



DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGY REPORT ON TRENCHING

TWO BUTTES PROPERTY

W 1-24, TW 25-80 CLAIMS

MAYO MINING DISTRICT

105 M-6

63° 29' N

135° 22' W



Commissioner of Yukon Territory
Section for the Yukon Mining Act
Construction of exploration work under
this Act is subject to the supervision of
the Mining Engineer.
10/1/80

L. Eccles

L. K. ECCLES
Geologist, B.Sc.

Dec 22/80

December 1980

090755



BU POINT OF CANADA EXPLORATION LIMITED

GEOLOGY REPORT ON TRENCHING

TWO BUTTES PROPERTY



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 \$ 12,800.00

[Signature]

 District Geologist or
 Resident Mining Engineer

Considered as representation work under
 Section 53 (1) Yukon Quartz Mining Act.

 Commissioner of Yukon Territory

Dec 25/80
December 1980

[Signature]
L. K. ECCLES
Geologist, B.Sc.

090755

FROM Mining Recorder at Whitehorse

TO Supervising Mining Recorder at Whitehorse, Y.T.

FOR ACTION ARE:

NEW APPL'N for PLACER LEASE to PROSPECT: Name:

RENEWAL APPL'N PLACER LEASE to PROSPECT: Name:

AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name:

ASSIGNMENT of PLACER LEASE No.

From: _____ To: _____

GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.

Owner: _____

DIAMOND DRILL LOGS:

Claims: _____ Claim sheet no: _____

QUARTZ ASSESSMENT REPORT:

Claims: "W" 1-8 Claim sheet no. 105-M-6

"TW" 25-40
Type of report: TRENCHING. Submitted by: DUPONT OF CANADA EXPLORATION LIMITED

Cls. work performed on: _____ \$ Req. for ren. application

\$ 12800

[Signature]
Signature

REPLY ACTION:

Date Ret. _____

Signature





Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



I (Name)	D. A. BARR	Occupation	Vice President
(Postal Address)	Du Pont of Canada Exploration Limited 102-1550 Alberni Street, Vancouver, BC V6G 1A5		

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

TW 25	YA 39601	TW 33	YA 39609
TW 26	YA 39602	TW 34	YA 39610
TW 27	YA 39603	TW 35	YA 39611
TW 28	YA 39604	TW 36	YA 39612
TW 29	YA 39605	TW 37	YA 39613
TW 30	YA 39606	TW 38	YA 39614
TW 31	YA 39607	TW 39	YA 39615
TW 32	YA 39608	TW 40	YA 39616

situated at 30 km S.E. of Mayo Claim Sheet No. 105-M-6

in the Mayo Mining District, to the value of at least \$6400

dollars, since the 25th day of April 1980.

to represent the following mineral claims under the authority of Grouping Certificate No. _____

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

YA39601	TW 25	From April 25/83 - April 25/87	
YA39602	TW 26	16 claims x 4 years x \$100 = \$6400	
YA39603	TW 27		
YA39604	TW 28		
YA39605	TW 29		
YA39606	TW 30	YA39614	TW 38
YA39607	TW 31	YA39615	TW 39
YA39608	TW 32	YA39616	TW 40
YA39609	TW 33		
YA39610	TW 34		
YA39611	TW 35		
YA39612	TW 36		
YA39613	TW 37		

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Blasting, trenching and geological fieldwork on claims and helicopter support June 24-July 7, 1980 as shown on attached cost statement.

Sworn before me at Vancouver, BC

this 17 day of February 1981

Notary Public

Applicant.



Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



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2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

TW 41	YA39617	W 5	YA39262
TW 42	YA39618	W 6	YA39263
TW 43	YA39619	W 7	YA39264
TW 44	YA39620	W 8	YA39265
W 1	YA39258	TW 45	YA39621
W 2	YA39259	TW 46	YA39622
W 3	YA39260	TW 47	YA39623
W 4	YA39261	TW 48	YA39624

situated at 30km S.E. of Mayo Claim Sheet No. 105-M-6

in the Mayo Mining District, to the value of at least \$6400

dollars, since the 25th day of April 19 80

to represent the following mineral claims under the authority of Grouping Certificate No. _____

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

TW 41	YA39617	TW 45	YA39621) From April 25/83 - April 25/87) 16 claims x 4 yrs x \$100 = \$6400
TW 42	YA39618	TW 46	YA39622	
TW 43	YA39619	TW 47	YA39623	
TW 44	YA39620	TW 48	YA39624	
W 1	YA39258))	
W 2	YA39259))	
W 3	YA39260))	
W 4	YA39261))	
W 5	YA39262))	
W 6	YA39263))	
W 7	YA39264))	
W 8	YA39265))	

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Blasting, trenching and geological fieldwork and helicopter support June 24-July 7, 1980 as shown on attached cost statement.

