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TERRACE BELL OPTION
ASSESSMENT REPORT
DIAMOND DRILLING
OCTOBER - 1971

PROPERTY FILE

TERRACE BELL MINES LTD. (N.P.L.)

NITINAT LAKE PROPERTY

VICTORIA MINING DIVISION

BRITISH COLUMBIA

REPORT ON DIAMOND DRILLING

BY R. A. FREBERG, P. ENG.

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List of Claims in Groups

Copy of Drill Record, Logs and Sections for each Drill Hole

Connors Drilling Ltd. Invoices and Statement.

INTRODUCTION

This report concerns a diamond drilling program carried out by Hudson Bay Exploration and Development Company Limited on the Terrace Bell Mines Ltd. property situated near Nitinat Lake and to the east of the main road to Nitinat Lake on Vancouver Island. The property consists of 77 contiguous claims and fractions and was until July 8th, 1971 held under option by Hudson Bay Exploration and Development Company Limited.

During the period June 1st to 29th, 1971 the program of diamond drilling was carried out by Connors Drilling Ltd. of Vancouver, B.C.

SUMMARY AND CONCLUSIONS

An extensive program of exploration was conducted on the Terrace Bell claims near Nitinat Lake, Vancouver Island during 1970 and the early months of 1971. During the month of June, 1971 a diamond drilling program consisting of 4 AQ holes for a total footage of 1274 feet were drilled to investigate induced polarization anomalies located on the Terrace Bell claims.

The total direct cost of this drilling program as paid to Connors Drilling Ltd. amounts to \$11,523.60. There were additional costs for bulldozer rental, camp costs, supervision, overhead etc. which are not itemized in this report since these additional costs are not required for assessment purposes.

The results of the drilling program were disappointing as only a few narrow widths of copper mineralization having a low grade were intersected.

MINERAL CLAIMS

The Terrace Bell Mines Ltd. property consists of 74 claims and three fractions. Most of these claims were recorded during the period August 27th to November 3rd, 1969 in blocks known as the MJ, MCC and JW. Four NiCu claims staked in early 1968 by Mr. Marshal Smith were incorporated in the Terrace Bell Mines group in late 1969. In early February, 1970, eleven additional claims and fractions (Eagle, Zo Zoila Fr. and Mike were staked and recorded for Terrace Bell Mines). These claims were held under option by Hudson Bay Exploration and Development Company Limited until July 8th, 1971 when they were returned to Terrace Bell Mines Ltd.

The claims have been grouped in two groups of 37 claims and 40 claims known as T.B. Group "A" and T.B. Group "B" respectively. The claim and group boundaries are indicated on plans accompanying this report and the individual claims making up each group are presented in a list attached to this report.

OWNERSHIP

The registered owner of the claims is Terrace Bell Mines Ltd. (N.P.L.), 2965 Glen Lake Road, Victoria, B.C.

LOCATION AND ACCESS

The property is in the Victoria Mining Division and lies along the east side of the Nitinat River and approximately 3.5 miles northeast of the north end of Nitinat Lake. Jasper Creek which flows westerly into the Nitinat River passes through the north half of the claim group.

The property is readily accessible by the public access road which extends from the community of Cowichan Lake to the north end of Nitinat Lake. Branching from this main road are a network of logging roads which extend into the northerly and westerly parts of the property and which are generally in a fair state of repair. These roads are shown on the maps attached to this report. Their location

is considered reliable as they were obtained from logging road maps made available by MacMillan Blodel and B.C. Forest Products who carried out the surveys and construction. Subsequent tie-ins with the surveyed grid proved quite similar as to location.

TOPOGRAPHY AND SURFACE FEATURES

With the exception of the southeasterly corner of the property surface elevations range from about 150 feet above sea level along the Nitinat River to 500 feet above sea level to the east and southeast. In this area the slopes are gentle and rolling. Logging operations have been carried out on these lower levels in past years and tree planting was carried out as recently as 1965. A number of small creeks including Jasper Creek traverse this area flowing westerly into the Nitinat River.

At the southeast corner of the property the slopes rise upwards to 2700 feet. The creeks in this area follow a number of deep gorges and in general, access to this part of the property is difficult and arduous.

The lower areas are densely covered by relatively small, new forest growth with the exception of north of Jasper Creek where sections have been recently logged and rock outcrops are fairly widespread. On the steep slopes logging has been limited and commercial stands of pine, spruce, hemlock and cedar exist.

Overburden is relatively shallow except along the lower sections of a number of the creeks. However, rock exposure is not readily visible other than along the road cuts and in the recently logged areas. The region has been obviously glaciated.

GENERAL GEOLOGY

There has been no previous detailed geological mapping of the Nitinat Lake area other than on local claim areas held by mining or exploration companies. The general geology of the area is presented on J.E. Muller's Geological Sketch Map of Vancouver Island (1967).

