MOUNTAIN MINERALS CO. LTD.

1979 DRILLING & PHYSICAL WORK PROGRAMME

ON PART OF THE J & J CLAIMS IN THE

NAHATLACH RIVER VALLEY, SOUTH-WESTERN B.C.

NEW WESTMINSTER MINING DIVISION

GEOGRAPHIC COORDINATES:

 $50^{\rm O}$  no.8' N. ) INITIAL POST 121  $^{\rm O}$  34.5' W. ) J & J #1

N.T.S. 921/4E, 92H/13E

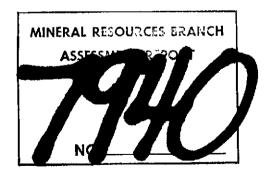
LYTTON & SCUZZY MOUNTAIN

ВΥ

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1979. 11. 16

MOUNTAIN MINERALS CO. LTD. P.O. Box 700 LETHBRIDGE, Alberta T1J 3Z6



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#### INTRODUCTION

(i) The 10 J & J claims are located at 50<sup>o</sup> 00.8' N., 121<sup>o</sup> 34.5' W.
(Initial Post J & J #1) in the Nahatlach River Valley 4 km. west of the Fraser River at elevations ranging from 200 m. to 400 m.
The local topography is rugged with slopes of the order of 45<sup>o</sup> being common.

The climate is mild with occassional cold periods, the area being influenced by a mixture of the coastal weather and interior conditions. The Fraser Valley forms a natural channel for southerly movements of cold Arctic air while the Nahatlach Valley permits warm moist air from the coast to penetrate the interior. This valley forms a boundary to a climatic zone: the northern side of the river and north to Lytton are semi arid, low rainfall areas with pine as the dominant tree form and the southern side of the Nahatlach and south to Hope has a moist climate with fir and cedar predominating.

Access to the area is via the Trans Canada Highway crossing the Aerial Ferry at Boston Bar to North Bend. A gravel road leads north from here to Chaumox (10.4 km.) with a turnoff west up the south side of the Nahatlach at 13.7 km. The deposit is reached at 21.2 km. where the road cuts the most northerly exposure of talcose alteration. An alternative access is via the ferry at Lytton thence south along the west bank of the Fraser River to join the road into the deposit at the turnoff 3.3 km. from Chaumox. None of these roads is particularly well maintained the one into the deposit having been abandoned after the removal of an old suspension bridge, over the Nahatlach, in 1977? The general location is shown in Figure I with a more detailed map showing access routes as Figure II.

(ii) The 10 J & J claims were located and recorded as listed below:

|           | Loc | ated |    | Rec | cordec | <u>j</u> | Record No.    |
|-----------|-----|------|----|-----|--------|----------|---------------|
| J & J #1  | 15  | 02   | 70 | 03  | 03     | 70       | 23192         |
| J & J #2  | 15  | 02   | 70 | 03  | 03     | 70       | 23193         |
| J & J #3  | 30  | 03   | 70 | 10  | 04     | 70       | 23351         |
| J & J #4  | 30  | 03   | 70 | 10  | 04     | 70       | 23352         |
| J & J #5  | 02  | 07   | 71 | 16  | 07     | 71       | 2 <b>6362</b> |
| J & J #6  | 02  | 07   | 71 | 16  | 07     | 71       | 2636 <b>3</b> |
| J & J #7  | 02  | 07   | 71 | 16  | 07     | 71       | 26364         |
| J & J #8  | 92  | 07   | 71 | 16  | 07     | 71       | 26365         |
| J & J #9  | 02  | 07   | 71 | 16  | 97     | 71       | 2636 <b>6</b> |
| J & J #10 | 02  | 07   | 71 | 16  | 07     | 71       | 26367         |

All were located under the two post system and were subsequently grouped on Ol. O3. 72 under the name Fraser, the group being shown on Figure III. The two original owners (John Massey J & J # 1 & #2, and John Greenlees J & J #3 - #10) sold their interest in the claims to Pacific Talc Ltd. on 21. O6. 72. Pacific Talc Ltd. carried out various exploration programs on the property including trenching and sampling with stripping to expose more of the mineralization.

On 29. 12. 77 the claims were optioned to Mountain Minerals Co. Ltd.