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Drawing Number TB-79-1	Claim Location Map	Follow Pg. 1
Drawing Number TB-80-1	Trench Plan & Geology	In pocket

INTRODUCTION

In the summer of 1979 work conducted on the Two Buttes Property caused to be discovered, scheelite and molybdenite showings, thought to be associated with skarn bands running parallel to bedding planes in metasedimentary rock. A trenching programme in the summer of 1980 aimed to explore the economic potential of these skarn bands.

Between June 26 and July 10, 1980 Du Pont of Canada Exploration Ltd. conducted a trenching programme on the property. McCrory Holdings Limited of Whitehorse was contracted to dig and blast the trenches.

LOCATION AND ACCESS

The claims covering the Two Buttes project area are located 30 kilometres southeast of Mayo, Yukon. The T and TW claims surround two buttes which mark the height of land for the area and which are a geographic landmark plotted on topographic maps.

Up until the near completion of the trenching programme last summer, helicopters were considered to be the only mode of access to the property. Since that time, however, an empty Beaver float plane landed and took off from the small lake which lies in the centre of the claims. It is still not known whether landing and taking off from the lake in a loaded aircraft is possible but the potential is there for a cheaper mode of access.

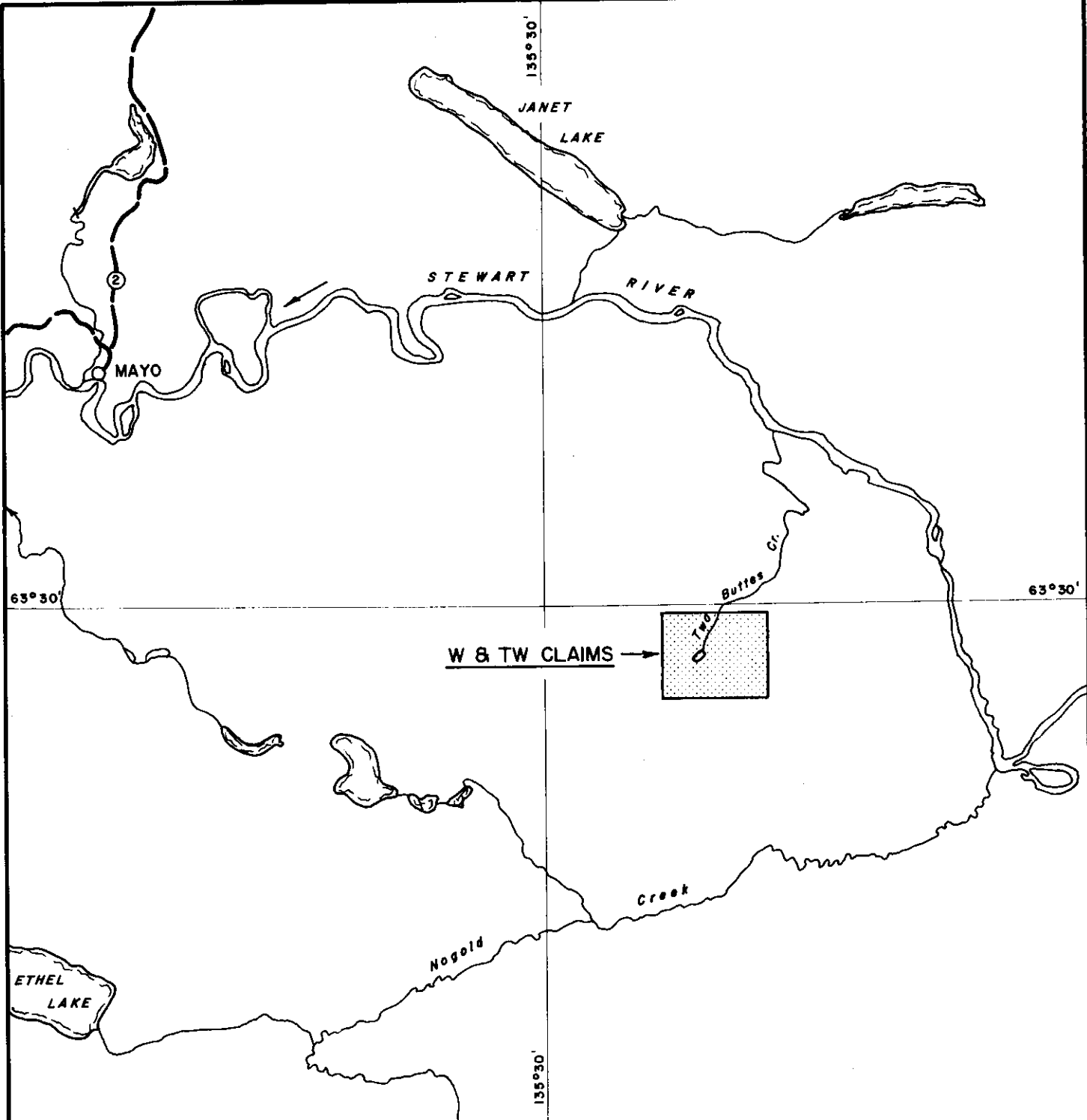
PHYSIOGRAPHY AND VEGETATION

The claims are located on Two Buttes Plateau between elevations of about 1,350 metres and 1,557 metres. Slopes of the buttes are generally moderate and in most cases unvegetated due to a large amount of loose talus. The topography of the area surrounding the buttes is terraced and rolling.

Much of the property is covered by open meadows and fields of willow and scrub birch. The few trees that exist in small stands are entirely Black Spruce.

A small swampy lake lies in the central part of the claim group and is drained by a creek which flows into the Stewart River.

Rock exposure in the vicinity of the trenches is primarily as felsenmeer and scree.



TWO BUTTES PROJECT CLAIM LOCATION MAP MAYO AREA, YUKON TERRITORY		
1 : 250 000 SCALE 1 INCH = 4 MILES (approx.)		
DATA BY : F.M.S. DATE : MAY 79 DRAWN BY : K.L.V. DATE : MAY 79	REVISED :	N.T.S. No. : 105 M 6 ACCT No. : 339-00 DRWG. No. : TB.79-1

HISTORY

The area covered by the T and TW claims was previously staked by Canada Tungsten Mining Corp. Ltd. In March 1979 the W 1-24 claims were optioned by Du Pont of Canada Exploration Ltd. from Merle Cloutier. The claim group was enlarged in April 1979 with the addition of the TW 25-80 mineral claims. J.C. Steven Exploration Ltd. was contracted by Du Pont to map geology and perform geochemical, magnetometer and EM surveys over all the claims in July and August 1979.

