

MOUNTAIN MINERALS CO. LTD.
1978 DRILLING & GEOLOGICAL
SURVEY OF PART OF THE
J & J CLAIMS IN THE
NAHATLACH RIVER VALLEY
SOUTH-WESTERN B.C.
NEW WESTMINSTER MINING DIVISION

GEOGRAPHIC COORDINATES:

50° 00.8' N.) INITIAL POST
121° 34.5' W.) J & J #1

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

LYTTON & SCUZZY MOUNTAIN

BY

JOHN W. PERSTON, B.Sc. M.Sc.

1979. 01. 10.

MOUNTAIN MINERALS CO. LTD.
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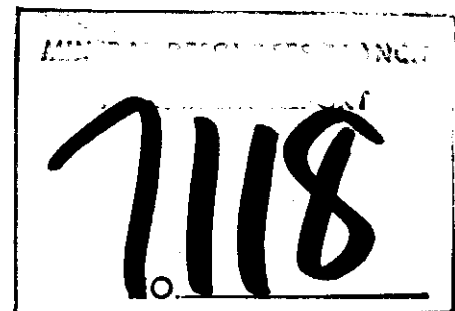


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INTRODUCTION

- (i) The 10 J & J claims are located at $50^{\circ} 00.8' N.$, $121^{\circ} 34.5' W.$ (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° being common.

The climate is mild with occasional 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:

	<u>Located</u>			<u>Recorded</u>			<u>Record No.</u>
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	26362
J & J #6	02	07	71	16	07	71	26363
J & J #7	02	07	71	16	07	71	26364
J & J #8	02	07	71	16	07	71	26365
J & J #9	02	07	71	16	07	71	26366
J & J #10	02	07	71	16	07	71	26367

All were located under the two post system and were subsequently grouped on 01. 03. 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. 06. 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. Rock chip samples were taken for analysis from the three main exposures. The 20 samples are listed separately in Table I.

A drilling program started in the winter of 1978 involved four (4) AQ holes for a total length of 179.21 m.

(iv) All the work was carried out on the J & J claims.

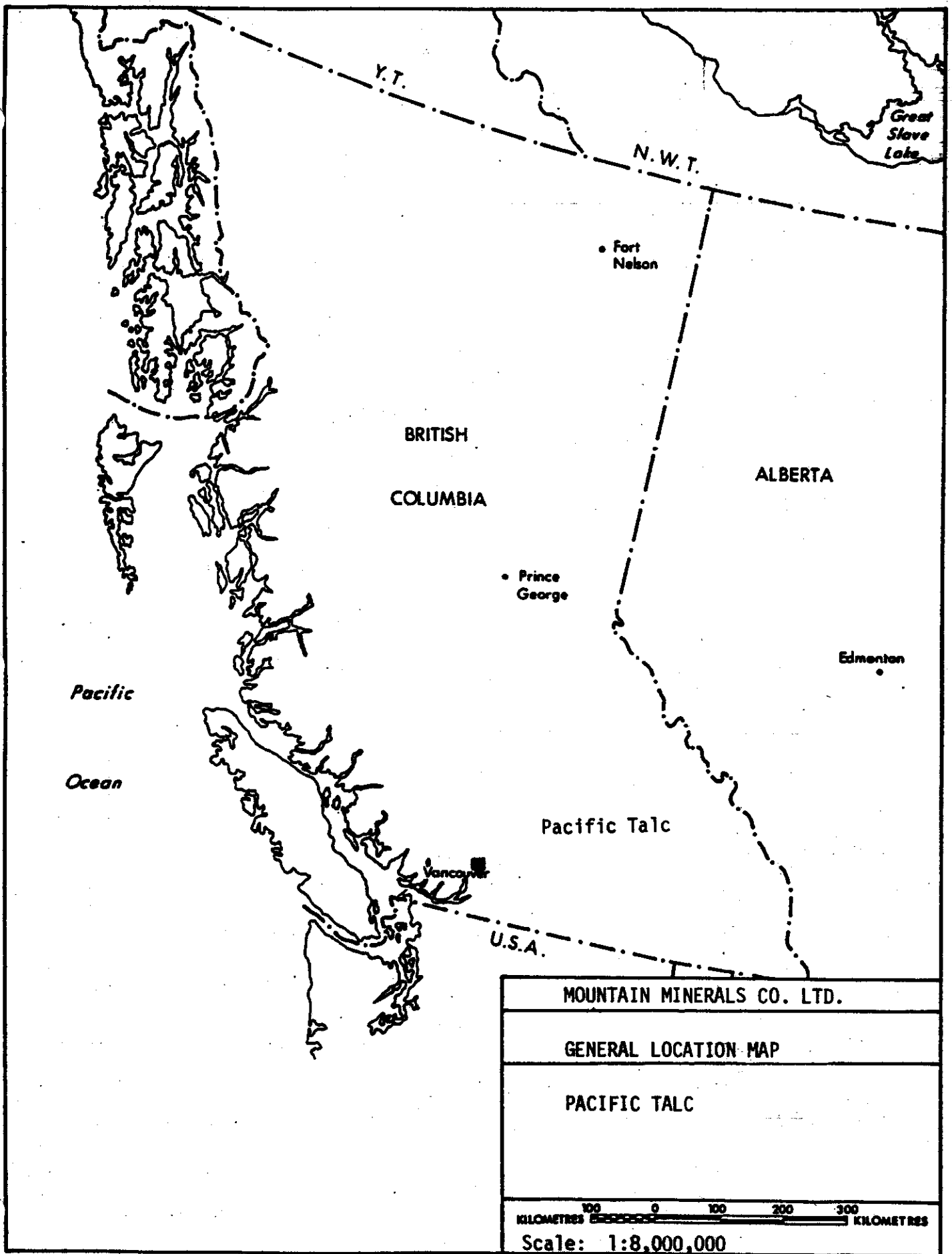
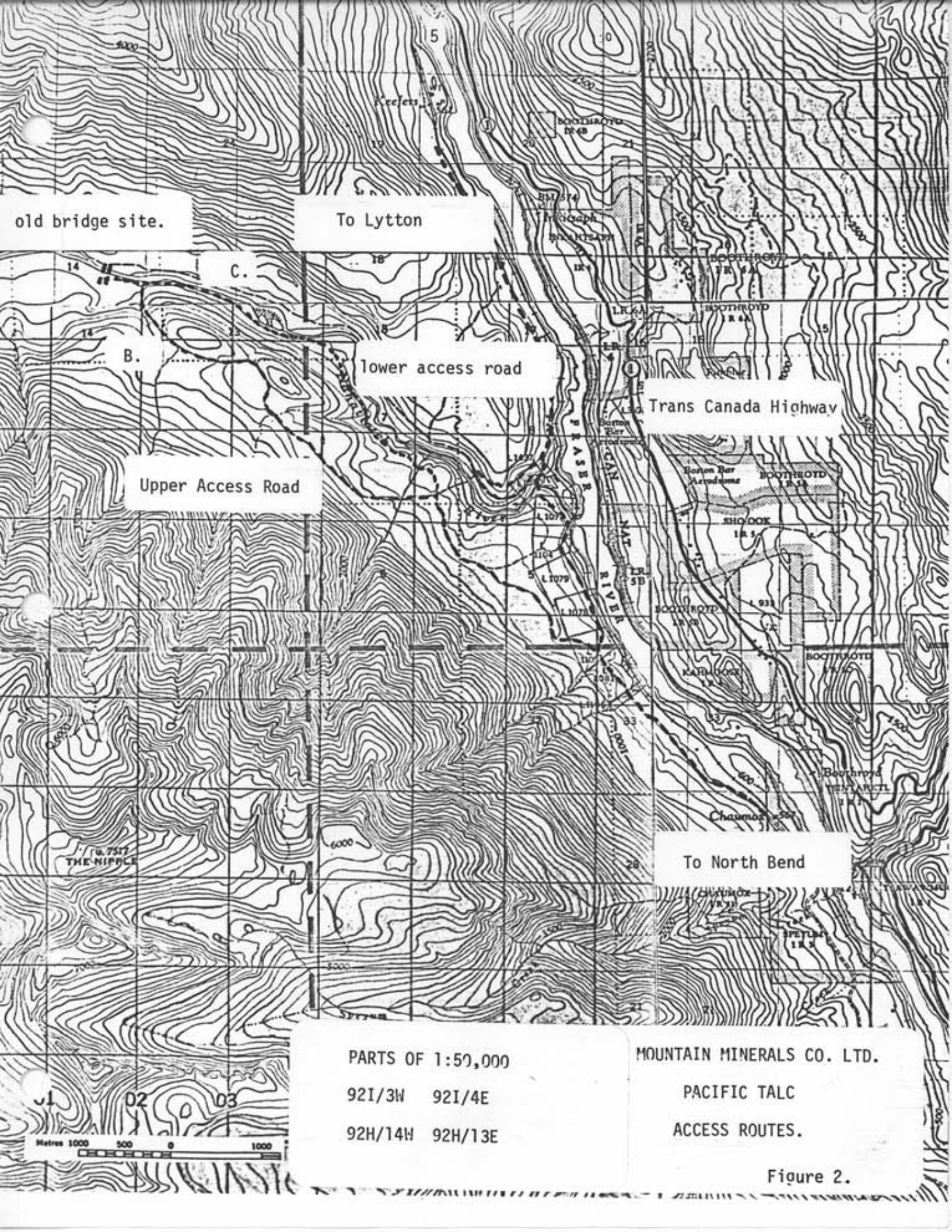