(iii) The current program of exploration involved several phases: Initially the area of immediate interest was surveyed using compass, clinometer and topofil chain to establish a series of reference points. The line extends for 0.9 km. in various directions across the property, which was then mapped geologically at a scale of 1:1000. The area covered was 0.1 sq. km. being 500 x 200 m. A drilling program started in the winter of 1978 involved four (4) AQ holes for a total length of 179.21 m. This program was continued in the spring of 1979 with the completion of Hole #4 and the drilling of Holes #5, 6 & 7 to give a cumulative total of 471.20 m. with 291.99 m. drilled during the spring.

A 6 tonne bulk sample was removed from the site during the fall of 1979 for testing purposes at the Lethbridge Mill facility of Mountain Minerals Co. Ltd.

This report is based on the 1979 spring drilling program and the physical work carried out.

(iv) All the work was undertaken on the J & J claims (Fraser Group).

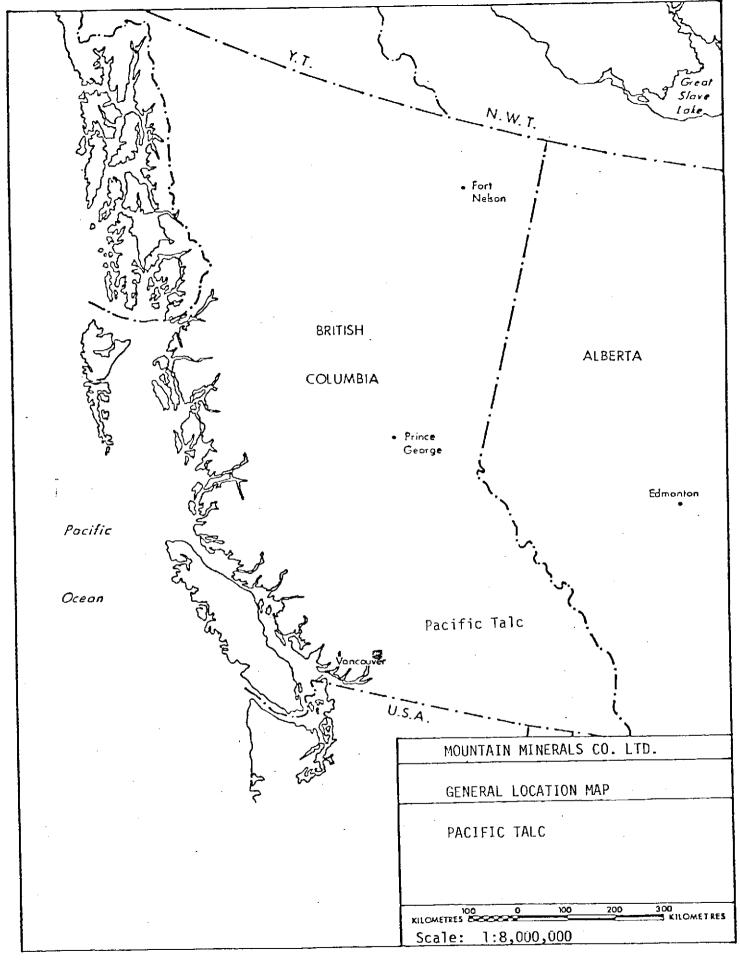
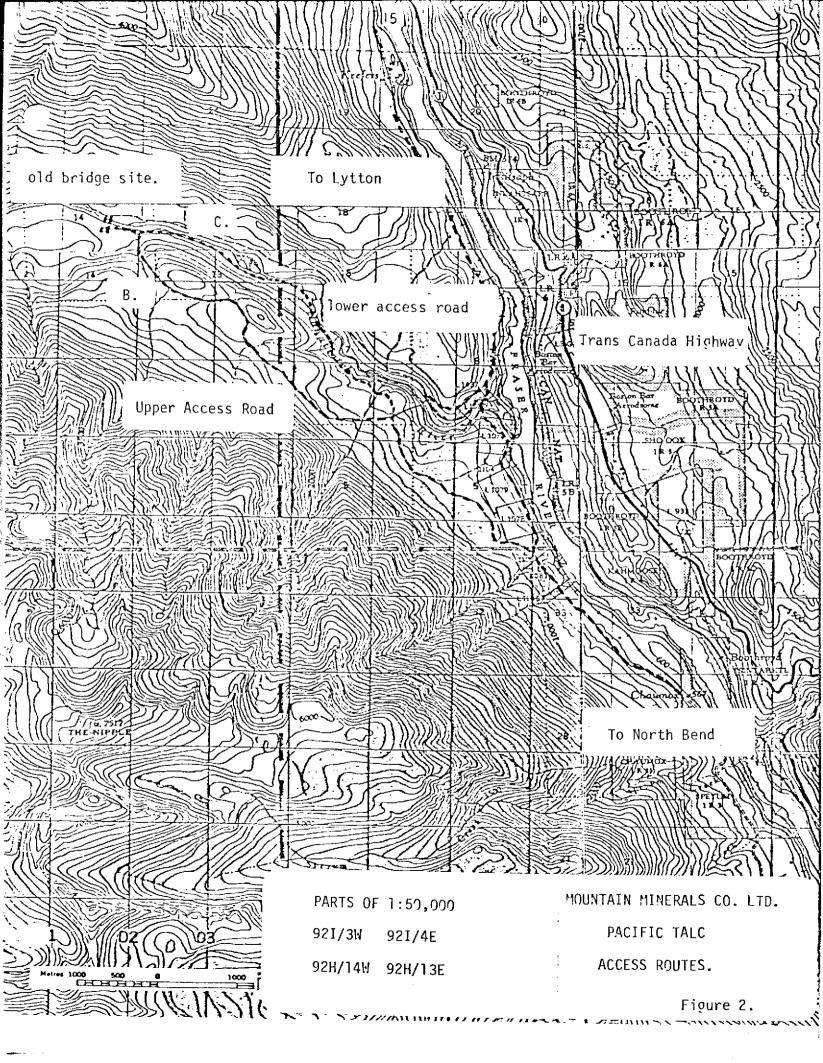
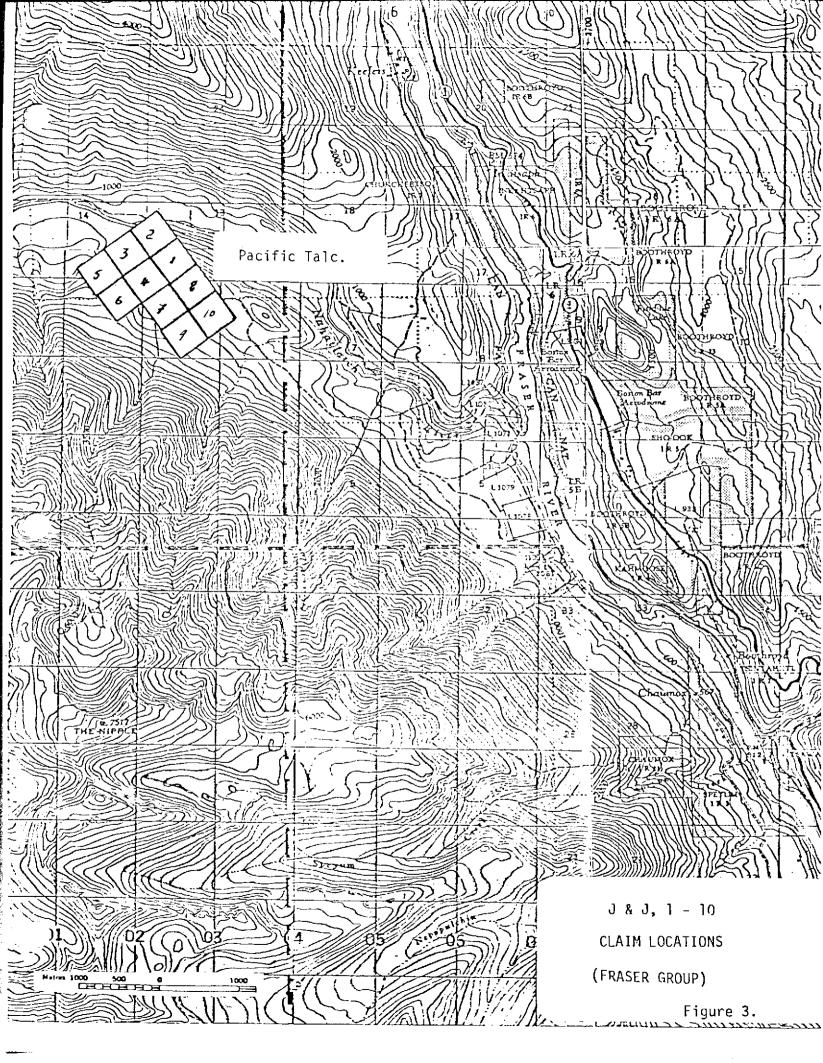


Figure I.