LIST OF CLAIMS

Group	Claim Name	Record Number	Units	Date of Record
W	W1-24	YA 39258-281	24	1979 February 23
TW	TW 25-80	YA 39601-656	55	1979 April 25

OWNER AND OPERATOR

The claims are currently owned and operated by Du Pont of Canada Exploration Limited under a joint venture agreement with AMAX Minerals Exploration.

ECONOMIC ASSESSMENT OF THE PROPERTY

Several narrow bands of high grade scheelite and molybdenite skarn have been found on the property. It is conceivable that continuations of these bands exist beneath the large amount of scree and felsenmeer that is encountered in the trenches. Increased thickness and lateral extent of the skarn bands is a necessity to make the property economically interesting.

TRENCHING PROGRAMME

It was hoped that trenching would remove enough scree to expose outcrop in order to better understand the relationship of the skarn with the surrounding rocks. As most mineralized showings occurred on the north-side of the westernmost butte, the trenching programme was centred there.

Trenches were oriented so they would cut perpendicularly across the scheelite bearing skarn bands.

A total of seven trenches averaging 22.7 metres long by 1.5 metres wide by 1.4 metres deep were excavated by shovel and pick, and blasted. Several trenches ran into permafrost problems before any bedrock was uncovered and in all cases permafrost-cemented felsenmeer was encountered before the skarn bands were completely excavated.

Trenching Programme continued

The location of the trenches with respect to the grid survey in 1979 can be seen on drawing TB 80-1 located in the back pocket of this report.

GEOLOGY, STRUCTURE AND MINERALIZATION

The main rock types encountered in the trenches were mapped as metagreywackes and micaceous metagreywackes (units 2 and 2A respectively) by J.C. Steven Exploration Limited, in August 1979.

The metagreywacke encountered around the trench areas is typically biotitic, slightly foliate, usually very hard and well silicified. Rusty, graphitic, well foliate layers up to 1 metre thick occur as discrete beds in this unit and were observed in Trench 3. This graphitic layering in the metagreywacke has low tolerance to weathering and is typically recessive and covered by overburden.

Molybdenite was seen occasionally as flecks in biotite metagreywacke.

Skarns encountered in the trenches varied between a light grey, laminated calc silicate (Unit 4(2), in J.C. Steven, 1979 report) and a dark green diopside garnet skarn (Unit 4b) which is more massive than the calc silicate skarn. Scheelite and molybdenite mineralization is most abundant in the Unit 4b skarn.

