REPORT ON GEOLOGICAL AND PHYSICAL WORK, M.U.T. CLAIMS GROUP B, SALMO AREA, B.C.

WORK PERFORMED DURING MARCH, APRIL, AUGUST, SEPTEMBER, NOVEMBER AND DECEMBER, 1977.

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MARCH 10, 1978

PART 2 OF 3.

FILE NO. 166-NELSON

INTRODUCTION

Location and Accessibility:

The M.U.T. group of mineral claims are located in the Nelson Mining Division (N.T.S. 82F 3W; 49° 05'N: 117° 12'W) and cover both sides of the Lost Creek valley. The property is easily accessible by B.C. Route 3 and is 15 km south of the village of Salmo. A 4 wheel drive road leads northerly between Wilson Creek and Lost Creek to the workings, a distance of 6.5 kms.

The northern portion of the claims group is accessible by a road along the Lost Creek.

CLAIMS INFORMATION

The M.U.T. mineral claims consist of:

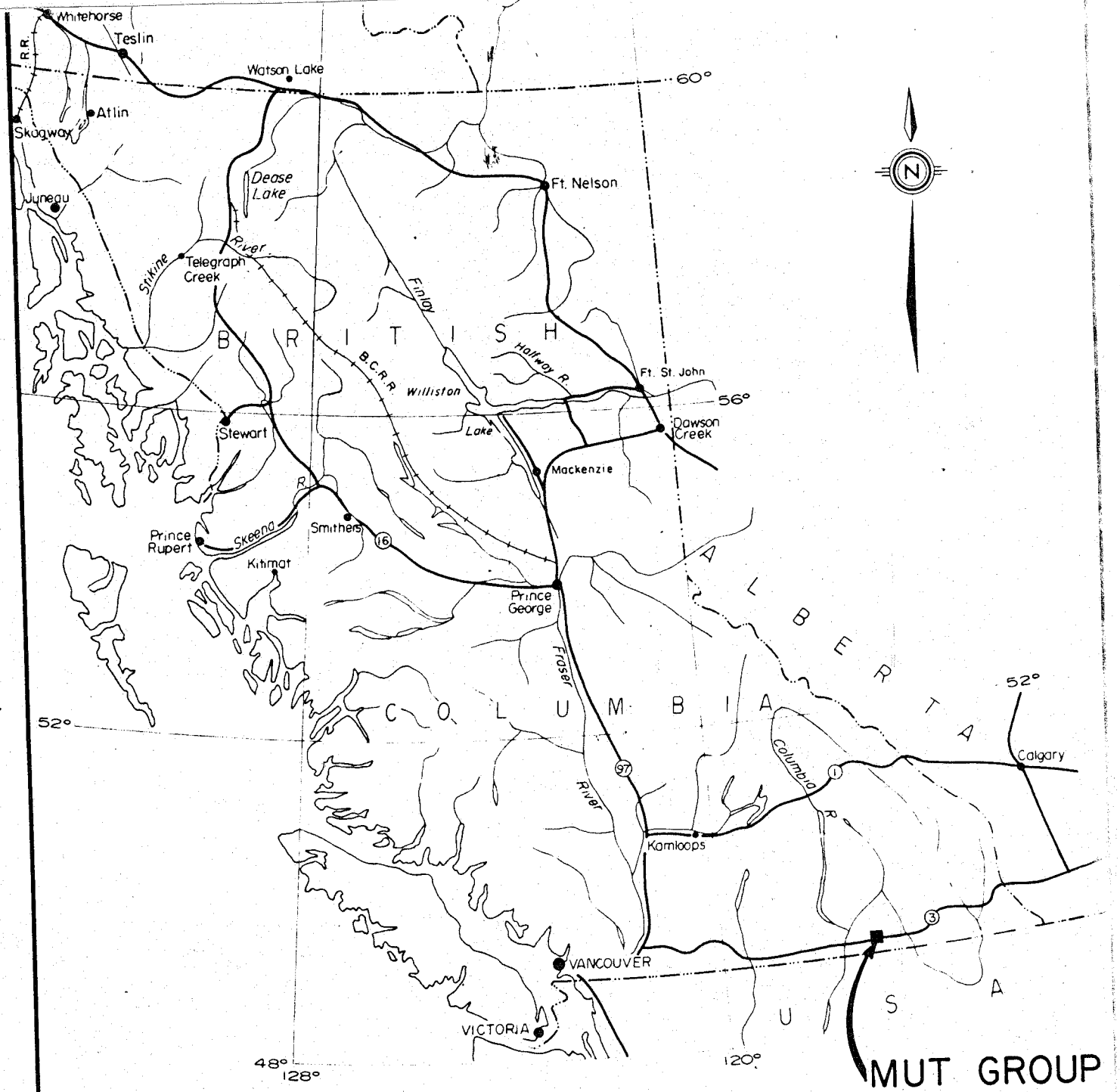
Claim	Units	Record No.	Anniversary
M.U.T. 1	10	371 (11)	Nov. 30,'78
M.U.T. 2	10	372 (11)	Nov. 30,'78
M.U.T. 3	16	373 (11)	Nov. 30,'78
M.U.T. 4	16	374 (11)	Nov. 30,'78
M.U.T. 5	16	377 (12)	Dec. 7,'78
M.U.T. 6	16	378 (12)	Dec. 7,'78