## TECHNICAL DATA

## (a) DRILLING REPORT

The four holes drilled are summarised below:

| Hole # | <u>Dip</u>        | Bearing          | <u>Dates</u> | Collar<br>Elevation (m) | Length (m) |
|--------|-------------------|------------------|--------------|-------------------------|------------|
| 4      | - 60 <sup>0</sup> | 225 <sup>0</sup> | 10-11/12/78  | 108.0 m.                | 92.35      |
| 5      | - 45 <sup>0</sup> | 045 <sup>0</sup> | 7-10/4/79    | 166.0 m.                | 116.74     |
| 6      | - 45 <sup>0</sup> | 225 <sup>0</sup> | 12-18/4/79   | 228.3 m.                | 23.16      |
| 7      | - 90°             | -                | 22-24/4/79   | 0.0 m.                  | 75.89      |

Copies of the drill logs, sections and rationales are appended. The core is stored at the Lethbridge Mill facility of Mountain Minerals Co. Ltd.

HOLE #4

Dip: 60°

Bearing: 225° True

Dec. 10 - Dec. 11, 1078

Elevation: 108.0 m.

Location: see map

April 7 - Apr. 10, 1979

Feet (meters)

From

To

0

34(10.36)

Casing

0

36(10.97)

<u>Overburden</u>

Medium-grained granite boulders with phyllitic fragments in river/terrace sands and gravels.

36(10.97)

48(14.63)

Phyllite

Very fine-grained altered light/dark, grey/ white bands. Hard quartz rich schistose rock with less than 1% disseminated pyrite. Very broken core. Core angle 45°. Bands 0.1-1.0 mm. Minor ptygmatic folding.

48(14.63)

52(15.85)

Talc/Chlorite Zone

Very broken core. Very fine-grained light to dark green chlorite rock with zones of talc to 10 cm. Generally disseminated talc blebs in chlorite.

52(15.85)

61(18.69)

Phyllite

As above. Soft weathered muscovitic rock with some talcose stringers.

# HOLE #4 (continued)

#### Feet (meters)

From

To

61(18.69)

176(53.64)

#### Talc/Chlorite Zone

Variable dark to light green - greenish blue soft massive chlorite with talc. Some schistose sections. Soapy broken core with variable talc content. Contains 1% Py. on shears and disseminated throughout. Traces of fine black magnetite. Minor carbonate (2%-5%). Talc as stringers and veins in the massive chlorite (up to 50% talc).

108(32.92) - 110(33.53): massive chlorite, dark green, platy

61(18.59) - 110(33.53): broken core

176(53.64) 209(63.70)

Chlorite Zone

Greater than 90% v.f.g. chlorite; green, massive.

176(53.64) - 179(54.56): 80% chlorite

179(54.56) - 189(57.61): medium-grained with

acicular crystals to 2 cm?

189(57.61) - 209(63.70): very fine-grained massive

209(63.70) 294(89.61)

Talc/Chlorite

As 61(18.69) - 176(53.64).

217(66.14) - 218(66.45): quartz vein; massive

white quartz underlain

by 5 cm. vein of white

to pale green talc.

219(66.75):

5 cm. talc vein

218(66.45) - 226(68.88): 75% chlorite; massive with some irregular

dark bands

# HOLE #4 (continued)

### Feet (meters)

From

To

209(63.70) 294(89.61) (continued)

Talc/Chlorite

226(68.88) - 228(69.49): massive chlorite > 75%, < 5% talc, 1% pyrite.

228(69.49) - 242(73.76): talc/chlorite; light
green irregular talc
strings to 4 cm.; some
darker chlorite bands;
broken core; sheared platy
chlorite and pyrite on
slickensides; very platy
talc and chlorite

242(74.76) - 246(74.98): massive chlorite as 226 (68.88)-228(69.49)

246(74.98) - 292(89.00): talc chlorite; irregular grain size & banding; light grey-green material with darker chloritic sections; bands of pure talc to 1 cm. with minor carbonate (magnesite, dolomite); disseminated pyrite to 1%

292(89.00) - 294(89.61): soft massive dark green grading to lighter schistose material with talc/chlorite mix; well devel. ptygmatic folding.