The first trenches to be excavated encountered at least two skarn bands. Typically the skarn bands are more resistant to weathering than the country rock and form the "step edge" to the terraced ground that skirts the north-side of the westernmost buttes. In several cases (as in Trenches 2 and 3) scheelite skarn float was found above the upper end of the trenches indicating possibly more than two bands of skarn.

Whenever outcrop was encountered, chip samples were collected over 1 metre intervals and samples were analyzed by geochemical methods for molybdenum, and tungsten. A total of 24 samples were analyzed and results are listed on Drawing TB-1 located in the back pocket.

Skarn bands, paralleling bedding planes and foliation, dip moderately to steeply southwesterly and strike in a north-westerly direction.

CONCLUSIONS AND RECOMMENDATIONS

The trenching programme did not adequately explore the economic potential of the mineralized skarn bands. Problems due to

Conclusions and Recommendations (continued)

permafrost and thick overburden hampered the efforts of the trenching crew.

A diamond drilling programme should be carried out to investigate the dimensions of the skarn bands.

COST STATEMENT 1980

TWO BUTTES CLAIMS



PERSONNEL:

Geological

<u>Name</u>	<u>Specific Dates</u>	<u>Per Diem Rate</u>	<u>No. Days</u>	<u>Total</u>
L. Eccles	June 24-July 7	\$102.37	14	\$ 1,433.18

Trenching Crew

B. Preston	June 25-June 26	\$200.00	2	400.00
B. Dines	June 25-July 7	200.00	13	2,600.00
A. MacDonald	June 25-July 7	200.00	13	2,600.00
E. Ekdahl	June 25-July 7	200.00	13	2,600.00
				<u>\$ 8,200.00</u>

TRANSPORTATION:

Truck Rental

<u>Company</u>	<u>Date</u>	<u>Invoice No.</u>	
Tilden	June 24-July 7	89-42008	432.45

Helicopter Charter

Trans North	June 25	46401	984.77
"	June 26	46403	213.97
"	June 30	46412	256.51
"	July 3	46421	256.51
"	July 4	46423	256.51
"	July 7	46428	855.88
			<u>\$ 2,824.15</u>

EXPEDITING:

Tintina Expediting - Mayo - Invoice No. 145571	\$ 217.10
Danny's Dept. Store - Mayo - Invoice No. 30932) 37025)	225.85
Explosives - McCrory Holdings	430.75
	<u>\$ 833.70</u>

GEOCHEMICAL ASSAY COSTS:

<u>Company</u>	<u>Date</u>	<u>Invoice No.</u>	<u>No./Cost/Sample</u>	
Min-En Labs	July 21/80	6628	24 @ \$5.50/ea.	\$ 132.00

SUMMARY OF COST STATEMENT

1.	PERSONAL - Geological Trenching Crew	\$ 1,433.18 8,200.00
2.	TRANSPORTATION - Truck Helicopter	432.45 2,824.15
3.	EXPEDITING	873.70
4.	GEOCHEMICAL ASSAYS COSTS	132.00
	TOTAL	<u>\$13,895.48</u>

QUALIFICATIONS

I, Louise K. Eccles, do hereby certify that:

1. I am a geologist residing at 782 West 22nd Avenue, Vancouver, British Columbia and was employed by Du Pont of Canada Exploration Limited at the time of the trenching programme.
2. I am a graduate of the University of British Columbia with a B.Sc. (Honours) degree in geology.
3. I have practised my profession in geology continuously for the past four years in British Columbia, Ontario the Yukon, and Northwest Territories.
4. Between June 24 and July 7, 1980, I directed a field programme on the Two Buttes property on behalf of Du Pont of Canada Exploration Limited.



L.K. Eccles

1980 December 15

ATTESTATION

I, David A. Barr do hereby certify that:

1. I am a geologist residing at 1334 Cambridge Place, West Vancouver, British Columbia and that I am employed by Du Pont of Canada Exploration Limited.
2. I am a graduate of the University of Toronto with a B.A.Sc. in mining geology.
3. I am a registered Professional Engineer in the province of British Columbia.
4. I have practised my profession in geology continuously in Canada for the past 30 years.
5. I have supervised the work of Louise K. Eccles (author of the attached report) for the last five years and can attest to her qualifications and ability as a competent and responsible geologist.



