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77-# 302 # 6412

OUTCROP GEOLOGY
TRENCHED AREAS 1 AND 2
PRIME CLAIM GROUP
SIMILKAMEEN MINING DIVISION
92 H - 16 W

<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
PRIME 1	8	46 (5)	May 20, 1977
PRIME 2	16	46 (5)	May 20, 1977

on behalf of

PIPER PETROLEUMS LTD.

by

G. GUTRATH, P. ENG.
ATLED EXPLORATION MANAGEMENT LTD.

May, 1977

MINERAL RESOURCES BRANCH ASSESSMENT REPORT NO. _____
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OUTCROP GEOLOGY
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INTRODUCTION

The outcrop geology was mapped on a scale of 1 inch = 100 feet during a trenching programme on the Prime Claim group in May, 1977.

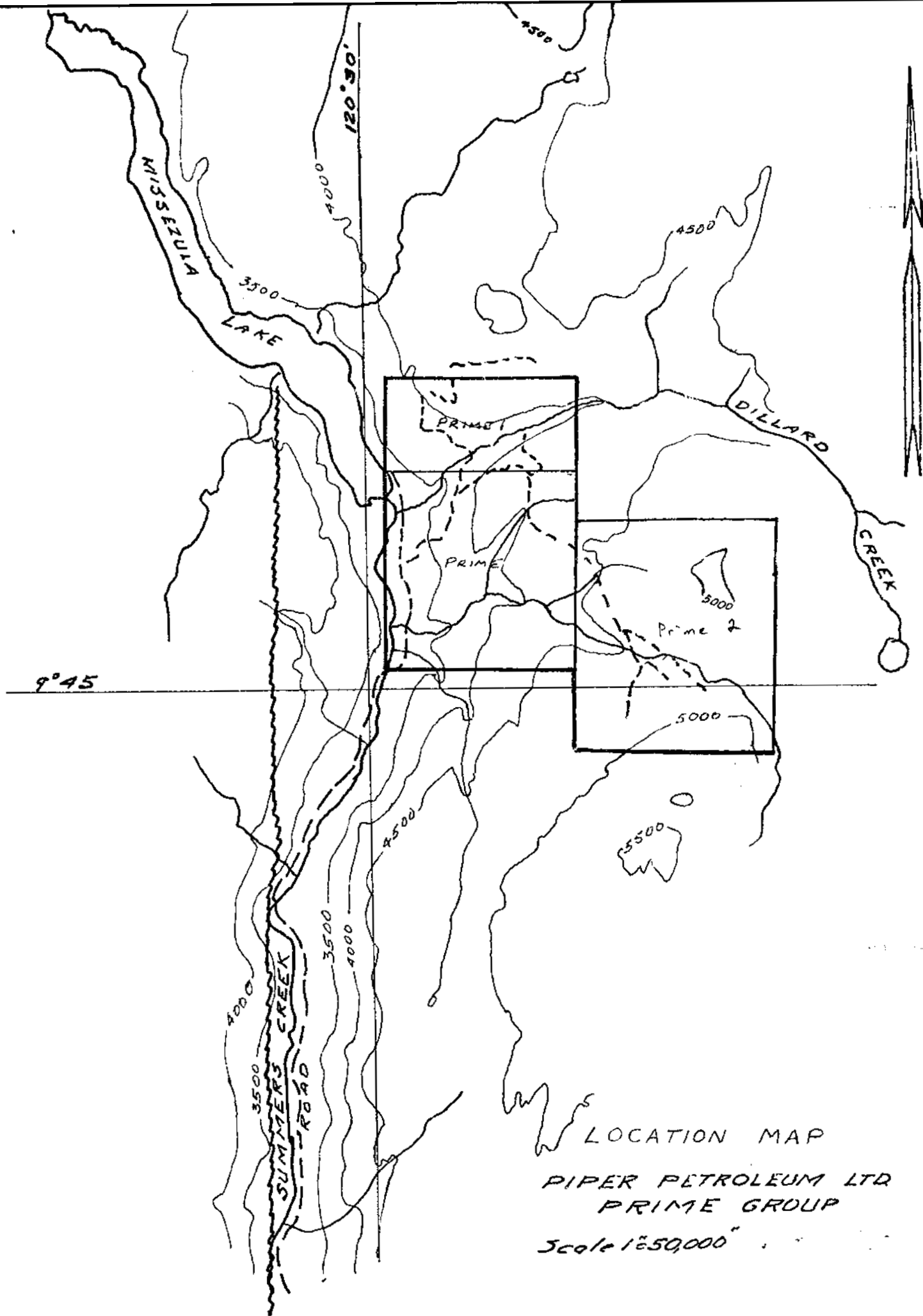
LOCATION AND ACCESS

The property is located in south-central British Columbia 22 airmiles north of the community of Princeton. The approximate co-ordinates of the property are $49^{\circ} 45'$ north latitude and $128^{\circ} 28'$ longitude.

The property can be reached from Princeton by taking the Merritt Highway north for 8 miles and then turning north on the Missezula Lake gravel road for 18 miles. A number of gravel roads in fair condition gives good access to the majority of the property from the Missezula Lake road.

PHYSIOGRAPHY

The Prime group covers the eastern slope of the Summers Creek Valley from Summers Creek at an elevation of 3200 feet to a rolling plateau area at an elevation



LOCATION MAP
PIPER PETROLEUM LTD
PRIME GROUP
Scale 1:50,000"

of 4,400 feet.

The claims are covered by a thick stand of fir and jack pine.

There is ample water on the property for drill requirements.

GEOLOGY

General

The Princeton-Missezula Lake area is underlain by Nicola Group sediments, andesite flows, and related volcanics of Triassic age.

This group is within a downfaulted block bounded by major north to northwest striking faults and bordered by Coast Range intrusive rocks of Jurassic age. This fault block has been cut by numerous smaller faults and by a wide range of dikes.

Property

The Prime Group is underlain by Nicola Group andesite flows, tuffs, agglomerates and limestone.

These rocks are located within an embayment of the Okanagan granodiorite batholith that lies to the east of the property. Dikes, sills and small stocks of varying composition cut the Nicola Group rocks in the property area.