292(89.00)-293(89.31): 100% chlorite

293(89.31)-294(89.61): 50% chlorite

## HOLE #4 (continued)

Feet (meters)

From

To

294(89.61)

303(92.35)

Phyllite

Very fine-grained alternating banded grey/white rock. Schistose with ptygmatic folding. Core angle 45°. Minor cross cutting quartz veins to 2 cm. at right angles to bedding. ← 1% pyrite. Sharp contact at 294'(89.61) with hard impure quartzite 294(89.61)-295(89.92).

303(92.35) End of hole

#### Core Recovery

38(11.59) - 43(13.11): 100 % 43(13.11) - 48(14.63): 100 % 48(14.63) - 61(18.59): 50 % 61(18.59) - 69(21.03): 50 % 69(21.03) - 75(22.86): 50 % 75(22.86) - 77(23.47): 100 % 77(23.47) - 82(24.99): 100 % 82(24.99) - 87(26.52): 80 % 87(26.52) - 92(28.04): 100 % 92(28.04) - 99(30.18): 30 % 99(30.18) on: 100 %

projection to suffere

Agrand Surface.

He diva 108 07

Agrand Surface.

He diva 108 07

He diva 108

. b overburken

te tale chlorite

p. phyllita.

PALITIC TALC

HOLL A 4 DRILL SECTION

SchiE 1:1000

MAY 3 1979

Section north & west

## Hole #4 Rationale

This hole was drilled at -60° under hole #3 to test the theory that the apparent lateral pinching-out of the talc body to the S.E. is, in fact, a vertical pinching-out, the apparent narrowing being controlled by the sharp rise in land surface above holes #1 and #2 in a south easterly direction. As shown in the drill section the true intersected width is approximately 50 m. with a steep talc/phyllite contact, the body thus pinching-out vertically rather than horizontally. The core from this hole will provide a valid comparison with that from Hole #3 on the variability of the talc content away from the weathered surface.

# HOLE # 5

Dip: 45°

Bearing: 45° True

April 12 - April 18, 1979

Elevation: 166.0 m.

Location: see map

| Feet (meters) | <u>)</u>    |  |
|---------------|-------------|--|
| From          | <u>To</u> : |  |
| 0             | 74(22.56)   | Casing   |
| 0             | 76(23.16)   | Overburden  Phyllite, granite and talc boulders and fragments in a gravel matrix. Talcose zone between 70(21.34)- 74(22.56). |
| 76(23.16)     | 84(25.60)   | Phyllite  Broken weathered, very fine-grained schistose quartz muscovite rock. Core angle 35°.                               |
| 84(25.60)     | 368(112.17) | Talc/Chlorite Zone  Pale to dark green iron stained core with talc/ chlorite and carbonate (dolomite/magnesite?) and         |

minor pyrite <1% and traces of magnetite.

84 (25.60) - 110(33.53): very broken weathered iron stained core; high chlorite content with short sections of 100% platy chlorite; talc zones irregular

110(33.53) - 118(35.97): massive pale green chlorite talc rock, becoming more talcose down hole section of fibrous tremolite

118(35.97) - 120(36.58): schistose chlorite

# HOLE #5 (continued)

Feet (meters)

From

То

84(25.60) 368(112.17) (continued)

#### Talc/Chlorite Zone

120(36.58) - 129(39.32): massive chlorite approx.

100%; very fine-grained;

minor carbonate; some platy

shears and Fe stains

132(40.23) - 134(40.84):) fracture zones red/brown

140(42.67) - 145(44.20): rusty

162(49.38) - 164(49.99): iron stained broken core

178(54.25) - 179(54.56): irregular quartz/talc vein with milky quartz and later talc infil

182(55.47) - 183(55.76):}
199(60.66) - 200(60.96):}
222(67.66) - 223(67.97):}
massive

Chlorite content decreases from 75% at 200'(60.96) to 50% at 250'(76.20) with increase in talc content in vein form; many regular but others cross cutting and disseminated. Numerous (25-50% variable) crystals of carbonate to 5 mm with < 1% pyrite disseminated and traces of magnetite.

