



Assessment Report

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA, LTD.,

GEOLOGICAL AND GEOCHEMICAL
EVALUATION OF THE SLATS CLAIMS
YUKON TERRITORY

134 degrees, 27 minutes, West Longitude
65 degrees 02 minutes North Latitude

July to December 1975.

Mayo Mining Division
N.T.S. 106-E-1

B.D. Farion
B.D. Farion, P. Geol.,

090129

INDEX

- A. SUMMARY
- B. INTRODUCTION
 - 1. Location
 - 2. Property
 - 3. Field Methods
 - 4. Geography
- C. GEOLOGY
 - 1. Lithology
 - 2. Structure
 - 3. Mineralization
- D. CONCLUSIONS
- E. RECOMMENDATIONS

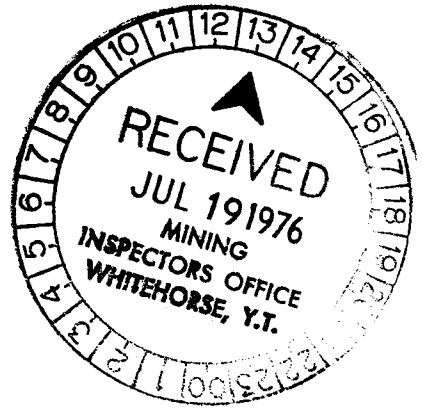


This report has been examined by the
Geological Department and is recom-
mended to the Department to be consid-
ered as representation work for the amount of
\$ 2700⁰⁰

W.D. Sinclair
~~Acting Director of Geologist or~~
~~Resident Mining Engineer~~

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.

[Signature]
B.R. BAXTER
Supervising Mining Recorder
Recorder of Yukon Territory



A. SUMMARY

1. Following the recognition of environments favorable to the formation of stratabound lead-zinc deposits, Great Plains conceived of and operated a geochemical reconnaissance program in the Bonnet Plume area of Yukon Territory. The Slats claims, one of several groups staked during the 1975 exploration program will be the subject of this report.

2. The field crew assembled to complete assessment work on the claim group moved to the base camp at Margaret Lake by May 23rd, 1975.

Personnel included:

Bill Farion	Party Chief
Barry Edmonson	Student Geologist
Colin Winter	Geologist
Janet Helton	Student Geologist
Romulo Santos	Student Geologist
John Van der Lee	Geological Assistant
Nigel Lumsden	Geological Assistant
Janet Etzkorn	Cook
Mike Hofuis	Helicopter pilot
Paul Koovisk	Apprentice engineer.

Transwest Helicopters (1965) Ltd., of Burnaby, B.C., supplied a Hughes 500 C helicopter while Trans North Turbo Air supplied fixed wing support from Mayo. Expediting services were provided by Stirling Expediting Services, Mayo and assaying was performed by Barringer Research, Whitehorse.



MACKENZIE PROJECT
YUKON TERRITORY
SLATS CLAIMS
LOCATION MAP

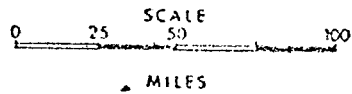
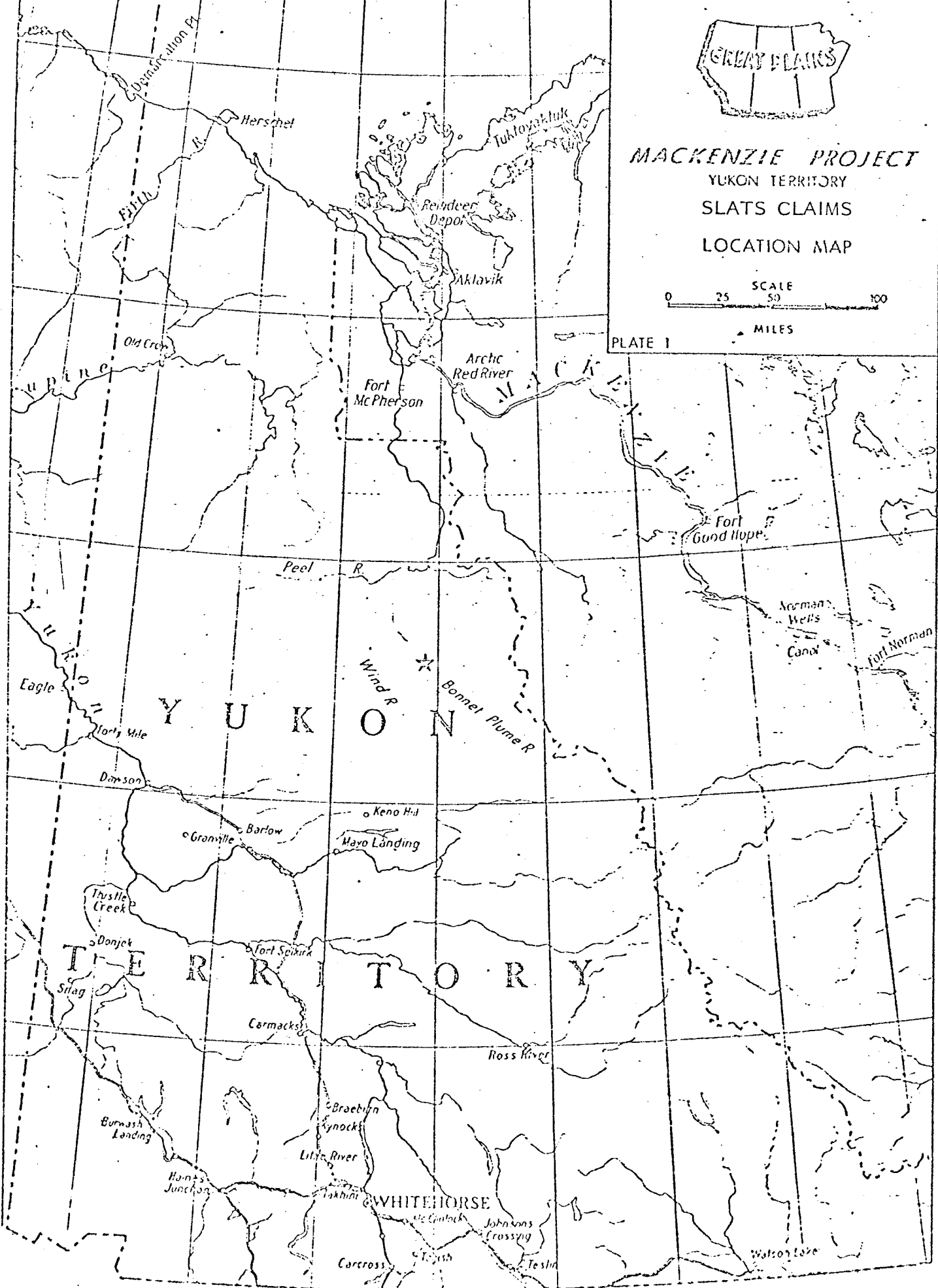