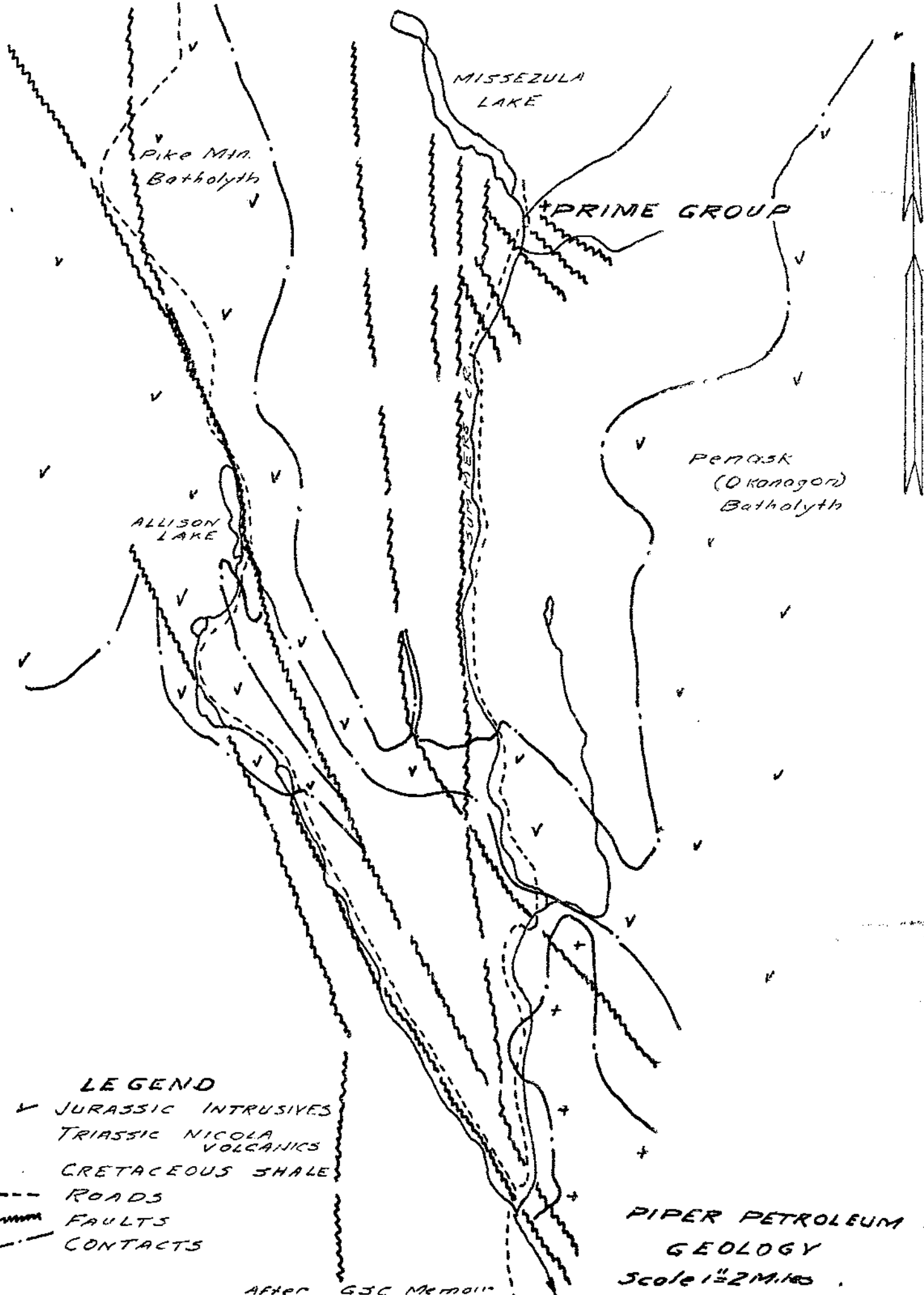
The rocks have been moderately to highly altered and fractured as a result of the extensive northwest and northeast striking shear zones that are widely distributed throughout the claim group. The claims are bordered on the west by the major north trending Summers Creek fault.

Numerous copper-pyrite occurrences have been located on the property related primarily to areas of fractured andesite and diorite rock types.

The claim area is largely covered by this glacial overburden resulting in bulldozer trenching being an effective way to expose bedrock.

