

5331

PERCUSSION DRILLING REPORT

on the

"LOG" GROUP OF MINERAL CLAIMS

MISSEZULA LAKE AREA

92H/15E

Nicola and Similkameen Mining Divisions

LATITUDE 49°47' LONGITUDE 120°34'

N.T.S. SHEET NO. 92H/15E

BETHLEHEM COPPER CORPORATION

January 13, 1975

R. J. NETHERY, P.ENG.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5331 MAP

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SECTION A - SUMMARY OF WORK

Introduction

The "LOG" Group of mineral claims was acquired by staking in December 1973 and followed a large scale regional exploration program. The 1974 program was carried out between Oct. 28, 1974 and Dec. 20, 1974 and included geological mapping, sampling and percussion drilling. The mapping was completed during the last week in October and, after assessing the results, the percussion drilling was initiated on November 5, 1974 and completed on December 20, 1974. The drilling program was designed to test covered areas bordering a large gossan zone and copper geochemical highs.

Location and Access

The property is located from one to three miles west of Missezula Lake and some twenty-three (23) miles north of Princeton with the geographic co-ordinates of the centre of the claim block being 49°47' latitude and 120°34' longitude. Access to the property starts from the Merritt-Princeton highway (No. 5) at a point twenty-seven (27) miles south of Merritt. A good dirt road runs for a distance of six miles from the highway to the central portion of the property.

Topography and Physical Environment

The property is characterized by generally moderate topography with altitude ranges from 4100' to 4500' A.S.L. A north-south

trending valley runs through the central portion with topographic highs located on both the eastern and western limits of the claim block. The major portion of the valley floor is presently clear of any timber as the result of a recent forest fire and logging operations. The remaining areas are covered by moderate stands of lodgepole pine.

General Geology

The property is mainly underlain by Nicola volcanics and sediments of Upper Triassic age. Drilling has revealed that a portion of the claims near the east central side are underlain by an intermediate acid plug. Known outcroppings of Jurassic coast intrusives occur near the south-west border of the claim block. Glacial drift covers the lowland areas and Tertiary flows apparently overlie much of the Nicola rocks in the valley.

Percussion Drilling

Josco Mining Co. Ltd. of Kamloops was the drilling contractor employed on the property and the work was carried out utilizing an Atlas Copco Model BBE-57-01 truck-mounted percussion unit. The drilling program was carried out in three stages; Nov. 5-14, Nov. 28-Dec. 4 and Dec. 9-20. A total of ten holes were drilled with the final footage total being 2955'. The following table outlines the details of the holes:-

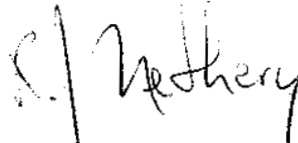
| <u>Hole No.</u> | <u>Dip</u> | <u>Elevation</u> (approx.) | <u>Overburden</u> | <u>Sample</u> <u>Interval</u> | <u>Total</u> <u>Depth</u> |
|-----------------|------------|-------------------------------|-------------------|----------------------------------|------------------------------|
| PC-74-1 | -90° | 4150 | 80 | 270 | 350 |
| PC-74-2 | -90° | 4150 | 60 | 300 | 360 |
| PC-74-3 | -90° | 4150 | 100 | - | 100 |
| PC-74-3A | -90° | 4200 | 12 | 288 | 300 |
| PC-74-4 | -90° | 4250 | 90 | - | 90 |
| PC-74-5 | -90° | 4150 | 90 | 260 | 350 |
| PC-74-6 | -90° | 4150 | 60 | 290 | 350 |
| PC-74-7 | -90° | 4250 | 10 | 390 | 400 |
| PC-74-8 | -90° | 4150 | 50 | 205 | 255 |
| PC-74-9 | -90° | 4300 | 10 | 390 | 400 |
| 10 Holes | | | 562 | 2393 | 2955 |

Initially holes PC-74-1 and PC-74-2 were only drilled to a depth of 200' but were deepened in order to obtain additional geological information. All holes were sited on existing access roads and thus, there was no road construction required. The drill hole locations are illustrated on both Figures 2 and 5.

