



GEOLOGICAL REPORT

on the Gary claims,  
located about 15 miles SSW of Macmillan Pass  
on the North Canal Road.  
Claim sheet 105-C-1,  $63^{\circ}04'N$ ,  $130^{\circ}13'W$   
by  
Clyde L. Smith, Ph.D., P.Eng.  
August 1-10, 1975

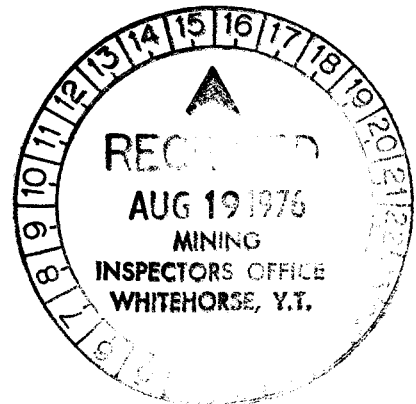


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090114



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 1850<sup>00</sup>

*W. D. Lincoln*

~~Acting Resident Geologist or  
Resident Mining Engineer~~

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

*B.R. Baxter*

B.R. BAXTER  
Supervising Mining Recorder

Commissioner of Yukon Territory

## I. INTRODUCTION

uring the period June through August, 1975, Ogilvie Joint Venture carried out geological, geochemical and geophysical (gravity) work on the Gary claims (Fig.), located about 15 miles SSW of Macmillan Pass, on the North Canal Road. This report deals with the results of the geological work conducted in August; separate reports have been submitted on the geochemical and geophysical surveys as well as geological work in the area of the cut grid.

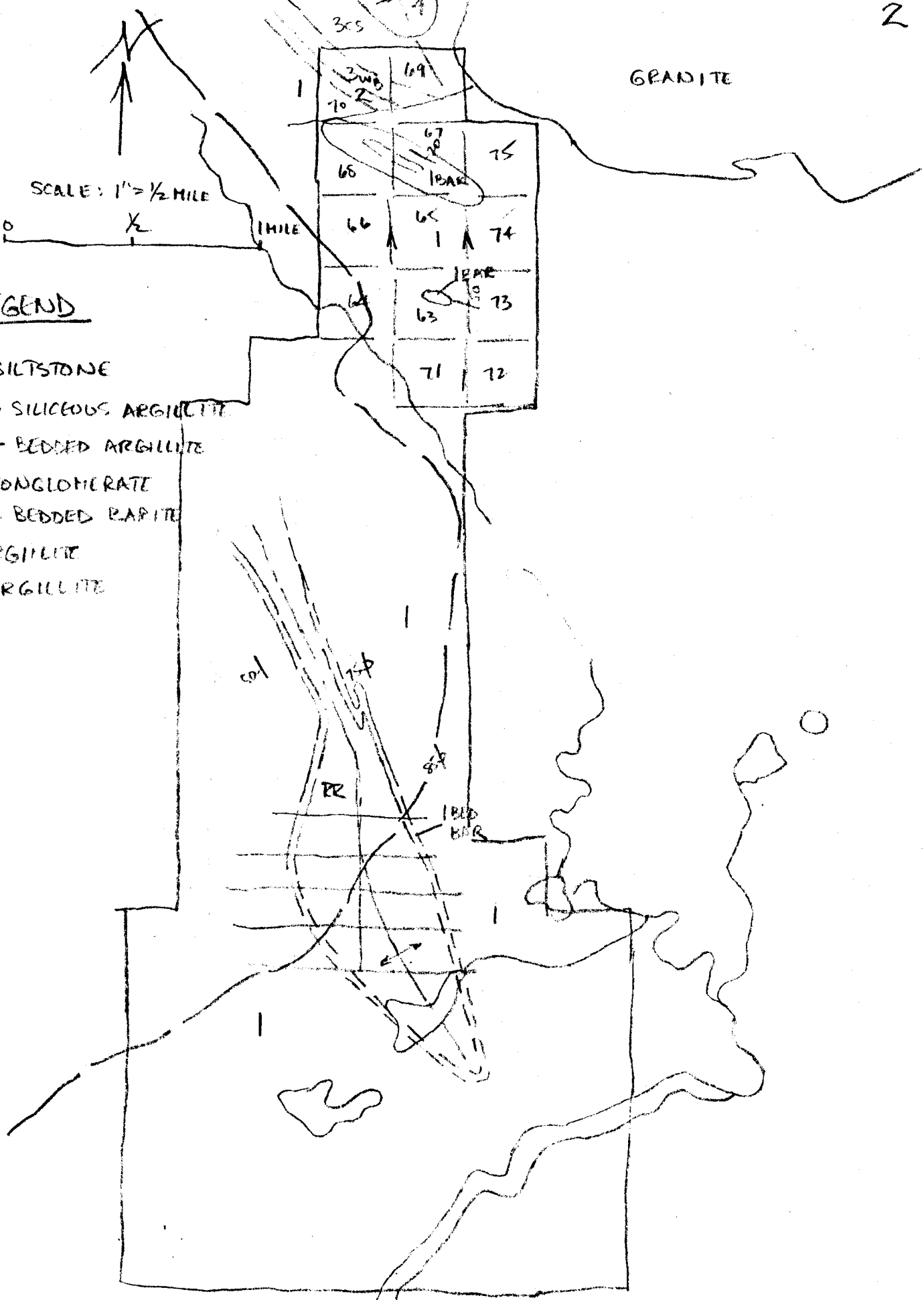
The Gary claims were staked in 1974 to cover the extension of bedded barite that outcrops on the Moose claims and that has similarities to the barite at the Tom Pb-Zn-Ba-Ag deposit some seven miles to the NNE. Interest in the Gary property, which has little outcrop, was enhanced when some soil samples (1974 survey) were found to have anomalous zinc contents of up to 1600 ppm Zn. The 1975 work was intended to more accurately define the anomalous zones by geochemical sampling and a gravity survey on a cut grid. Additional prospecting located more bedded barite on the north end of the property which was subsequently staked and geologically mapped. It is this area which is reported herein.