Trenched Area 1

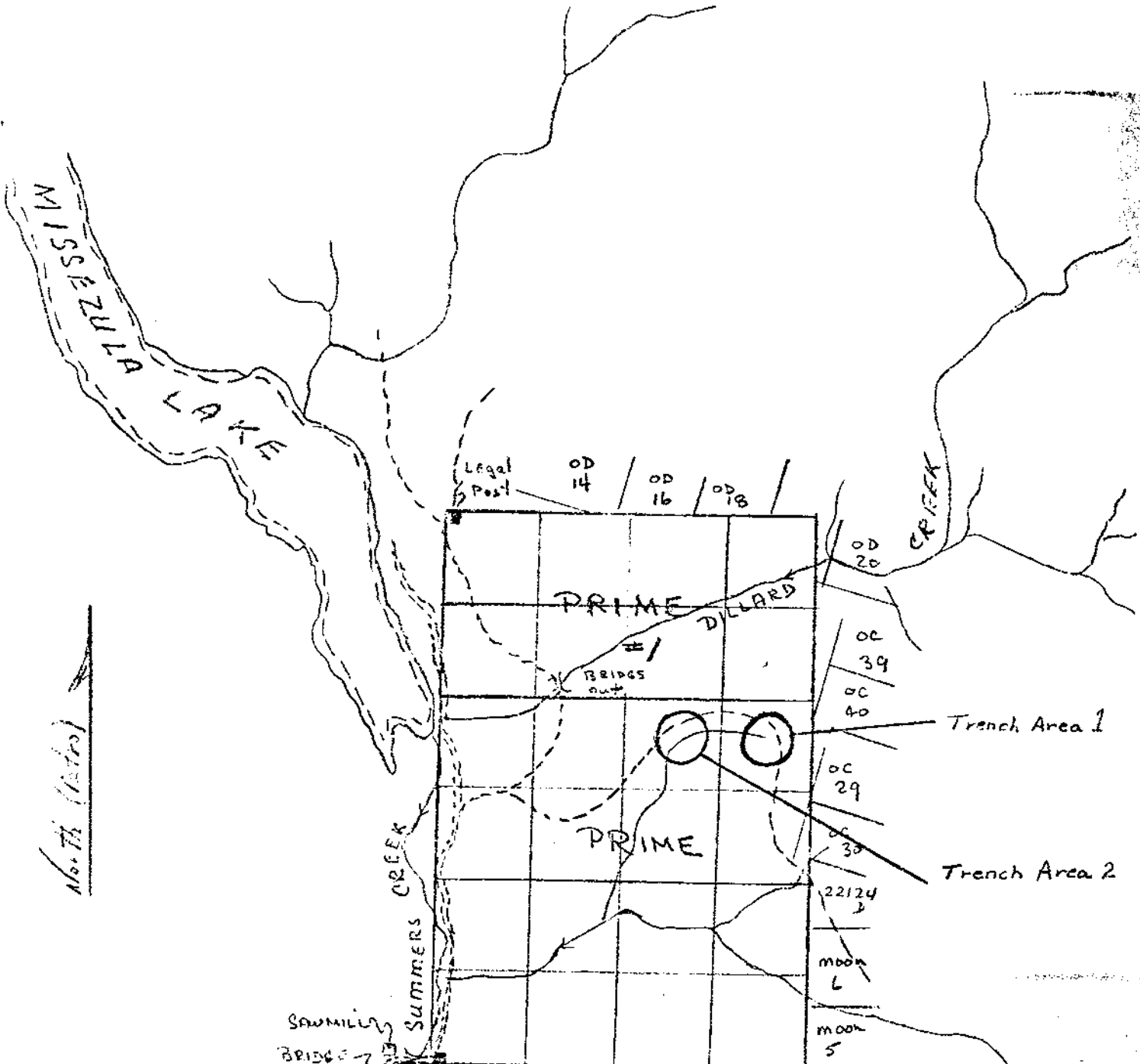
The trenching located copper mineralization at the west end of Trench D. Disseminated chalcopyrite and pyrite occurs in a moderately altered, chloritic andesite. The copper mineralization could be traced over approximately 100 feet of the trench but the trend of the mineralization could not be determined.