D. A. Barr, P.Eng.

1980 12 29

BIBLIOGRAPHY

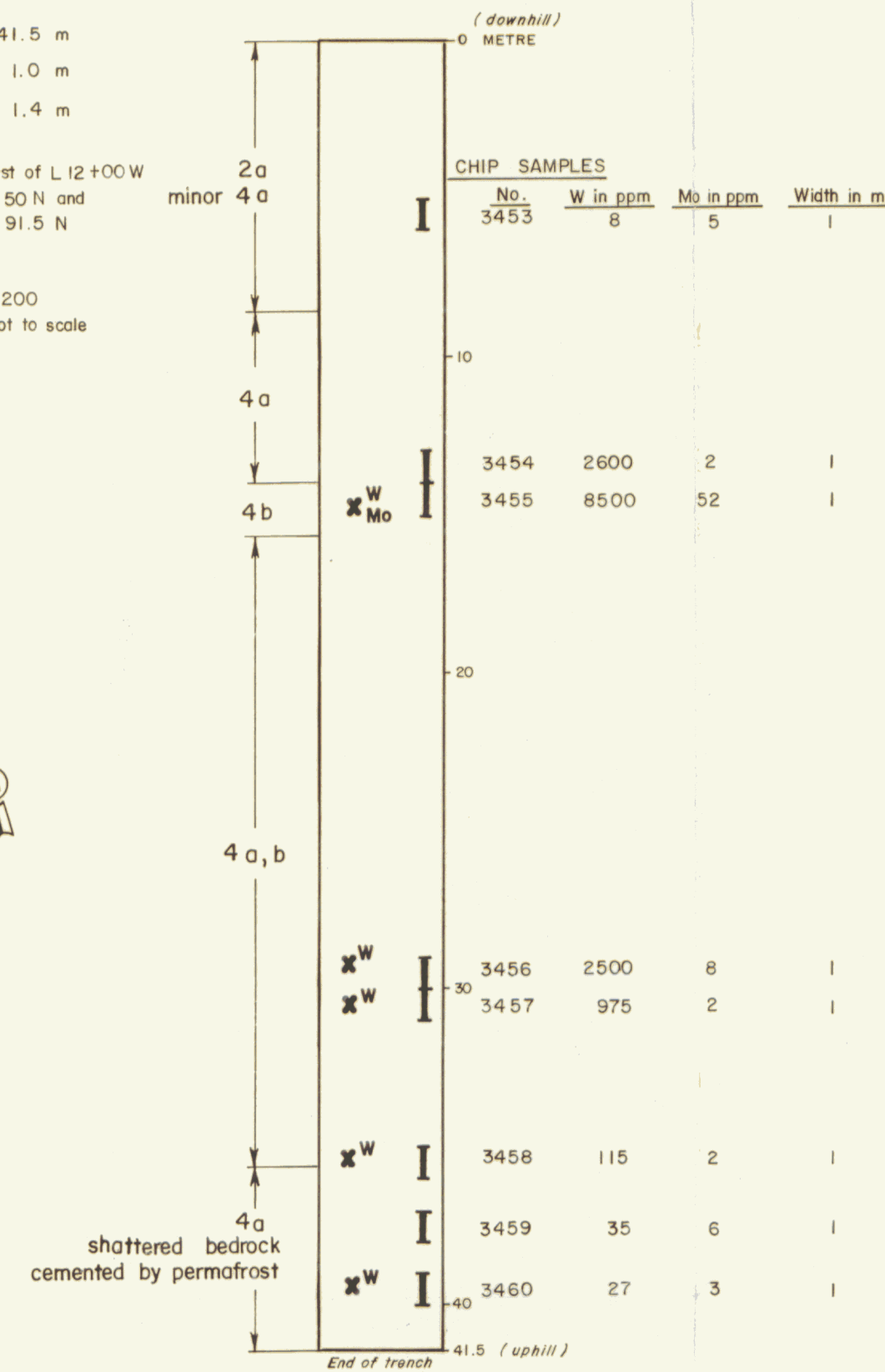
Steven, J.C. September 1979; Report on the W 1-24,
TW 25-80 Mineral Claims, Mayo Mining
District, N TS 105 M-6

