

810067

GEOCHEMICAL SURVEY OF AREA "I",  
FRASER LAKE, BRITISH COLUMBIA

93 152

GEOCHEMICAL SURVEY OF AREA "I",  
FRASER LAKE, BRITISH COLUMBIA

93 152

PREPARED FOR  
CYPRUS EXPLORATION CORPORATION LIMITED,  
510 WEST HASTINGS STREET,  
VANCOUVER, B.C.

PREPARED BY  
BARRINGER RESEARCH LIMITED,  
304 CARLINGVIEW DRIVE,  
REXDALE, ONTARIO.

JULY 1969.

LIST OF CONTENTS

|   |   |
|---|---|
| Introduction .....                        | 1 |
| Results .....                             | 2 |
| Conclusions and Recommendations .....     | 3 |
| Geochemical Laboratory Report (two pages) |   |

LIST OF DRAWINGS

|         |   |            |
|---------|---|------------|
| 4-118-7 | Geochemical Stream Sediment Survey - Copper     | 1" = 2640' |
| 4-118-8 | Geochemical Stream Sediment Survey - Molybdenum | 1" = 2640' |
| 4-118-9 | Geochemical Stream Sediment Survey              | 1" = 2640' |

## INTRODUCTION

A reconnaissance geochemical stream sediment survey was carried out over approximately 30 square miles of ground held by Cyprus Exploration near Fraser Lake. Stream sediment sampling at an interval of one per quarter mile along all drainages was completed over the whole claim area.

The area rises in relief from the Fraser Lake trough, which is a wide glacial till filled valley. The whole region dips topographically to the north (Fraser Lake) but has local relief of approximately 100-200 feet.

Outcrop is sparse generally less than 5%, but the soil cover is probably generally thin and was estimated to vary from 0 - 20 feet in the majority of places. Much of the till contains angular fragments, and is thought to be of relatively local origin, although local troughs of well sorted water lain material can be found. These troughs represent the product of glacial run-off and that material contained in them has been transported for some distance. The streams are generally flowing for much of the year, and generally contain ample well sorted material.

The geology is being mapped by Alrae Engineering Limited, and this map was not available at the time of writing the report, and therefore the geological observations contained here are purely preliminary.

## RESULTS

From a complete examination of all the data the following threshold and anomalous values are calculated for this area:-

|                   | <u>Copper</u><br><u>ppm</u> | <u>Molybdenum</u><br><u>ppm</u> |
|-------------------|-----------------------------|---------------------------------|
| Background        | 0 - 15                      | 0 - 8                           |
| Threshold         | 15                          | 8                               |
| 3rd Order Anomaly | 16 - 30                     | 9 - 16                          |
| 2nd Order Anomaly | 31 - 45                     | 17 - 24                         |
| 1st Order Anomaly | >45                         | >24                             |

The east side of the map area shows only isolated, possibly anomalous, molybdenum and copper values of little economic interest. The south-west corner of the survey area however, shows a number of 3rd and 2nd order copper and molybdenum anomalies, delineating an area open to the south-west in ground which has been previously staked. In particular, sample numbers 1 - 12 and sample 15 indicate an area of several square miles with a number of encouraging molybdenum values supported by low order anomalous copper values. Sample numbers 200-210 drain the same general area and although lower in intensity, also indicate this region may contain mineralization.

## CONCLUSIONS AND RECOMMENDATIONS

The anomalous copper and molybdenum values are generally coincident and also overlie an area of altered granitic rocks. Further geological correlation is not possible at this time as the geological map is not available, but these anomalies represent a considerable area of potentially interesting ground.

Before further follow up is undertaken, the geology and geophysics should be taken into consideration. But, on the basis of the geochemistry, the claim area should be extended to the south-west as far as possible, and further geochemical stream sediment sampling undertaken to the west and the south of the presently observed anomalies, in order that the areal extent of this anomaly for both molybdenum and copper may be ascertained. If no further ground can be obtained in that direction, it would still be desirable to undertake geochemical sampling in order to determine the extent and therefore possible significance of the anomalies on the Cyprus claims with respect to the adjacent ground.