PLATE 1



B. INTRODUCTION

1. Location

The claims are located on Slats Creek (N.T.S. 106-E-I), 7 miles from the mouth of Slats Creek, where it enters the Bonnet Plume River, 112 miles northeast of Mayo, Yukon, in the Mayo Mining District.

2. Property

The property consists of 18 contiguous mineral claims.

Claims
SLATS 1-18

Grant Numbers
Y97408 - Y97425

3. Field Methods

The area was mapped by using National Air Photo Library 9" x 9" airphotographs for traverse control. Structural geology was in part interpreted from the airphotos by using stereo-pairs and a mirror stereoscope. Pocket altimeters were used for elevation control.

The zinc spot test, an organic chemical which turns red in contact with the weathering products of zinc sulphides, was used as an aid to mapping. A cold extractable test for heavy metals was made on each stream sediment sample taken. Silt and rock samples (JV 5-6-13- $\frac{1}{2}$ and BF 5-6-14- $\frac{1}{7}$) were submitted to Barringer Research for analysis on the 25 element emission spectrometer. Other samples were analyzed on atomic absorption equipment by Barringer.

4. Geography

The claims are situated on the north flank of a rugged resistant mountain ridge. Vegetation consists of alpine shrubs and grasses.

C. GEOLOGY

1. Lithology

Unit 1

"Grit Unit" - The unit consists fine grained to conglomeratic interbedded metasediments. The conglomerates are primarily composed of pink clasts (granule to cobble size) with dark grey calcareous fragments in the more conglomeratic sections.

The matrix and fine-grained beds are fine-grained to silt size, indurate and have the appearance of a volcanic rock due to metamorphism.

Unit 2

Argillites - The unit consists of light grey-olive green-black, fissile to bedded ($\frac{1}{2}$ "-1"), chloritic, graphitic argillites.

Unit 3

Phyllites. The unit consists of medium grey-green, chloritic, recessive, foliated phyllites with a high sheen.

2. Structure

Two major faults dissecting the area can be interpreted from the airphotos. A normal fault cutting claims 1 and 2, trending north and several minor faults trending 065 degrees are visible. The "Grit" unit underlies the argillite. Beds dip to the northwest.

3. Mineralization

Specularite and hematite are prevalent in the area. In places the iron mineralization is strataform. Associated with the faults trending 065 degrees are pods of specularite and hematite.

Malachite and chalcopyrite-bornite were found on the claims and on adjacent ridges. The larger samples of copper mineralization were found as float and could not be traced back to source. Several of these were found on the Slats claims.

D. CONCLUSIONS

The area was staked on speculation when the Archer and Cathro crews were found to be staking a large group of claims. According to rumors, the Archer and Cathro crews were staking a uranium anomaly. However no anomalous uranium values turned up on the 25 element analyses.

E. RECOMMENDATIONS

The assessment work done to date should be filed. Further developments on the adjacent claims would decide whether further work should be done. If a program is carried out in the area, then a traverse with a scintolometer should be carried out.



AIR PHOTO : 20637-30

LEGEND

- 1 Grit Unit
- 2 Argillite
- 3 Green - Grey Phyllite
- >>>> Ridges
- ~~~~~ Streams
- - - - - Geological Boundary
- ~~~~~ Fault
- ~~~~~ Unconformity
- $\frac{20}{|}$ + Dips + Strike



DEVELOPMENT COMPANY OF CANADA, LTD.

YUKON TERRITORY

MACKENZIE PROJECT

SLATS CLAIMS GEOLOGY






AIR PHOTO: 20637-30

LEGEND

- >>>>> Ridges
- Streams
- x 155/29/6 Silt Sample (Zn, Pb, Cd)
- x BF5-6-14 Rock Sample




DEVELOPMENT COMPANY OF CANADA, LTD.

YUKON TERRITORY

MACKENZIE PROJECT

SLATS CLAIMS
GEOCHEMISTRY



MILES