Summary of Costs

Total costs incurred during this program were \$13,871.93 of which 68.1% or \$9,441.93 represents expenditures for contractor's services and 31.9% or \$4,430.00 represents expenditures directly within the Bethlehem organization. The average cost per foot of drilling was \$4.69. Although the work was not finished until Dec. 20, 1974, the value of work completed on or before the Dec. 18th anniversary date of the mineral claims was at least \$12,800.00 or the total of 64 claim years as set out in the three affidavits filed on Dec. 18, 1974.

Respectfully submitted,



R. J. Nethery, P.Eng.
Project Geologist

Bethlehem Copper Corp. Ltd.
2100 - 1055 West Hastings St.
Vancouver 1, B.C.

Dear Sirs: Attention: Mr. Robin Anderson.
Following is a statement of our account for percussion drilling on the LOG
Claim Group near Missezula Lake, during the period Nov. 5-14, 1974:

| <u>Hole No.</u> | <u>Bedrock Depth</u> | <u>Feet Cased</u> | <u>Total Footage Drilled</u> |
|-----------------|--------------------------------|-------------------|------------------------------|
| LOG 1 | 70 ft. | 80 ft. | 200 ft. |
| 2 | 60 " | 60 " | 200 " |
| 3 | No B.R. | 60 " | 100 " |
| 3A | 10 ft | 13 " | 300 " |
| 6 | 60 " | 70 " | 350 " |
| 5 | 80 " | 85 " | 350 " |
| 4 | No B.R. | 90 " | 90 " |
| 1 | Re-drilled from 200 to 350 ft. | | 150 " |
| Total | | | <u>1740 ft.</u> |

Drilling Charges 1740 ft. @ \$ 2.85 per ft..... \$ 4959.00

Mobilization & De-mobilization Charges

Nov. 5 - Move from Lornex to Missezula Lake
Lowbed Charges \$ 126.00
Labor Charges ... 18 man hrs. @ \$7.00 126.00

Nov. 14 - Move Missezula to Kamloops
Lowbed Charges 128.18
Labor charges .. 8 man hrs. @ \$7.00 56.00

Total Moving Charges \$436.18 \$ 436.18

Charges Re-Drilling Hole #LOG 1

Moving & driving 60 ft. of casing
6 man hrs. @ \$7.00 per hr \$ 42.00
3 hrs. equip. rental @ \$15.00..... \$ 45.00
Total \$ 87.00
Plus 10% 8.70

Total Re-Drilling Charges \$ 95.70 \$ 95.70

Total Amount Due \$ 5490.88

Yours very truly,

John W. Scott
John W. Scott,
Josco Mining Co. Ltd.

*ok for Payment
006-744.
\$ 5490.88
R ef*

Phone 372;7523
579:9127

JOSCO MINING CO. LTD.
P.O.Box 665, Kamloops, B.C. V2C 5L7

DEC 31 1974 REA ✓

Dec. 28, 1974.

Bethlehem Copper Corp. Ltd.
2100 - 1055 West Hastings St.
Vancouver 1, B.C.

Dear Sirs:

Attention: Mr. Robin Anderson.

Following is a statement of our account for percussion drilling on the LOG Claim Group, during the periods ~~Nov~~ Nov.28 - Dec.2 and Dec.9-20, 1974:

| <u>Hole No.</u> | <u>Bedrock Depth</u> | <u>Feet Cased</u> | <u>Total Footage Drilled</u> |
|-----------------|------------------------------|-------------------|------------------------------|
| LOG 7 | 10 ft. | 20 ft. | 400 ft. |
| LOG 8 | 50 " | 60 " | 255 " |
| LOG 9 | 10 " | 20 " | 400 " |
| LOG 2 | (Re-drilled from 200 to 360) | | 160 " |
| Total | | | <u>1215 ft.</u> |

Drilling Charges 1215 ft. @ \$ 2.85 per ft..... \$ 3462.75

Mobilization Charges - Nov.28

| | | |
|--------------------------------------|-----------|-----------|
| Lowbed charges per attached Inv..... | \$ 180.60 | |
| Labor Charges-16 hrs. @ \$7.00..... | 112.00 | |
| Total Mobilization Charges..... | \$ 292.60 | \$ 292.60 |

Charges Re-drilling LOG #2 - Nov.29

| | | |
|--|----------|----------|
| <u>Re-driving 60 ft. casing- 200 ft. rods.</u> | | |
| 6 man hrs. @ \$ 7.00 per hr..... | \$ 42.00 | |
| 3 hrs. equipment rental @ \$15.00.. | \$ 45.00 | |
| Total..... | \$ 87.00 | |
| Plus 10% | 8.70 | |
| Total Re-drilling charges.. | \$ 95.70 | \$ 95.70 |

