

BIOGEOCHEMICAL REPORT 82M/5W

Johnson Property, 18 miles northeast
of Barriere, 51°119° S.W.

July 1st-August 31st, 1951

Author: D.A. Barr Supervisor: J.S. Scot
P. Eng.

0069

KENNCO EXPLORATIONS, (CANADA), LIMITED
402 WEST PENDER STREET
VANCOUVER 3, B. C.

May 12, 1952

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The Mining Recorder,
Kamloops, B.C.

Dear Sir:

The following is a statement of the actual expenses incurred by Kennco Explorations, (Canada) Limited in behalf of Northwestern Explorations, Limited in making a Biogeochemical survey of the Johnson claims at North Barriere Lake, Kamloops, M.D. The claims, for purposes of assessment work, are grouped as follows:

Group 1 - Trail, Birk, K.P.#1, K.P.#2, K.P.#3, K.P.#4, K.P.#5, K.P.#6.

Group 2 - Bruno, Syd, Thompson, West, East, Wolf Fr. #1, Wolf #1 and Wolf #2.

Group 3 - Hardy, Bill, Bruno #2, Wolf Fractional #2.

Salaries and Wages:

<u>Name</u>	<u>Date of Employment</u> <u>From</u> <u>To</u>	<u>Days on</u> <u>Survey</u>	<u>Wages</u>
J. Greenaway	May 10 - Sept. 11/51	48	\$318.00
D. Lawson	Aug. 14 - Sept. 14/51	8	55.00
G.A. Noel	Permanent	14	140.00
M. Parker	July 1 - Sept. 2/51	51	470.00
E. Persson	June 16 - Oct. 12/51	21	173.00
R. Phipps	July 23 - Oct. 31/51	5	<u>50.00</u>

\$1,206.00

Cost of Assaying:

718 samples @ \$1.75 per sample 1,256.50

Supervision:

Dr. H.V. Warren 3 days 105.00

Total \$2,567.50

Yours very truly,

JSS/w

KENNCO EXPLORATIONS (CANADA) LIMITED



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- #1 Histogram showing p.p.m. of zinc in ash
- #2 Histogram showing p.p.m. of zinc in dry plant
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KENNCO EXPLORATIONS, (CANADA) LIMITED

BIOGEOCHEMICAL SURVEY

JOHNSON PROPERTY

KAMLOOPS MINING DIVISION

BRITISH COLUMBIA

1951

INTRODUCTION

During 1951 a biogeochemical survey was carried out on a portion of the Johnson Group of mineral claims, situated on the north side of Birk Creek in the North Barriere Lake area of British Columbia. This work was performed in conjunction with a geological survey of the area, tree samples being taken at intervals of approximately 100 feet over the greater portion of the sampled area.

During the course of the season 718 samples were collected. These were assayed for copper and zinc content, the resulting values being expressed as parts per million of dry plant material and parts per million of ash.

The results of this work indicate several areas on the property which are to be considered anomalous with respect to zinc.

GEOLOGY AND MINERAL DEPOSITS

Mineralization consists of pyrite, chalcopyrite, sphalerite and galena, which occurs principally as a replacement of a series of thinly bedded schists, phyllites and limestone. The sediments and their derivatives are relatively flat lying; locally, however, these have been subjected to minor folding and faulting.

Workings expose low-grade mineralization at several points in an east-west direction along Birk Creek, a distance of about 3000 feet. In a north-south direction, mineralized exposures can be traced at intervals for a distance of 1500 feet.

BIOGEOCHEMICAL INVESTIGATION

TOPOGRAPHY AND OVERBURDEN

The workings are situated on both sides of Birk Creek valley, several adits having been driven in the creek banks where fair exposures are present. Northerly from the creek the terrain rises fairly uniformly over an average slope of 20 degrees. Elevations across the mapped

area vary from 2300-3250 feet. Only a small portion of this area is precipitous.

Out crops are not particularly abundant in the eastern portion of the area, and are totally lacking in the central portion, where the depth of overburden probably reaches a maximum of 20 feet. Lynx gulch, a prominent tributary to Birk creek, shows good outcrop exposures about 1/4 mile north of the creek.