## II LIST OF CLAIMS

GARY 63-75                      British Newfoundland Expl., In Trust (Holder)  
July 11, 1975 (Recording Date)

## III. GENERAL GEOLOGY

Regional geology of the Macmillan Pass area is shown on the Niddery Lake sheet of the Geological Survey of Canada. The stratigraphic sequence in the general vicinity of the Gary claims is as follows:



LEGEND

- 4 - SILTSTONE
- 3CS - SILICEOUS ARGILLITE
- 3WB - BEDDED ARGILLITE
- 2 - CONGLOMERATE
- 1 BAR - BEDDED BARITE
- 1 - ARGILLITE
- RR - ARGILLITE

FIG 1 LOCATION SKETCH GARY 63-75.

Devonian and Mississippian(?)

- Unit 4: Brown-weathering siltstone; often cross-bedded.  
 Unit 3: Black carbonaceous shale, laminated, massive, siliceous or argillaceous. Barite in lower part of unit both bedded and as spots. Host to mineralization at Tom prospect.  
 Unit 2: Resistant, rugged outcropping conglomerate. Cherty, quartzitic and argillaceous clasts up to 6"  
 Unit 1: Rusty brown weathering argillite characterized by  $\frac{1}{4}$  to 1" alternating light and dark gray bands.