Following the delineation of the stream sediment anomaly, soil sampling should be undertaken over the most interesting areas. The position of the soil grid and sample intervals can only be determined after completion of the stream sediment geochemical data, and in conjunction with the geology and geophysics.

BARRINGER RESEARCH LIMITED,



PMDB/lh.

P. M. D. Bradshaw,  
Chief Geochemist.



# BARRINGER RESEARCH

## Geochemical

## Laboratory Report

Proj. No. 118-34

BARRINGER RESEARCH LIMITED  
304 CARLINGVIEW DRIVE  
REXDALE, ONTARIO, CANADA  
PHONE: 416-677-2491  
CABLE: BARESEARCH

DATE July 21, 1969.

Cyprus Exploration Corp. Ltd.,  
510 W. Hastings,  
VANCOUVER, B.C.  
ATT: N. Buist.

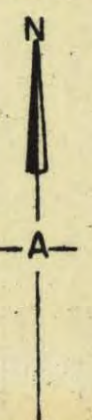
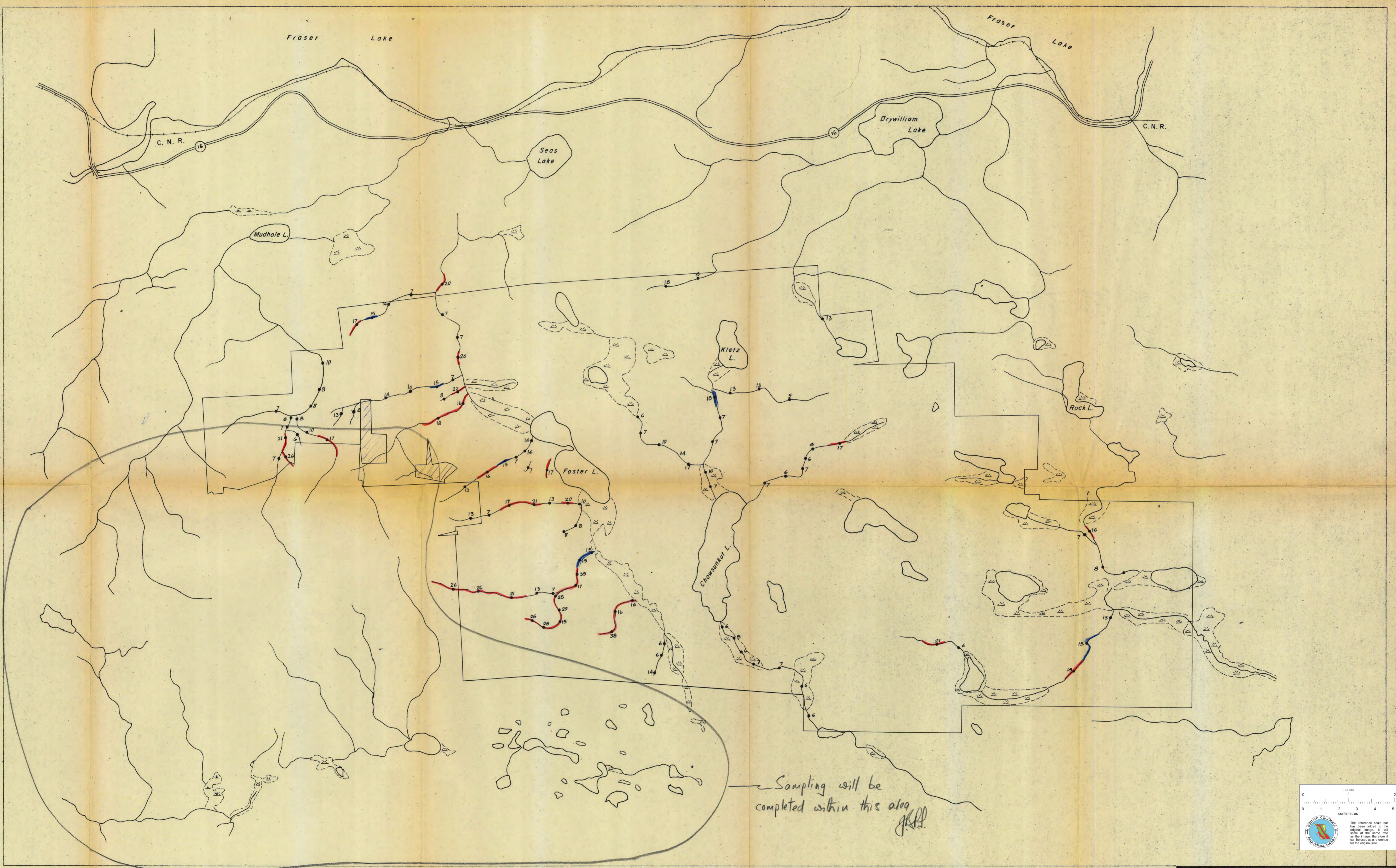
REPORT NUMBER 53B