M.U.T. 1 & 4 are grouped as M.U.T. Group A,

M.U.T. 2 & 3 are grouped as M.U.T. Group B, and

M.U.T. 5 & 6 are grouped as M.U.T. Group C.

This report covers M.U.T. Claims Group B.



LOCATION MAP

SCALE

MILES 300 150 0 300 600 900 MILES

FIGURE 1

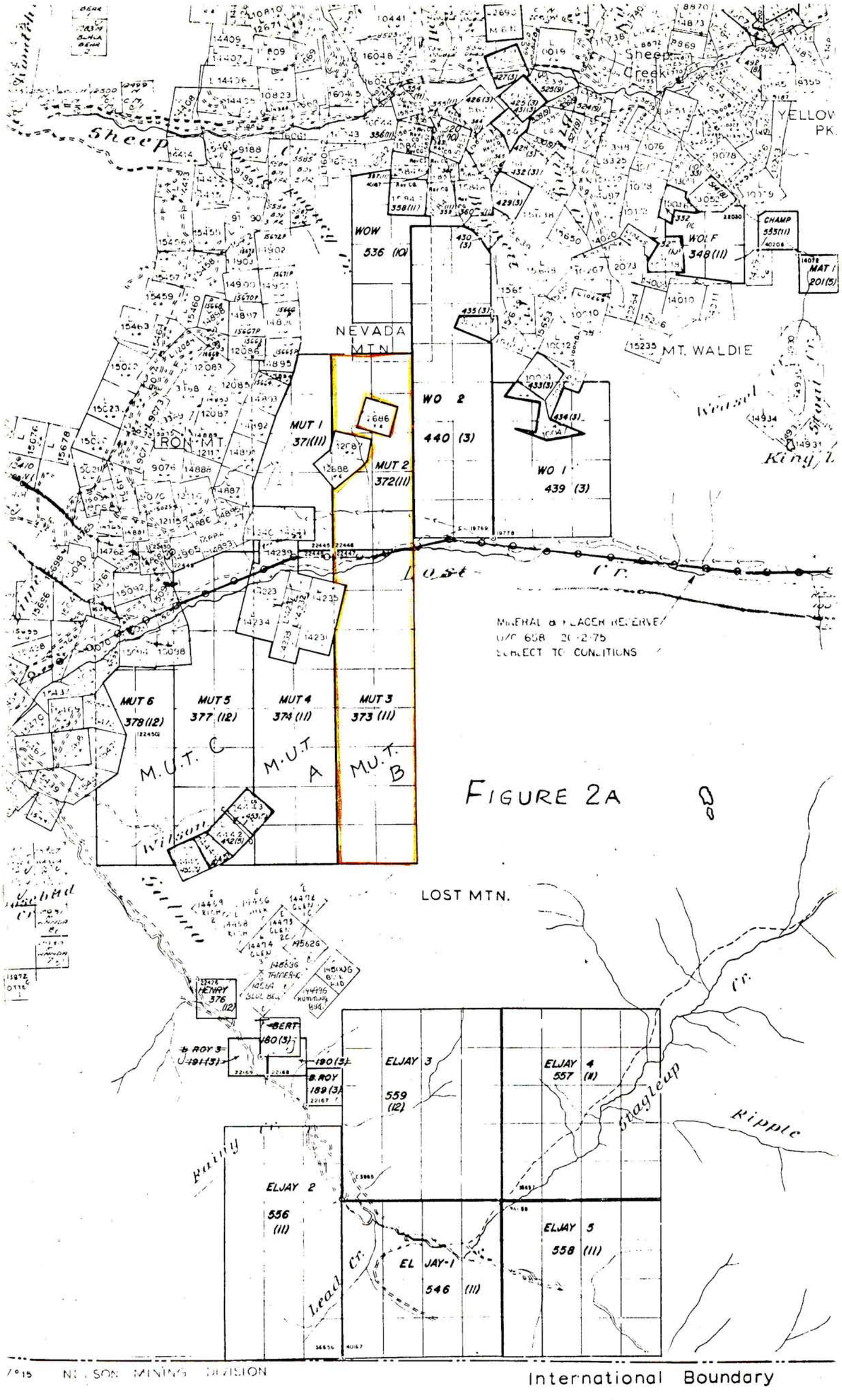


FIGURE 2A

NELSON MINING DIVISION

International Boundary

GENERAL GEOLOGY

The general geology of the area is described in detail in British Columbia Department of Mines Bulletin 41. The geology in the area consists of early Paleozoic sedimentary rocks, which form the Mine Belt in the west, Argillite Belt in the middle and Eastern Belt in the eastern portion of the area. Mainly early Cambrian Laib Formation rocks occur in the Mine Belt and the Argillite Fault separates them from the Argillite Belt. Ordovician Active Formation argillites form the Argillite Belt. The Black Bluff thrust fault brings the Eastern Belt (Early to late Cambrian Carbonate and phyllitic rocks) over the Argillite Belt.

These belts are intruded by Cretaceous Nelson batholithic rocks.

LOCAL GEOLOGY

Though this report concerns with M.U.T. Group B, it is more appropriate to cover all the claim groups as one with regard to geology. The claims area consist of predominantly argillites with interbedded limestones of the Ordovician Active Formation. These rocks strike north-east and dip south-east on the south side of Lost Creek, whereas the rocks predominantly strike north-south and dip east on the north side of Lost Creek. These Active Formation rocks have been thrusted over by the Black Bluff Fault by the Upper Cam-

brian Nelway limestones and phyllites.

The Active and Nelway Formation rocks were intruded by the Cretaceous Lost Creek granites (Nelson Batholithic rocks) in the eastern portion of the claims.

MINERAL DEPOSITS IN THE AREA

Mineral Deposits of interest in the area include the Molly Mine, the Jumbo, the Tungsten King and the Emerald (Feeney, Dodger) Mine.

The Molly Mine is located within the M.U.T. claim group on the south side of Lost Creek. Here scheelite occurs in skarn formed in limy argillite and interbedded limestone of the Active Formation near its contact with the granite of Lost Creek Stock. The molybdenite mineralization occurs in the concentric fractures and is disseminated within the peripheral shell of the granite intrusion near the contact with the limestones (see Figure 3)

The Jumbo prospect also occurs within the M.U.T. claims group, but on the north side of Lost Creek. Here also scheelite occurs in contact metamorphosed limestone and argillite near the contact with the Lost Creek Stock granite.