Water Truck Charges

| | | |
|-------------|--|-----------|
| Dec.11..... | $\frac{1}{2}$ shift | |
| " 12 | 1 " | |
| " 20 | 1 " | |
| Total | $2\frac{1}{2}$ shifts @ \$ 40.00 per shift | \$ 100.00 |

Total Amount Due \$ 3951.05

Yours very truly,

John W. Scott
John W. Scott,
Josco Mining Co. Ltd.

Ref for Payment.

*006-944
RST.*

SECTION B - STATEMENT OF EXPENDITURES
(Oct. 28 to Dec. 20, 1974)

1. Contractors (see accompanying invoices)

(a) Josco Mining Co. Ltd.

- Percussion drilling contractor

Nov. 5-14, 1974 - \$5490.88

Nov. 28-Dec. 2, 1974) 3951.05

Dec. 9-Dec. 20, 1974)

\$9441.93

\$9441.93

2. Bethlehem Expenditures

(a) Personnel

R. J. Nethery, P.Eng. - Project Geologist

Oct. 28-Nov. 1 (5 days)- field mapping and drill site layouts

Nov. 12-15 (4 days)- drill supervision and sample logging

Dec. 2-4 (3 days)- " " " " "

Dec. 16-18 (3 days)- " " " " "

15 days

@ \$95.00/day = \$1425.00

J. G. Collins - Field Supervisor

Oct. 28-Nov. 1 (5 days)- field mapping and drill site layouts

Nov. 4-8 (5 days)- drill supervision

Nov. 10, 12-15 (5 days)- " "

Nov. 25, 28, 29 (3 days)- drill hole layouts and supervision

Dec. 2, 3, 6 (3 days)- " " " "

Dec. 9-13 (5 days)- drill supervision

Dec. 16-20 (5 days)- " "

31 days

@ \$65.00/day = \$2015.00

E. Andersen - Property Agent

a total of 4 days during the
above-noted period @ 75.00/day

= \$ 300.00

- data compilation and
report preparation

\$3740.00

\$3740.00

(b) Vehicle

| | | | |
|-----------------------------------|------------------------------|---------------|------------|
| R. J. Nethery | - 1 Ford F-100 4 x 4 Pick-up | | |
| | 15 days @ \$15.00/day - | \$225.00 | |
| J. G. Collins | - 1 Ford F-100 4 x 4 Pick-up | | |
| | 31 days @ \$15.00/day - | <u>465.00</u> | |
| | | \$690.00 | \$ 690.00 |
| | | | <hr/> |
| TOTAL EXPENDITURE | - | | \$13871.93 |
| TOTAL CLAIM YEARS | - | | 69 |
| AVERAGE COST PER FOOT OF DRILLING | - | | \$4.69 |

SECTION C - SCHEDULE OF MINERAL CLAIMS

BETHLEHEM COPPER CORPORATION LTD.

MINERAL CLAIMS

Property: COPPER BELT SOUTH -
Missezula Lake Project

Mining Division: Nicola

| Name of Claim | Record Number | Metal Tag Number | Date Recorded | Expiry Date |
|---------------|---------------|------------------|---------------|---------------|
| LOG-1 | 59642 R | 454601M | Dec. 18, 1973 | Dec. 18, 1975 |
| LOG-3 | 59644 R | 454603M | " | " |
| LOG-5 | 59646 R | 454605M | " | " |
| LOG-7 | 59648 R | 454607M | " | " |
| LOG-9 | 59650 R | 454609M | " | " |
| LOG-11 | 59652 R | 454611M | " | " |
| LOG-13 | 59654 R | 454613M | " | " |
| LOG-15 | 59656 R | 454615M | " | " |
| LOG-19 | 59658 R | 454619M | " | " |
| LOG-20 | 59659 R | 454620M | " | " |
| LOG-21 | 59660 R | 454621M | " | " |
| LOG-22 | 59661 R | 454622M | " | " |
| LOG-23 | 59662 R | 454623M | " | " |
| LOG-24 | 59663 R | 454624M | " | " |
| LOG-25 | 59664 R | 454625M | " | " |
| LOG-26 | 59665 R | 454626M | " | " |
| LOG-27 | 59666 R | 454627M | " | " |
| LOG-28 | 59667 R | 454628M | " | " |
| LOG-29 | 59668 R | 454629M | " | " |
| LOG-30 | 59669 R | 454630M | " | " |

BETHLEHEM COPPER CORPORATION LTD.