Geological mapping carried out on the Terrace Bell property and on adjoining claims is of a preliminary nature. Mapping to date on the Terrace Bell property has been carried out mainly along the many logging roads where exposures are reasonably plentiful and along a number of traverses in less accessible parts of the property. Detailed geological mapping was done in the area where the drill holes are located.

The property is underlain by rock formations of the Vancouver Group which are intruded by dykes of dioritic and gabbroic composition. Andesite flows are the predominant rock type on the property. These flows are considered to belong to the Bonanza sub-group and locally show extensive silicification and pyritization. Scattered, small exposures of volcanic tuffs and amygdaloidal volcanics are present throughout the property.

The area has experienced considerable faulting and shearing - mainly in the west-northwesterly direction. These structures have a steep dip and displacement appears to have been mainly in the horizontal plane.

Pyrite mineralization is widespread as disseminations and veinlets, but is mainly concentrated in the silicified volcanics and in or near the fault and shear structures. Minor occurrences of chalcopyrite, sphalerite and galena have been located in the silicified volcanics and in shear and fault zones.

DIAMOND DRILLING

The diamond drilling program on the Terrace Bell Mines claims was carried out under contract by Connors Drilling Ltd. during the period June 1st to June 29th, 1971. Four AQ holes were drilled on the T.B. Group "A" claims for a total footage of 1274 feet. Core recovery and drilling performances was generally good in both respects.

Included with this report are drill record sheets, logs and sections for each holes. The core was initially logged by P.S. Ogryzlo, student geologist and checked by R.A. Freberg. The holes intersected mainly dark green andesite which in sections contained varying amounts of feldspar phenocrysts and epidote.5

Sections of rhyolitic volcanics and diorite were intersected in hole TB-1. All but hole TB-3 contained scattered disseminations and narrow stringers of pyrite. Sparse chalcopyrite over narrow widths and lesser magnetite was intersected in holes TB-1, TB-2 and TB-4.

DISCUSSION

The drilling results on the Terrace Bell claims was disappointing and did not indicate that additional drilling to further investigate the chargeability anomalies was warranted.

Vancouver, B.C.
October 17, 1971



R. A. Freberg, P. Eng.



TERRACE BELL MINES LTD. (N.P.L.)

- NITINAT LAKE PROPERTY -

VICTORIA MINING DIVISION

BRITISH COLUMBIA

ATTACHMENTS

OCTOBER, 1971

QUALIFICATIONS
OF
SUPERVISORY PERSONNEL
EMPLOYED AT
TERRACE BELL MINES LTD. PROPERTY
NITINAT LAKE AREA, B.C.

1971

RAY ALFRED FREBERG

1946-1950 University of Toronto. Graduated with B.A. Sc. in Mining Geology in 1950

1950-1951 University of Toronto. School of Graduate Studies. Graduated with MA. Sc in Mining Geology in 1951

Summer Employment 1947-1950

1947 INCO, Frood Mine, Sudbury, Ontario - underground helper.

1948 McIntyre Porcupine Mines Ltd. - prospecting, mapping - Ontario.

1949 Kennco Explorations, geological mapping - Quebec.

1950 Kennco Explorations, geochemical survey - Gaspé, Quebec.

1951-1956 Hudson Bay Mining and Smelting Company Ltd., Flin Flon, Manitoba.
1950 - drilling supervision in field camps.
1951-1952 - Supervisor of all exploration diamond drilling.
1953-1956 - Resident Geologist at Hudson Yukon Mines property, Quill Creek, Y.T. Surface & underground geologist.

1956-1958 Greyhawk Uranium Mines Ltd., Bancroft, Ontario.
1956-1958 - Mine Engineer & Mine Geologist.
1958 - Mine Manager, 600 tpd operation.

1959 Faraday Uranium Mines Ltd., Bancroft, Ontario.
Mine Geologist - part time shift boss.

1960-1971 Hudson Bay Mining and Smelting Company Limited.
1960-1963 - Supervisor of exploration diamond drilling.
1964-1966 - Senior Exploration Geologist - project research, property examinations.
1967-1971 - Resident Geologist, Vancouver Branch Office, Hudson Bay Exploration & Development Co. Ltd.
- manager of exploration projects in Western Canada.

MINERAL CLAIM GROUP

TB GROUP "A" & TB GROUP "B"

(37 Claims & 40 Claims)

OPTIONED BY

HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LIMITED

FROM

TERRACE BELL MINES LIMITED (N.P.L.)

IN

NITINAT LAKE AREA - VANCOUVER ISLAND, B.C.