Figure I.



old bridge site.

To Lytton

B.

lower access road

Trans Canada Highway

Upper Access Road

To North Bend

PARTS OF 1:50,000
 92I/3W 92I/4E
 92H/14W 92H/13E

MOUNTAIN MINERALS CO. LTD.
 PACIFIC TALC
 ACCESS ROUTES.

Figure 2.



J & J, 1 - 10
 CLAIM LOCATIONS
 (FRASER GROUP)

Figure 3.

TABLE I.

<u>Sample No.</u>	<u>Location</u>	<u>Description</u>
1	Road - west end	all samples
2	Road 5 m. E. of 1	soft chlorite/talc/dolomite
3	Road 5 m. E. of 2	magnesite pyrite mix
4	Road 5 m. E. of 3	Approximately 50% talc
5	Road 5 m. E. of 4	1-2% Pyrite. Light to
6	Road 5 m. E. of 5	dark green, speckled,
7	Road 5 m. E. of 6	sheared.
8	Road 5 m. E. of 7	
9	Road 5 m. E. of 8	
10	Road 5 m. E. of 9	
11	Pit - east end	
12	Pit 5 m. N.E. of 11	
13	Pit 5 m. N.E. of 12	
14	Pit 5 m. N.E. of 13	
15	Pit 5 m. N.E. of 14	
16	Pit 5 m. N.E. of 15	
17	Upper trench S.E. end	
18	Upper trench 5 m. N.W. of 17	
19	Upper trench 5 m. N.W. of 18	
20	Upper trench 5 m. N.W. of 19	

GEOLOGY REPORT (Figure 4.)

(a) Surficial Geology

The mapped area is extensively covered by river deposited terrace material. Although the surface soil is thin the bedrock surface is covered by sands and gravels forming terraces which were laid down by the Nahatlach River probably as outwash deposits from glaciers during the immediate post-glacial period. They comprise medium grained sands with rounded granitic boulders to 0.5 m. in diameter scattered throughout. The thickness is very variable as would be expected with a deposit laid down on an irregular erosion surface. Near bedrock the amount of country rock fragments increases these pieces being angular and a result of present weathering activity.