The Tungsten King property lies just outside the western boundary of the M.U.T. claims on the north side of Lost Creek.

Here scheelite mineralization occurs in the skarn formed due to contact metamorphism of the Reeves limestone and Truman argillite by the Emerald stock.

The Emerald, Dodger and Feeney mines are all located just beyond the northwestern boundary of the M.U.T. claims. Here again, as in the case of Tungsten King scheelite has been mined from the skarn zone formed in the Reeves limestone near the contact with the Emerald and Dodger stocks.

MINERALIZATION

Three types of mineralization occur within the claims area.

1. Scheelite-molybdenite mineralization in skarn zones.
2. Molybdenite mineralization in the granite, and
3. Lead-zinc-silver veins in the Black Bluff fault zone.

Scheelite-molybdenite mineralization occurs in the skarns formed due to contact metamorphism of limy argillites with interbedded limestones by the granite of the Lost Creek granite. Extensive silicification of the distal portions of the limestone from the contact is common, and grading into high grade grossular garnet-diopside-epidote-potash feldspar at the proximal portions. Scheelite occurs as fracture controlled as well as disseminated. Scheelite with blue-white flourescence is present in silicified limestones and is more fracture controlled than disseminated. Scheelite with

cream yellow flourescence is present near the contact. This relationship can very well be seen at the skarn south-east of the Molly Mine. The areas favourable for the occurence of the skarn zones is shown in Figure 3.

Molybdenite mineralization occurs in the peripheral shell in the granite near the contact with argillite with interbedded limestone. It is present as sheeted zone in concentric fractures. The molybdenite mineralization also carries some uranium. The other type of mineralization is molybdenite with porphyry type affinities, encountered in the drill hole. This will be described in detail in the following chapter.

Argentiferous galena-sphalerite mineralization occurs in the Black Bluff Fault in the United Verde crown grants in the southern portion of the claims group. The mineralization is probably remobilized from stratabound mineralization occuring in the Nelway limestone.

RECENT WORK AND RESULTS

The work done on M.U.T. Claims Group A consists of:

1. Geological Mapping
2. Physical Work
3. Supporting work for drilling performed on M.U.T. Claims Group C.

Geological Mapping: The geological mapping was carried out on a scale of

1 cm to 125 metres for the area immediately surrounding the Molly Mine. This is main area of interest at the present time. Figure 3 is the result of this work. Many areas of interest with respect to skarn zones shown in the map were the result of this mapping. This mapping will be expanded next year to cover all the areas covered by the mineral claims.

Physical Work: This work consists of improvement of existing roads, construction of new roads in support for drilling, and trenches. The work has been shown in detail in Figure 4.

CONCLUSIONS AND RECOMMENDATIONS

Geological mapping along with drill hole data has shown that a significant sized skarn zone probably occurs at the contact of the limestones encountered in the drill hole, A-77-1 and the granite in an area immediately east, north-east and south-east of the drill site, A-77-1 (see Figure 3A). The sequence of planned drill holes are shown in Figure 3.

Other areas for the possible occurence of skarns are also shown in Figure 3.

Targets can be outlined using:

1. Magnetic surveys (very useful in defining skarn zones, because of the presence of mafic minerals and bleached granite.
2. Geochemical surveys for Molybdenum, Lead,Zinc and Tungsten; lead and zinc anamolies outline limestones and molybdenum outlines granite.
3. The possible targets then explored by diamond drilling.
4. Geological mapping should be extended to the whole area of the M.U.T. claims.

CERTIFICATE OF EXPEDITURES

The following is a statement of expenditures incurred on the M.U.T. Claims Group B during the months of March, April, August, September, November and December, 1977.