TB GROUP "A"

<u>Name of Claim</u>	<u>Record Number</u>	<u>Date Recorded</u>
JW - 1	16249	November 3, 1969
- 2	16250	"
- 3	16251	"
- 4	16252	"
- 5	16253	"
- 6	16254	"
- 7	16255	"
- 8	16256	"
- 9	16257	"
- 10	16258	"
- 11	16259	"
- 12	16260	"
- 13	16261	"
- 14	16262	"
- 15	16263	"
- 16	16264	"
- 17	16265	"
- 18	16266	"
Mike - 7	16346	February 3, 1970
- 8	16347	"
- 9	16348	"
- 10	16349	"
Zo - 10	16344	"
- 11	16345	"

<u>Name of Claim</u>	<u>Record Number</u>	<u>Date Recorded</u>
Eagle - 1	16342	February 3, 1970
- 2	16343	"
Mike - 11 Fraction	16340	"
- 12	16341	"
MJ	16144	August 27, 1969
MJ - 1	16145	"
- 2	16146	"
- 6	16150	"
- 7	16151	"
- 24	16195	September 24, 1969
- 25	16196	"
NiCu - 5	14556	March 11, 1968
- 7	14561	May 14, 1968

TB GROUP "B"

<u>Name of Claim</u>	<u>Record Number</u>	<u>Date Recorded</u>
MCC - 7	16198	October 6, 1969
- 8	16199	"
- 9	16200	"
- 10	16201	"
- 11	16202	"
- 12	16203	"
- 13	16204	"
- 14	16205	"
- 15	16206	"
- 16	16207	"
- 17	16208	"
- 18	16209	"
- 19	16210	"
- 20	16211	"
- 21	16212	"
- 22	16213	"
- 23	16214	"
- 24	16215	"
MJ - 3	16147	August 27, 1969
- 4	16148	"
- 5	16149	"
- 8	16152	"
- 9	16153	"
- 10	16181	September 24, 1969
- 11	16182	"
- 12	16183	"

<u>Name of Claim</u>	<u>Record Number</u>	<u>Date Recorded</u>
MJ - 13	16184	September 24, 1969
- 14	16185	"
- 15	16186	"
- 16	16187	"
- 17	16188	"
- 18	16189	"
- 19	16190	"
- 20	16191	"
- 21	16192	"
- 22	16193	"
- 23	16194	"
Zoila Fraction	16339	February 3, 1970
NiCu- 4	14555	March 11, 1968
- 6	14560	May 14, 1968

CANADA
PROVINCE OF
BRITISH COLUMBIA

In the Matter of

TERRACE BELL MINES LTD.

1971 Statement of Expenditures

TO WIT:

I, R. A. Freberg

of Vancouver

in the Province of British Columbia

do solemnly declare that the following statement of expenditures on behalf of Terrace Bell Mines Ltd. (N.P.L.) on their Nitinat Lake area claims, Vancouver Island is correct.

DIAMOND DRILLING - Connors Diamond Drilling Ltd., as per attached invoices and statement.

Invoice 3-462	June 1-15/71	505'	\$ 5,002.90
Invoice 23-462	July 2/71	769'	6,496.10
Invoice 24-462	July 5/71		24.60
		<u>1274'</u>	<u>\$ 11,523.60</u>

AND I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of the CANADA EVIDENCE ACT.

DECLARED before me at Vancouver

in the

Province of British Columbia, this 20
day of October

A. D., 1971

[Signature]
A Notary Public in and for the Province of British Columbia.
A Commissioner for taking affidavits within British Columbia.

Sub - mining Recorder

[Signature]

155 West 3rd Avenue
Vancouver 10, B.C., Canada
Area Code: 604/872-1675



July 14, 1971

Hudson Bay Exploration &
Development Co. Ltd.
355 Burrard Street
Vancouver, B. C.

Attention: Mr. R. A. Freberg
Manager

Dear Sirs:

RE: DIAMOND DRILLING, NITNAT LAKE,
MINERAL CLAIMS

This is to certify that our Invoices, Numbers 3-462, 23-462 and 24-462, totalling \$11,523.60 covering all payments made to Connors Drilling Ltd., by yourselves, for, total of 1274 feet of core drilling and other allied services as covered in our Contract of May 20, 1971.

Yours very truly,

CONNORS DRILLING LTD.


J. A. CULLINANE
Vice President

JAC/cp

155 West 3rd Avenue
Vancouver 10, B.C., Canada

DATE June 17 1971

INVOICE NO. 3 - 462

HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

555 Burrard Street

VANCOUVER, B. C.

IN ACCOUNT WITH



Prices O. K.	<i>[Signature]</i>
Ext. O. K.	<i>[Signature]</i>
Quantity Checked	<i>[Signature]</i>
Charge % No.	0643-1661-54
Approved	<i>[Signature]</i>

SURFACE DIAMOND DRILLING, NEAR NITNAT LAKE,
COWICHAN LAKE, B.C. JUNE 1-15/71

FOOTAGE FEE

D.D. Hole # TB-1	0' - 250' = 250'		
TB-2	0' - 255' = 255'		
	<u>505' @ 6.90</u>		3,484. 50

MOVING DRILL TO FIRST HOLE

June 3/71	40 Man Hours		
Less	16 Man Hours Connor's Account		
	24 Man Hours @ 6.50	156. 00	
	10 Drill Hours		
Less	8 Drill Hours Connor's Account		
	2 Drill Hours @ 6.00	<u>12. 00</u>	163. 00