(b) Bedrock Geology

Bedrock exposure is limited to two rock types. The country rock comprises a soft chloritic grey/green phyllite dipping sub-vertically and striking 135° . Exposures are few, highly weathered and frequently slumped. In the phyllite and lying sub-parallel is a band of talcose mineralization. The rock comprises a soft green to white sheared chlorite, talc, magnesite, dolomite, pyrite mixture with chlorite and talc predominating to form up to 90% of the rock. The pyrite content varies up to 5% principally on shear zones but also disseminated throughout. Sections in the bedrock show chloritic values of nearly 100% but these are narrow and apparently discontinuous. The exposures of talcose mineralization are limited to the lower road cut, the pit area where a considerable amount of stripping has taken place, a higher level trench/cut and an old logging road cut 450 m. south east of the road.

GEOCHEMICAL REPORT (Figure 4.)

Small rock chip samples weighing approximately 250 gm. each were taken from the exposed bedrock in the lower road cut, pit area and upper cut at 5 m. intervals to compare the surficial talc content with the content found at depth in the drill core. To date no analyses have been carried out on this material. However, a visual examination suggests that the talc content decreases with depth.

DRILLING REPORT (Figure 4)

The four holes drilled are summarized below:

<u>Hole #</u>	<u>Dip</u>	<u>Bearing</u>	<u>Dates</u>	<u>Collar Elevation (m)</u>	<u>Length</u>
1	-45 ⁰	225 ⁰	28/11-2/12/78	2.8	65.83
2	-45 ⁰	225 ⁰	3-5/12/78	23.3	64.31
3	-45 ⁰	225 ⁰	7-9/12/78	108.0	32.92
4	-60 ⁰	225 ⁰	10-11/12/78	108.0	16.15

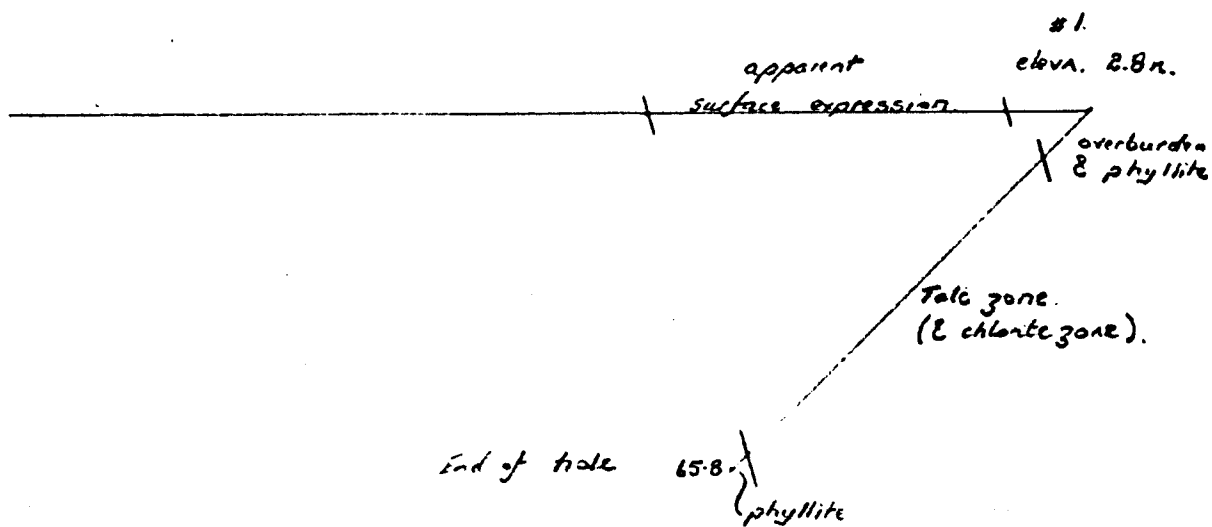
The core from these holes will be stored in Lethbridge. Copies of the drill logs, sections and drill rationales are enclosed.

Hole # 1

Rationale.

This hole was drilled to intersect the talc zone under the road exposure at the lowest level on the property. Matching surface samples are numbered 1 through 10. Consistency of the indicated true width and consistency of talc content were prime items of required information. With a 75° north-easterly dip, the surface exposure indicates a true width of 43 m. Drilling indicated a true width of 47 m. and a known depth of - 41.2 m. relative to the arbitrary 0 level. Although the hole was collared within 2 m. of bedrock exposure nearly 10 m. of casing were required due in part to the fragmentary nature of the weathered bedrock, but also to the extensive gravel terrace development. The rock outcrop probably represents the top of an old river canyon now gravel covered. This interpretation is backed up by the lack of exposure between the road and the present river channel.

Hole # 1	Dip - 45 ⁰	Bearing 225 ⁰ True	November 28 - December 2, 1978.
Feet (meters)			
From	To		
0	30 (9.14)	Casing	
0	28 (8.53)	Overburden	Granitic boulders, river gravel Rotten weathered talcose/phyllite fragments.
28(8.53)	29 (8.84)	Phyllite	Broken weathered bedrock fragments.
29(8.84)	74 (22.55)	Chlorite/Talc	High chlorite replacement zone. Very fine grained rock. Magnesite replaced by chlorite. Low talc content over entire zone (approx. 20%) 30' (9.14) - 38' (11.58) 50% recovery. 65' (19.81) - 66' (20.12) 90% + chlorite zone.
74(22.55)	200(60.96)	Talc Zone	Variable talc content (20 - 40%) in Talc/chlorite/magnesite/pyrite rock. Very fine grained with talc as irregular replacement bands (to 5 cm.) and blebs. Some shearing with pyrite smeared on shear zones and as discrete zones (to 5%). 133' (40.54) - 136' (41.45) high chlorite zone (90%+). 171 (52.12) - 172 (52.42) high chlorite zone.
200 (60.96)	204 (62.18)	Chlorite	High chlorite zone. Soft green massive rock with minor pyrite (approx. 1%).
204 (62.18)	216 (65.83)	Phyllite	Light to dark grey-green-black. Banded (< 1mm - 2 cm) alternating chlorite/quartz rock. Minor cross cutting quartz-veins, minor ptygmatic folding. Semi-schistose development. Core angle 60 ⁰ .
216 (65.83)		End of Hole.	