Geological Work (5 weeks)	Dollars
Travel	83.00
Truck Rental	290.00
Field Supplies	25.00
Motel and Food	380.00
Consulting Geologists' Fees	
J.H. Montgomery. April 2, 1977	244.00
G. von Rosen.. September 27, 1977	393.00
Preparation of Reports	16.00
Total	1441.00

Physical Work (3 weeks)	Dollars
Road Construction (575 metres), Improvement of existing roads (670 metres) 3 trenches (90m X 5m X 8m, 40m X 5m X 8m, 40m X 5m X 8m), Personnel D 7 Caterpillar(driver & helper)	700.00
Truck Rental	175.00
Travel	50.00
Food and Motel	100.00
Field Supplies	25.00
Total	1190.00

Total Expenditures..... $ 1441.00 + $ 1190.00 = $ 2631.00

The above expenditures were paid by Westwind Mines Ltd,
904-845 Dunsmuir St.
Vancouver, B.C.

CERTIFICATE OF QUALIFICATIONS

I, V. Mohan Ramalingaswamy, hereby declare that:

1. I obtained the degree of B.Sc. Honours in Geological Sciences, Indian Institute of Technology, Kharagpur, India, 1968.

2. I graduated with an M.S. degree in Economic Geology, University of Washington, Seattle, U.S.A., 1975.

3. I have been employed by major mining companies as an exploration geologist since 1970.

4. I personally worked on the M.U.T. Property since the claims were staked in November-December, 1976.

5. I personally logged the core from the Drill Hole, A-77-1.

Dated: 10 March, 1978

V. M. Ramalingaswamy

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North Vancouver, B.C.
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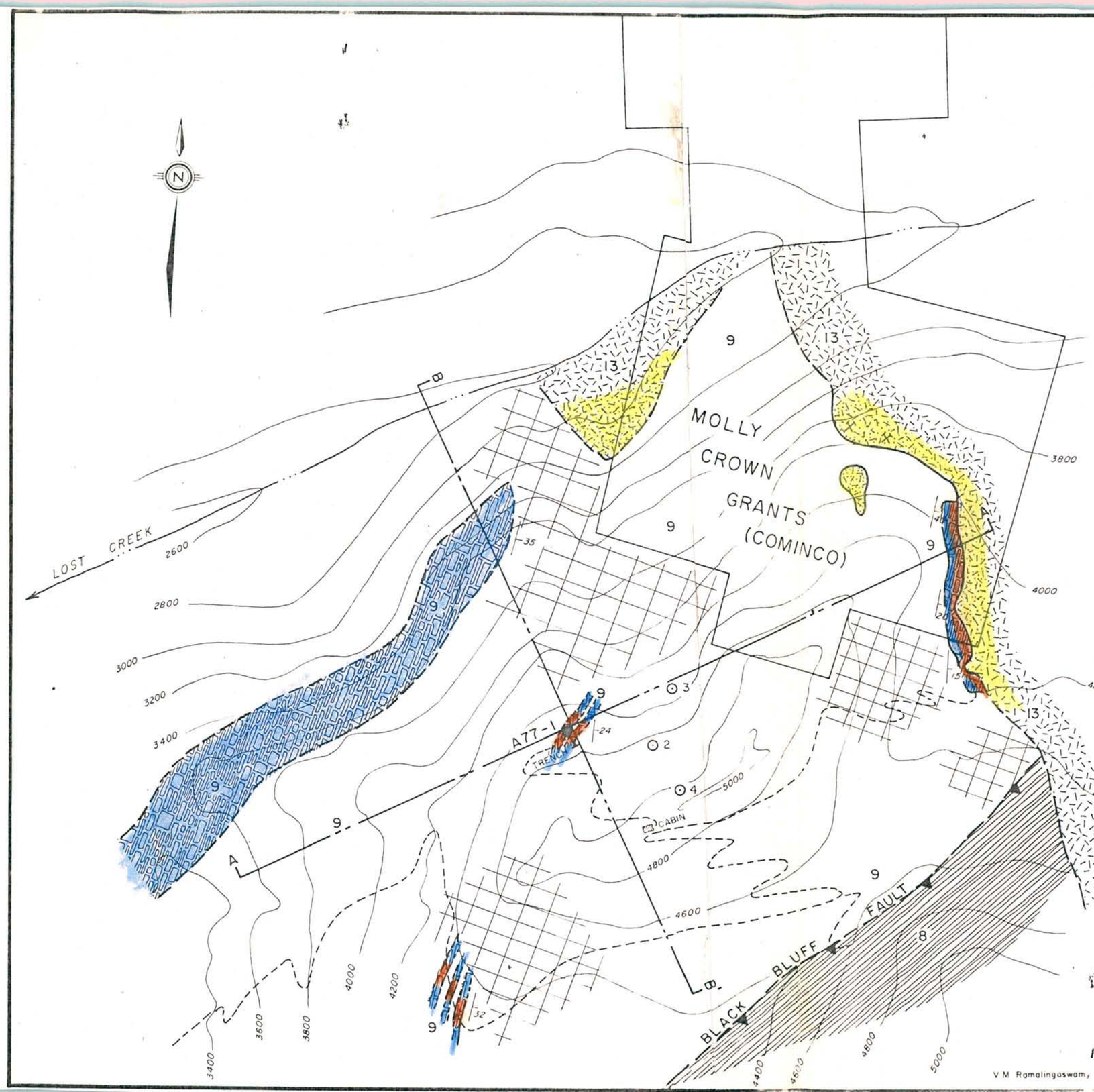