MOVING FROM HOLE # 1 to HOLE # 2

DATE	MAN HOURS	DRILL HOURS	REMARKS
June 8/71	26	8	4 Men
9/71	40	10	4 Men
10	20	-	2 Men

MOVING FROM HOLE # 2 to HOLE # 3

June 13/71	40	10	4 Men
14	30	10	3 Men
15	40	10	4 Men
	<u>196</u>	<u>48</u>	
LESS	<u>32</u>	<u>16</u>	2 Moves Connor's Account
	164	32	

Total Man Hours	164 @ 6.50	1,066. 00	
Total Drill Hours	32 @ 6.00	<u>192. 00</u>	1,258. 00

CORE BOXES

40 AQWL Core Boxes @ 2.20	88. 00	
5% TAX	<u>4. 40</u>	92. 40
		<u>\$5,002. 00</u>

155 West 3rd Avenue
 Vancouver 10, B.C., Canada

DATE JULY 2 1971

INVOICE NO. 23 - 462

HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

555 Burrard Street

VANCOUVER, B. C.

IN ACCOUNT WITH



SURFACE DIAMOND DRILLING, NEAR NITNAT LAKE,
 COWICHAN LAKE, B.C. JUNE 16-29, 1971

FOOTAGE FEE

D.D. Hole # TB-3 0' - 382' = 382'
 TB-4 0' - 387' = 387'
 769' @ 6.90

5,306. 10

WORKING ON WATERLINE

June 16/71 30 Man Hours
 25 20 Man Hours
 28 16 Man Hours
 66 Man Hours @ 6.50

429. 00

MOVING FROM HOLE # 3 to HOLE # 4

<u>DATE</u>	<u>MAN HRS.</u>	<u>DRILL HRS.</u>	<u>REMARKS</u>
June 23	40	10	4 Men
24	40	10	4 Men
	80	20	
Less:	16	8	Connors Account
	64	12	

Total Man Hours 64 @ 6.50
 Total Drill Hours 12 @ 6.00

416. 00
 72. 00 488. 00

TRIP TO VANCOUVER FOR DRILL RODS AND HAUL
 RODS TO DRILL SITE

June 21/71 10 Man Hours
 June 22/71 8 Man Hours (2 men)
 18 Man Hours @ \$6.50

117. 00

MOVING FROM HOLE #4 TO TRUCK ROAD

June 29/71 40 Man Hours (4 men)
 Less: 16 Man Hours Connors Account
 24 Man Hours @ \$6.50

156. 00

\$ 6,496. 10

155 West 3rd Avenue
Vancouver 10, B.C., Canada

DATE JULY 5 1971

INVOICE NO. 24 - 462

HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

555 Burrard Street

VANCOUVER, B. C.