PACIFIC TALC
HOLE # 1 DRILL SECTION.
SCALE 1:1000
DEC 10. 78

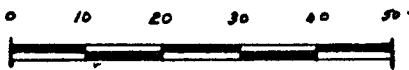


Figure 7.

Hole # 2 Rationale.

This hole was drilled in the pit section to obtain the same information as hole #1. Correlative surface samples are numbered 11 through 16. The indicated true width of the talc in the pit zone is 43 m. with a drill indicated width of 38 m. and a depth indication down to - 20 m. relative to the arbitrary 0 level. As with hole # 1 collaring was close to bedrock but the weathered phyllite and river deposited overburden required 15 m. of casing.

Hole # 2 Dip 45° Bearing 225° True Dec. 3 - Dec. 5/78.

Feet (meters)

From To

0 58 (17.68)

Casing

0 32 (9.75)

Overburden -

River gravels and sands with granitic boulders and phyllitic fragments.

32 (9.75) 55 (16.76)

Phyllite -

Broken fragmentary weathered light-medium grey banded phyllite. Some hard recrystallized medium-grained quartzose sections. Banding is 0.1 - 1 cm. wide alternating quartz/chlorite rich zones. Minor pyrite.

Recovery.

31-34	67%	} 9.44 - 10.36 - 11.58 - 12.80 - 14.63 - 16.15 - 17.68 17.68 - on
34-38	50%	
38-42	50%	
42-48	15%	
48-53	20%	
53-58	20%	
58 on	100%	

55 (16.76) 199 (60.65)

Talc Zone

Light grey-green massive rock with irregular streaky fine banding comprising talc, chlorite, magnesite and up to 10% Pyrite. The talc occurs as light fracture fillings and bands to 2 cm. and as discrete particles throughout the rock in the darker chloritic material, which forms up to 60% of the total. Pyrite occurs on sheared surfaces and as disseminations throughout. Talc content 20 - 40% ?

127 (38.71) 129 (39.32)

High chlorite zone - fractured.

137 (41.76) 139 (42.37)

High chlorite zone - massive.

147 (44.80) 149 (45.41)

High chlorite zone - high pyrite (approx. 20%)

168 (51.20) 199 (60.65)

Increasing hardness due to an increase in chlorite and magnesite and a decrease in talc. 185-6 high chlorite zone. (56.39 - 56.69).

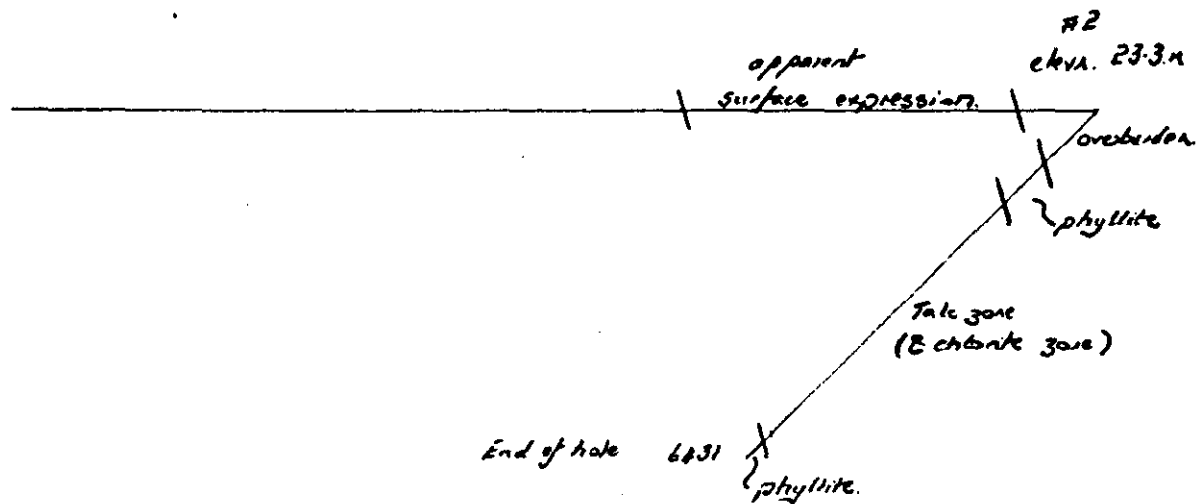
199 (60.65) 211 (64.31)

Phyllite.

Grey very fine grained slaty rock. Chloritic with cross cutting quartz veins Thinly bedded (0.1 - 0.5 cm.) with irregular quartz porphyroblasts. Core angle 60°. 1 - 2% contained pyrite.

211 (64.31)

End of Hole.



PACIFIC TALC

HOLE # 2 DRILL SECTION

SCALE 1:1000

DEC. 10. 78.



Figure 8.

Hole # 3 Rationale

Hole # 3 was planned to intersect the talc zone at a much higher elevation than #2 and #1. (at approximately 100 m. above the reference 0 point). There is no surface expression at this location but a width of 15 m. is exposed 30 m. west and north. The hole was drilled to determine if the apparent narrowing of the surface expression (over 40 m. in the pit to 15 m., 50 m. vertically higher and 75 m. horizontally S.E.) was true and to intersect talcose alteration in a near surface hole (see section) which due to the slope of the land form remained within 10 m. of the surface. The surface samples 17 through 20 can be used to compare talc content but due to the locational difference the comparison may not be entirely valid. A true width of only 9 m. was intersected in the drill hole confirming the pinching concept. However, this pinching may be a vertical rather than lateral action.