MINERAL CLAIMS

Property: COPPER BELT SOUTH -
Missequia Lake Project

Mining Division: Nicola

| <u>Name of Claim</u> | <u>Record Number</u> | <u>Metal Tag Number</u> | <u>Date Recorded</u> | <u>Expiry Date</u> |
|----------------------|----------------------|-------------------------|----------------------|--------------------|
| LOG-31 | 59670 R | 454631M | December 18, 1973 | December 18, 1975 |
| LOG-32 | 59671 R | 454632M | " | " |
| LOG-33 | 59672 R | 454633M | " | " |
| LOG-34 | 59673 R | 454634M | " | " |
| LOG-37 | 59674 R | 454637M | " | " |
| LOG-38 | 59675 R | 454638M | " | " |
| LOG-39 | 59676 R | 454639M | " | " |
| LOG-40 | 59677 R | 454640M | " | " |
| LOG-41 | 59678 R | 454641M | " | " |
| LOG-42 | 59679 R | 454642M | " | " |
| LOG-43 | 59680 R | 454643M | " | " |
| LOG-44 | 59681 R | 454644M | " | " |
| LOG-49 | 59682 R | 454649M | " | " |
| LOG-50 | 59683 R | 454650M | " | " |
| LOG-51 | 59684 R | 454651M | " | " |
| LOG-52 | 59685 R | 454652M | " | " |
| LOG-53 | 59686 R | 454653M | " | " |
| LOG-54 | 59687 R | 454654M | " | " |
| LOG-55 | 59688 R | 454655M | " | " |
| LOG-56 | 59689 R | 454656M | " | " |
| LOG-57 | 59690 R | 454657M | " | " |
| LOG-58 | 59691 R | 454658M | " | " |
| LOG-59 | 59692 R | 454659M | " | " |
| LOG-60 | 59693 R | 454660M | " | " |
| LOG-61 | 59694 R | 454661M | " | " |
| LOG-62 | 59695 R | 454662M | " | " |
| LOG-63 | 59696 R | 454663M | " | " |

BETHLEHEM COPPER CORPORATION LTD.

MINERAL CLAIMS

Property: COPPER BELT SOUTH -
Missezula Lake Project

Mining Division: Nicola

| <u>Name of Claim</u> | <u>Record Number</u> | <u>Metal Tag Number</u> | <u>Date Recorded</u> | <u>Expiry Date</u> |
|----------------------|----------------------|-------------------------|----------------------|--------------------|
| LOG-64 | 59697 R | 454664M | December 18, 1973 | December 18, 1973 |
| LOG-65 | 59698 R | 454665M | " | " |
| LOG-66 | 59699 R | 454666M | " | " |
| LOG-67 | 59700 R | 454667M | " | " |
| LOG-68 | 59701 R | 454668M | " | " |
| LOG-69 | 59702 R | 454669M | " | " |
| LOG-70 | 59703 R | 454670M | " | " |
| LOG-71 | 59704 R | 454671M | " | " |
| LOG-72 | 59705 R | 454672M | " | " |

BETHLEHEM COPPER CORPORATION LTD.

MINERAL CLAIMS

COPPER BELT SOUTH -

Property: Missezula Lake Project

Mining Division: Similkameen

| <u>Name of Claim</u> | <u>Record Number</u> | <u>Metal Tag Number</u> | <u>Date Recorded</u> | <u>Expiry Date</u> |
|----------------------|----------------------|-------------------------|----------------------|--------------------|
| LOG-17 | 41038 R | 454617M | December 18, 1973 | December 18, 1975 |
| LOG-18 | 41039 R | 454618M | " | " |
| LOG-35 | 41040 R | 454635M | " | " |
| LOG-36 | 41041 R | 454636M | " | " |
| LOG-45 | 41042 R | 454645M | " | " |
| LOG-46 | 41043 R | 454646M | " | " |
| LOG-47 | 41044 R | 454647M | " | " |
| LOG-48 | 41045 R | 454648M | " | " |