IN ACCOUNT WITH



SURFACE DIAMOND DRILLING, NEAR NITNAT LAKE,
LAKE COWICHAN, B.C. JUNE 30, 1971

CORE BOXES Shipped June 21, 1971

10 AQWL Core Boxes @ 2.20

5% TAX

VAN. DELIVERY CHARGES

22. 00

1. 10

23. 10

1. 50

\$ 24. 60

Hole No: TB-1

201.5-216.2

Diorite

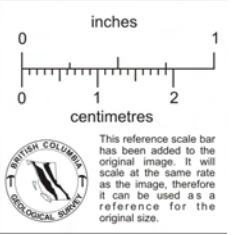
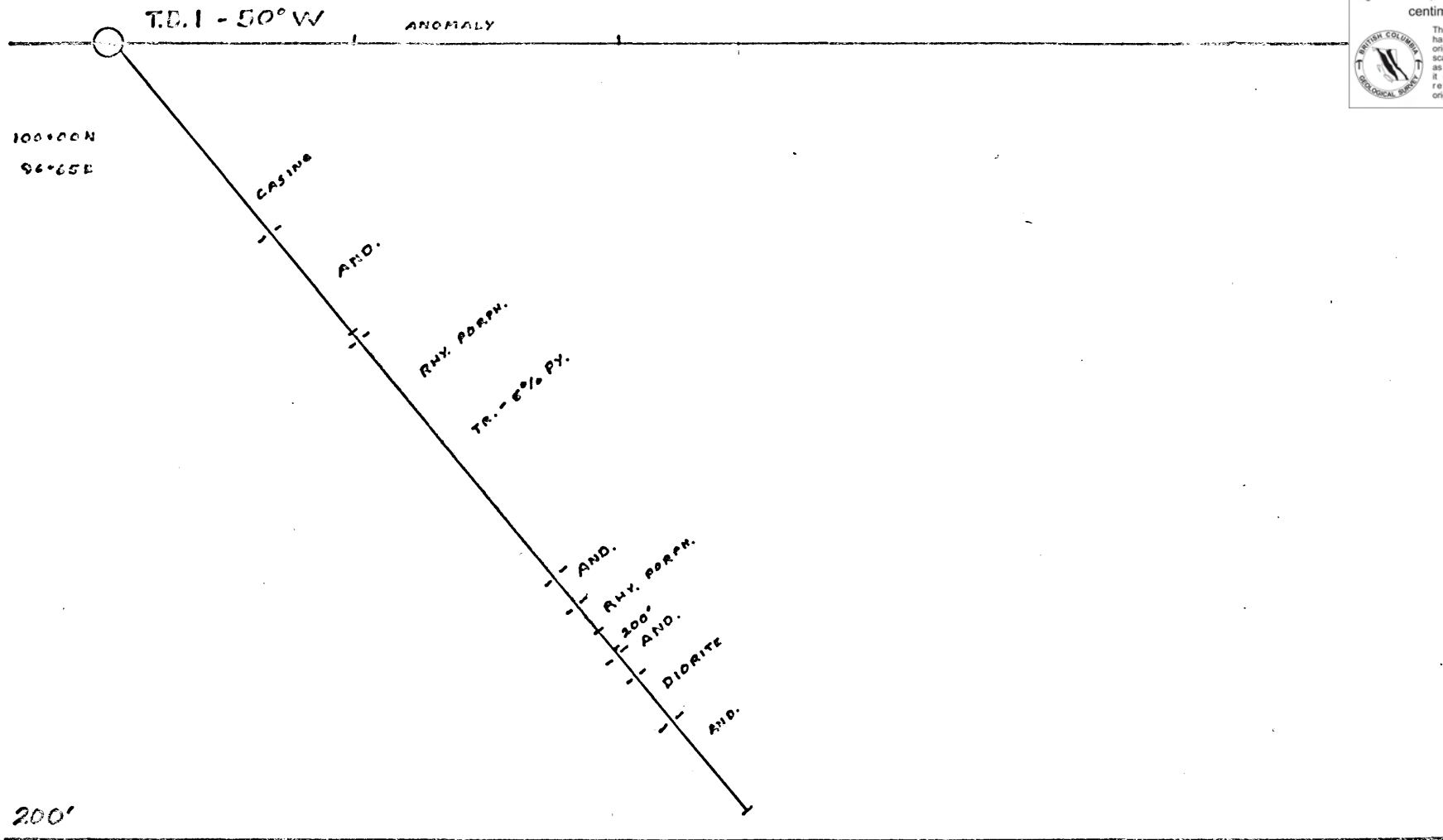
216.2-244.5

Grey, green andesite, pyrite blebs throughout.
Lost Core: 235.5-236

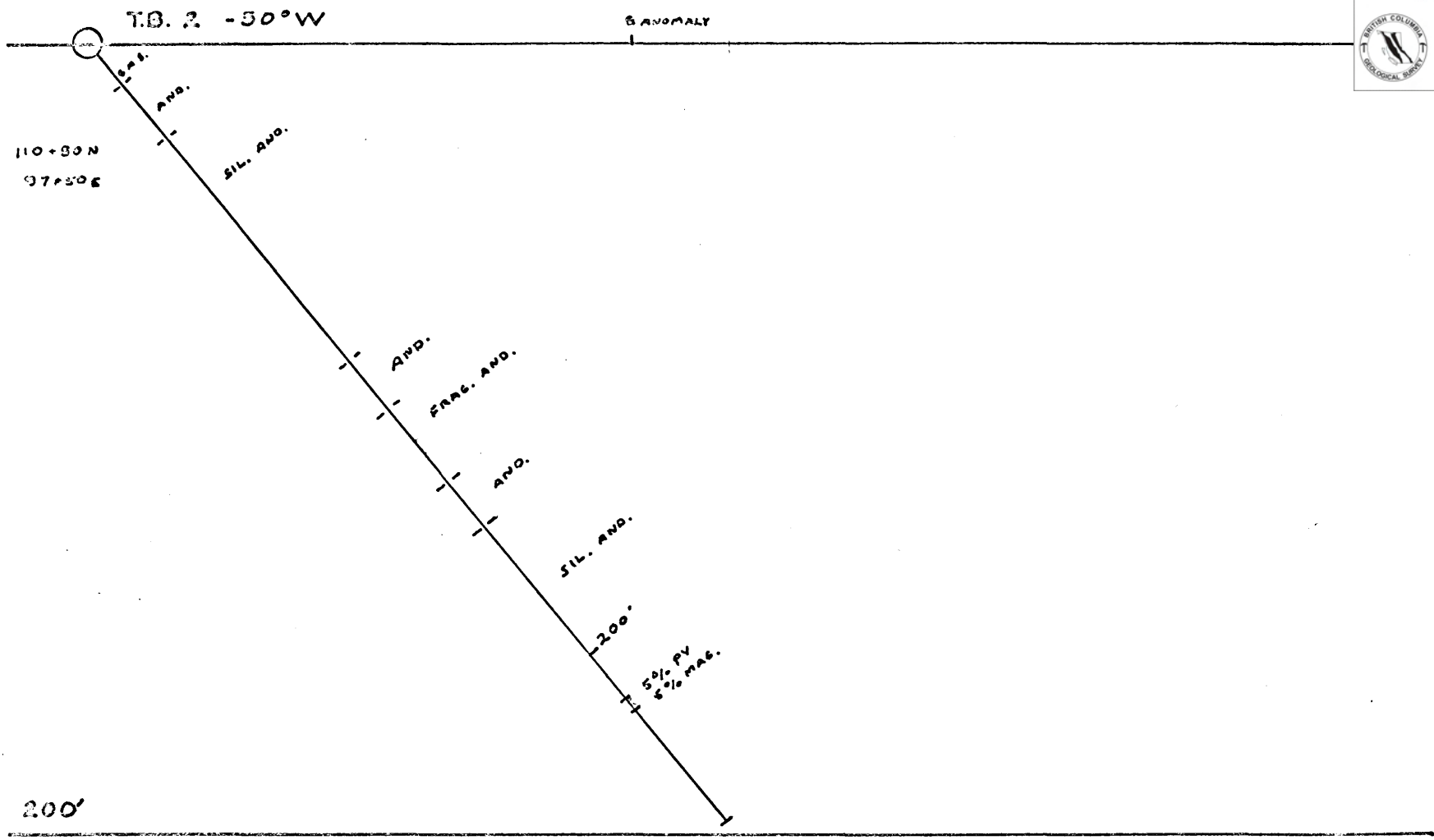
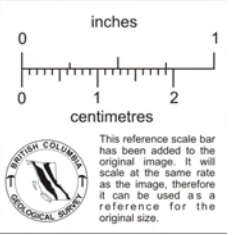
244.5-250