DISTRIBUTION OF TIMBER

Timber within the area is abundant, and consists of western red cedar (*Thuja plicata*), western white pine (*Pinus monticola*), black spruce (*Picea mariana*), western hemlock (*Tsuga heterophylla*) and alpine fir (*Abies lasiocarpa*).

For sampling purposes western red cedar was found to be the most well represented, and 667 samples were collected from this species.

SAMPLING AND ANALYSIS

Standard sampling procedure was followed in the collecting of all samples. Samples were bagged in paper, and shipped to the biogeochemical laboratory at the University of British Columbia for analysis. A complete description of sampling and analysis procedure appears in the paper titled "Further Studies in Biogeochemistry", Bulletin of the Geological Society of America, Volume 60, pages 531-559, 1949, by H.V. Warren and R.E. Delavault.

FREQUENCY CURVES

The probable and possible limits of anomalous conditions for western red cedar were estimated by the use of a frequency curve. The accompanying histograms show in consolidated form the results of analyses in parts per million (p.p.m.) of zinc in ash, and p.p.m. of zinc in dry plant.

Samples taken from western white pine, black spruce, western hemlock and alpine fir were insufficient in number to provide frequency curve data. Accordingly, probably anomalous values for these species were obtained from results accumulated in the past by Dr. H.V. Warren.

BIOGEOCHEMICAL RESULTS

Biogeochemical results indicate several anomalous zinc areas on the Johnson property. The most sizable and the strongest on the basis of results of analyses covers a surface area of about 900 feet x 600 feet in the area to the east of the Lynx Gulch workings. This anomaly cannot be related directly to known mineralization because of heavy overburden in this area.

A more scattered type of anomaly occurs in the western portion of the map area in the vicinity of workings on K.P. No. 5 claim. This anomaly can be partially related to known mineralization.

In the eastern portion of the map area, anomalous zinc values are scattered over a smaller area along the boundary of Syd and Bill claims.


CONCLUSIONS

The distribution of anomalous zinc values on K.P. No. 3 claim, to the east of Lynx Gulch suggests the presence of widespread underlying concentrations of zinc. Some of this anomalous content may be caused by the migration of zinc along bedding planes which apparently intersect the ground level at low angles. Further work would be necessary to establish the possibility of this condition.

In the event that work on the major anomaly proved encouraging, the smaller and more scattered anomalies would merit investigation.