358(78.64) - 368(112.17): chlorite rock \* 75%.,

black to dark green

massive with minor schis
tose sections, irregular

talc veining to 5 cm. at

363(112.64) and 364(110.95)

## 368(112.17) 383(116.74) Phyllite

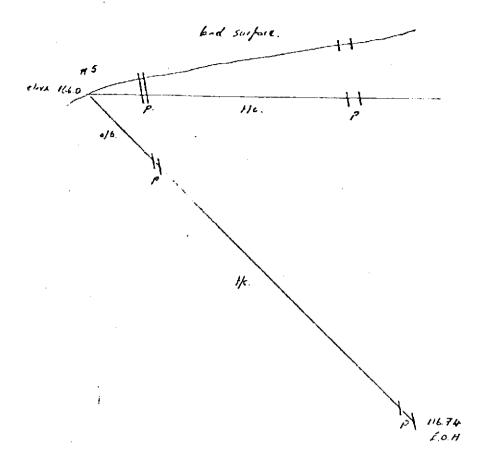
Sharp contact at 368(112.17. Core angle 35°. Phyllite as in other holes with ptygmatic folding at 368 (112.17) - 371(113.08) and irregular quartz veining. Chlorite, muscovite mica schist near contact.

383(116.74) End of hole

# HOLE # 5 (continued)

## Core Recovery

| 70(21.24)  | -  | 73(22.25):  | 70   | % |
|------------|----|-------------|------|---|
| 73(22.25)  | ~  | 74(22.56):  | 100  | % |
| 74(22.56)  | -  | 80(24.38):  | 50   | % |
| 80(24.38)  | -  | 84(25.60):  | • 10 | % |
| 84(25.60)  | -  | 88(26.82):  | 25   | % |
| 88(26.82)  | -  | 94(28.65):  | 50   | % |
| 94(28.65)  | -  | 96(29.26):  | 100  | % |
| 96(29.26)  | -  | 100(30.48): | 50   | % |
| 100(30.48) | _  | 104(31.70): | 50   | % |
| 104(31.70) | -  | 110(33.53): | 70   | % |
| 110(33.53) | OI | n:          | 100  | % |
|            |    |             |      |   |



old overburden the tale extense p phyllite

PACIFIC TALE

HOLE AS DAIL SECTION

SCALE 1: 1000

MAY 3 1979

Section north & west

## Hole # 5 Rationale

Hole #5 was drilled 235 m. S.E. and located 60 m. higher than

Hole #4 and #3. It was drilled to provide information on the hanging

wall at depth and to extend the known talc zone along strike to the south

east. Surface correlative sample #21 was taken from a small outcrop 60 m.

from the drill collar. A true indicated width of 50 m. of talc/chlorite similar

to that in the other holes confirmed the S.E. extension and the hanging wall

intersection showed the general regularity of the shape of the body.

HOLE #6

<u>Dip</u>: 45°

Bearing: 225° True

April 21, 1979

Elevation: 228.3 m.

Location: see map

Feet (meters)

From To

0 14(4.27)

Casing

0 14(4.27)

Overburden

Broken phyllitic fragments in river

gravels.

14( 4.27)

76(23.16)

Phyllite

As other holes. Fractured and iron stained

to 50' (15.24). Core angle 45°.

76(23.16)

End of hole

Core Recovery

14(4.27) - 76(23.16): 100 %

projection to
Surface.

projection to
Surface.

phyllite

2316 EOH.

PACIFIC TALL

HOLE # 6 DRILL SECTION

Stale 1'1000

MAY 3 1979.

Hole # 6 Rationale

This hole was drilled to intersect the body near its postulated southeast end. Unfortunately, the body appears to plunge more steeply than estimated toward the northwest, with the result that the talc/chlorite zone was not entered, the hole being located, effectively, inder the S.E. extension of the orebody.

HOLE #7

Dip: Vertical

Bearing: -

April 22 - April 24, 1979

Elevation: 0

Location: see map

Feet (meters)

From

To

0

4(1.22)

Casing

0

4(1.22)

Overburden

Talcose fragments in gravel material.

4(1.22) 229(69.80)

.Talc/Chlorite

Massive talc/chlorite rock. Very fine-grained pale to dark green, with 50-75% talc and chlorite as a matrix for irregularly distributed carbonate crystals up to 5 mm. in length. Talcose alteration occurs as massive sections, blebs, veins and stringers through the unit. 4 1% pyrite disseminated and in shears.

229(69.80)

231(70.41)

Breccia Zone

Magnesite/dolomite, chlorite/talc breccia with some magnetite. 10% chlorite, 5% talc as veins and stringers.

231 (70.41)

247 (75.11)

Chlorite

Massive soft dark green chlorite rock. Very fine-grained.