| SAMPLE NUMBER | HCl<br>Cu<br>ppm | Bis<br>Mo<br>ppm |  | Sample<br>Number | HCl<br>Cu<br>ppm | Bis<br>Mo<br>ppm |  | Sample<br>Number | HCl<br>Cu<br>ppm | Bis<br>Mo<br>ppm |
|---------------|------------------|------------------|--|------------------|------------------|------------------|--|------------------|------------------|------------------|
| I-1           | 26               | 32               |  | I-21             | 6                | 7                |  | I-104            | 22               | 12               |
| 2             | 26               | 20               |  | 22               | 6                | 7                |  | 105              | 15               | 8                |
| 3             | 21               | 20               |  | 23               | 7                | 10               |  | 106              | 10               | 7                |
| 4             | 13               | 12               |  | 24               | 7                | 8                |  | 107              | 14               | 6                |
| 5             | 7                | 12               |  | 25               | 6                | 6                |  | 108              | 7                | 6                |
| 6             | 25               | 32               |  | 26               | 5                | 6                |  | 109              | 20               | 10               |
| 7             | 28               | 40               |  | 27               | 6                | 6                |  | 110              | 7                | 4                |
| 8             | 15               | 24               |  | 28               | 17               | 12               |  | 111              | 7                | 6                |
| 9             | 29               | 36               |  | 29               | 7                | 6                |  | 112              | 20               | 6                |
| 10            | 25               | 28               |  | 30               | 7                | 6                |  | 113              | 7                | 4                |
| 11            | 17               | 24               |  | 31               | 15               | 5                |  | 114              | 14               | 4                |
| 12            | 35               | 36               |  | 32               | 13               | 6                |  | 115              | 15               | 5                |
| 13            | 15               | 16               |  | 33               | 13               | 6                |  | 116              | 17               | 3                |
| 14            | 15               | 12               |  | 34               | 5                | 6                |  | 117              | 14               | 3                |
| 15            | 38               | 38               |  | 35               | 10               | 7                |  | 118              | 7                | 3                |
| 16            | 16               | 16               |  | 36               | 7                | 6                |  | 119              | 15               | 3                |
| 17            | 16               | 16               |  | 100              | 14               | 6                |  | 120              | 16               | 6                |
| 18            | 14               | 12               |  | 101              | 18               | 6                |  | 121              | 13               | 6                |
| 19            | 6                | 6                |  | 102              | 16               | 6                |  | 123              | 7                | 16               |
| 20            | 6                | 8                |  | 103              | 8                | 6                |  | 124              | 13               | 28               |