LEGEND

- v JURASSIC INTRUSIVES
- TRIASSIC NICOLA VOLCANICS
- CRETACEOUS SHALE
- ROADS
- ~~~~ FAULTS
- CONTACTS

PIPER PETROLEUM LTD.
GEOLOGY
Scale 1/2 MILES



North (Arrows)

SAWMILL BRIDGE
 49°45'
 Princeton

Legal Post
 20°30'

SHOPSIRE FARM HOUSE

PRIME GROUP
 CL. MAP 92H/16W
 Scale 1" = 1/2 mile

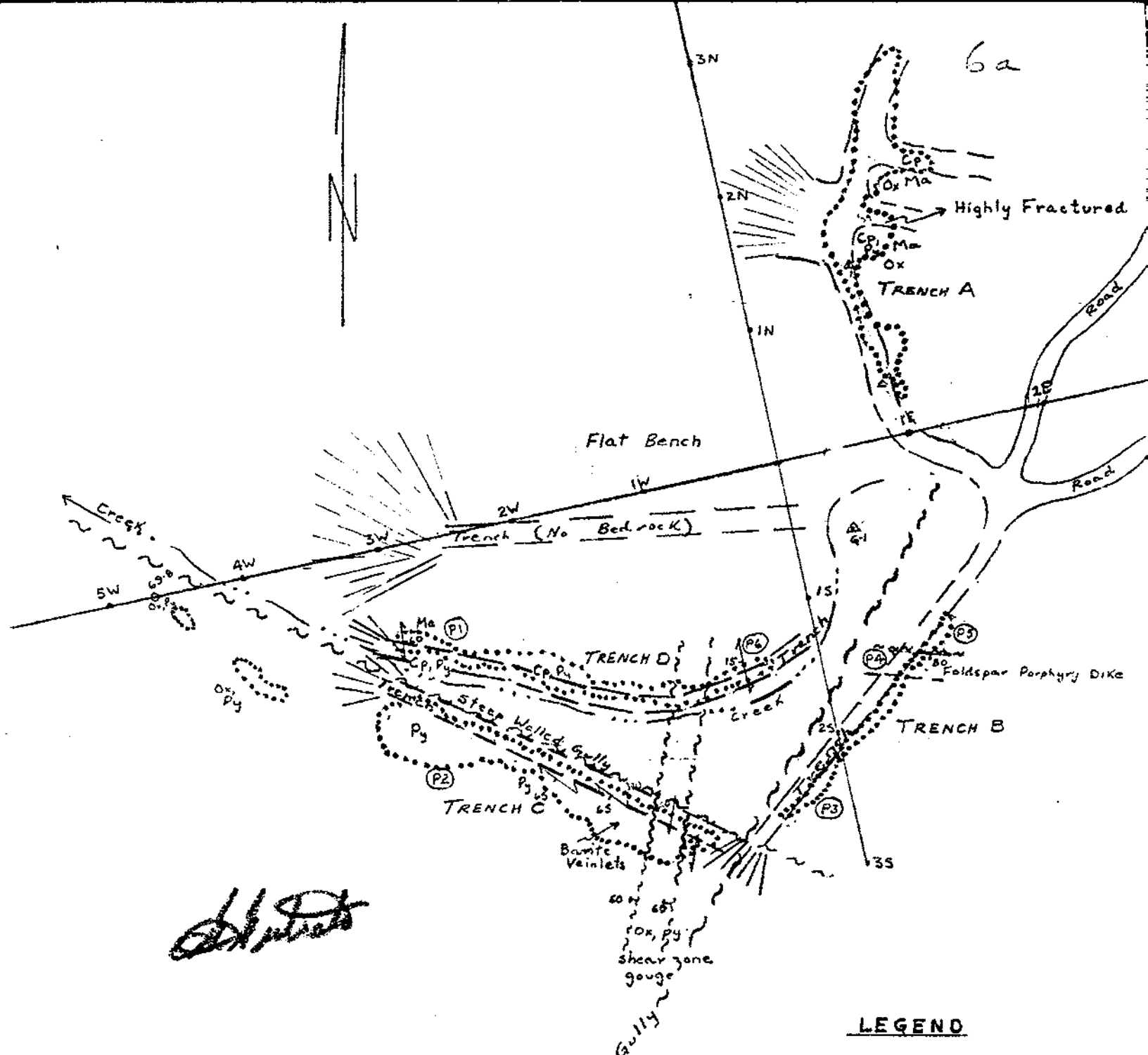
Copper mineralization was also located in Trench A as chalcopyrite and secondary malachite associated with pyrite in an intensely fractured and sheared andesite. The better mineralized portion of the zone appears to be controlled by shearing.

From 2 to 5% pyrite mineralization with minor chalcopyrite was found throughout Trench C in highly sheared and altered volcanics.

Trench Area 2

The trenching was carried out to expose a gossan zone on the south side of the road. Trench A exposed highly fractured, blocky andesite with 3 to 5% disseminated pyrite with only minor to trace chalcopyrite. At the south end of the trench the pyrite content increased to over 10% with fracture coatings and small, irregular veinlets. From 1% to 5% occurs in the majority of the andesite outcrops in Trench Area 2 but the chalcopyrite content is low.

The andesites are in contact with a diorite dike at the west end of Trench B.

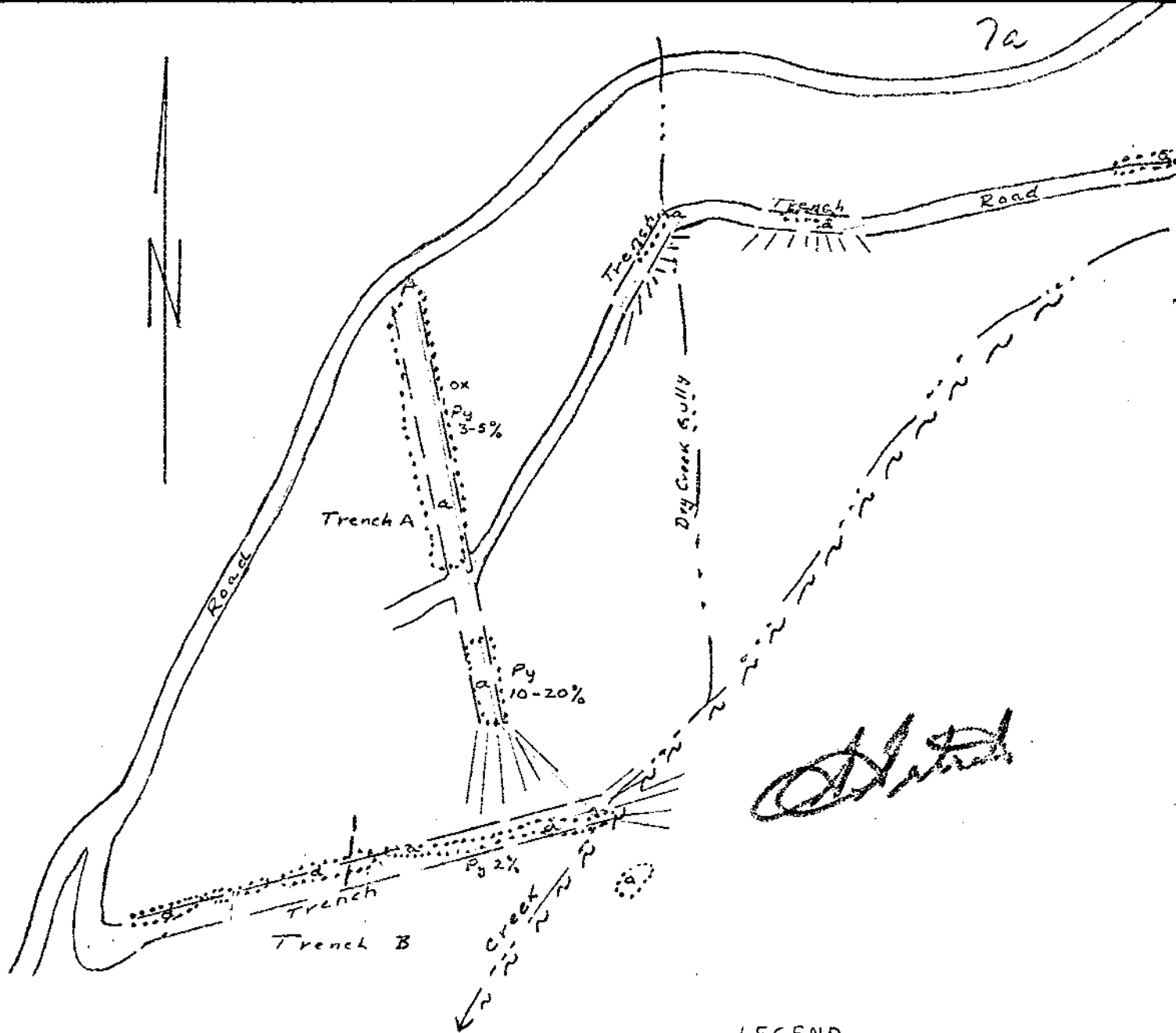