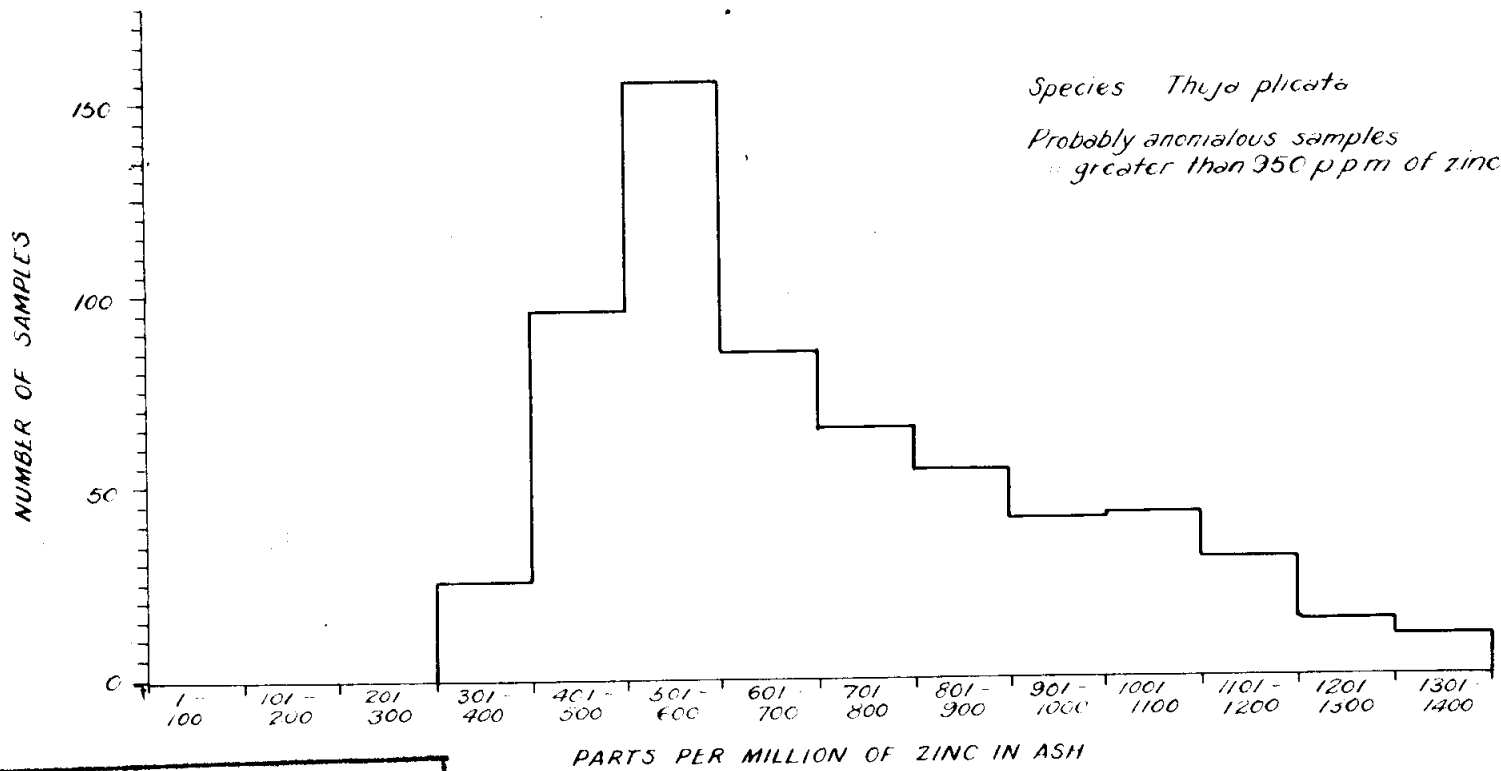
J.S. Scott.



D.A. Barr

Vancouver, B.C.