Hole # 3	Dip 45°	Bearing 225° True	Dec. 7 - Dec. 9/78.
Feet (meters)			
From	To		
0	50 (15.24)	Casing	
0	48 (14.63)	Overburden	River gravel and terrace materials. Phyllite boulders.
48	52 (15.85)	Phyllite.	Broken bedrock fragments, light grey, finely banded with iron stained fracture planes.
52	83 (25.30)	Talc Zone.	Very broken light grey-green talc/chlorite rock (50% 50%) soft with minor pyrite especially on shear surfaces. Talc is disseminated throughout the rock as an alteration product, not as fracture fillings.
83	105 (32.00)	Chlorite Zone.	More competent less fractured rock with massive very fine grained chlorite forming 90% of the unit. Up to 5% talc/magnesite with banded carbonate zones. Minor talc fracture fillings. Minor pyrite throughout, as disseminations and smears on shear planes. 87 - 89 100% Chlorite. (26.52 - 27.13)
105	108 (32.92)	Quartzite.	Light grey hard very fine-grained impure quartz rock. Massive (Core angle 60°)
	108 (32.92)	End of hole.	

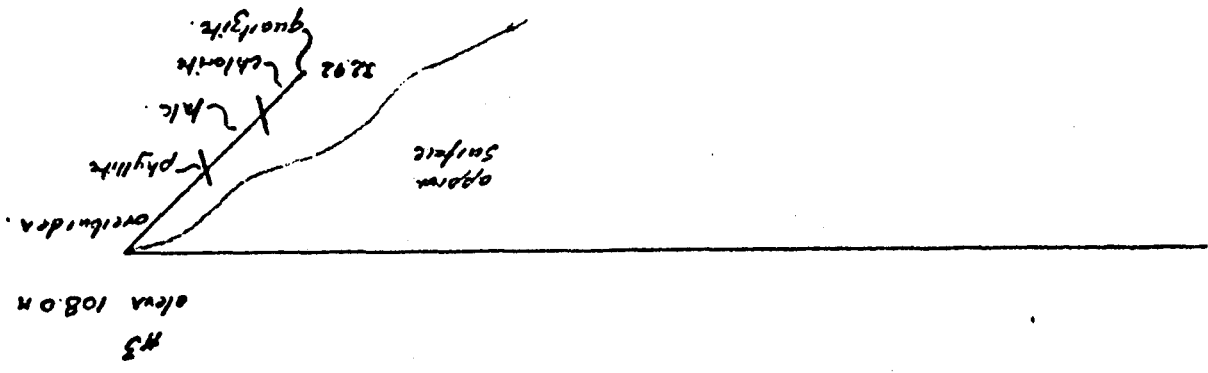
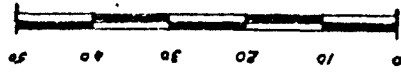
Core Recovery.

57 - 53 (15.54 - 16.15)	50%
53 - 58 (17.68)	20%
58 - 63 (19.80)	100%
63 - 68 (20.73)	20%
68 - 73 (22.25)	100%
73 - 78 (23.77)	80%
78 - 83 (25.30)	20%
83 - 88 (26.82)	80%
88 - on.	100%

Table 4.

Figure 9.

PACIFIC TRAIL
HOLE #3 DRILL SECTION
SCALE 1:1000
DEC 13 '78

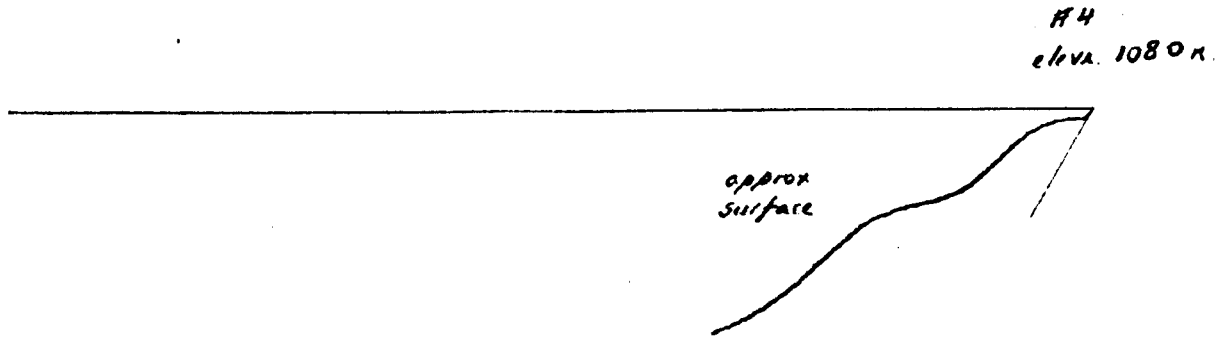


Hole #4 Dip - 60° Bearing 225° True. Dec. 10 - Dec. 11/78.

Hole halted at 53' (16.15 m.) due to inclement weather.

34' (10.36 m.) Casing.

This hole was planned to test the theory that the pinching out of the talc body is a vertical feature and not a horizontal one, and to determine if the talc content of the zone decreases away from the weathered surface as suggested by the cores from holes # 1 & # 2.



PACIFIC TALC

HOLE H4 DRILL SECTION

SCALE 1:1000

DEC 13 78.