Light grey porphyritic rhyolite, feldspar phenocrysts.

END.



SECTION 100°00 N
TERRACE BELL CLAIMS
NITINAT LAKE AREA, B.C.
SCALE 1" = 40' LOOKING SOUTH



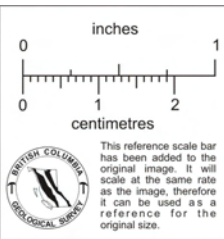
110+50N
97+50E

T.B. 2 - 50°W

ANOMALY

200'

SECTION 110+50N
TERRACE BELL CLAIMS
NITINAT LAKE AREA, B.C.
SCALE 1"=40' LOOKING SOUTH



T.B. 3 -50° S45 W

72+10E
III 149 N

ALT. ADD.

AND. PERPH.

ALT. ADD.

AND. PERPH.

ALT. ADD.

200

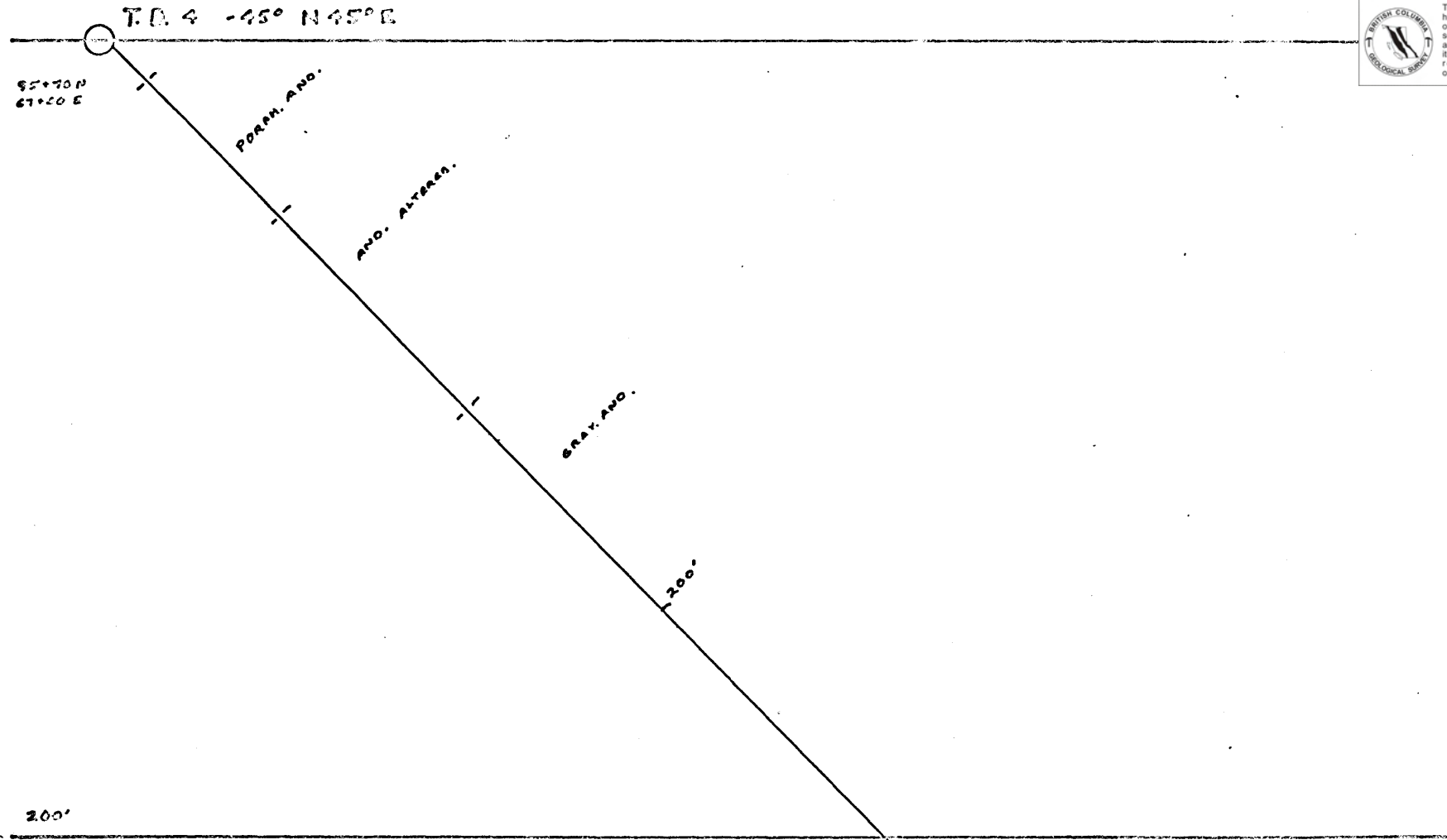
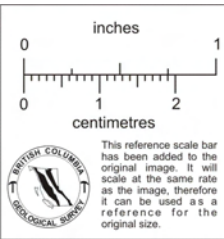
AND. PERPH.