LEGEND

13 GRANITE: CRETACEOUS NELSON BATHOLITHIC ROCKS – LOST CREEK STOCK

13 BLEACHED AND ALTERED GRANITE (DESTRUCTION OF MAFICS)

9 ARGILLITES: ORDOVICIAN ACTIVE FORMATION

9 LIMESTONES: INTERBEDDED WITH ARGILLITES – ACTIVE FORMATION

SKARN: CONTACT METAMORPHISM OF ABOVE LIMESTONES & ARGILLITES. & HORNFELS (SILICIFICATION OF DISTAL PORTIONS & GRADING INTO HIGH GRADE GROS. GARNET – DIOPSIDE – EPIDOTE – K-SPAR AT PROXIMAL PORTIONS OF CONTACT ZONE WITH ABOVE GRANITE; SECONDARY BIOTITE, IN HORNFELS)

8 LIMESTONE & PHYLLITES: UPPER CAMBRIAN NELWAY FORMATION

NOTE: CONTOUR ELEVATIONS GIVEN ARE IN FEET

● DIAMOND DRILL HOLE A77-1

⊙2 PLANNED DIAMOND DRILL HOLES (WITH NUMBERS INDICATING SEQUENCE)

PROSPECTIVE AREAS FOR DETAILED EXPLORATION

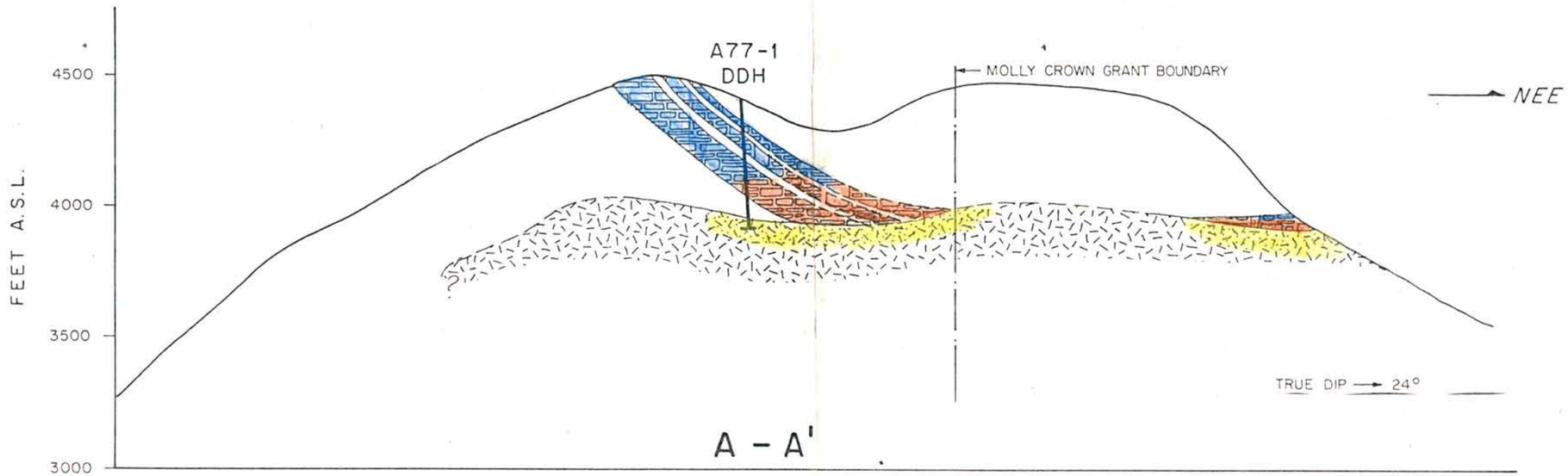
CAT ROAD

0 1000 2000 FEET
0 250 500 METERS

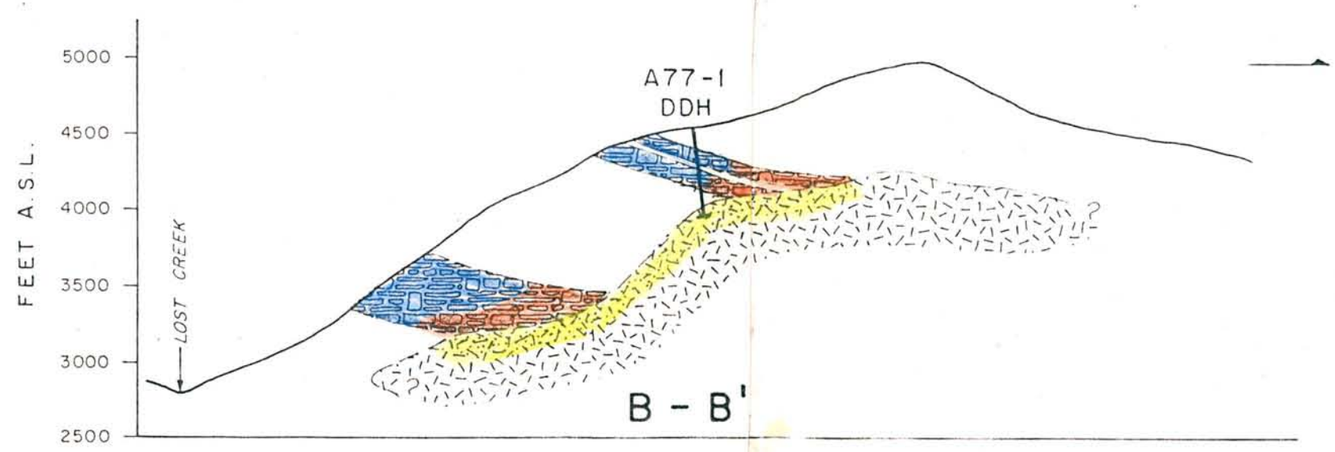
NOTE: Fyles, J.T and Hewlett, C.G (1959) "Stratigraphy and Structure of Salmo Lead – Zinc Area" B.C. Department of Mines Bulletin No. 41

FIGURE 3

M.U.T. GROUP
SALMO B.C.
PLAN OF
GEOLOGY



VERTICAL SCALE OF A-A'
EXAGGERATED 2 TIMES.