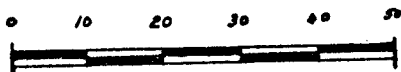
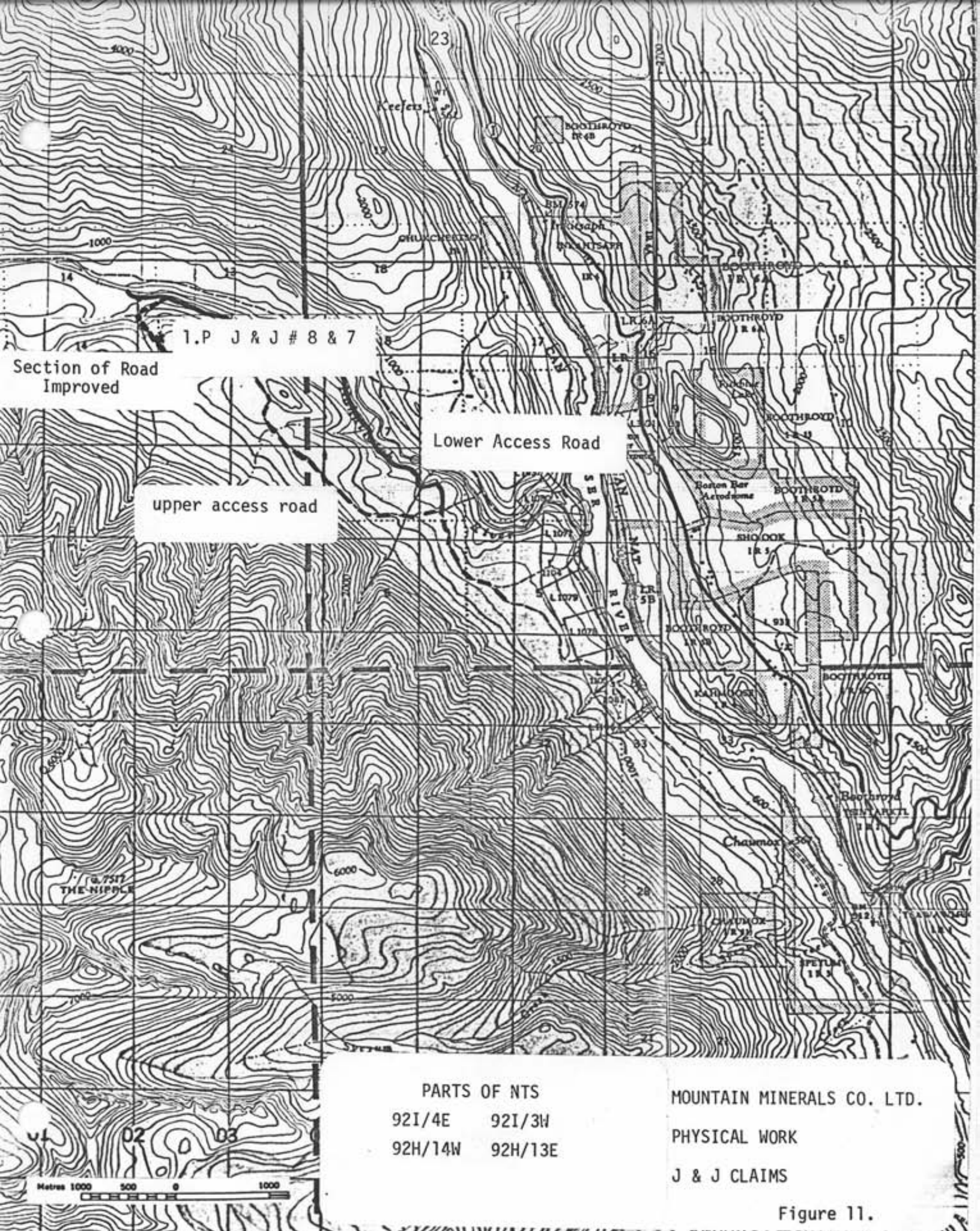


Figure 10.

PHYSICAL WORK.

Drill access to the upper levels of the Pacific Talc deposit was made by improving old logging roads and trails. Approximately 20 years of undergrowth and small trees was removed from the trails and several sections were graded/filled to provide vehicular access. Nearly 700 m. of old trail was cleared in this way to give a 2 m. wide access road on a gravel terrace base. This road is expected to provide access for any future exploration work for several years without any additional construction being carried out. See figure 11 following.



1.P J & J # 8 & 7

Section of Road Improved

Lower Access Road

upper access road

PARTS OF NTS
 92I/4E 92I/3W
 92H/14W 92H/13E

MOUNTAIN MINERALS CO. LTD.
 PHYSICAL WORK
 J & J CLAIMS

Figure 11.

ITEMIZED COST STATEMENT

(Geological & Geochemical)

(a) J.W. Perston labour 5 days (Aug. 14-18) @ \$80.00/day	\$	400.00
(b) J.W. Perston 5 days (Aug. 14-18) food and accomodation @ \$31.56/day		157.80
(c) J.W. Perston transportation 2205 km. @ 20¢/km.		441.00
(d) Report preparation/typing/copying/assembly		200.00
(e) Misc. phone, postage, supplies, etc.		<u>25.00</u>
Total;	\$	<u><u>1,223.80</u></u>

ITEMIZED COST STATEMENT

(Drilling)