PRIME GROUP
TRENCH AREA 1
Scale 1 inch = 100 feet

LEGEND

- Volcanics: hornblende porphyry, andesite porphyry and related intrusive phases
- Shear attitude
- Fault attitude
- Py Pyrite
- Cp Chalcopyrite
- Ma Malachite
- Ox Orange-yellow oxidation
- (P) Specimen location
- Outline of Outcrop

7a



LEGEND

- d Feldspar Porphyry; intrusive phase related to volcanics.
- a Volcanics; andesite porphyry
- Fault, assumed
- Outline of outcrop
- Contact

PRIME GROUP
 TRENCH AREA 2
 Scale 1 inch = 100 ft.

CONCLUSION

The trenching programme and outcrop geology completed in May is only a small portion of the exploration programme planned for the Prime Claim Group. Additional trenching and detailed mapping is warranted in order to develop a better understanding of the geological structures that control the emplacement of the copper mineralization.

Respectfully submitted,



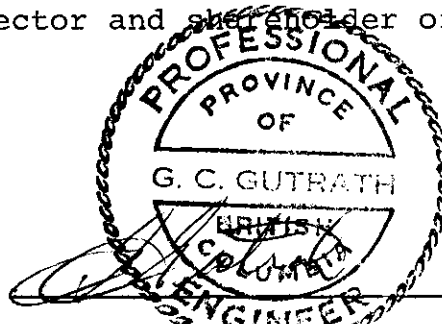
A handwritten signature in cursive script, appearing to read "G. C. Gutrath".

GORDON C. GUTRATH, P. ENG.

ENGINEER'S CERTIFICATE

I, GORDON C. GUTRATH, of 3636 Lakedale Avenue in the Municipality of Burnaby, in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a consulting geologist with a business address of 1024-355 Burrard Street, Vancouver, B.C. V6C 2G8