ALT. ADD.

200'

SECTION D.D.H. T.B. 3
TERRACE BELT CLAIMS
MITINAT LAKE AREA, B.C.

SCALE 1"=40' LOOKING S45 E



SECTION D.D.H. T.B. 4
TERRACE BELL CLAIMS
NITINAT LAKE AREA, B.C.
SCALE 1"=40' LOOKING N 45° W

DIAMOND DRILL RECORD

Date Began June 4/71 Date Completed June 8/71

Property Terrace Bell Project No. Depth 250
 Hole No. TB-1 Co-ord 100+00N Horizontal Length
 Sheet No. 1 96+65E Direction WEST
 Claim No. Elevation Angle -50°

Resident G

DEPTH	NUMBER	WIDTH	ASSAY						WIDTH X ASSAY			AVERAGES			
			AU	AG	CU	ZN	PB	NI	WIDTH	AU	AG	CU	ZN		
0-61.0	CASING	61.0	SAND												
61.0-88.4	W	27.4													
88.4-89.4	43701	1.0		.04	.05										
89.4-90.0	W	0.6													
90.0-94.0	43702	4.0		Tr	.04										
94.0-99.8	W	5.8													
99.8-105.0	43703	5.2		Tr	.02										
105.0-107.0	43704	2.0		Tr	.03										
107.0-110.0	43705	3.0		Tr	.05										
110.0-113.0	43706	3.0		.01	.05										
113.0-115.8	43707	2.8		.03	.05										
115.8-118.0	L.C.	2.2													
118.0-119.3	43708	1.3		.01	.05										
119.3-121.0	L.C.	1.7													
121.0-123.5	43709	2.5		.01	.04										
123.5-125.0	43710	1.5		Tr	.03										
125.0-128.8	43711	3.8		Tr	.04										
128.8-130.8	43712	2.0		.01	.03										
130.8-132.0	L.C.	1.2													
132.0-135.0	43713	3.0		.01	.08										
135.0-145.0	W	10.0													
145.0-149.3	43721	4.3		Tr	.02										
149.3-152.5	43714	3.2		Tr	.03										
152.5-160.0	W	7.5													
160.0-163.0	43715	3.0		Tr	.01										
163.0-164.5	43716	1.5		Tr	.01										
164.5-167.0	W	2.5													
167.0-167.7	43717	0.7		Tr	.03										
167.7-176.0	W	8.3													
176.0-177.7	43718	1.0		Tr	.06										
177.0-178.0	L.C.	1.0													
178.0-180.0	43719	2.0		Tr	.05										
180.0-183.0	B720	3.0		Tr	.03										
183.0-250.0	W	67.0													