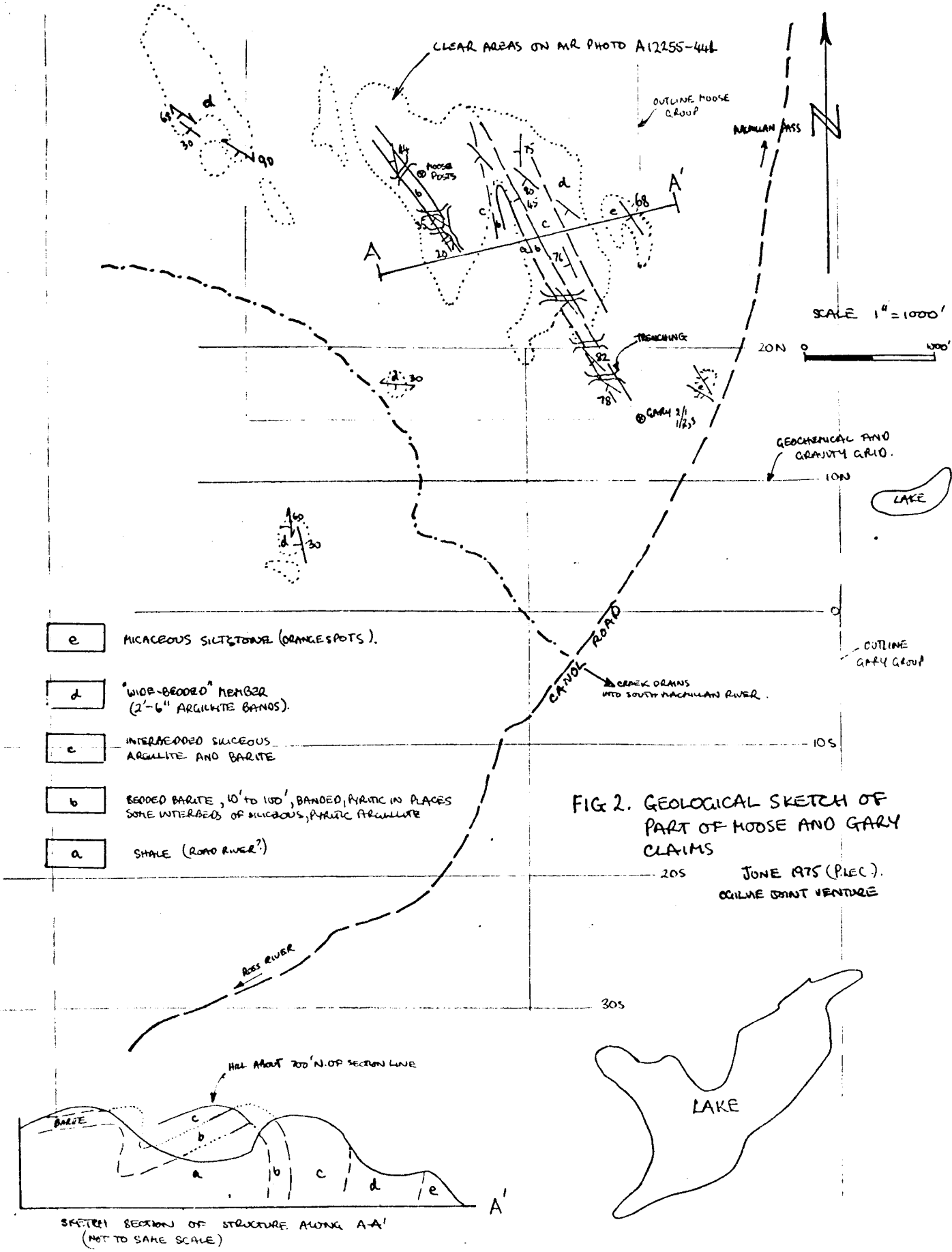
Ordovician and Silurian

Road River formation: Silvery weathering black graptolitic shales, Gray limestone and tan siliceous dolomite interbedded.

Stocks of Cretaceous granitic rock intrude and hornfels these sediments and modify structures.

Bedded barite is exposed both as natural outcrops and by trenching on the Moose claims, reaching approximately 100' maximum thickness, and presumably continues southward onto the Gary claims. No lead or zinc mineralization has yet been found in this barite (although finely disseminated pyrite is present) but in other respects, such as the finely laminated appearance, the barite resembles that of the Tom property. Initially it was thought that the barite horizon at the Gary and Moose claims was the same as the Tom barite, but mapping several miles to the north suggests that the barite on the Gary and Moose claims is within Unit 1, apparently near the contact with the underlying Road River shales.

The barite bed on the Moose and Gary claims is strongly folded both on a megascopic scale and on a scale shown by the cross-section (fig. 2). The minor folds characteristically have steep and often overturned east limbs and flatter-dipping west limbs, their style resembling that of the larger folds.



Bedded barite exposed in the "Gargantua" and "South Gargantua" showings ranges in thickness from 10 to 60 feet and is folded in a series of minor east-west folds in such a way as to expose the bed a number of times along the dip slope. The stratigraphic position of the bed appears to be in the upper part of Unit 1 argillites and, therefore, to differ in position with the barite exposed to the south on the Keesee claims (base of Unit 1) and from the Tom deposit (near base of Unit 3). The barite is light gray in color, finely laminated with argillite laminae and apparently devoid of lead and zinc. Degree of purity appears to be high. A tonnage of at least three million tons is exposed in the Gargantua outcrops.

#### IV CONCLUSIONS AND RECOMMENDATIONS

A large potential tonnage of apparently high purity bedded barite is exposed on the north end of the Gary claims. The showings are located on a steep mountain slope a short distance above the Canol Road. The potential for production of this barite appears to be good.

#### V QUALIFICATIONS OF C. L. SMITH, AUTHOR

Education: Carleton College, Northfield, Minnesota, U.S. B.A.-1959  
University of B. C., Vancouver M.Sc.-1962  
University of Idaho, Moscow Ph.D.-1966

Employment: 1970-present: Consulting geologist, Vancouver, B.C.  
1968-1970: Director and Exploration Manager, Spartan Explorations Ltd  
1966-1968: Chief Geologist, Atlas Explorations Ltd.  
1965-1966: Senior Geologist, Kerr-Addison Mines Ltd.