2. That I am a graduate of the University of British Columbia where I obtained my B. Sc., in geological science in 1960.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.
4. That I have practised my profession as a geologist for the past sixteen years, and
5. That I am a director and shareholder of Piper Petroleum Ltd.



Gordon C. Gutrath, B. Sc., P. Eng.

DATED at the City of Vancouver, Province of British Columbia,
this 31st day of August, 1977.

CANADA
PROVINCE OF
BRITISH COLUMBIA

IN THE MATTER OF

COST INCURRED IN CARRYING OUT
GEOLOGICAL MAPPING ON THE PRIME
CLAIM GROUP.

TO WIT:

I, LAUCH F. FARRIS of 1649 Laurier Avenue,
Vancouver

in the Province of British Columbia

do solemnly declare

THAT GORDON GUTRATH, P. ENG. CARRIED OUT GEOLOGICAL
MAPPING OF TRENCH AREA 1 & 2 AT A COST OF \$800.00.

AND I make this solemn declaration, conscientiously believing it to be true and knowing that it is of
the same force and effect as if made under oath, and by virtue of the CANADA EVIDENCE ACT.

DECLARED before me _____

at Vancouver B.C.
in the Province of British Columbia,

this 12 day of September
A. D. 19 77.

Lauch Farris

S. J. Ferrante
A Notary Public in and for the Province of British Columbia
A Commissioner for taking Affidavits for British Columbia.