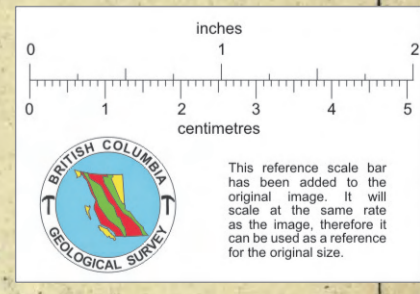


Dwg. No. <sup>4</sup>/~~5~~-118-7



**LEGEND**

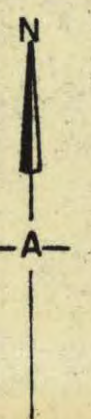
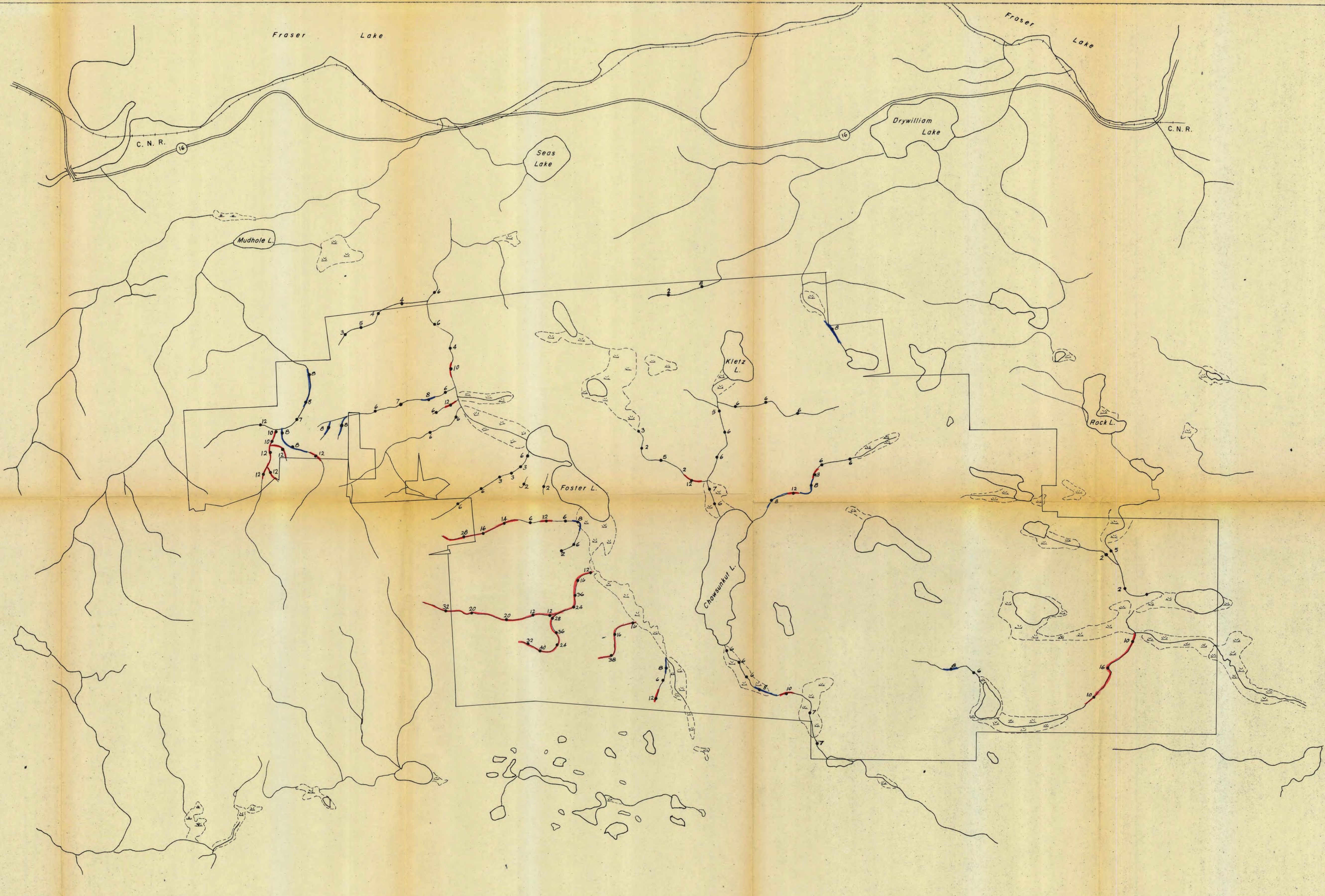
|                    |       |              |
|--------------------|-------|--------------|
| COPPER - ppm.      |       |              |
| Background         | 0-15  | Sample value |
| Threshold          | 15    |              |
| 3rd. Order Anomaly | 16-30 |              |
| 2nd. " "           | 31-45 |              |
| 1st. " "           | > 45  |              |