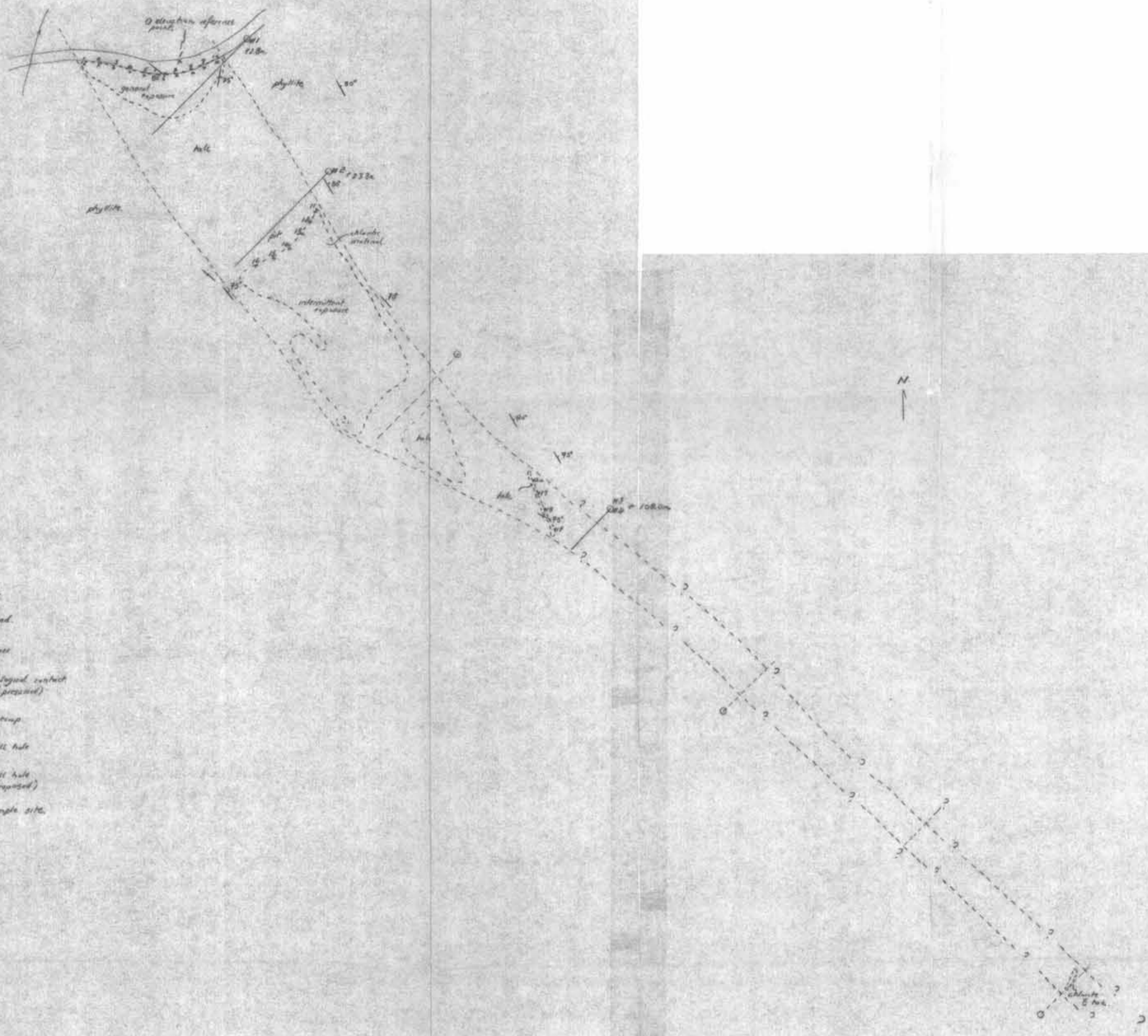
(a) Contractors drilling costs - mobilization, drilling, core boxes, moving charges, etc.	\$	8,061.00
(b) Contractors cost of living 11 days @ \$30.00/day		<u>330.00</u>
	Total cost:	8,391.00
(c) J.W. Perston labour, 8 days (Nov. 15-22) @ \$80.00/day		640.00
J.W. Perston labour 11 days (Nov. 29 - Dec. 4, Dec. 7 - 11) @ \$80.00/day		880.00
(d) J.W. Perston accomodation/meals 8 days Nov. 15-22 @ \$27.95/day		223.60
J.W. Perston accomodation/meals 11 days Nov. 29 - Dec. 4, Dec. 7 - 11 @ \$24.31/day		267.41
(e) J.W. Perston travel @ 20¢ km. - 4900 km.		980.00
(f) Report preparation/typing/reproduction/assembly		100.00
(g) Misc. phone, postage, etc.		<u>51.64</u>
	Total:	\$ <u><u>11,533.65</u></u>

COST STATEMENT (Physical Work.)

(a)	J.W. Perston labour 2 days (Dec. 5-6/78) @ \$80.00/day	\$	160.00
(b)	J.W. Perston accomodation/meals 2 days Dec. 5-6/78, @ \$24.31/day		48.62
(c)	J.W. Perston transportation 2 days Dec. 5-6/78 @ 20¢/km. - 109 km.		21.80
(d)	Contractor Cost		
	(i) J.D. 350 Cat. 15 hrs. @ \$20.00/hr.		300.00
	(ii) Accomodation/meals 2 days @ \$30.00/day.		<u>60.00</u>
	Total Cost:	\$	<u><u>590.42</u></u>

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.



- LEGEND**
- Road
 - Geological contact (proposed)
 - outcrop
 - Drill hole
 - Drill hole (proposed)
 - Sample site



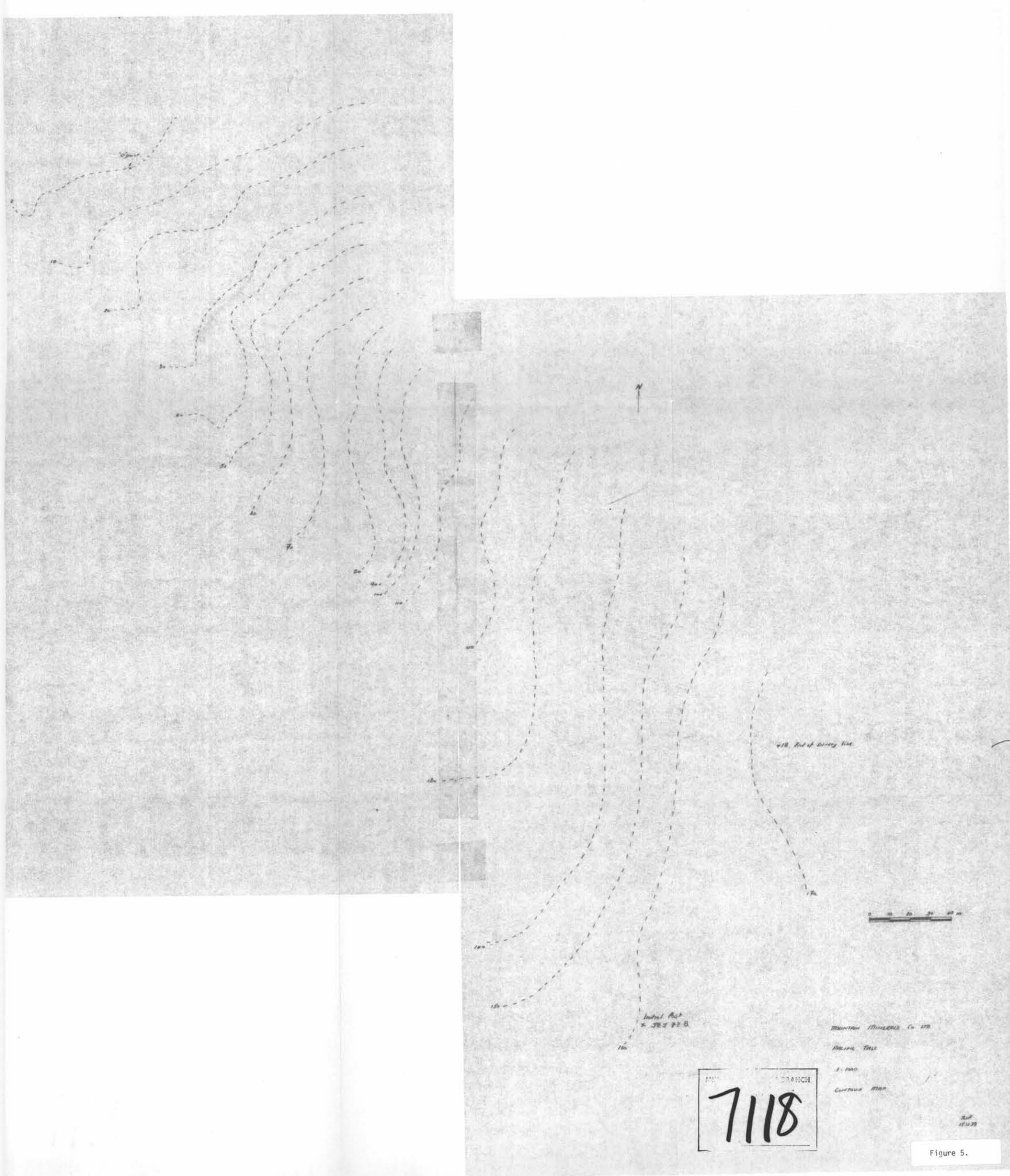
MIN. DIV. BRANCH
7118
 NO.

