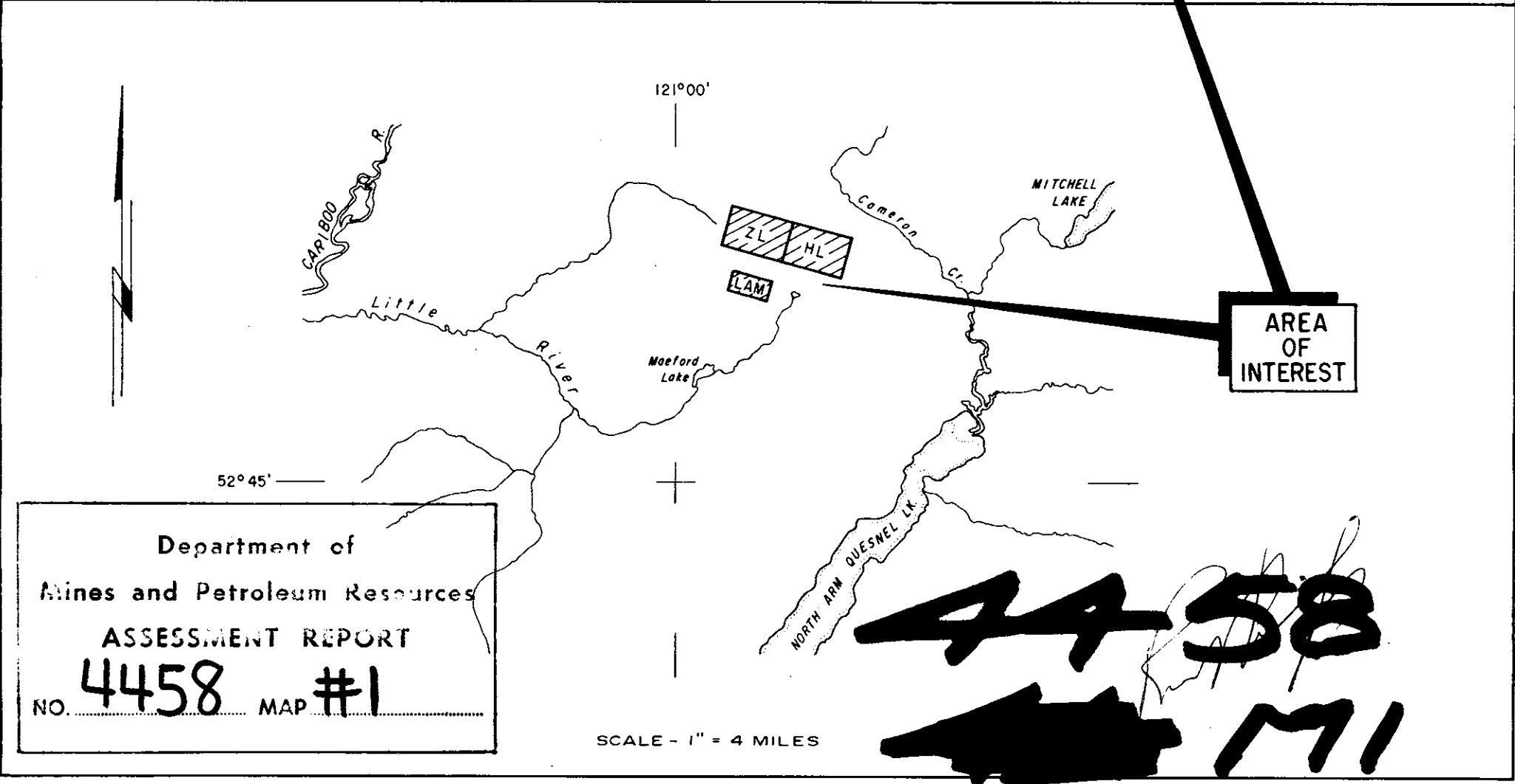
MAEFORD LAKE AREA

CARIBOO MINING DIVISION

PROPERTY LOCATION MAP

SCALE IN MILES
 50 100 150 200

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4458 MAP **#1**

SCALE - 1" = 4 MILES

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M1

4458
M2



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NO. **4458** MAP #2 **M2**

NOTE: Traced from a map drawn by L. Miskovic

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CREAM SILVER MINES LTD. (NPL)
LAM, ZL & HL CLAIM GROUPS
MAEFORD LAKE AREA
CARIBOO MINING DIVISION, B.C.