|   |                |              |
|---|----------------|--------------|
| CYPRUS EXPLORATION CORPORATION LTD.       |                |              |
| FRASER LAKE, AREA "1"                     |                |              |
| GEOCHEMICAL STREAM SEDIMENT SURVEY COPPER |                |              |
| JULY 1969                                 | Scale 1"=2640' | DWG. 4-118-7 |

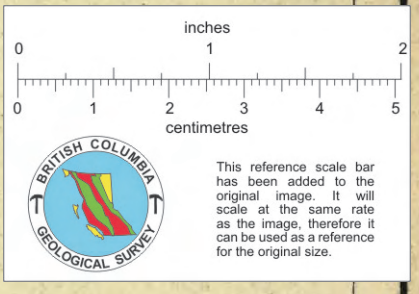
Work undertaken by  
BARRINGER RESEARCH LTD, Toronto, Canada.

Dwg. No. <sup>4</sup>B-118-8



**LEGEND**

|                    |         |              |
|--------------------|---------|--------------|
| MOLYBDENUM - ppm.  |         |              |
| Background         | 0 - 8   | Sample value |
| Threshold          | 8       |              |
| 3rd. Order Anomaly | 9 - 16  |              |
| 2nd. " "           | 17 - 24 |              |
| 1st. " "           | > 24    |              |



CYPRUS EXPLORATION CORPORATION LTD.