Professional: Registered Professional Engineer, Association of Professional Engineers, Province of B. C.

#### VI PERSONNEL EMPLOYED

Clyde L. Smith, geologist, 5354 6th Ave., Delta, B.C.

P. C. LeCouteur, geologist, 989 Canyon Blvd., N. Vancouver, B.C.

GARY CLAIMS  
"GARGANTUA BARITE"  
SKETCH GEOLOGY

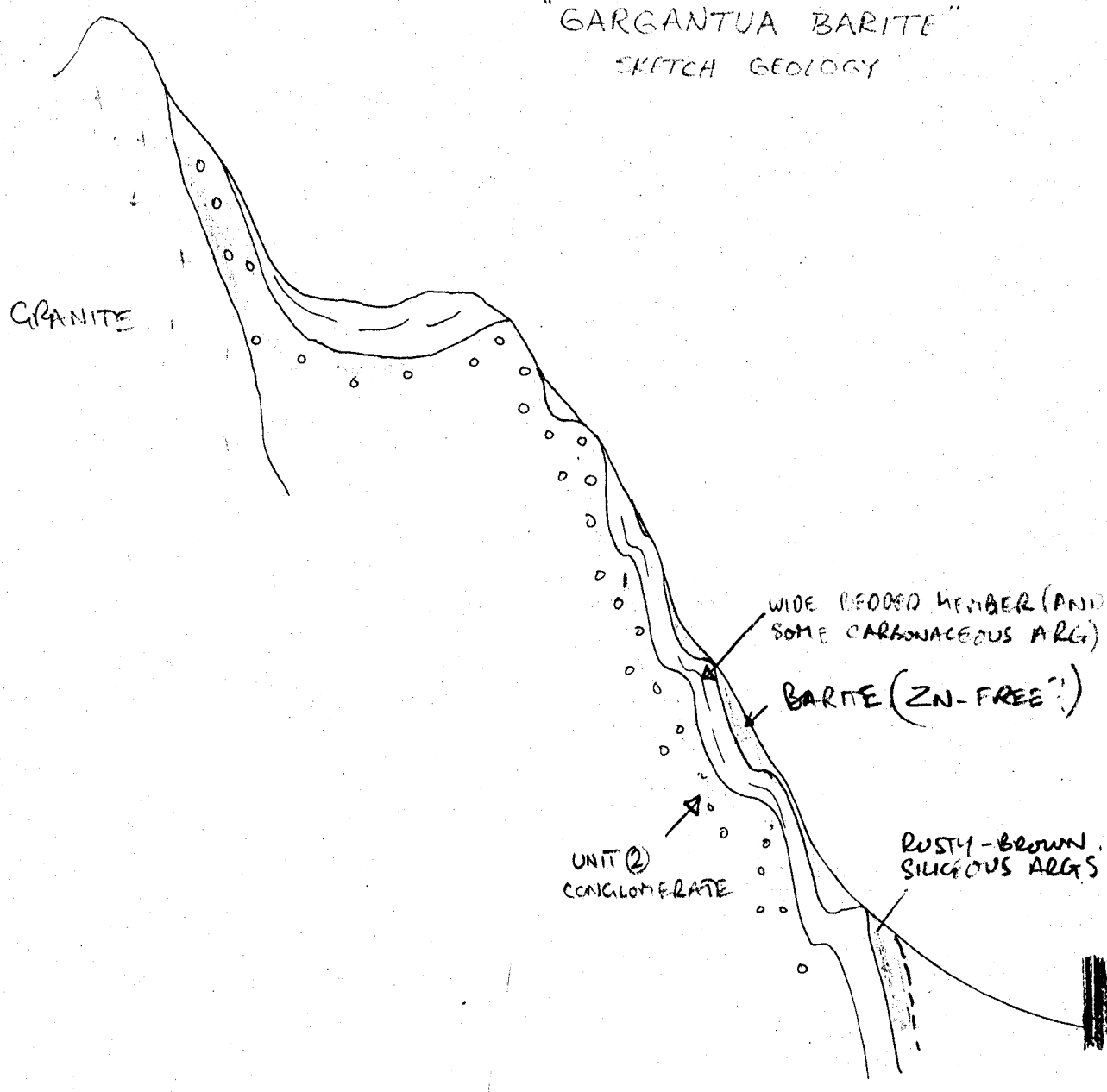


FIG. 3.