DIAMOND DRILL RECORD

Date Began June 17/71 Date Completed June 23/71

Property Terrace Bell Project No. _____ Depth 382

Hole No. TB-3 Co-ord 111+65 N Horizontal Length _____

Sheet No. _____ 72+50 E Direction S 45° W

Claim No. _____ Elevation _____ Angle -50°

Resident Ge

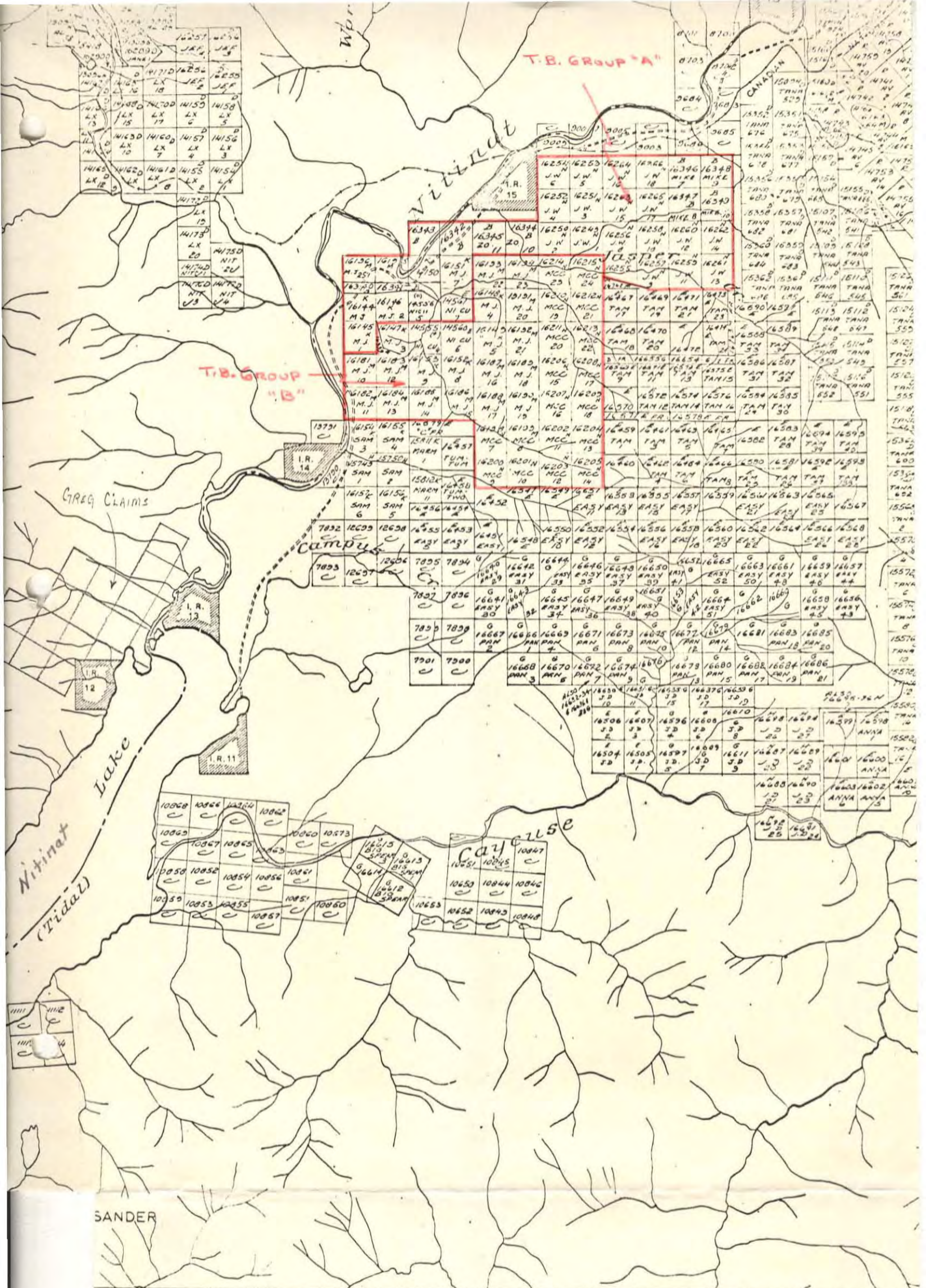
ASSAY

WIDTH X ASSAY

AVERAGES

DEPTH	NUMBER	WIDTH	AU	AG	CU	ZN	PB	NI	WIDTH X ASSAY	WIDTH	AU	AG	CU	ZN
0-6	CASING	6.0		SAND										
6-328	WASTE	376												

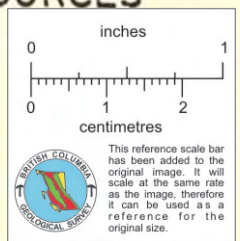
END



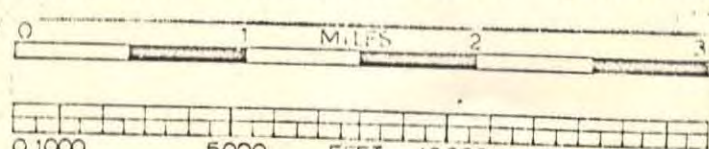
TO SOUTH SEE MAP 92C/10E

DEPARTMENT OF MINES AND PETROLEUM RESOURCES
VICTORIA, B.C.

MINERAL CLAIM MAP 92C/15E(M)



This map is p
to the position
and Placer Mi
claims and loc
sketches and
C & indicate c
Symbol "c" in



C

T.B. GROUP "A"

T.B. GROUP "B"



TERRACE BELL MINES LTD
 NITINAT LAKE AREA
 VICTORIA MINING DIVISION, B.C.
 GRID & CLAIM MAP
 SCALE 1" = 400' AUGUST, 1970