CLAIM MAP
SHOWING
GENERAL GEOLOGY

SCALE IN FEET
2000 0 2000 4000

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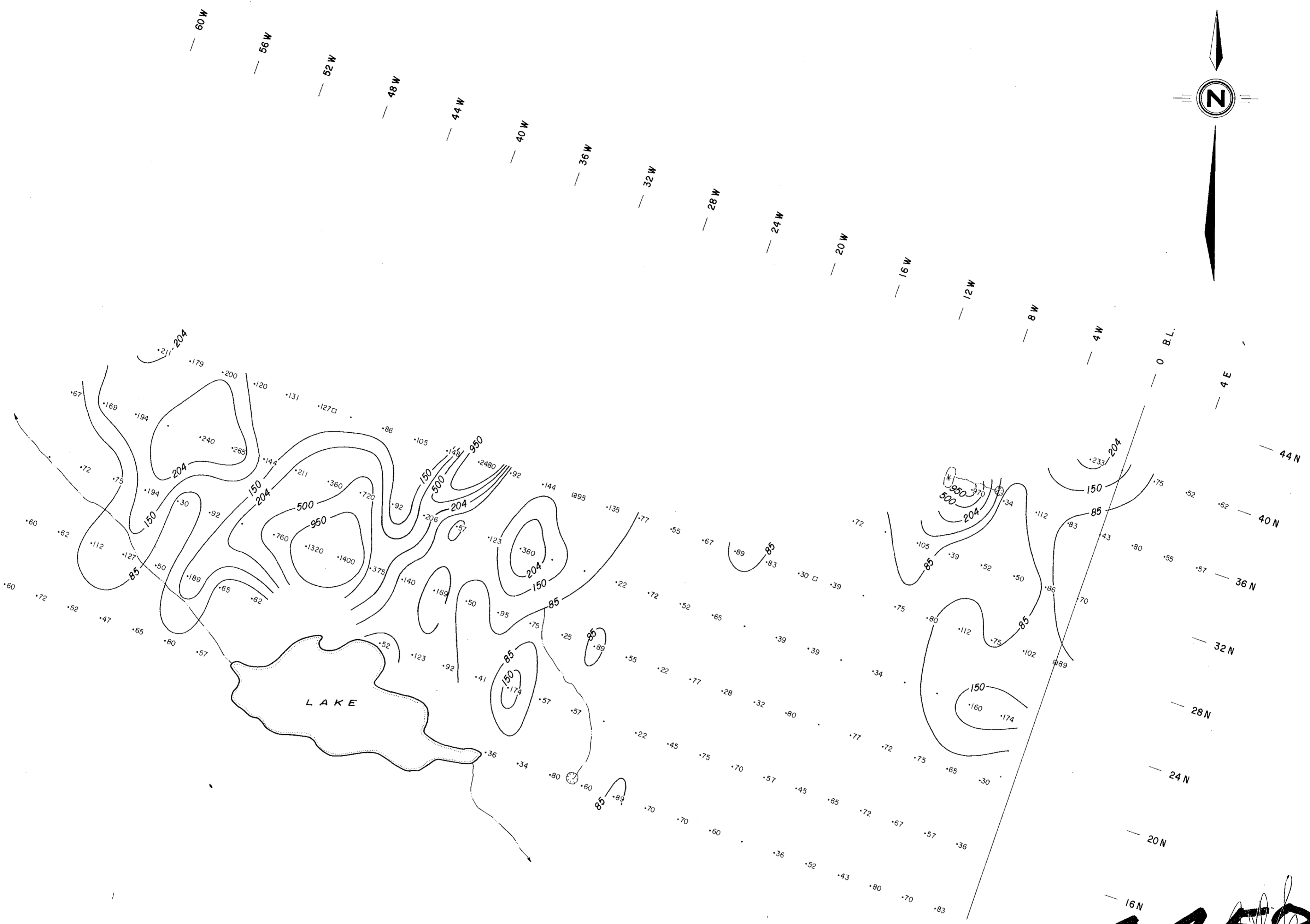
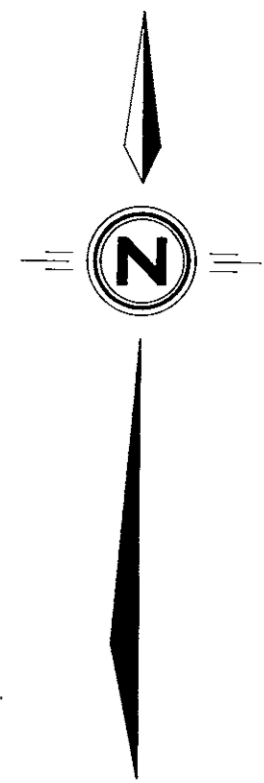
- LEGEND**
- Sink hole
 - Geological contact - inferred
 - Lead and/or zinc showing
 - Cunningham limestone
 - Intrusive
 - Kaza group
 - Yankee Belle formation

MAEFORD
LAKE

GRIZZLY
LK.

GROUP

N.A.

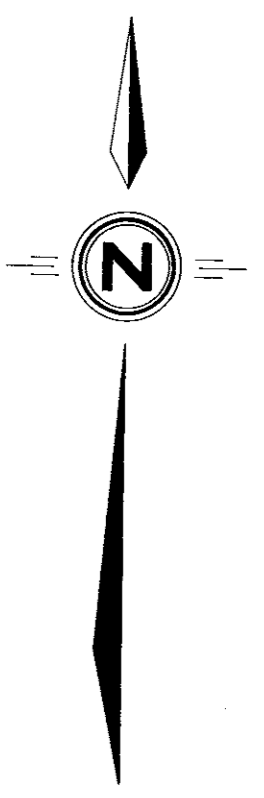


LEGEND

[Shaded box]	85 - 150 ppm
[Shaded box]	150 - 204 ppm
[Shaded box]	204 - 500 ppm
[Shaded box]	500 - 950 ppm
[Shaded box]	> 950 ppm

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M3

AGILIS EXPLORATION SERVICES LTD.	
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CREAM SILVER MINES LTD. (NPL) LAM CLAIM GROUP MAEFORD LAKE AREA CARIBOO MINING DIVISION, B.C.	
ASSESSMENT REPORT NO. 4458 MAP #3	GEOCHEMICAL SURVEY ZINC (ppm)
SCALE IN FEET 400 0 400 800	
DECEMBER 1972	



LEGEND

□	33 - 38 ppm
□	38 - 43 ppm
□	43 - 55 ppm
□	55 - 71 ppm
□	> 71 ppm

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ASSESSMENT REPORT NO. 4458 MAP #4	GEOCHEMICAL SURVEY LEAD (ppm)
SCALE IN FEET 400 0 400 800	
DECEMBER 1972	