March 19, 1952

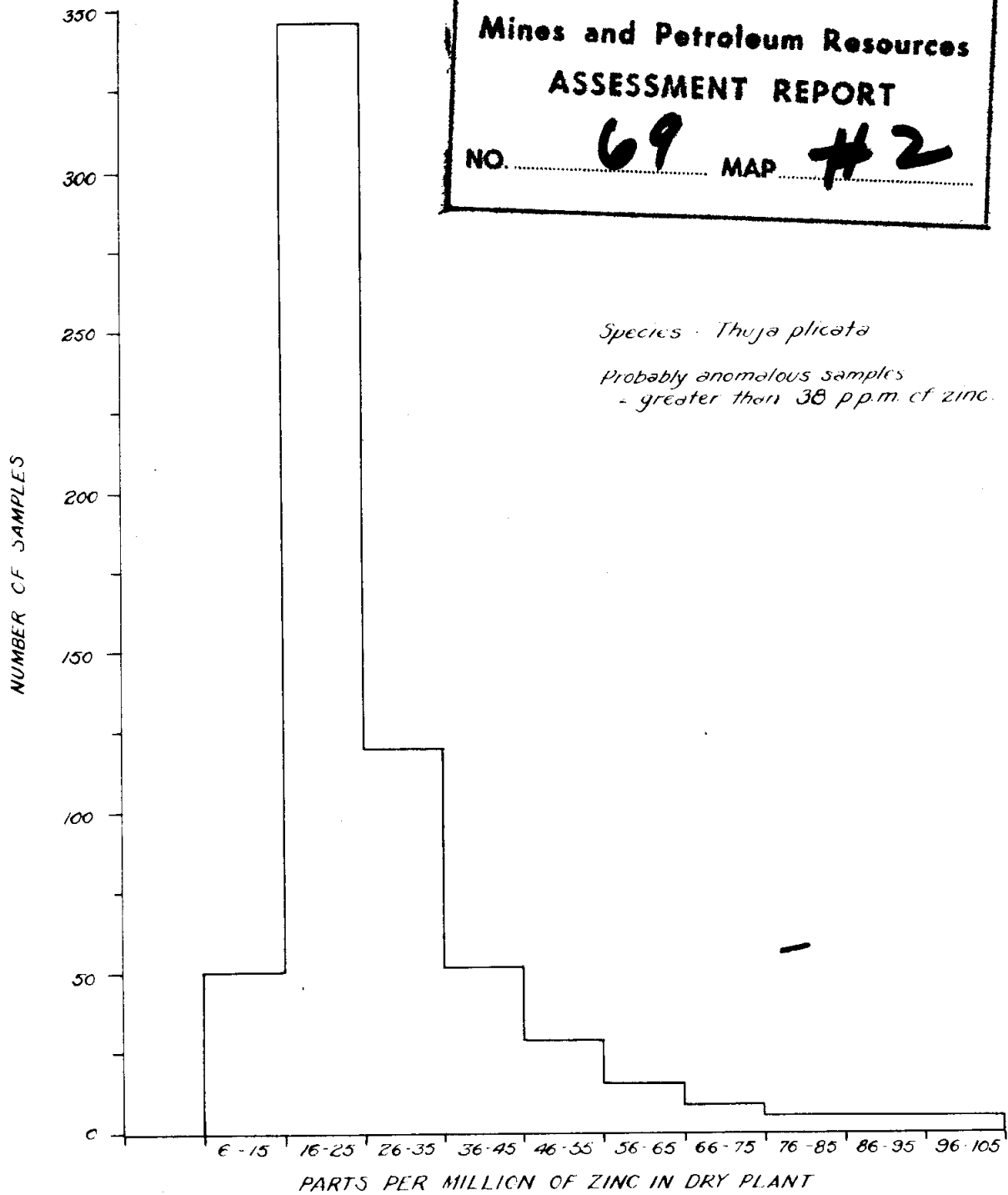


Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **69** MAP *****

KLNNCO EXPLORATIONS (CANADA) LIMITED
JOHNSON PROPERTY
HISTOGRAM

#69
Map 1

Department of
 Mines and Petroleum Resources
ASSESSMENT REPORT
 NO. **69** MAP **#2**