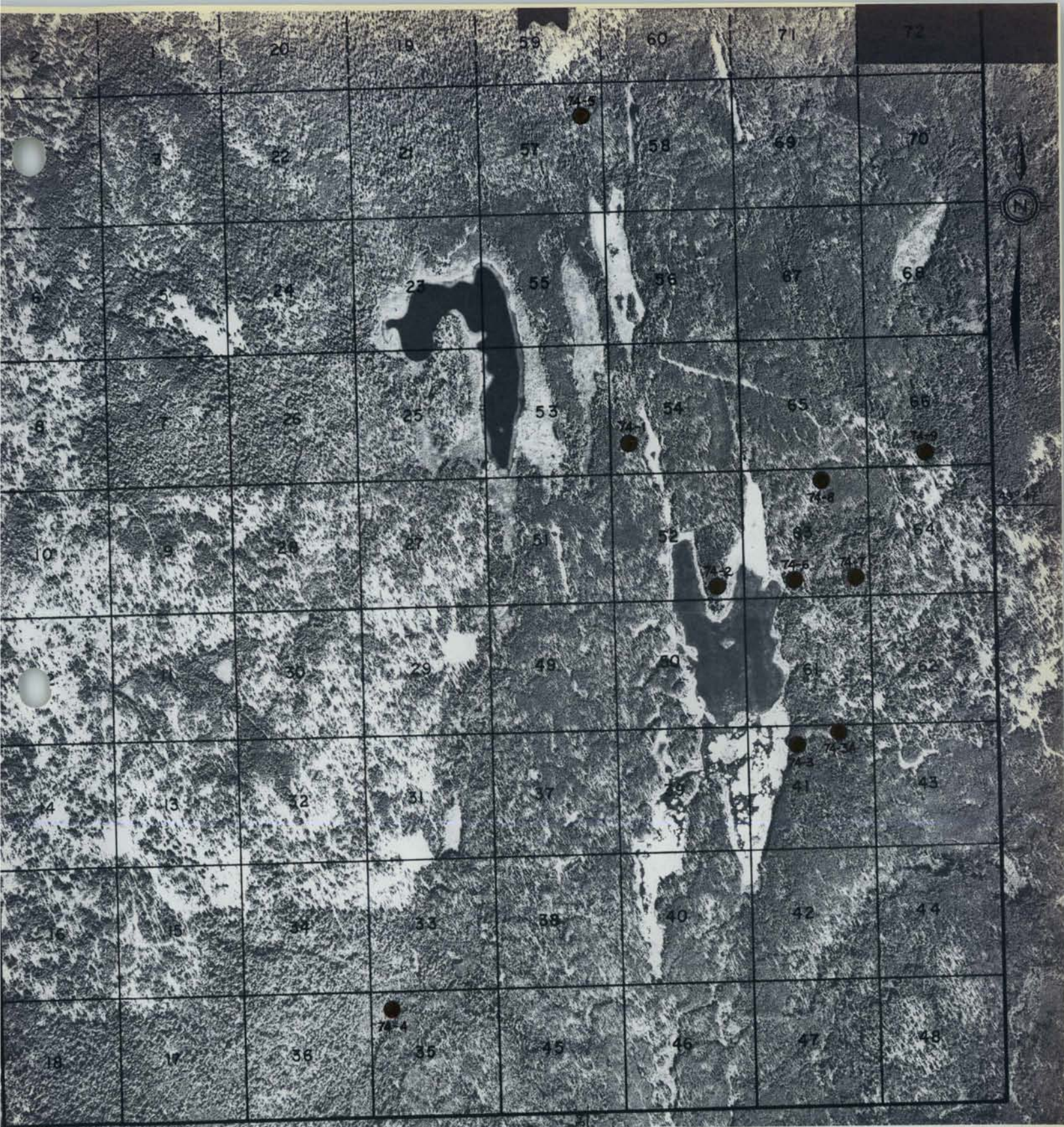
SECTION D - LIST OF ILLUSTRATIONS

| <u>DESCRIPTION</u> | <u>FIGURE NO.</u> |
|--|-------------------|
| #1 B.C. LOCATION PLAN | 1 |
| #2 PHOTO LOCATION PLAN showing mineral claims and percussion drill holes - Scale 1" = 1320' approx. | 2 |
| #3 PROPERTY LOCATION PLAN N.T.S. 92H/15 - Scale 1:50,000 | 3 |
| #4 MINERAL CLAIM PLAN - Scale 1" = ½ mile | 4 |
| #5 DRILL HOLE PLAN - Scale 1" = 1000' | 5 |