TRENCH 2

TOTAL LENGTH: 41.5 m
AVG. WIDTH: 1.0 m
AVG. DEPTH: 1.4 m

LOCATION:
60 metres east of L 12+00 W
between 6+50 N and
6+91.5 N

SCALE:
LENGTH - 1:200
WIDTH - not to scale

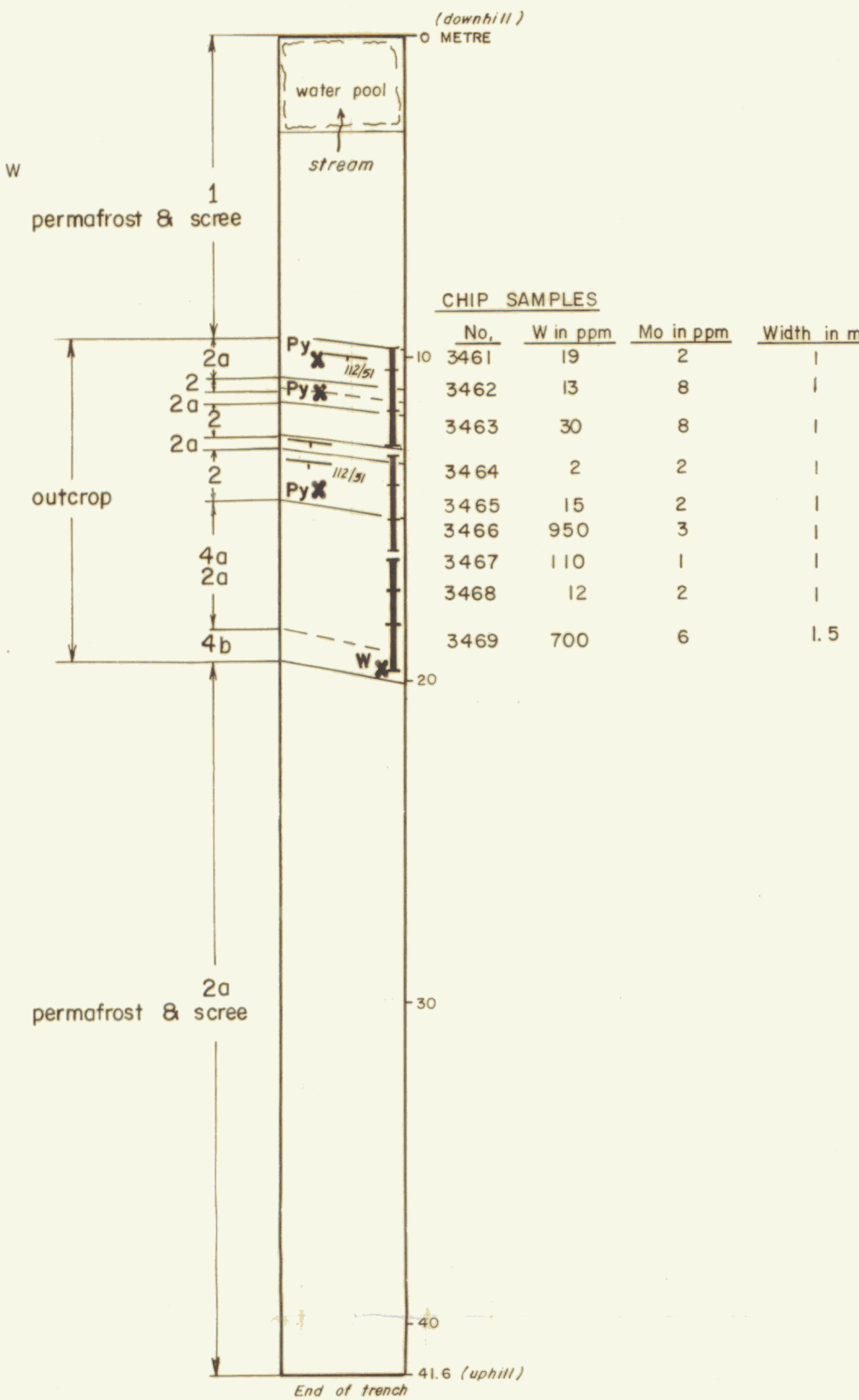


TRENCH 3

TOTAL LENGTH: 41.6 m
AVG. WIDTH: 1.5 m
AVG. DEPTH: 1.0 m

LOCATION:
20 metre east of L 12+00 W
between 6+80 N and