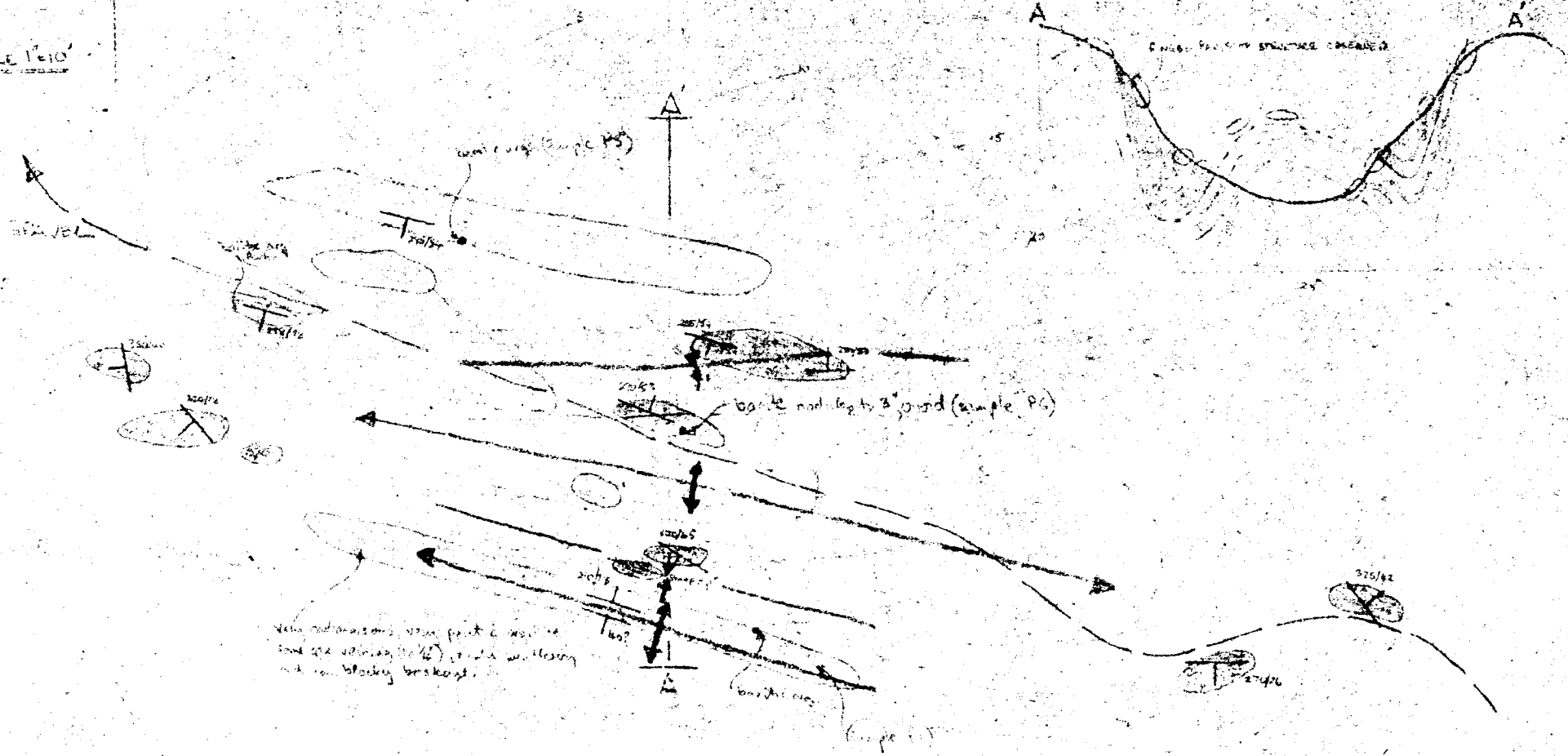
JUNE 13, 1971  
 11:30 AM

TECTONICAL SYSTEM OF CREEK-EYED PASS TO BEDDING BARITE  
 ACROSS THE VALLEY FROM MORSE EARLY TERTIARY, MACILLAKI PASS AREA

DIAGENETIC SECTION A-A'  
 LOOKING DOWN PLUNGE

SOUTH "GARGANTUA BARITE"  
 GARY CLAIMS

SCALE 1:10'



- BEDDING STRIKE (15° SW) banded quartzite (10' x 10')
- ARGILLITE UNIT 3 - a carbonaceous, purple, shaly