HORIZONTAL AND VERTICAL SCALES IDENTICAL ON B-B'

FIGURE 3A

M.U.T. GROUP
SALMO B.C.
SECTIONS
A - A' AND B - B'

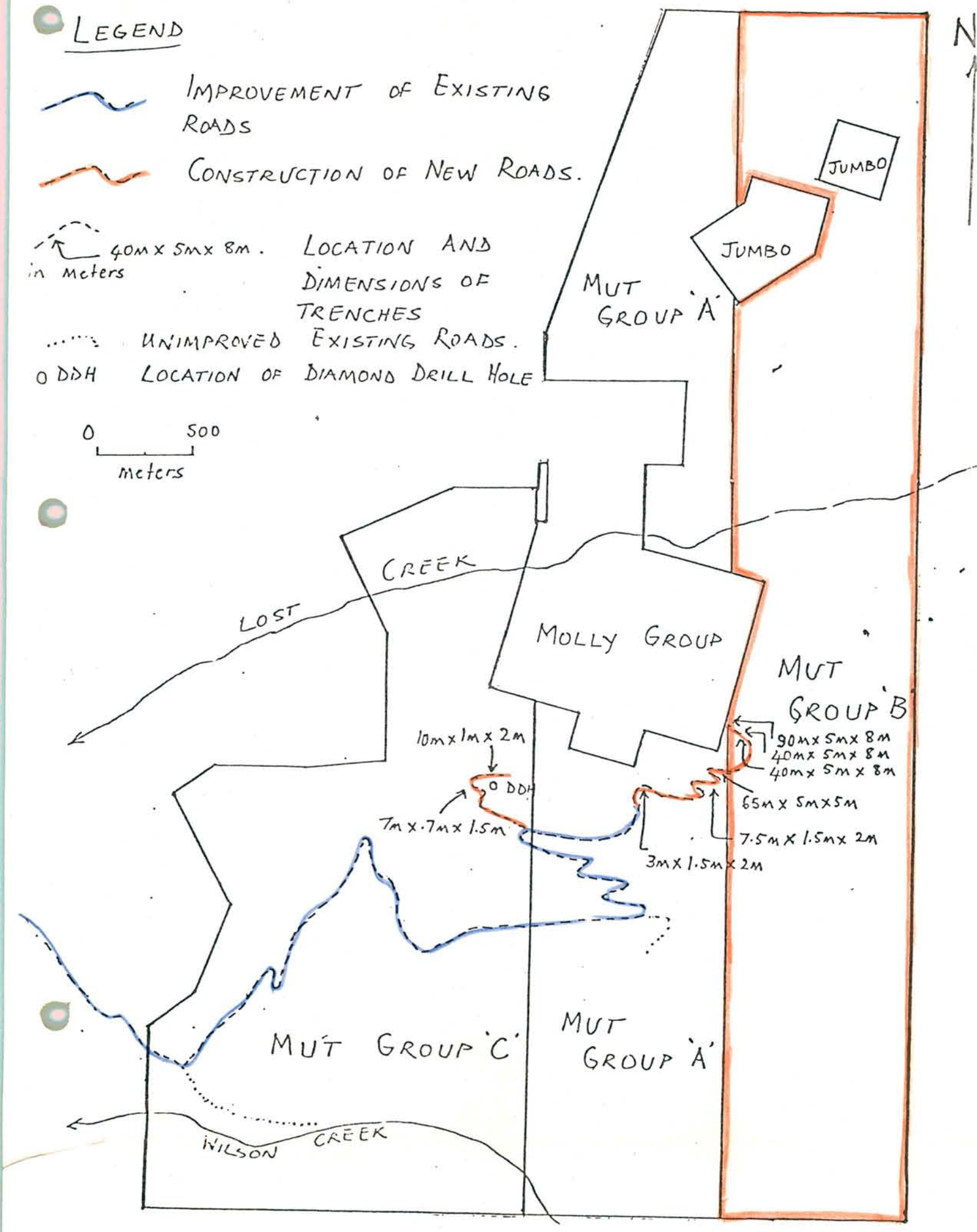


FIGURE - 4

PHYSICAL WORK ON THE MUT GROUP OF CLAIMS.

SALMO AREA - MAP NO. 82F/3E

NELSON MINING DIVISION