7+21.6 N

SCALE:
LENGTH - 1:200
WIDTH - not to scale

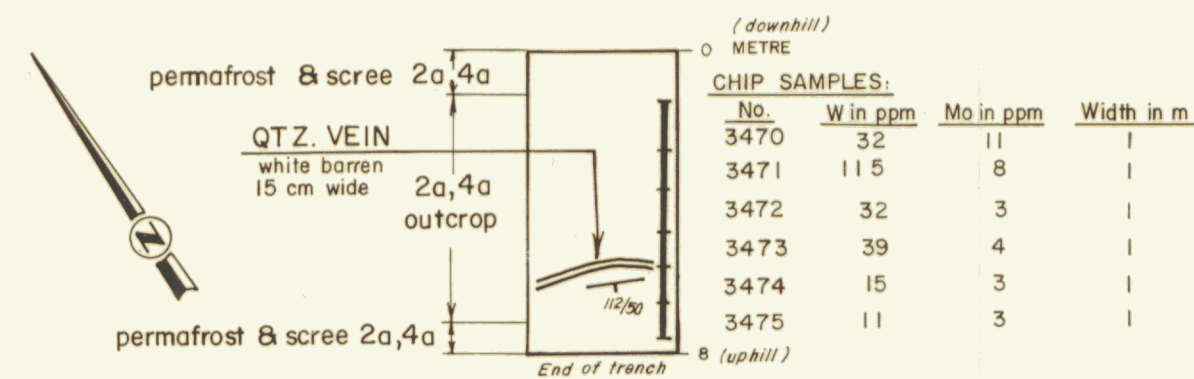


TRENCH 4B

TOTAL LENGTH: 8.0 m
AVG. WIDTH: 1.5 m
AVG. DEPTH: 1.8 m

LOCATION:
L 9+00 W
between 6+30 N and
6+22 N

SCALE:
LENGTH - 1:200
WIDTH - not to scale

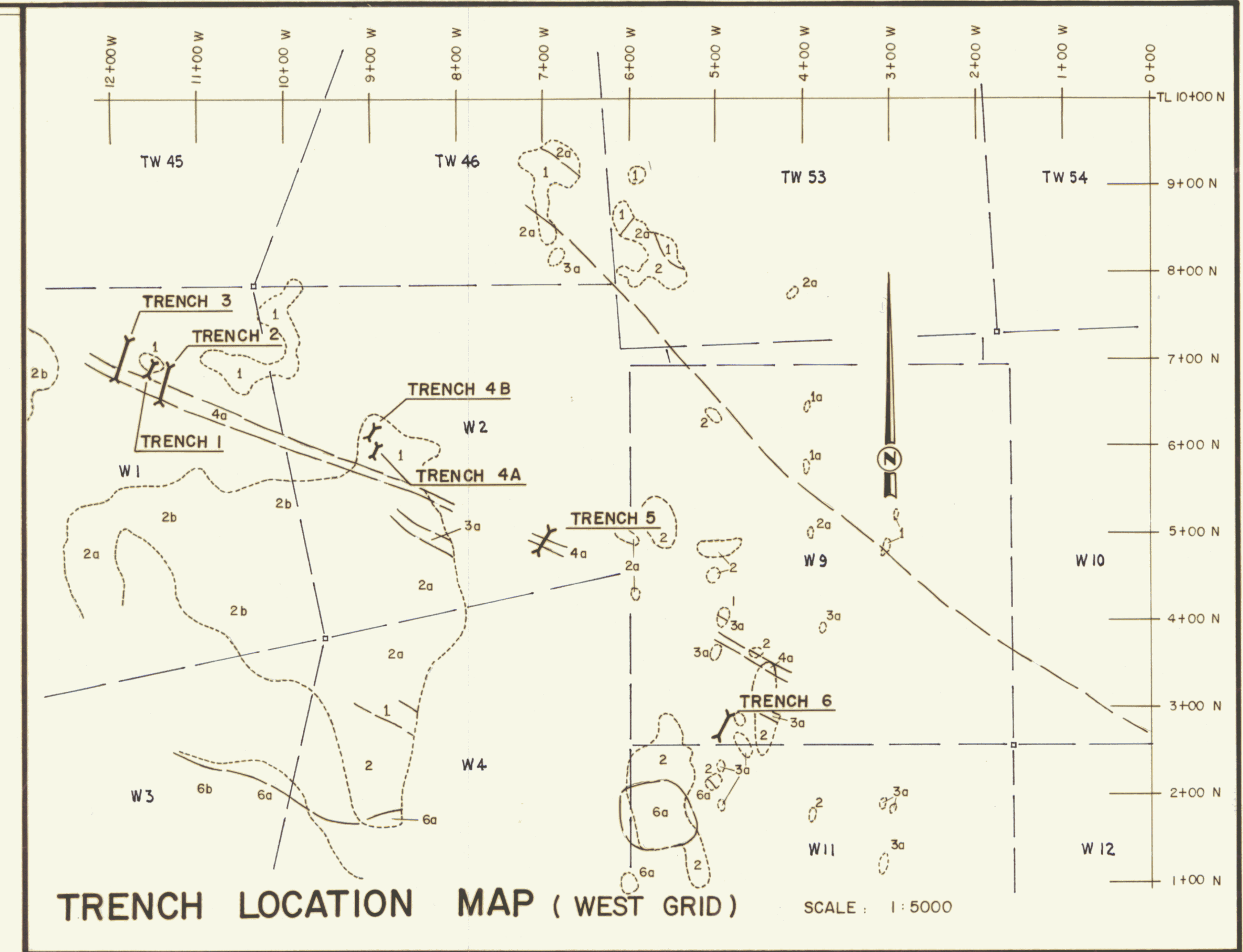
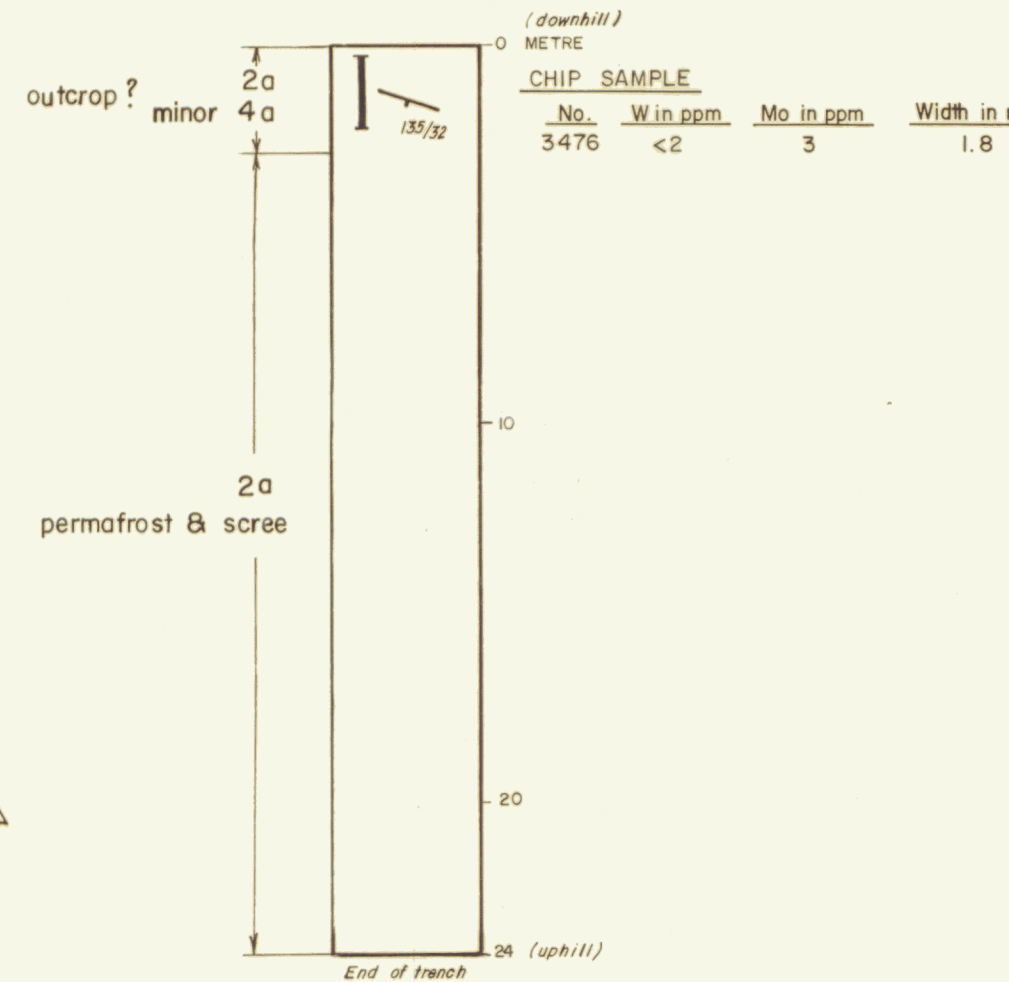