Department of
 Mines and Technical Resources
 ANNUAL REPORT
 No. 5331 MAP #1

5331
 MAP 1
 COPPER BELT PROJECT
 (MISSEZULA LAKE)
 "LOG" GROUP
 LOCATION PLAN



120°

| | | |
|--|--|----------------------|
| <p>AIR PHOTO No. — BC 7100-131 DATE OF PHOTOGRAPHY — 1969 SCALE: 20 chains or 1" = 1320' Approx</p> <p>74-1  Percussion Drill Hole</p> | <p>Department of Mines and Petroleum Resources</p> <p>COPPER BELT PROJECT (MISSEZULA LAKE)</p> <p>LOG GROUP ASSESSMENT REPORT LOCATION PLAN</p> <p>NO. 5331 MAP #2</p> | <p>FIG. 2</p> |
|--|--|----------------------|

A

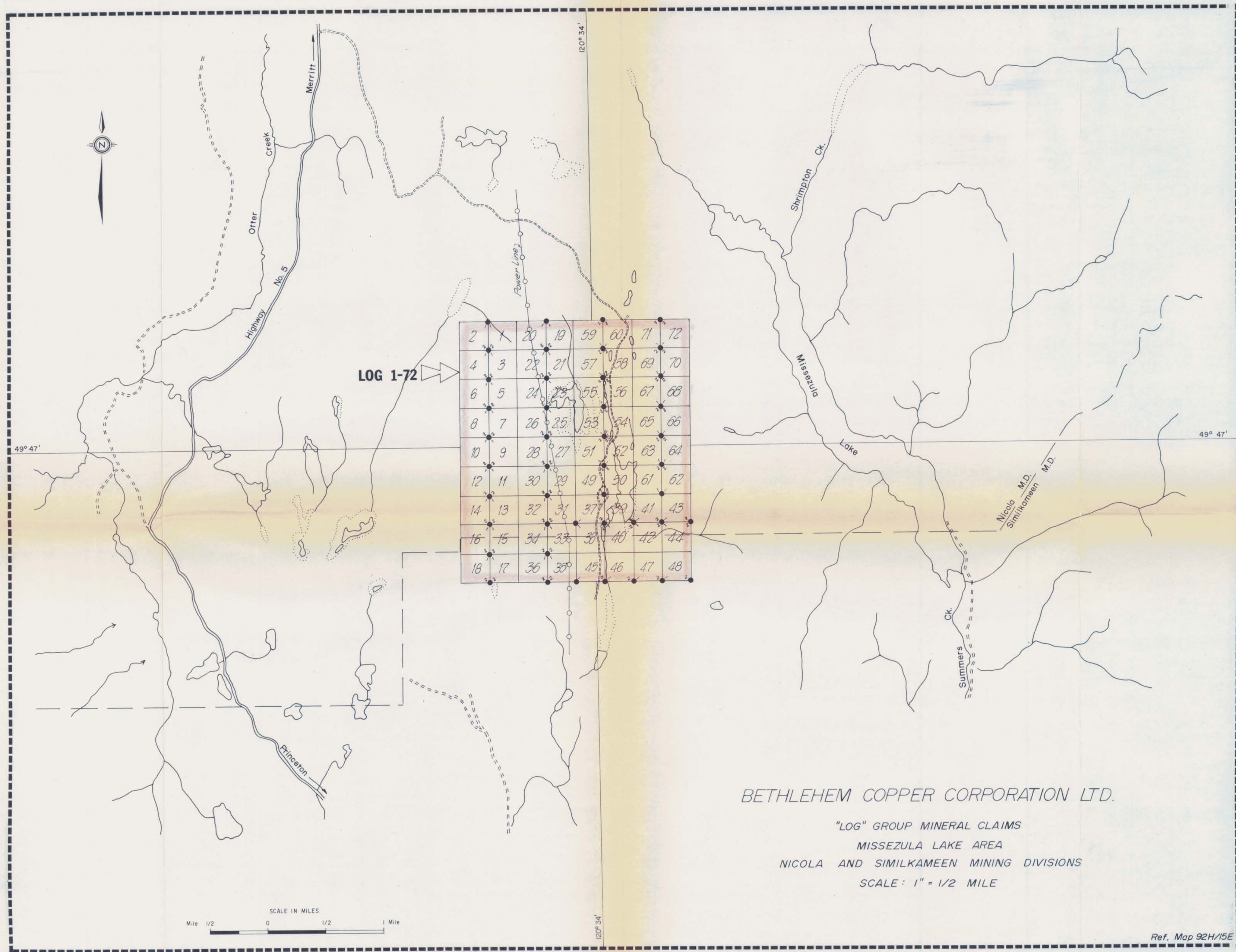
B

C

D

E

F



BETHLEHEM COPPER CORPORATION LTD.
 "LOG" GROUP MINERAL CLAIMS
 MISSEZULA LAKE AREA
 NICOLA AND SIMILKAMEEN MINING DIVISIONS
 SCALE: 1" = 1/2 MILE

5331
 MAP 4

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 5331 MAP #4

FIG. 4 to accompany Percussion
 Drilling Report on the "LOG"
 Group of Mineral Claims,
 Missezula Lake Area, Nicola and