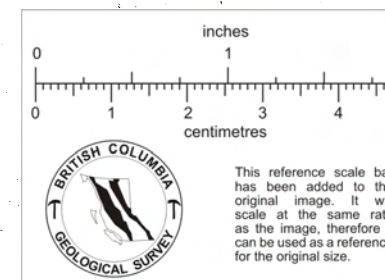
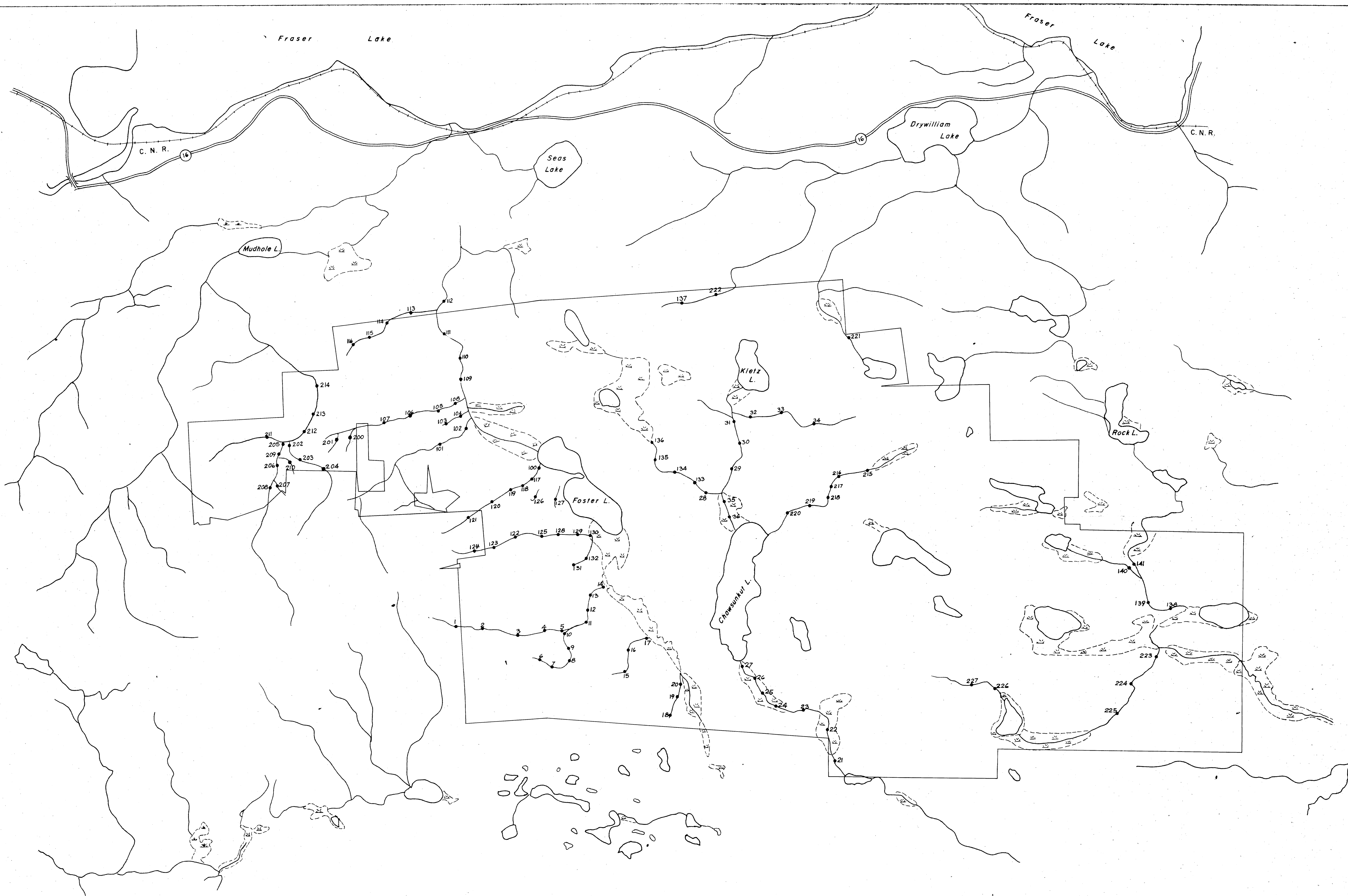
FRASER LAKE, AREA "1"

**GEOCHEMICAL STREAM SEDIMENT SURVEY MOLYBDENUM**

Work undertaken by  
BARRINGER RESEARCH LTD, Toronto, Canada.

JULY 1969 Scale 1"=2640' DWG. 4-118-8

Dwg. No. <sup>4</sup>/~~5~~-118-9



● Sample Location

CYPRUS EXPLORATION CORPORATION LTD.

FRASER LAKE, AREA "I"

GEOCHEMICAL STREAM SEDIMENT SURVEY

Work undertaken by  
BARRINGER RESEARCH LTD, Toronto, Canada.