TRENCH 6

TOTAL LENGTH: 24.0 m
AVG. WIDTH: 2.0 m
AVG. DEPTH: 1.0 m

LOCATION:
L 5+00 W
between 2+70 N and
2+94 N

SCALE:
LENGTH - 1:200
WIDTH - not to scale



LEGEND

- 7 FELDSPAR BIOTITE DYKES
- 6 QUARTZ - FELDSPAR - BIOTITE PORPHYRY
- 5 LIMESTONE - sandy, massive, garnetiferous
- 4 SKARN
- 4a calcisilicate
- 4b diopside - garnet
- 3 TUFF
- 3a tuffaceous greywacke
- 3b lapilli tuff
- 2 METAGREYWACKE
- 2a micaceous
- 1 QUARTZITE
- 1a silicified
- W MINERALIZATION
- Mo SCHEELITE
- Py MOLYBDENITE
- I PYRITE
- I CHIP SAMPLE LOCATION
- STRIKE, DIP

NOTE: Trenches that encountered only soil were not mapped.

TWO BUTTES PROJECT TRENCH PLAN

MAYO AREA, YUKON TERRITORY

1:200 SCALE

0 2 4 6 8 10 12 m

0 1 INCH = FEET

MAPPED BY: L.K.E.	REVISED:	N.T.S. No.: 105 M 6
DATE: JULY 1980		ACCT No.: 339-00
DRAWN BY: C.H.K.		DRWG. No.: TB 80-1
DATE: SEP. 1980		

L. K. E.