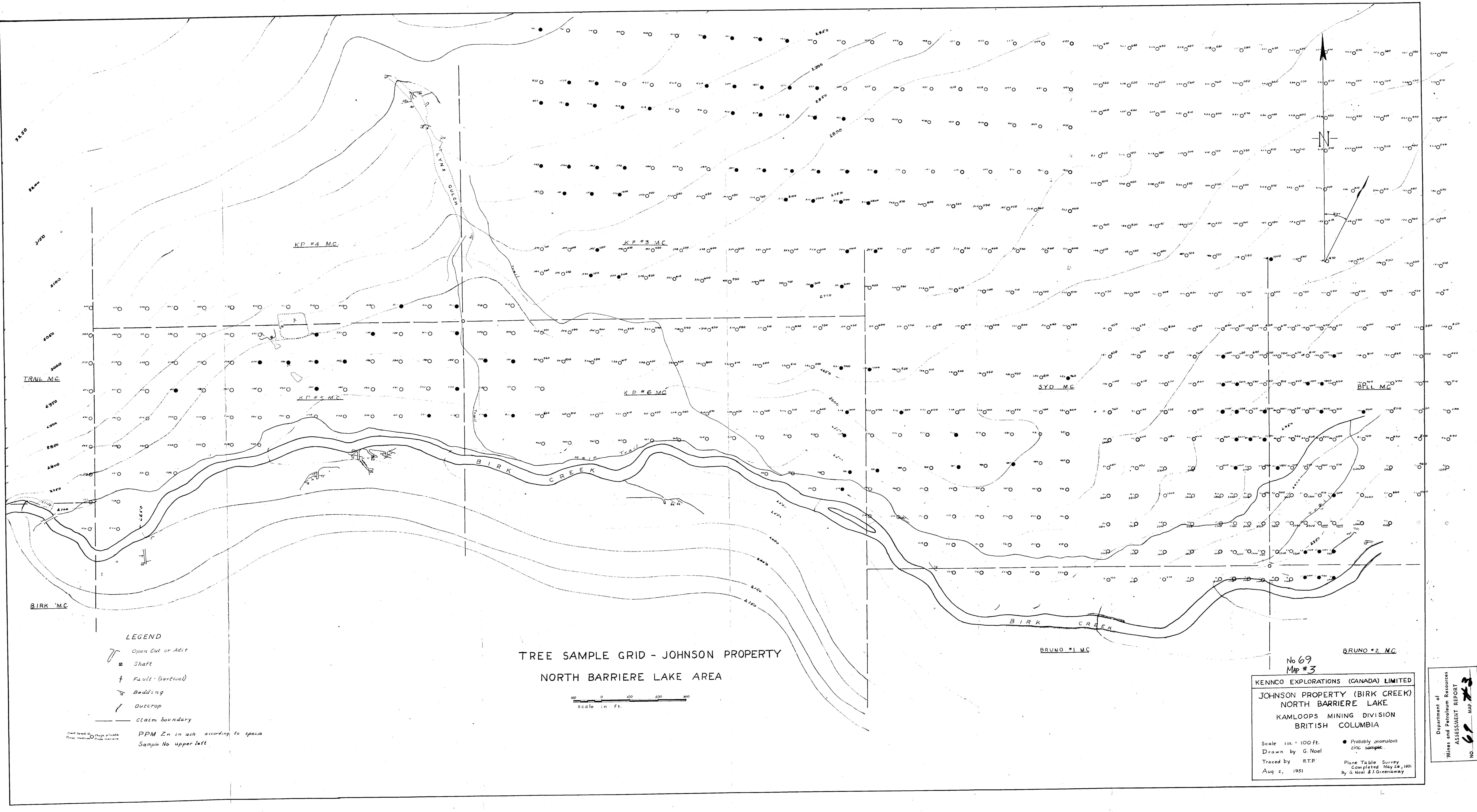
KENNCO EXPLORATIONS (CANADA) LIMITED

JOHNSON PROPERTY

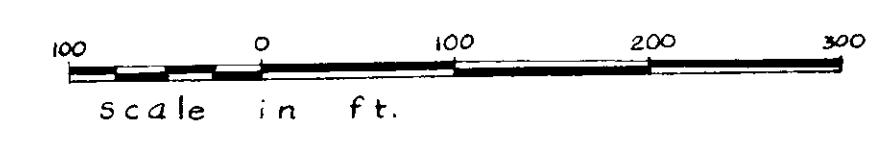
HISTOGRAM

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Map 2



TREE SAMPLE GRID - JOHNSON PROPERTY
NORTH BARRIERE LAKE AREA



LEGEND

- Open Cut or Adit
- Shaft
- Fault (vertical)
- Bedding
- Outcrop
- Claim boundary

PPM Zn in ash according to space
Sample No upper left

No 69
MAP #3

KENNCO EXPLORATIONS (CANADA) LIMITED
JOHNSON PROPERTY (BIRK CREEK)
NORTH BARRIERE LAKE
KAMLOOPS MINING DIVISION
BRITISH COLUMBIA

Scale 1 in. = 100 ft.
Drawn by G. Noel
Traced by R.T.P.
Aug 2, 1951

Probably anomalous zinc sample
Plane Table Survey
Completed May 28, 1951
By G. Noel & J. Greenaway

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ASSESSMENT REPORT
MAP #3
NO 69



Group No 1 ---
 Group No 2 ---
 Group No 3 ---
 Area covered by
 Biogeochemical Survey ---

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 ASSESSMENT REPORT
 NO. **69** MAP **#4**

KENNCO EXPLORATIONS (CANADA) LIMITED WESTERN DIVISION		
CLAIM MAP		
JOHNSON-BARRIERE PROPERTY		
KAMLOOPS MINING DIVISION British Columbia		
DATE: Apr 27/52	DRAWN BY: ZH	PLATE NO:
REVISED BY:	DATE:	SCALE:
		1 in = 300 ft