JULY 1969

Scale 1"=2640'

DWG. 4-118-9

INTER OFFICE MEMO

CYPRUS EXPLORATION CORPORATION  
VANCOUVER OFFICE

|             |           |   |
|-------------|-----------|---|
| TO          | REPLY     |   |
|             | COMMENT   |   |
| RETURN TO   |           |   |
| AUG 11 1969 |           |   |
| 1           | <i>SA</i> | 5 |
| 2           | <i>SA</i> | 6 |
| 3           | <i>SA</i> | 7 |
| 4           | <i>PC</i> | 8 |

Date: August 7th, 1969

To: Mr. C.A. Mark  
From: J.B.P. Sawyer  
Subject: PROJECT I *(Fraser Lake)*

Attached please find a copy of the report from Barringer Research Ltd. re reconnaissance silt sampling programme carried out in the Fraser Lake area, and a copy of the progress report to July 31, 1969, received from Alrae Engineering Ltd. It is apparent from the Barringer report and results that a strongly anomalous situation exists in the area of Nithi Mountain including part of the south-western corner of our claim group. In order to evaluate this situation fully, it will be necessary to complete the sampling of the streams in the Nithi Mountain area. I have asked Barringer Research to carry out this further sampling to complete the picture here when they have completed the soil sampling presently in progress on the Spa Mines property. Although it seems that the area of interest is centred around Nithi Mountain off our claim holdings, it may well be that we have within our claim group part of the interesting ground. It may also become desirable to acquire some further ground on the south of our present holdings.

These results indicate that reconnaissance sampling, such as we have carried out, is effective in picking up known areas of interest - alteration and mineralization - and would seem to indicate that no other such areas exist on the claim group which we presently hold.

The rate of mapping by Alrae appears to be satisfactory. I propose to visit the "I" project area on the way back from the Yukon next week.

/vp  
Encl.

*J.B.P. Sawyer*  
J.B.P. Sawyer.

CYPRUS EXPLORATION CORPORATION LTD.  
'I' Project  
Progress Report to July 31, 1969

On July 21, 1969, the writer made a supervision trip to the 'I' project which included review of the mapping to date with Mr. George Stephens and a traverse through the central area of the claims to see the various rock types recognized in the mapping.

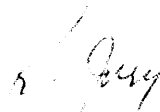
The accompanying map outlines the area which has now been covered by geological mapping and it would appear that the field work will be completed on schedule.

Magnetometer profiles of claim lines has been completed and maps are being updated. Soil sampling of the small grids on claims I-350 is also finished and samples have been forwarded to Barringer in Vancouver for analysis.

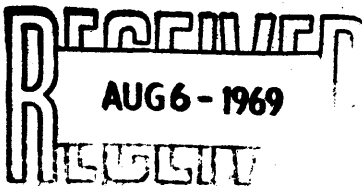
The mapping crew are now working on the northeastern portion of the claims and have encountered well sheared but relatively unaltered Nithi quartz monzonite. A previously unknown rock type has been encountered on claims I-549 and I-551. This consists of scattered, very large (4") phenocrysts of orthoclase within the groundmass composed of 20% quartz, 40% plagioclase, and 10% biotite. The groundmass has an average grain size of approximately 3 mm.

No significant mineralization has been encountered to date.