 Similkameen Mining Divisions.
 Jan. 13, 1975 - R.J. Nethery, P.Eng.
R.J. Nethery

| | | |
|--------------|----|-----------------------------|
| DATE REVISED | BY | DEPT. - EXPLORATION |
| | | DRAWN BY - AMEX EXPLORATION |
| | | CHECKED - E.A. |
| | | APPROVED - |
| | | DATE - DEC. / 1973 |
| | | SCALE - 1" = 1/2 mile |



| | |
|---|------------------|
| TITLE - MISSEZULA LAKE PROJECT MINERAL CLAIMS | |
| FILE NUMBER - | DRAWING NUMBER - |
| | FIG. 4 |

1

2

3

4

1

4

TITLE

FILE NO.

DRAWING NO.

A B C D E F

1
2
3
4



TITLE
FILE NO.
DRAWING NO.

4

FIG. 5 to accompany Percussion Drilling Report on the "LOG" Group of Mineral Claims, Missezula Lake Area, Nicola and Similkameen Mining Divisions. Jan. 13, 1975 - R.J. Nethery, P.Eng.

Department of
Mineral and Petroleum Resources
PERCUSSION DRILLING REPORT
NO. 5331 MAP #5

R. Nethery

LEGEND
 PC-74-1 Percussion Drill Hole
 (OB) - Overburden
 (T) - Tertiary
 (BR) - Bedrock