247(75.11)

249(75.89)

Phyllite

As other holes. Core angle 35°.

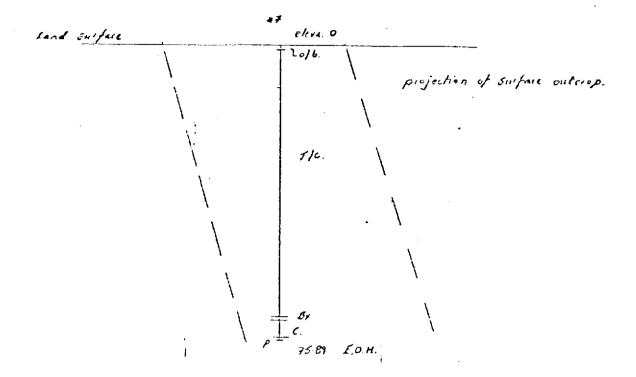
249(75.89)

End of hole

Core Recovery

4(1.22) - 249(75.89):

100%



old overburden

1/c Tale Chlonte

Br Brillia

c Chlorite

P Phyllite.

PAUNE TALE

HOLE #7 DRILL SECTION

SCAJE 1: 1000

THAY 3 /179.

Sechan north & west

## Hole # 7 Rationale

Hole #7 was drilled to determine the depth of the body near the road level. It indicated a depth of 75 m. before passing into phyllite. This suggests that either: (a) the footwall was penetrated, in which case the dip must have flattened at depth, or: (b) the mechanisms which caused ateration of the rocks into a talcose orebody petered out.

## (b) PHYSICAL WORK

A bulk sample of 5-6 tons was removed from the deposit in the main pit area (See map in back pocket). The face was drilled and blasted and clear unweathered mineral was taken. This material was transported to the Lethbridge Mill facility of Mountain Minerals Co. Ltd. for grinding tests.

## ITEMIZED COST STATEMENT

# (Drilling)

| (a) | Contractors drilling costs - demobilization, drilling, core boxes, moving charges, cost of living, etc. | \$ 14,106.00 |
|-----|---|--------------|
| (b) | J. W. Perston labour, 22 days (Apr. 5-26, 1979)   | 2,200.00     |
| (c) | J. W. Perston accommodation/meals 22 days (Apr. 5-26, 1979)   | 664.00       |
| (d) | J. W. Perston travel @ 20¢ km 3,300 km.   | 660.00       |
| (e) | Report preparation/typing/reproduction/assembly   | 250.00       |
|     | TOTAL   | \$ 17,880.00 |

# COST STATEMENT (Physical Work)

| (a) | J. W. Perston Tabour 5 days (Oct. 27-31, 1979)<br>@ \$100.00/day               | \$ | 500.00   |
|-----|--|----|----------|
| (b) | J. W. Perston accommodation/meals 5 days (Oct. 27-31, 1979) @ \$35.00/day      |    | 175.00   |
| (c) | J. W. Perston transportation<br>@ 20¢/km 2,500 km.                             |    | 500.00   |
| (d) | Blasting Consultant 5 days (Oct. 27-31, 1979)<br>@ \$150.00/day                |    | 750.00   |
| (e) | Blasting Consultant 5 days (Oct. 27-31, 1979) food/accommodation @ \$35.00/day |    | 175.00   |
| (f) | Truck Driver 6 days @ 10 hrs. @ \$10.00/hr<br>(Oct. 27 - Nov. 1, 1979)         |    | 600.00   |
| (g) | Truck Driver 6 days food/accommodation (Oct. 27 - Nov. 1, 1979) @ \$35.00/day  |    | 210.00   |
| (h) | Truck @ 25¢ km 2,500 km.   | ,  | 625.00   |
| (j) | Report preparation/typing/duplicating, etc.                                    |    | 150.00   |
| (k) | Supplies - Blasting, etc.  |    | 150.00   |
| (1) | Equipment Rental - Blasting  | _  | 165.00   |
|     | TOTAL  |    | 4,000.00 |

## AUTHOR'S QUALIFICATIONS

J. W. Perston graduated from London University in 1969 with a B.Sc. (Hons.) in geology. He worked full time from 1969 to 1973 in Canada and Latin America on mineral exploration and mine geology. He returned to university in 1973 and received his M.Sc. in 1974. Subsequent exploration activities have been in Latin America, the Middle East and western North America.

76 Post