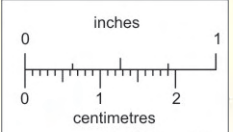
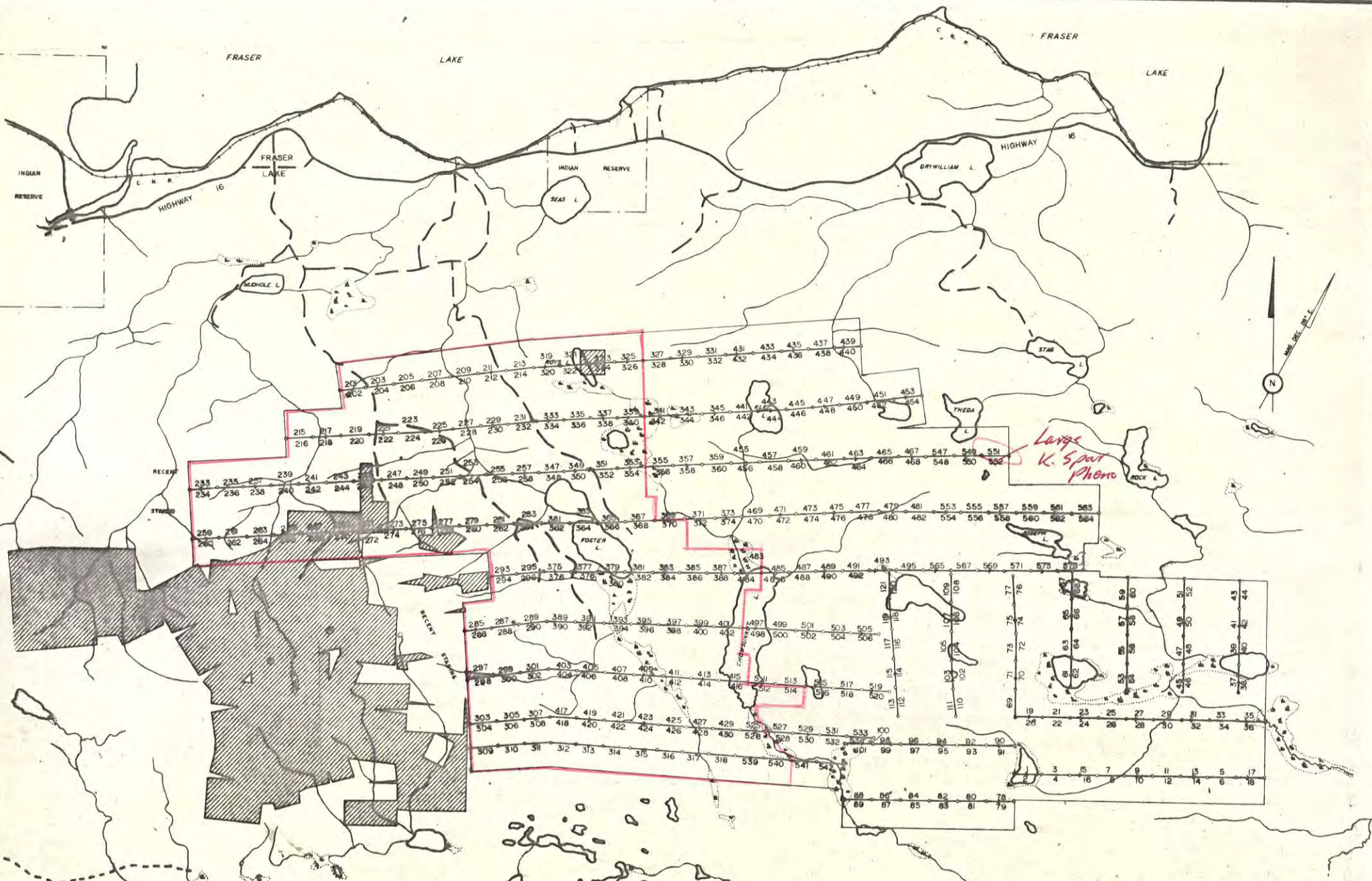
Respectfully submitted:




Rae G. Jury, P. Eng.








 This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

**LEGEND**  
 EXISTING CLAIMS AS OF MARCH 69.

NOTE: ALL CLAIM NUMBERS PRECEDED BY THE LETTER "I".

|   |                                   |
|---|-----------------------------------|
| CYPRUS EXPLORATION CORPORATION  |                                   |
| "I" PROJECT CLAIM LOCATION  |                                   |
| ALASKA ENGINEERING LTD.<br>GEOLOGIST AND ENGINEER<br>VANCOUVER, B. C. |                                   |
| DESIGNED:   | SCALE: HOR. 1" = 1/2 MI.<br>VERT. |
| DRAWN: H. E.  |                                   |
| CHECKED: B. G. A.   |                                   |
| DATE: APRIL 69  | DWG. No. 318-                     |