Initial Act
 x Feb 1980

WHITTON MINERALS Co. LTD.
 PACIFIC TALE
 1:1000
 GEOPHYSICAL SURVEY, OUTCROP MAP
 & DRILL HOLE LOCATIONS WITH
 SAMPLE SITES.

22/1/80

Figure 4.



BRANCH
7118

Figure 5.

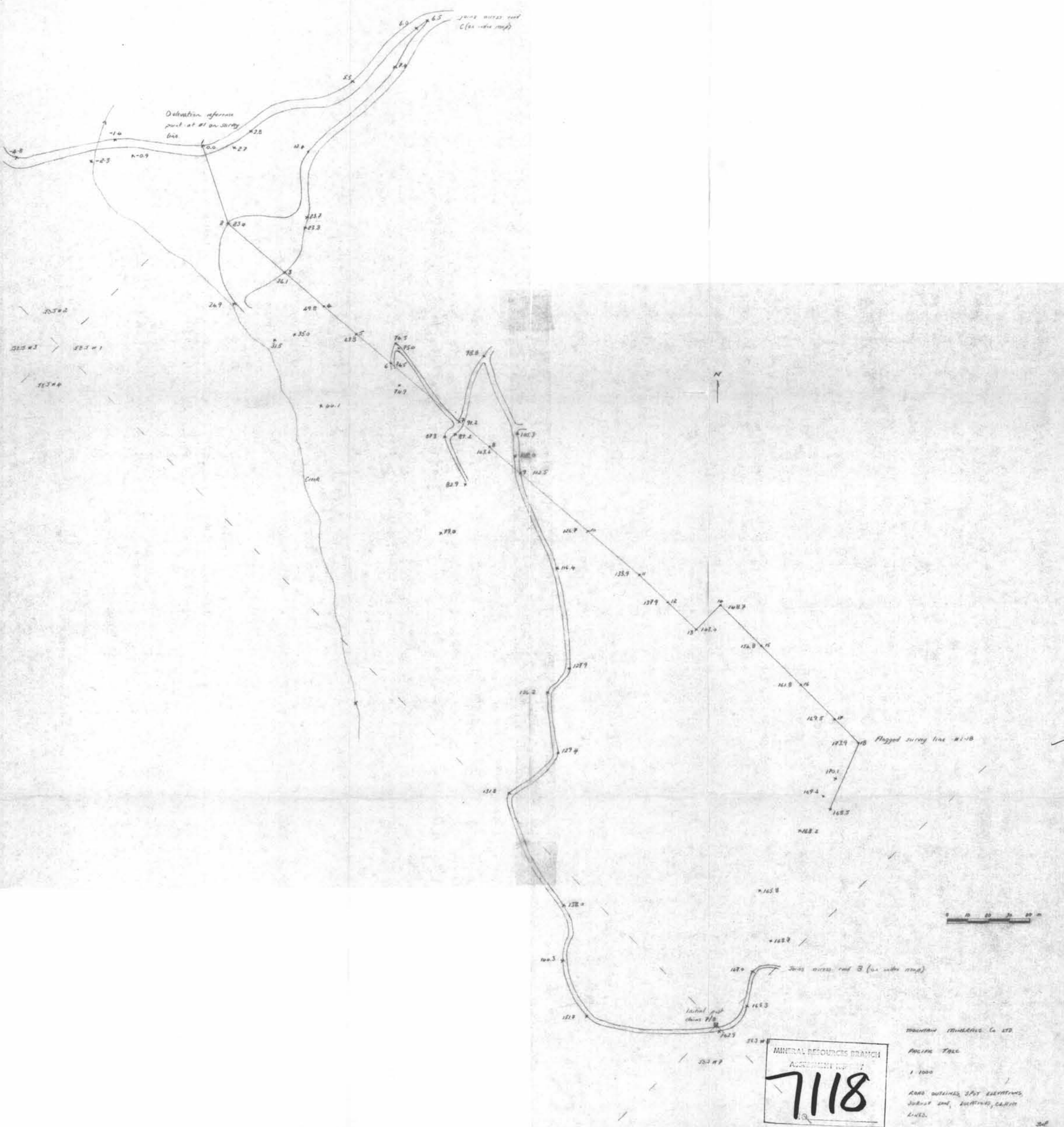


Figure 6.