JURASSIC OR LATER
C Coast Intrusions - Granite, Granodiorite, Quartz diorite

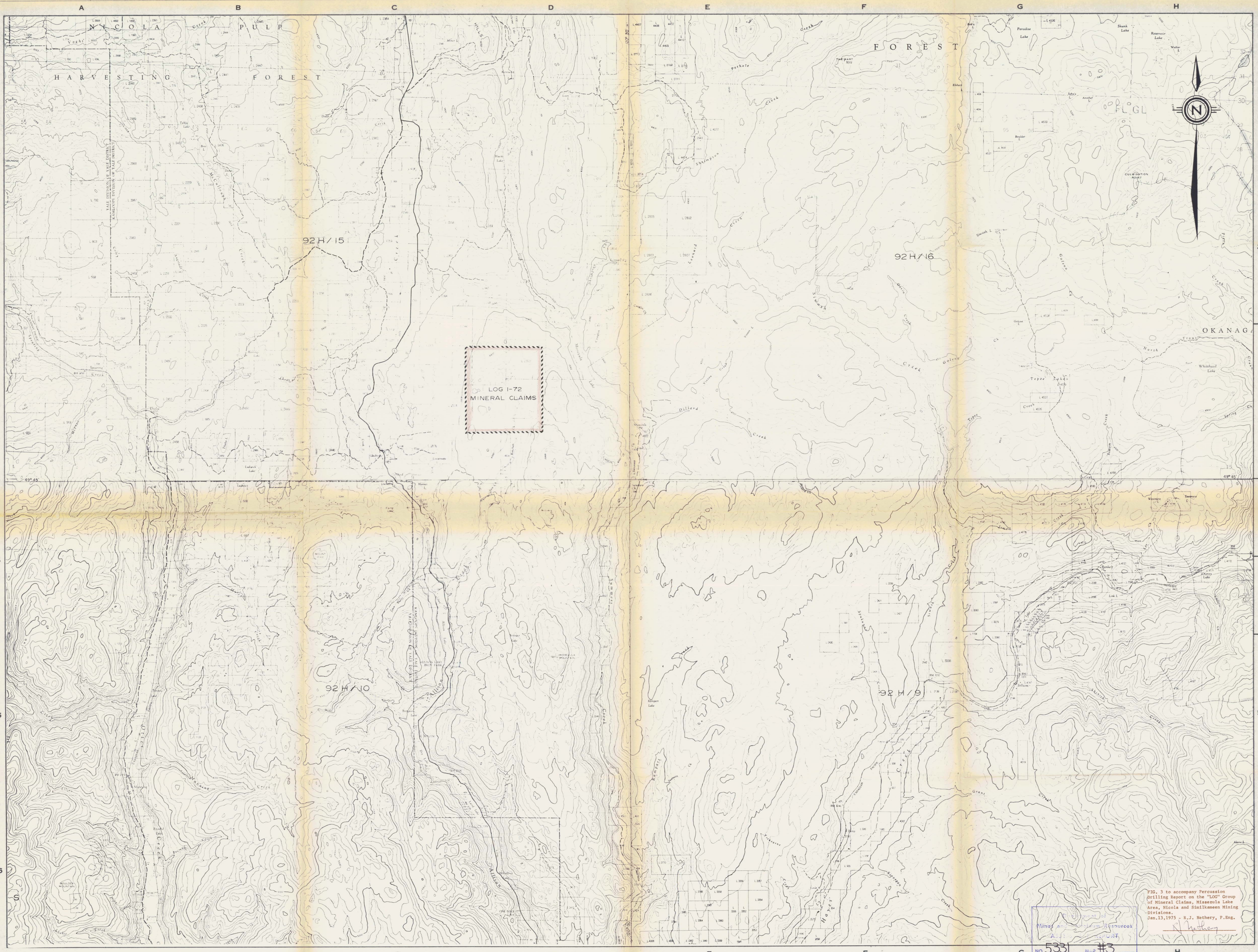
UPPER TRIASSIC
N Nicola Group - Volcanics, Argillite, Tuffs
 SCALE IN FEET
 1000 0 1000 2000

| DATE REVISED | BY | DEPT. - EXPLORATION |
|--------------|----|---------------------|
| | | DRAWN BY - |
| | | CHECKED - R.J.N. |
| | | APPROVED - |
| | | DATE - NOV. 1974 |
| | | SCALE - 1" = 1000' |

| TITLE - MISSEZULA LAKE PROJECT DRILL HOLE PLAN | |
|--|-------------------------|
| FILE NUMBER - 5331- | DRAWING NUMBER - FIG. 5 |

MAPS

A B C



LOG 1-72
MINERAL CLAIMS

92H/15

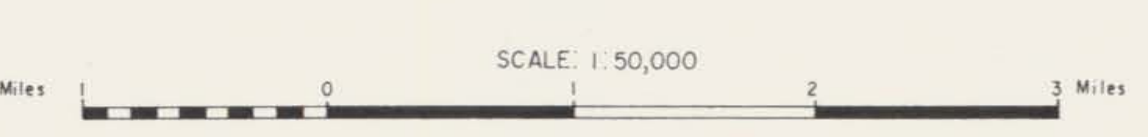
92H/16

92H/10

92H/9

FIG. 3 to accompany Percussion Drilling Report on the "LOG" Group of Mineral Claims, Mississauga Lake Area, Nicola and Similkameen Mining Divisions, Jan. 13, 1975 - R.J. Netherly, P.Eng.

Mineral Resources
Access Report
NO. 5331 MAP #3



| | | |
|--------------|----|----------------------|
| DATE REVISED | BY | DEPT. - EXPLORATION |
| | | DRAWN BY - Altair/mk |
| | | CHECKED - E.A. |
| | | APPROVED - |
| | | DATE - DEC. 1974 |
| | | SCALE - 1:50,000 |



| | |
|---|------------------|
| TITLE - MISSEZUGA LAKE PROJECT PROPERTY LOCATION PLAN | |
| FILE NUMBER - | DRAWING NUMBER - |
| N.T.S. 92H9, 10, 15, 16 | FIG. 3 |